Mainstreaming Natural Resource Management into Community-Driven Development in South East Sulawesi, Indonesia: Does Social Capital Matter?

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Declaration

I, Vivianti Rambe, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Arts and Education, Murdoch University, is wholly my own work unless otherwise referred to or acknowledged. This thesis has not previously been submitted for a degree at any tertiary education institutions.

Vivianti Rambe
May 2015
Dedication

I dedicate this thesis to my late father Rambe, my mother Achir, my husband Ilya Sujono, and my daughter Athallya (Aya) Sujono, without whom I would not have had the motivation, love and support to complete this work
Abstract

Mainstreaming natural resource management (NRM) within a community-driven development program to achieve more sustainable rural development involves diverse and complex dynamics of resource governance. Social capital has been identified as one of the key elements in facilitating collective action that could enhance the effectiveness of resource governance in socio-ecological systems. In the context of NRM, this concept focuses on social networks, specifically, on the mixes of ‘horizontal’ and ‘vertical’ relations that operate through engagements within (bonding or internal ties) and between (bridging or external ties) social networks. Linking social capital concerns the ‘vertical’ relations that are found in both bonding and bridging forms of social capital, with an additional focus on relations with formal institutions beyond the community's local resources.

The thesis explores the effectiveness (as well as the lack thereof) of a community-driven development (CDD) program to improve local NRM management. Empirical evidence provided in two South East Sulawesi case studies revealed three main findings: (1) high levels of network density in local institutions indicated the existence of strong bonding ties that theoretically should increase the possibilities for collective action in resource management; (2) regardless of the long involvement in a CDD program, bridging social capital remained weak; and (3) vertical relations continued to dominate processes of engagement within and across social networks, and with higher levels of government in the context of decentralised resource governance.

Findings from the study of this CDD-NRM program indicate the need to: establish a network of expertise among the villages; develop a clear mechanism of accountability within the framework of the representation system; facilitate hamlet interactions that enable a reporting-back mechanism through the representation system; provide secure but accountable financial transfers from higher authorities to the village level; and provide incentives for better resource governance.
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Abbreviations

APBN  
Anggaran Pendapatan dan Belanja Negara  (national government budget)

APBD  
Anggaran Pendapatan dan Belanja Daerah  (regional government budget)

Bappeda  
Badan Pembangunan Daerah  (regional development planning board)

BKAD  
Badan Kerjasama Antar Desa  (inter-village cooperation bodies)

BLM  
Bantuan Langsung Masyarakat  (community block grants)

BPD  
Badan Perwakilan Desa  (villages representative councils)

CDD  
Community Driven Development

DIPPA  
Daftar Isian Pelaksanaan Anggaran  (budget-funded project proposal lists)

DOK  
Dana Operasional Kegiatan  (operational planning funds)

FT  
Fasilitator Teknik  (facilitator for technical support)

FK  
Fasilitator Pemberdayaan  (facilitator for community empowerment)

FTKab  
Fasilitator Teknik Kabupaten  (FT at district level)

FKab  
Fasilitator Pemberdayaan Kabupaten  (FK at district level)

KDP  
Kecamatan (Sub-district) Development Program

KPMD  
Kader Pemberdayaan Masyarakat Desa  (village cadre/facilitator)

LPM  
Lembaga Pemberdayaan Masyarakat  (Institution for community empowerment)

Menko Kesra  
Menteri Koordinator Bidang Kesejahteraan Rakyat  (coordinating minister for people’s welfare)

MoHA  
Ministry of Home Affairs

MPW  
Ministry of Public Works

Musrenbang  
Musyawarah Perencanaan Pembangunan  (multi stakeholder consultation forum for development planning)

NGO  
Non Government Organisation

NMC  
National Management Consultant

NRM  
Natural Resource Management

PJOK  
Sub-district operations officer (local government officials at the subdistrict level who are assigned full time to the project)

PKK  
Penggerak Kesejahteraan Keluarga  (family welfare movement)

Pokmas  
Kelompok Masyarakat  (community groups)

PNPM  
Program Nasional Pemberdayaan Masyarakat  (national program for community empowerment)

PMD  
Pemberdayaan Masyarakat dan Desa  (director general of village community empowerment)

PMU  
Project Management Unit

Posyandu  
Pos Pelayanan Terpadu  (village health post)

PP  
Peraturan Pemerintah  (Government Regulations)
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<td>RPJM</td>
<td><em>Rencana Pembangunan Jangka Menengah</em> (medium-term development plan)</td>
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<td>Satker</td>
<td><em>Satuan Kerja</em> (central working unit)</td>
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<td>SPP</td>
<td><em>Simpan Pinjam Perempuan</em> (women’s microcredit groups)</td>
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<td>TPU</td>
<td><em>Tim Penulis Usulan</em> (proposal development team)</td>
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<td>TPK</td>
<td><em>Tim Pengelola Kegiatan</em> (project management team)</td>
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<tr>
<td>TV</td>
<td><em>Tim Verifikasi</em> (verification team)</td>
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<tr>
<td>TNP2K</td>
<td><em>Tim Nasional Percepatan Penanggulangan Kemiskinan</em> (the national team for accelerating poverty reduction)</td>
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<td>TP3D</td>
<td><em>Tim Pengelola dan Pemeilhara Prasarana Desa</em> (village infrastructure management and maintenance team)</td>
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<td>UPK</td>
<td><em>Unit Pengelola Kegiatan</em> (activity management unit – at sub district level)</td>
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<td>UU</td>
<td><em>Undang Undang</em> (Law)</td>
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CHAPTER 1
INTRODUCTION AND METHODOLOGY

1.1. Introduction

With the collapse of the Suharto government in 1998, Indonesia embarked on a major period of democratisation and decentralisation, shifting (some) power and (most) government services from central government to institutions at lower levels of political and administrative authority, particularly the districts. With the shifting of power and services, the focus on community-driven development (CDD) has increased, evidenced by the rapid scaling up of CDD-related investments across Indonesia in such programs as the National Program for Community Empowerment in rural areas (abbreviated here as PNPM\(^1\) Rural) in 2007. The PNPM Rural program is a ‘rebranded’ name of the Kecamatan (i.e. subdistrict) Development Program (KDP) initiated by the World Bank in 1998, which aimed for villagers in KDP locations to benefit from improved socio-economic and local governance conditions.

This new paradigm of scaling up CDD operations in Indonesia also applies to the natural resources management (NRM) sector in which PNPM Green\(^2\) was introduced in order to mainstream NRM into the local development agenda. The Green KDP/PNPM Green program was designed on the premise that local communities have a greater immediate dependence on and therefore interest in the sustainable use of resources, are more aware of local ecological processes, and are more capable of monitoring practices than outside agencies. In theory, this means that local communities should be the focus of resource management strategies. However, previous studies have shown that it is not possible to assume that a ‘community’ of resource users have equal access or share common interest in protection of local resources over the long term (Brosius et al., 2005; Persoon et al., 2003; Warren and McCarthy, 2009).

\(^1\) PNPM stands for Program Nasional Pemberdayaan Masyarakat

\(^2\) Formerly known as Green KDP; details are described in Chapter 4
Capacities for collective action in managing natural assets vary across communities/villages, depending on levels of cohesiveness in social structures, among other factors. In this context, therefore, it is imperative to understand how social dimensions may affect collective action and natural resource governance. For example, social dynamics of local networks and associations, as well as formal governance structures, may facilitate or constrain the process of managing and governing natural resources (Bodin et al, 2011; Carlsson and Sandstrom, 2008; Dahal and Adhikari, 2008; Prell et al., 2011; Sandstrom, 2011; Woolcock, 2000). For this reason, the concept of social capital has come to have considerable influence on development agency and national government policy over the last two decades. The World Bank has played an important role in promoting the concept, which it regards as the ‘missing link’, crucial for alleviating poverty and for social development (Eade, 2003, p. 307; Grootaert, 1998).

The Kecamatan Development Project (KDP) was the first large development project in Indonesia funded by the World Bank to draw directly on social theory. It was designed based on a broad range of comparative analytical studies (Bolivia, Burkina Faso and Indonesia) undertaken through the first Local Level Institutions Study (LLI1) in 1996. These studies – which were stimulated by Robert Putnam’s seminal analysis of civic traditions and democracy in Italy – focused on the links between welfare\(^3\) improvements and delivery of basic services through government and community mechanisms. The analytical work on social capital conducted in these studies investigated the capacities of community groups at village and sub-village level to organise themselves around local development initiatives, and the extent to which they were able to collaborate and engage with other groups at regional level. The results of the studies, which drew on social capital theory, fed into the design of KDP and ultimately PNPM. KDP aimed to strengthen the planning and management role played by civic and associational groups, and to engage village institutions in local governance reform. In this sense the project placed itself squarely in line with Putnam’s\(^4\) thesis on democratic reform in Italy (Bebbington et al., 2004; Evers, 1999;

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\(^3\) The term welfare was expanded to include access to resources and participation in decision-making.

\(^4\) Putnam argued that government effectiveness was associated with the density of horizontal networks developed through participation in civic associations. His investigation of decentralised governance reforms in Italy found that better regional economic performance was correlated with measures of 'social capital' derived from high levels of civic association (Putnam, 1993, p. 167).
Grootaert, 1997, 1999; Wetterberg, 2002), and logically became a community level counterpart of democratisation and decentralisation reform in the post-New Order Reform Era.

The approaches to social capital inspired by Putnam’s work have primarily been focused on membership in horizontal networks and associations, as well as the norms that guide interactions in facilitating reciprocity and co-operation in community development (Kilpatrick and Field, 2001). Putnam viewed social capital in terms of intragroup (i.e. bonding social capital) and intergroup (i.e. bridging social capital) networks of civic engagement and associated norms that have an effect on the productivity and well-being of the community (Putnam, 1993). Critics have argued that it is necessary to add another dimension to the typology of social capital where these networks and associations are characterised by hierarchical relationships and an unequal power distribution among members. This type is termed ‘linking’ social capital (Fine, 2001; Woolcock, 2001). Linking social capital cross cuts the intragroup and intergroup dimensions. It occurs within a group through bonding relations where local elites play a major role in decision-making processes, as well as occurring in networks extending beyond the local group, especially where bridging relationships enable social capital accumulation through links to the market, state institutions and other powerful institutions/networks. A number of scholars argue that bonding, bridging and linking social capital can foster dynamic community development (Coleman, 1988; Dahal and Adhikari, 2008; Kilpatrick and Field, 2001; Putnam, 1993; Woolcock and Narayan, 2000).

Where well-established expectations of accountability and reciprocity have evolved, these networks play major roles in building social capital and strengthening local governance. On the other hand, they may also work to serve the interests of well-networked individuals and groups, in particular elite interests, at the expense of the wider public good. The role of various types of networks within social capital theory is one of the main areas to be investigated in this study of sustainable development of local natural resource management in two rural areas in South East Sulawesi. In particular, the effect of capacity-building interventions through the PNPM Green program will be critically assessed. These are primarily aimed at developing and enhancing local horizontal networks with the objective of increasing trust and
confident, and thereby encouraging stronger local participation and better conservation and development outcomes. The thesis will focus on the contributions and limits of social capital approaches to sustainable local natural resource management, particularly the implications of the bonding, bridging and linking types for community-driven resource management.

Linking social capital reveals how communities are vertically networked with institutions and political structures (Warren et al., 2001); as described by Szreter and Woolcock (2004), linking social capital concerns “norms of respect and trust across explicit, formal or, institutionalised power or authority gradients in society” (p. 655). This form of social capital is complex and posits an element of trust that affects participation in and attitudes toward local government, as well as the likelihood that communities will respond to local natural resource management issues. The literature makes two different claims about how trust influences participation in government or political affairs. While some claim that trust levels positively correlate with levels of participation, others consider that some level of distrust might encourage more direct involvement and participation in activities related to government or political matters (Gamson, 1968, p. 48; Levi and Stoker, 2000; Miller, 1980; Poortinga and Pidgeon, 2003; Rosenstone and Hansen, 1993, p.150).

The concept of linking social capital brings considerations of power explicitly into the framework of analysis. This political dimension requires consideration of current policies and institutional settings in Indonesia’s democratisation and decentralisation era (Agrawal, 2001; Dedeurwaerdere, 2005; Ribot, 2003). Previously, central government bureaucrats dominated resource management in Indonesia, and centralised policy control over NRM remains extensive. Today, despite widespread movement toward decentralisation, central governments still have power to impose uniform regulations over natural resources (Ostrom, 1999), without robust institutional arrangements for monitoring resource use (Aden, 2001). There remain serious issues of inequality in relation to government institutions, which attempt to control who has access to and benefits from the nation’s natural resources, but have at the same time failed to ensure sustainable natural resource management or ameliorate local resource insecurity.
Despite the Indonesian national government’s commitment to transfer (some) powers and services to the sub-national level, ministries related to environmental and natural resources in central government (forestry, fisheries, environmental protection, water and sanitation, natural resources planning) still resist meaningful decentralisation (Ribot, 2003) for a variety of reasons, including fear of losing economic benefits from the control they presently exercise. These ministries argue that local governments do not have enough capacity to exercise their authority, and claim that full decentralisation would result in over-exploitation of timber, fisheries and other natural resources (Aden, 2001; Ribot, 2003).

On the other hand, decentralisation is generally understood to be necessary for sustainable local NRM, since the diverse nature of natural resources requires specific local knowledge. Moreover, controlling access to natural resources often generates conflicts and claims that would be more effectively handled locally (Ribot, 2003). Within the framework of decentralised NRM, the breadth and depth of community participation in the local decision-making process on natural resource issues is a central concern.

This thesis will examine keys to sustainable rural development and conservation by investigating Indonesia’s efforts at mainstreaming natural resource management within community development programs in rural Indonesia through PNPM Green.

1.1.1. Significance and research locations
While many scholars and analysts agree on the need to incorporate considerations of social capital within the local natural resource management (NRM) framework and to undertake studies of networks, local knowledge and community empowerment (Bebbington et al., 2004; Bodin and Crona, 2008; Grootaert, 2001), the practical implications of the concept remain contested (Fine, 2001; Hariss, 2001). Within this frame, this thesis will advance the practical knowledge of how NRM outcomes are affected by local community dynamics and by the approach to capacity building adopted in the PNPM Green program.

As the failures of centralised government to implement sustainable development objectives have become apparent, the focus has shifted towards building resource
management regimes based on the participation of those who depend directly on local environmental services for their livelihoods. Within this frame, the social capital embedded in participatory networks at the local level has come to be seen as central to finding solutions to natural resource management problems (Lehtonen, 2004; Pretty and Smith, 2004). Based on this core assumption, the PNPM Green program was introduced initially in Sulawesi as a pilot initiative to mainstream NRM into the local development agenda, with a focus on building and maintaining various forms of social capital and strengthening community participation in local resource governance. Furthermore, the program provides a significant focus for assessing the complexities of local natural resource management, the importance of social capital to local resource governance, and the practical problems of accommodating both community development and environmental protection. The complexities of the social and political dimensions at work in the local domain require the development of comparative indicators and tools for analysis, toward which this thesis will also contribute.

Prior to commencing my PhD in 2009, I had a substantial length of involvement (12 years) working with the World Bank as an environmental specialist at its Jakarta Office. One of my roles was to design an environmental safeguards measure for the first stage of KDP (KDP-1) in 1998, which was in effect until the last stage of the program (KDP-3) that concluded in 2006. After eight years of conventional rural infrastructure projects with some safeguard measures in environmental management, there was a demonstrable need to ensure that environmental conservation and natural resources management (NRM) were mainstreamed into the local development agenda. Based on extensive experience in rural Indonesia, I learned that issues of environmental conservation and NRM are more acceptable to rural villagers when they are related to the improvement of villagers’ livelihoods. Also, I anticipated that the effectiveness of the conservation and NRM efforts may be improved through the internalization of these efforts within the village governance system.

In response to this need, I became involved in the design of PNPM Green (or Green KDP, as it was initially called). The purpose of the program was to incorporate the protection of natural capital as an important component for improving natural resource-related livelihoods and rural economies.
The PNPM stage of the program commenced in late 2008. Prior to its implementation phase I decided to resign from the World Bank office in Jakarta to pursue PhD research as part of an Australian Research Council project on Social Capital, Natural Resources and Local Governance in Indonesia in 2009.\textsuperscript{5} Undertaking the PhD gave me the opportunity to immerse myself in a wide range of literature relevant to community-driven development issues and to undertake field research using critical analytical perspectives on participatory and community-driven approaches to conservation and development programs. Lessons learned from the work at the Bank influenced my perceptions and perspectives on conservation and development in rural Indonesia, which then contributed to the way I carried out my research and analysis. During the writing stage of my thesis, and after a substantial portion of the thesis had been drafted and submitted to the supervisors, I returned for a few months to work for the World Bank on the design of the program evaluation for PNPM Green. This allowed me to update some of my data and contribute to an informed examination of the Green PNPM program.

The point of departure for this PhD research project, therefore, is based on ten years of practical experience with the Word Bank Jakarta Office combined with comparative academic research and fieldwork in rural Indonesia, which has enabled me to pursue a critical analysis of this intervention aimed at mainstreaming environmental conservation and natural resource management (NRM) within a community-driven development program. The critical analysis of this thesis was made possible through a robust methodology utilising both qualitative and quantitative approaches to triangulate results in order to increase validity.

A total of one year (undertaken in two stages between February 2010 and March 2012) of field research was conducted in South East Sulawesi, primarily focused on two villages in the Pasarwajo sub-district on the island of Buton. I chose these villages from among 11 rural villages in this sub-district participating in the PNPM Green program to represent upland areas with forestry issues (Warinta village) and coastal areas with coral reef management issues (Holimombo Jaya – or Holja

\textsuperscript{5} DP0880961 under the supervision of Associate Professor Carol Warren (Murdoch) and Dr. Greg Acciaioli (UWA).
Both villages had previously received development funding from government and non-government organisations. Both were included in the pilot PNPM Green program in 2008 to enhance social capital and improve environmental and natural resources management. Because the PNPM program incorporates explicit elements of capacity building and empowerment that are fundamental to social capital theory, the two cases offered the opportunity to explore its relevance to local natural resource management in villages with similar social composition but different resource bases: Warinta (a long-settled village), on community forest and Holja (mostly formed by recent migration), a fishing community dependent on surrounding coral reefs.

1.1.2. Main objective and research questions

The aims of this thesis are: to examine the contribution of social capital building approaches to local governance and sustainable natural resource management (NRM) and to investigate the underlying causes of both the successes and failures of the PNPM Green program toward mainstreaming environmental and natural resources management in community-driven development initiatives, as evidenced in these case studies in South East Sulawesi, Indonesia.

The thesis\(^6\) is guided by a series of research questions designed to gauge developments in local sustainable environmental conservation and natural resources management, linked to the social capital concept and local governance issues. The research aims to investigate whether, how and under what conditions new social capital-inspired approaches to local conservation and development programs have contributed to improved local natural resource management.

The main research questions are:

- What are the contributions and limits of social capital approaches to sustainable natural resource management?
- Do pre-existing forms of social cohesion contribute to higher levels of community involvement and effectiveness of collective action for sustainable resource management in the studied locations?

\(^6\) This PhD project is part of a wider comparative ARC Discovery project (DP0880961), entitled ‘Social Capital, Natural Resources and Local Governance in Indonesia’.
- What are the implications of decentralised governance for levels of local participation and the degree of elite domination/capture?
- Does the explicit focus on building social capital and NRM governance through an emphasis on local level empowerment and participation (such as the PNPM Green program) improve sustainable development outcomes?
- Has the PNPM Green program contributed to greater community capacity to address local environmental issues/natural resource management?

1.2. Methodology

In addressing the range of research questions, I applied a mixed methods design that incorporates qualitative and quantitative approaches in a complementary way. The quantitative instrument — a survey aiming to establish generality and comparability across case studies for the wider Australian Research Council project — was designed and tested while the early stage of qualitative work (involving observation, focus group discussion, interviews) was being conducted, in order to ensure that issues arising were reflected in the survey design. Following the quantitative data collection and analysis, I applied qualitative tools again to verify the findings obtained through the survey in order to provide a more comprehensive analysis of realities on the ground.

The research compares extended case studies on social capital, village governance and natural resources management initiatives, focused on the community-driven development program, PNPM Green. I applied triangulation to enable examination of the research questions from multiple angles. The data collection phases and methods are outlined as follows:

(a) Identification of study locations. At the time of this research, the PNPM Green program was being implemented in 27 sub-districts (kecamatan) of three provinces in Sulawesi (South Sulawesi, South East Sulawesi and North Sulawesi). Within the targeted sub-districts in South East Sulawesi, I selected two PNPM Green sites in the Pasarwajo sub-district on the basis of the significance of resource management issues affecting the two communities, representing the ecological conditions of coastal and upland areas.
(b) **Document/data selection and analysis.** Prior to commencing the field research, background documents were reviewed, as well as data from previous surveys and evaluation studies of the World Bank and Government of Indonesia KDP/PNPM programs. Other documents produced by international and local NGOs that, in particular, related to NRM, social capital and local governance in Indonesia were also reviewed. These reports included information on governance and community institutions, local political dynamics, histories and cultural norms. Since the PNPM Green program was initiated in 2007, evaluation studies on the program had not yet been conducted at the time the research was designed and implemented. However, baseline KAP (Knowledge, Attitude and Practice) studies\(^7\) had been conducted and were utilised as one of the sources for the secondary data analysis.

PODES (The Indonesian Government’s Central Bureau of Statistics’ Village Potential Series) and GDS (Governance and Decentralisation Survey) are two other surveys I used as secondary data to assess how villages spend their local budgets, as well as to examine a number of local governance factors, including the performance of local governments in service delivery.

In an effort to establish a broad picture of NRM issues and capacities in a regional context, I also collected general data on local NRM and sub-district demographics. Analysis of policy documents relevant to NRM and environmental initiatives in Indonesia gave insight into the underlying issues and interests from the perspective of policy and decision makers.

(c) **Case studies.** I spent a total of one year of field work carrying out research in the two case study sites within the selected subdistrict. The case study focus was intended to specifically address ‘how’ and ‘why’ different actors succeed or fail in negotiating different types of local NRM arrangements in different settings, and to identify key mechanisms that enable or undermine sustainable NRM. These case studies explored in depth the processes of local decision-making within the selected communities, as well as factors influencing the dynamics of local governance with

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\(^7\) As part of my contribution in the KDP/PNPM Green program, I was involved in the design of the KAP studies in 2008, as well as the final program evaluation in 2012.
particular reference to community resource management issues.

The case study approach poses some limitations (Yin, 1989, 2003). Findings will be related only to the particular unit of analysis and may not be sufficient to enable broad generalisation (Sarantakos, 2005). Nonetheless, this approach offers greater depth of understanding of the dynamics involved in complex community decision-making processes (Neuman, 2006; Yin, 1989, pp. 41-5).

In efforts to ensure the validity and reliability of the case study method, multiple sources of evidence (documents, household surveys, participant observation, semi-structured interviews and focus group discussions) were undertaken to establish a chain of evidence. Prior to implementing household surveys, I conducted pilot testing\(^8\) to assure that the instrument was clear and unambiguous. Based on pilot testing results, I slightly modified the phrasing of the survey questions, adapting them to appropriate forms of expression in the local language (the surveys were conducted in both the local language – Cia Cia – and Indonesian).

Within the case studies, several foci of analysis were clearly defined, based on project research questions and theoretical debates on social capital. These focused on social networks and levels of community participation, as well as satisfaction with local governance and natural resource management. *Participant observation, informal discussions, semi-structured interviews, and focus group discussions,* as noted above, were the primary sources of qualitative evidence I pursued during the field research. These were supplemented by an in-depth household survey to provide a quantitative profile of community attitudes and engagement. In keeping with confidentiality requirements under Australian Research Council ethics guidelines, respondents are identified only by pseudonyms and by general roles and social characteristics.

### 1.2.1. Participant observation

I conducted participant observation within the selected case study locations to gather background information in informal settings, which enabled understanding of the

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\(^8\) Pilot testing was also conducted earlier on as part of the overall ARC project which resulted in amendments of some of the questionnaires.
character and rationale behind actual natural resource management practices and the dynamics producing change. The main focus was on the processes, relationships, organisation and immediate socio-cultural contexts of local resource use (Jorgensen, 1989). Participant observation provides more direct access to real world practices and allows the researcher to build detailed descriptions from the perspective of local user groups (Babbie, 2008; Laurier, n.d; Neuman, 2006). Since PNPM Green was a new approach to natural resources management in Sulawesi using CDD, there was little known about the dynamics of decision-making and the ways in which competing interests are negotiated. Attending meetings, as well as involvement in formal and informal activities associated with resource use and management, provided a grounded experience of the resource management issues with which local community groups are concerned.

I recorded my own experiences while engaging in community activities of the selected groups in an effort to understand socio-cultural dynamics within the studied communities. I observed peoples’ actions in different decision-making contexts in an effort to understand analysed motivations, values and responses to government and project intervention policies and practices (Jorgensen, 1989). During the one-year period of field work, I had the opportunity to build up informal relationships and good rapport with the two local communities.

1.2.2. Interviews (unstructured/informal and semi-structured interviews)
A mixture of conversation with embedded questions in informal contexts contributed to the interpretation of the significant issues or activities I was observing and helped me to discover what people were thinking and how they perceived locally salient environmental issues. Building trust and rapport through informal engagements contributed to the quality and depth of more formal semi-structured interviews. I conducted semi-structured interviews with facilitators, government officials engaged with each community, local leaders and a spectrum of community members. In particular, I carried out semi-structured interviews following participant observation at meetings with the decision-making groups to ascertain local perceptions of the procedures and outcome of formal decisions.
(a) The location/setting of the interview was chosen to avoid distraction, avoiding places where the respondents were uncomfortable in expressing their views (e.g. government offices, religious places, etc.).

(b) Prior to the interview, I clearly explained the purpose, terms of confidentiality and the format (duration, method of recording data, etc.) of the interview. I also gave my contact information.

(c) During the interview, I only asked one question at a time in the same way across the respondents, and tried to remain as neutral as possible. I also ensured that control of the direction of discussion was maintained, and in a polite way did not allow respondents to side-track the topics being discussed. Some efforts were taken to encourage responses, such as introducing several other ways to comprehend the questions. I allowed the respondents to use their own terms according to their perceptions and understandings. Interviews were recorded with consent of the respondents. In cases when respondents felt uncertain about being recorded, I asked permission to take notes, which was usually accepted.

(e) After the interview, I wrote additional notes on observations made during the interview.

1.2.3. Household survey
I conducted a household survey in both communities, which included both closed and open-ended questions to obtain a profile of levels of collective action and civic engagement among local stakeholders, thus providing background to the core qualitative components. The focus of the surveys was on processes linking key indicators of ‘social capital’ formation in the two villages. The survey aimed to provide quantitative data on household socio-economic profiles and attitudes, as well as measures of participation for a 40-household cross-section of each of the selected communities. This was used to analyse the level of local social capital formation, and to gauge the effectiveness of formal institutions with respect to information provision, capacity building engagements and environmental initiatives.
The design of the questionnaires was determined after carefully assessing the existing KAP (knowledge, attitude and practice) survey conducted by the World Bank in 2008, as well as other relevant studies previously carried out by international NGOs in Sulawesi. A total of 40 households in each of the two case-study villages was selected through a stratified random sampling method. Using a household mapping system, sampling populations were stratified by hamlet to obtain a proportionate spatial distribution; the respondent households were then selected within these hamlets by applying the following formula:

1. Number of households in each hamlet:
   \[ \chi = \frac{Y \times 40}{Z} \]

   Where:
   \( \chi \) = Number of households in each hamlet selected proportionately  
   \( Y \) = Number of households at hamlet level  
   \( Z \) = Number of households at village level

2. Spatial Distribution Sampling:
   \[ \text{SDS: } Y / \chi \]

   Where:
   \( \text{SDS} \) = Spatial Distribution Sampling  
   \( Y \) = Number of households at hamlet level  
   \( \chi \) = Number of households in each hamlet selected proportionately

The employment of a research assistant who could translate the questionnaires into the local dialect (Cia Cia), and inclusion of qualitative follow-up questions and a range of examples of possible responses where prompting was necessary provided greater opportunity for interpreting responses than is normally possible in a large scale survey. The survey format also provided the opportunity for further elaboration by respondents.

### 1.2.4. Focus group discussion (FGD)

Focus group discussion (FGD) is one form of qualitative research that is conducted to elicit diverse perspectives on the same topics (Gibbs, 1997) and also to analyse at a deeper level how villagers communicate their perceptions in a group setting: who dominates the discussions, why some turned up for the discussion meetings whilst others did not, and whether villagers perceived the discussions as worth attending. This instrument is also helpful in gathering general background information on the villages being studied (community life, networks, etc.), and specific information on
local natural resource management (NRM) from groups (e.g. women) whose members might be hard to access in other settings (Sarantakos, 2005; Stewart and Shamdasani, 1990). In addition, FGD is particularly useful when there are power differences between the participants and decision-makers or professionals, when the everyday use of language and culture by particular groups is of interest, and when one wants to explore the degree of consensus on a given topic (Gibbs, 1997).

I conducted these FGDs after the completion of the quantitative surveys, and at a stage when the analysis of survey results was at an advanced phase in order to facilitate the interpretation of the survey and add depth to the responses obtained in a more structured way. Spontaneous interaction among the group members produced insights that could not be obtained through surveys (Stewart and Shamdasani, 1990). The understanding of local structures and dynamics acquired through participant observation prior to using this research tool, contributed to the selection process of the FGD participants. The following steps were taken into account prior to the FGDs:

(a) Local dynamics and structure were analysed to determine the target groups for focus group discussions. Through participant observation I learned that villagers interact easily and more openly with others who have similar characteristics in terms of gender, age and occupation. Since the objective of this discussion was to get the most out of participation and interactions within a group setting on given topics, relatively homogenous groups seemed to enable the most open dialogue (Morgan, 1988, cited in Gibbs, 1997). Therefore, four groups of people with similar characteristics were formed to increase the likelihood that the participants would feel comfortable with each other: adult men, adult women, young adults and the PNPM implementation team. In total, 15 participants in each group were selected to attend discussions.

(b) Participants were selected after discussion with key informants to ensure the groups were representative of the village population. We invited five villagers to be our initial participants in each group (a total of 20 for 4 groups). At the first meetings, we emphasised the purpose of the FGDs, and said that they could invite up to ten others to join each group. This means that at least one-third of the participants were selected by the key informants and the
researcher, and up to two-thirds by the initial participants.

(c) Volunteers were sought from among the members of the groups to act as discussion facilitators.

The focus group discussions mainly covered four themes: community issues and priorities, working of and satisfaction with local institutions, conflict resolution processes, and the value of PNPM (Rural and Green) at local levels. The first theme investigated people’s perceptions and concerns about community issues along with their prioritisation. The aim of this theme was to see how participants engaged in a group discussion and decided among themselves on issues faced by the village.

To begin the discussions, using flip chart paper (*kertas plano*) to record the results, each group was asked to list issues or problems that the village was currently facing. Once the list had been generated, each group was asked to rank the issues in order of importance, indicating which issue had the most adverse impact on their lives and needed to be resolved on an urgent basis. After completing this part of the exercise, each group was asked to comment on whether there had been any changes in their problems over the last ten years, which problems had persisted for a long time, which had emerged recently, and whether earlier problems had been effectively solved. It was expected that different groups would come up with very different lists of problems and priorities. Care was taken while assisting the facilitation of these discussions not to generate a ‘wish-list’ that might raise false hopes; at some points, probing and sensitive directions and prompts were applied to gain clarity and stimulate meaningful responses.

The second theme focused on local institutions, groups and networks. The aim of discussions was to understand the role that different institutions\(^9\) play in different aspects of people’s lives. The FGDs started with a plenary discussion (involving all groups) on the different perceptions of trust – as an important element of social capital formation – in each institution. Each of the groups then identified the different ‘trust’ categories their perceptions could be divided into. In listing the

\(^9\) See Appendix 5 for a list of topic themes presented to FGD groups in Indonesian translation.
categories, local terms were used. Once the categories were worked out, then the groups were asked what criteria they used to evaluate the differences. Finally, the groups scored the proportions in each category, first deciding the maximum limit from which the scores would be given. For the purpose of this exercise, we (i.e. the researcher, facilitators and group participants) avoided using smaller numbers like 10 for the maximum, as it is difficult to show the proportions when there are several categories. After discussion with all groups on the range of scores to be used, we decided to range the scores from 10 to 50, with 10 the least and 50 the most.

It is important to note that while facilitating the discussion, the facilitators did not impose their own ideas, but sought to understand the groups’ own categories and criteria. With sensitive and open-ended facilitation, people usually come up with their own definition of ‘trust’. As trust is an abstract quality, for the purpose of this exercise, all members of the groups were asked to interpret trust as they understood it within their day-to-day social interactions with other villagers. Within this context, ‘trusted’ and ‘trusters’ – individually or collectively – are assumed to have some form of interaction that enables individuals or group(s) to gain a reputation for trustworthy relationships.

Therefore, prior to working out the categories and criteria, a consensus was sought to define ‘trust’. From this, the meaning of trust (percaya) for the villagers in Holja refers to the level of confidence or assurance gained through interactions with a person or an institution over time. The members of the FGDs believed that it is easier to decide whether to trust a person of long-standing membership within their own village rather than someone who has just arrived. For the newcomers to gain trust from the villagers, whether on an individual basis or in a group setting, time and successful interactions are needed to build good rapport and prove trustworthiness. The following table shows how the groups decided the categories and criteria for scoring.
### Table 1.1. Trust categories and criteria for all FGD working groups

<table>
<thead>
<tr>
<th>Categories</th>
<th>Criteria</th>
<th>Scoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Sangat dipercaya</strong> (highly trusted)</td>
<td>a. <em>Jujur</em> (<em>honest</em>)&lt;br&gt;b. <em>Adil</em> (<em>fair</em>)&lt;br&gt;c. <em>Masyarakat merasa aman dalam berdialog</em> (<em>community feels secure in communication</em>)&lt;br&gt;d. <em>Mudah didekati</em> (<em>accessible</em>)&lt;br&gt;e. <em>Mampu menjalankan tugas dan pelayanan dirasakan masyarakat</em> (<em>able to implement their assigned duties and the community feels the benefits of his/her service; i.e. competent</em>)</td>
<td>41 to 50</td>
</tr>
<tr>
<td>2. <strong>Dipercaya</strong> (trusted)</td>
<td>a. Honest&lt;br&gt;b. Feeling secure&lt;br&gt;c. Accessible&lt;br&gt;d. Competent</td>
<td>31 to 40</td>
</tr>
<tr>
<td>3. <strong>Bisa dipercaya, bisa tidak</strong> (sometimes can be trusted, sometimes not)</td>
<td>a. <em>Mudah didekati, tetapi tidak selalu bisa diandalkan</em> (<em>Accessible, but unreliable</em>)&lt;br&gt;b. Competent</td>
<td>21 to 30</td>
</tr>
<tr>
<td>4. <strong>Tidak dipercaya</strong> (Not trusted)</td>
<td>a. Not accessible and unreliable&lt;br&gt;b. <em>Jarang sekali bergaul dengan masyarakat</em> (<em>not generous in spending time with the community</em>)</td>
<td>10 to 20</td>
</tr>
</tbody>
</table>

*Note: The Indonesian language was used for all trust category descriptors*

The last two themes of the FGDs were focused on conflict resolution at community level, and the benefits (or the lack thereof) of the PNPM program. Open-ended questions were used to probe responses from participants on such issues as: the nature of conflicts that took place in the community over a period of time, types of mediation used to help the community resolve conflicts, and social sanctions applied in the community for violating expected norms and rules.

In sum, both qualitative and quantitative measures were used in complementary ways to triangulate the results in addressing the research questions. The table below summarises these methodologies.
## Table 1.2. Summary of research methodologies applied to the research questions

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Participant observation</th>
<th>Semi-structured interviews</th>
<th>Household surveys</th>
<th>Focus group discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the contributions of social capital approaches to sustainable natural resource management?</td>
<td>- Social capital at community level (bonding, bridging, linking)</td>
<td>- Community and NRM profile</td>
<td>- Level of local civic engagement in resource management decision-making</td>
<td>- Group perceptions on village issues and concerns</td>
</tr>
<tr>
<td></td>
<td>- Social dynamics and processes of decision-making</td>
<td>- Forms of collective action affecting resource access and management</td>
<td>- Avenues for community to access information on NRM and their involvement in monitoring their NRM</td>
<td>- Perceptions on social trust</td>
</tr>
<tr>
<td></td>
<td>- Local perspectives and interests with respect to access and management of natural resources</td>
<td></td>
<td></td>
<td>- Role of institutions, groups and networks using listing, scoring and trend analysis.</td>
</tr>
<tr>
<td>2. Do pre-existing forms of social cohesion correspond to higher levels of community involvement and effectiveness of collective action for sustainable resource management in the studied locations?</td>
<td>- Local institutions: membership and connectedness</td>
<td>Conflict resolution, inclusion, and sociability</td>
<td>- Density and diversity of organisational membership</td>
<td>- Institutions, groups and networks using listing, scoring and trend analysis Social trust and diversity were included</td>
</tr>
<tr>
<td></td>
<td>- Processes and relationships, especially associated with kinship, customary and religious associations, demonstrating social cohesion and community involvement/collective action</td>
<td></td>
<td>- Levels of participation in PNPM</td>
<td>- Conflict resolution, inclusion, and social engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Conflict resolution, inclusion, and social engagement</td>
<td>- Knowledge/concern with environmental issues</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Conflict resolution</td>
</tr>
<tr>
<td>3. What are the implications of decentralised governance for levels of local participation and the degree of elite domination?</td>
<td>- Decision making process at village meeting</td>
<td>- Village budget</td>
<td>- Extent of participation in PNPM project stages.</td>
<td>- Group perceptions of village issues and concerns</td>
</tr>
<tr>
<td></td>
<td>- Local perspectives and interest with respect to how resource access and management actually operate in both formal and informal domains</td>
<td>- Historical background of village governance in Buton</td>
<td>- Satisfaction level of community members with village \ decision-making process, village development.</td>
<td>- Institutions, groups and networks using listing, scoring and trend analysis Social trust and diversity were included</td>
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<td>- Village governance system: participation and representation</td>
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4. Does the explicit focus on building social capital and NRM governance capacity through an emphasis on local-level empowerment and participation (such as in the PNPM Green program) improve sustainable development outcomes?

<table>
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<th>- Local participation: process and level of engagement</th>
<th>- Level of environmental awareness/concern</th>
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<tbody>
<tr>
<td>- Patterns and variations in local empowerment and participation across communities as a consequence of PNPM Green</td>
<td>- Challenges in implementation</td>
<td>- Level of knowledge and participation in PNPM Green program stages</td>
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<tr>
<td>- Challenges in implementation</td>
<td>- Practices and processes of community proposal development in the PNPM Green program</td>
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<td>- Practices and processes of community proposal development in the PNPM Green program</td>
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5. Has the PNPM Green program contributed to a greater capacity to address local env. issues/NRM?

<table>
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</table>
1.3. Structure of the Thesis

The thesis comprises three main sections. Firstly, the thesis discusses the theoretical framework and background context of both social (Chapter 2) and political (Chapter 3) dimensions of the social capital debate. Secondly, based on the social capital framework, the thesis elaborates a concept of intervention in natural resource management that applies a community-driven development approach (PNPM Green) at the local level for building and transferring social capital and enhancing national resource governance (Chapter 4). Thirdly, the thesis applies these analytical and applied frameworks to two village case studies in South East Sulawesi (Chapter 5 and Chapter 6), where the PNPM Green program was introduced. The last two chapters compare the two case studies (Chapter 7) and offer concluding considerations and recommendations (Chapter 8).

Chapter 2 discusses the critical role of the social dimension aspect of mainstreaming natural resource management in regard to active participation and collective action in the management of common resources. The contribution that improving and maintaining local participation and collective action make to social capital formation, especially its bonding and bridging forms, is discussed. This chapter also treats the roles of NRM governance in providing institutional frameworks for managing local natural assets, including mechanisms for expanding public engagement and conflict resolution. The role of local elites is also explored.

Chapter 3 elaborates upon the effects of the larger political framework upon natural resource management. Specifically, this chapter examines the nature and effects of decentralised natural resource management, particularly the conflicting interests invested in local resources. Within the context of decentralisation, this chapter analyses state-society relations in the management of local natural resources by looking into central-district power contestation, the district-village patronage system and elite domination at the village level. The concept of linking social capital is elaborated in this chapter to explore the nature of local participation and collective action within the context of decentralised NRM.
To understand the implications of mainstreaming natural resource management into the local development agenda, Chapter 4 analyses the explicit focus on building social capital and NRM governance within the community-driven development intervention, PNPM Green. This chapter describes challenges that the program has encountered during the implementation stage, mainly due to the existing social-political conditions that play critical roles in the effectiveness of the overall design and mechanism of the program. The PNPM program pragmatically assumes the contributions of social capital in the context of the improvement of rural economy and natural resources.

To assess these theoretical assumptions and their application within the PNPM Green program, two cases studies from South East Sulawesi are presented in this thesis. These are the upland forest dependent village of Warinta (Chapter 5), which is a well-established community with strong customary institutions, and the coastal village of Holimombo Jaya or Holja (Chapter 6) with a mainly migrant population that has not brought with them their main customary institutions. These two case study chapters elaborate on the social dynamics affecting social capital formation, focusing on how customary adat and government institutions influence social interactions, and thus affect local participation and collective action in natural resource management. Process and practices in the implementation of the PNPM Green program are explored in the two villages, with special attention to the role of bonding, bridging and linking forms of social capital.

Chapter 7 analyses the two case studies by comparing the processes and outcomes of PNPM Green in each case and placing these in the context of the theoretical and practical frameworks described in the previous chapters. In particular, the chapter focuses on highlighting the role of social capital assets (trust, connectedness/cohesion, and networks) in explaining the social and political dynamics of village governance in the two cases, and differences in the effectiveness of PNPM Green in addressing local NRM issues.

Finally, Chapter 8 concludes the thesis by addressing the research questions and highlighting the challenges and opportunities facing local natural resource
management in Indonesia. The role of the PNPM Green program as a significant national intervention aimed at mainstreaming NRM within community-driven development is considered. Recommendations for the improvement of sustainable development interventions and decentralised NRM governance in Indonesia are also proposed.
CHAPTER 2
SOCIAL CAPITAL AND NATURAL RESOURCE MANAGEMENT

2.1. Social Capital Theory in a Natural Capital Context

Local natural resources such as land, water and timber (forests) are critical to household livelihoods and community identity. Villagers in rural Indonesia are directly dependent on natural resources as their primary source of income and/or indirectly dependent on these resources for their livelihoods and wellbeing. Natural resources also play a prominent role for many local communities, as they have historical and cultural significance, and the practices developed to sustain them are part of the identity of a community. For example, community members of Warinta, an upland village community in Buton district of South East Sulawesi (see Chapter 5), hold a strong sense of attachment to their forests as a source of their livelihoods and maintain cultural traditions that revolve around these forests. The villagers know that the forest contributes a large part of the available water supply for their agricultural production as well as for household consumption. So, together they acknowledge areas around the springs located near their forest as sacred areas to which strong customary (adat) rules apply. Collectively, they govern and manage their local natural resources according to these adat principles.

Participation in collective action to manage natural resources, as many scholars suggest (Adam and Roncevic, 2003; Foley and Edwards, 1999; Wall, Ferrazzi and Schryer, 1998), is strongly affected by the extent of their ‘social capital’, an empirically complex and contested concept. This concept has gained currency over the last three decades, induced in large part by the work of such scholars as Pierre Bourdieu, with his emphasis on strategies for social capital accumulation oriented to maintaining or changing one’s position in a hierarchical social structure, and Robert Putnam, with his emphasis on the contributions of strong traditions of horizontal networks and associations with civic responsibility.
Bourdieu’s notion of social capital\(^\text{10}\) – from his class perspective – focuses on how dominant classes establish group boundaries and social advantage through the exchange of things and symbols, thereby establishing individuals’ social positions with respect to their possession of available social, economic and cultural capital. In this context, individuals – who do not necessarily have equal access to all types of capital – invest in social capital as part of a deliberate effort to access benefits; privileged individuals maintain their position by using their connections with other privileged people (Bourdieu, 1986, in Richardson, 1986; Lin, Cook and Burt, 2001; Portes, 1998).

While Bourdieu’s emphasis is on the effects of individuals’ networks on their own social strategising for access to power and wealth in hierarchic structures and the capacity of groups and networks to which individuals belong or aspire to exclude outsiders, Putnam’s horizontal focus is on the positive effects of collective accumulation of social capital for civil society and collective action. Although these theorists differ in their orientation, they both highlight a concept of social capital in which concrete social relations have an important role in giving individuals and groups access to crucial resources. Thus, social capital is constituted as a strategic resource available only in and through relationships and social structures (Foley and Edwards, 1999; Lin, Cook and Burt, 2001; Portes, 1998; Wetterberg, 2004).

While Bourdieu was largely concerned with the role of social relations in defining the social trajectory of individuals, Putnam extends the social capital concept to community-level engagement. For him, social capital refers to “features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions… Spontaneous cooperation is facilitated by social capital” (1993, p.167). For Putnam social capital refers to “…features of social life that enable participants to act together more effectively to pursue shared objectives” (1995, pp. 664-665). Horizontal relations among individuals have the potential to generate trust, norms of reciprocity and a capacity for community engagement (Foley and Edwards, 1999; Putnam, 1993, 1995; Wetterberg, 2004).

\(^{10}\) Social capital is one of several forms of capital; economic, social, cultural, symbolic, etc. (Bourdieu, 1986; Coleman, 1988; Field, 2003; Fukuyama, 1995; Putnam, 1993). In this thesis, I will focus on ‘Social Capital’, with a focus on both the horizontal and vertical dynamics that affect community-driven conservation and development initiatives.
From these perspectives, social capital can be thought of both as an individual and collective resource, and as both cause and effect. Bourdieu’s concept refers to differentials in power and access to resources, and the ways in which these feed into class formation and the creation or maintenance of elites. His interpretation of social capital is as ‘the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition’ (Bourdieu, 1983, p. 249). Putnam’s concept refers to ties and relations both within and between/across social networks which facilitate collective action and improve outcomes for individuals or groups. Social capital formation is encouraged through the improved relations of trust and reciprocity, the establishment of common rules, norms and sanctions among communities (Pretty, 2002). Across disciplines there is a tendency to see social capital as a resource that provides benefits (Adam and Roncevic, 2003; Foley and Edwards, 1999; Wall, Ferrazzi and Schryer, 1998; Wetterberg, 2004). In the field of development, for example, it is suggested that the focus on social capital offers the potential for more participatory, sustainable and empowering approaches, and for improvement of the management of common resources (Evans, 1996; Grootaert and Van Bastelaer, 2002, pp. 341-350; Woolcock and Narayan, 2000). The level of social capital in a society is posited to be associated with better environmental and natural resource management outcomes, which can be seen through increase in knowledge, information flows, and increased cooperation, as well as improved monitoring and enforcement (Anderson et al., 2002; Bodin and Crona, 2008; Daniere et al. 2002; Ishihara and Pascual, 2013; Koka and Prescott, 2002; Pretty and Ward, 2001; Wetterberg, 2004).

Social capital theory emphasises the importance of networks and associations and of norms that guide interactions to facilitate reciprocity and co-operation in community development (Agarwal, 1999, 2001; Alesina, Baqir and Easterly, 1999; Boyce, 1994; Fine, 2001; Grootaert, 2001; Kilpatrick and Field, 2001; Naidu, 2005; Pretty and Ward, 2001; Putnam, 1993, 2000, p. 19). Such networks may foster dynamic community development, in particular building social capital and strengthening local governance. However, they may also work to serve the interests of well-networked groups, in particular elite interests, at the expense of the wider public good (Bodin
and Crona, 2008; Coleman, 1988; Dahal and Adhikari, 2008; Kilpatrick, Field and Falk 2001; Putnam, 1993; Woolcock and Narayan, 2000).

The network approach – as identified by Woolcock and Narayan (2000, p. 230) – stresses “…the importance of vertical as well as horizontal associations between people and of relations within and among such organisational entities as community groups and firms”. This approach highlights the importance of internal ties through what has been called the ‘bonding’ forms of social capital and external relations through ‘bridging’ social capital (Adler and Kwon, 2002). These forms of social capital (i.e. bonding and bridging) enhance the potential for cultivating and maintaining local participation, which is arguably an essential element in natural resource management (NRM), assuming that a community of resource users would not otherwise have equal access to or share common interests in protection of the resource over the long term (Brosius et al., 2005; Carlsson and Sandstrom, 2008; Dahal and Adhikari, 2008; Persoon et al. 2003; Warren and McCarthy, 2009; Woolcock, 2000). In this context, the capacity for cultivating and maintaining local participation in collective action is essentially affected by the depth and intensity of social networks (Bodin et al., 2011; Ramirez-Sanchez, 2011). The focal point of the relations within a social network is dependent on the character of social interactions (social dynamics) within groups of individuals and the structural mechanisms that generate and sustain collective actions. Studies in rural fishing villages in Kenya showed that centralised network structures (characterised by strong bonding social capital) in resource management play an important role in generating collective action, particularly at the initial stage of building consensus. Less centralised network structures (characterised by bridging social capital) are preferred for long-term management of ecosystems, as they provide access to the diversity of information and ranges beyond single community resource use (Crona et al., 2011; Crona and Bodin, 2006; Olsson, 2004).

Studies of collective action in the management of natural resources have widely used the social capital framework. As defined by Putnam, it relates more directly to the potential for institutional deployment through local-level units, such as associations, communities and regions (Dahal and Adhikari, 2008). The application of the social capital framework in the study of the management of collective issues is useful
because it includes both formal and informal networks in facilitating collective action (Pretty, 2002; Uphoff, 2000). Putnam (1993, p. 173) claims that almost all of these networks are mixes of “horizontal” aspects, bringing together agents of equivalent status and power, and “vertical” aspects, linking unequal agents in asymmetric relations of hierarchy and dependence.

Bonding and bridging social capital have resonance with Granovetter’s (1983, 1973) ideas of “strong ties” (closed social circles) and “weak ties” (acquaintances), particularly in relation to the issues of access and flow of resources and information. Weak personal relationships, acquaintances as opposed to close friends or strong ties, may bring knowledge and information that are not available through closed social circles. In this essence, many weak ties serve as bridges between network segments and may enable better resource governance of wider ecosystems. Linking social capital pertains to vertical connections with people in power, whether in politically or financially influential positions. This includes vertical connections to formal institutions (Woolcock, 2001). Chapter 5 of this thesis explores the linking role of government officials and traditional elites (*adat* leaders) in a strongly bonded community.

The widely asserted importance of social capital forms (bonding, bridging and linking)\(^\text{11}\) in sustaining community engagement and establishing institutional legitimacy for conflict resolution in natural resource management (NRM) will be considered in this chapter.

### 2.1.1. Bonding social capital: Internal ties

Bonding social capital is indicated by the level of density\(^\text{12}\) (having members closely connected together through a greater frequency of interaction) of social networks. Higher levels of density indicate the presence of network closure and those bonding ties that increase the likelihood that people will engage in collective action (Anderson, 2006; Brewer, 2003; Jones, 2009; Lin, 2001; Sandstrom, 2011). The strong bonding networks are mostly found in the closed networks of family and friends, extended family, close-knit ethnic communities or highly structured

\(^{11}\) Linking social capital will be elaborated in Chapter 3.
\(^{12}\) Social density as a theoretical term goes back to Durkheim in ‘The Division of Labour in Society’.

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organizations. Bonding social capital networks are inward-looking and tend to be a characteristic of homogenous networks or groups (Putnam, 2000, p.22). These networks foster strong but localised trust and facilitate the flow of information\(^{13}\) (Dahal and Adhikari, 2008; Putnam, 2000, 1993, p.5; Coleman et al., 1966, as cited in Tindall et al., 2011).

It is argued that the more the members of the groups interact with each other, the stronger the cohesion among the members (Crona and Bodin, 2006; Wright and Drewery, 2006). A strong, cohesive group with high levels of community interaction is likely to lead to high levels of trust among members and in turn predictably increase social capital formation (Ramirez-Sanchez, 2011). Warinta village (Chapter 5) is an example of a strongly bonded community. Warinta village has been settled and established over 500 years (interview with community leaders), and is considered as an ‘indigenous’ village, because it has been settled long enough for the residents to be considered as the original inhabitants of the area.

While Warinta village is a long-standing community, Holja village (see Chapter 6) is a migrant village established in 1973. Members came predominantly from another village in Buton island over some period of time, joined by others who have recently arrived from Maluku, Kalimantan, and South Sulawesi. The social capital thesis would predict that social interaction among these villagers with more heterogeneous backgrounds would be less frequent than in Warinta and that bonding social capital would be weak.

Bonding social capital is mostly characterised as a ‘horizontal’ relation in the Putnam tradition; however, the literature on social networks has increasingly come to explore the unfolding of hierarchical relations within this form of social capital (Burt, 2005; Gould, 2002; Moody and Paxton, 2009). Putnam also suggests that in social networks, such a mix of relations between horizontal and vertical is a real life characteristic of social structures (Putnam 1993, p. 173). This thesis will address how

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\(^{13}\) Note here that the flow of information is facilitated within a strong bonded community; however, as Granovetter suggests, the weak social ties associated with bridging social capital are crucial in facilitating more varieties of information.
unequal agents are linked in asymmetric relations of hierarchy and dependence; elite domination and elite capture will be addressed, as well as horizontal relations which are assumed in this framework to be more likely to lead to ‘common good’ outcomes.

The social capital thesis implies that bonding social capital would have an effect on the capacity of villagers to manage local natural resources and that strong community cohesion encourages members to collectively respond to challenges and opportunities (Ostrom, 2005; Putnam, 1993). In this context, information flows well among members (Cramb, 2005; Folke et al., 2007; Jones, 2009; Lubell and Fulton, 2007; Putnam, 2000) and minimises the probability of non-compliance due to ignorance or misunderstanding (Anderson, 2006; Lin, 2001). On the other hand, homogeneity of experiences and knowledge can lead to a situation in which all individuals tend to adopt similar perceptions of the issues at hand, with lesser inclination to innovate in problem solving (Bodin and Norberg, 2005; Crona and Bodin, 2006; Oh et al., 2004).

Natural resource management depends upon the adequacy of flow and types of information being shared to cope with challenges and opportunities. A lack of adequate information to support efforts for natural resource management may lead to poor recognition of the problem of changing ecological conditions and contribute to lowering a community’s ability to respond to change through more sustainable practices (Bodin and Crona, 2008, 2011). Such information may need to come from multiple modalities and personal contacts through social network ties beyond the immediate community.

Connecting with people beyond the immediate group may not come easily to a community with strong bonding and a homogenous network. Groups with homogenous memberships could hold few links to multiple networks beyond their own group, and the specific relationship capital that is developed over time may lead to a tendency to stick to existing linkages and networks, rather than expanding networks outside the existing one (Beugelsdijk and Smulders, 2003). In this case, the role of key individuals within the group is critical in establishing communication
channels to develop trusting relationships (Pretty and Ward, 2001) between their own group and other networks.

Finally, the assumption that strong trust is mutually shared within a closed/homogenous group may not be the case. Some groups may experience low levels of trust, which discourage members from following collective rules/norms. Since everyone anticipates that others will similarly transgress, they cannot impose significant costs on perverse behaviour in NRM (Ballet et al., 2007). This may cause an increased level of free-rider behaviour, which decreases the chance for future successful collective action. In this instance, Anderson (2006) suggests that increasing the level of density in membership is necessary to minimise the probability of non-compliance mainly through more frequent social interactions to increase trust and expand diffusion of information.

2.1.2. Bridging social capital: External relations

Bridging social capital refers to networks which cross diverse social divisions and connect different communities or subgroups (Bodin and Crona, 2008; Dahal and Adhikari, 2008; Putnam, 2000), with the predicted outcome that resources shared among members become better managed (Lin, 2005; Thomas, 1994, cited in Wright and Drewery, 2006). This heterogeneous network may provide resources, such as an improved quality and range of information, and a means to more effective resource management, but also the opportunity for individual brokers to gain influence, power and potentially control (Beugelsdijk and Smulders, 2003). However, as networks and associations expand beyond a particular locale, the intensity of relationships tends to decrease; moreover, the average density of the network decreases, resulting in less frequent interaction, lower motivation to participate, and less cohesion (Granovetter, 1973; La Ferrara, 2002; Lin, 2005; Thomas 1994, as cited in Wright and Drewery, 2006). A lower level of social capital is sometimes associated with more heterogeneous networks, which by definition applies to the bridging type (Coffe, 2009).

In regard to natural resource management, due to the geographic scale of ecosystems and the complexity of the issues involved, network heterogeneity and bridging ties between networks have been positively linked to sustainable management practices.
Bridging social capital enables access to a wider range of information, as well as skills and knowledge exchange about challenges and opportunities to manage natural resources sustainably (Crona and Bodin, 2006; Prell et al., 2009). It also facilitates negotiation with external actors whose resource use may impact on local resource security. Particularly in the case of forest and marine resources, many local communities or user groups need to be engaged in rule-making if sustainability is to be ensured.

The role of key individuals or institutions, either from within the communities or from outside (government and/or non-governmental organisations), is crucial in fostering the opportunity to work together among several communities beyond the immediate village, as competing interests or poorly integrated bridging may affect joint decision-making processes (Carlsson and Sandstrom, 2008; Edstrom, 2002; Naidu, 2005) and negatively affect collective action (Alesina and La Ferrara, 2000; Bardhan, 2000; Khwaja, 2000; Molinas, 1998). In this case, the role of heterogeneity in collective action depends crucially on how well collective action is facilitated and coordinated, particularly if there are significant differences among vested interests in the resource (Heckathorn, 1993; Mansuri and Rao, 2004).

National development programs such as PNPM may influence at a local level relationships between different groups or communities through their facilitation mechanisms at village and hamlet levels. The local facilitators or village cadres are the key actors from within the communities, coordinating PNPM processes, providing information, encouraging participation, and assisting villagers to identify and prioritise their needs. An in-depth qualitative study of participation of social actors in PNPM commissioned by the World Bank (McLaughin et al., 2007) found that local participation is highly affected by this facilitation role.

Community facilitators (or other local NGOs) have their main focus in engaging local networks to collaborate at village level to promote common objectives and create an enabling environment for collective action (Dedeurwaerdere, 2005). Bridging relationships among people of different ethnic background across formal and informal institutions in which local villages participate are essential (Dahal and Adhikari, 2008). Such facilitating mechanisms must work on behalf of the
constituents (for example, hamlet and village institutions, etc.) and be well enough connected to other institutions beyond their village. However, in areas where mutual trust is weak and cohesion is low, over-dependence upon the role of community facilitators can manifest itself. In such cases, when these facilitators retire or resign, the level of participation and collective action in the village declines (OWT, 2009; World Bank, 2002).

2.1.3. Linking social capital: Hierarchical relations

In contrast to bonding and bridging social capital, linking social capital reflects hierarchical relations and an unequal power distribution between *individuals* and *groups* in positions of power that shape the structure of social relations through their effects on resources, skills and beliefs, either by influencing policies or by making claims on useful resources (Adler and Kwon, 2002; Fine, 2001; Pretty, 2002; Warren et al., 2001; Woolcock, 2001). The capacity to leverage resources, ideas and information from formal institutions beyond the community is a key function of certain forms of linking social capital (Woolcock, 2001).

Linking social capital – by definition – can occur between individuals in a group relation (intra-group/bonding) and between groups (inter-group/bridging). The phenomenon of linking social capital in intra-group relationships, as mentioned in the earlier section, can be seen through the engagement of local elites in decision-making processes within a strongly bonded community. It also can occur in networks extending beyond the local group (bridging), as well as linking different types of institutions, including the state and private sectors (Moody and Paxton, 2009; Wetterberg, 2004; Putnam, 1993; Woolcock and Narayan, 2000). In these contexts, linking social capital can be considered as a vertical relation (Woolcock and Narayan, 2000, p. 230).

Szreter and Woolcock (2004, p. 655) further defined linking social capital as ‘norms of respect and networks of trusting relationships between people who are interacting across explicit, formal, or institutionalised power or authority gradients in society’, for example, citizens’ interactions with local government and higher levels of the hierarchy of government. The relationship between government and community has an important role in fostering social capital at the community level, as well as in
garnering resources or power (Woolcock and Narayan, 2000).

In Indonesia, the analysis of linking social capital is particularly important for natural resource management, due to the fact that the state claims the rights and responsibilities for the control and disposition of natural resources under the constitution\textsuperscript{14}, while local communities are faced with the day-to-day challenges of governing their natural resources for local use. There is a need, therefore, to understand how state and society interact within the political domain of natural resource governance that is being reconfigured in the post-New Order period. Furthermore, the linking form of social capital is complex, as it implicates both social and political elements in power struggles among central and local stakeholders, and raises questions of trust towards and responsibility of leaders. Contestations of authority (as described in detail in Chapter 3) among central and district levels of government have emerged more strongly in this decentralisation era, while patronage relationships involving local elites are prevalent across all levels of governance. Discussions of linking social capital will be elaborated in greater detail in the next chapter.

2.2. Natural Resource Governance in Rural Indonesia

In the context of this thesis, I will focus on the concept of natural resource governance as a system by which utilization of local resources is regulated through formal institutions and informal relationships and practices which support or undermine formal arrangements (Finner, 1970; Rhodes, 1996; World Bank, 1992). Within this context, local natural resource governance refers to regulatory mechanisms, customary and informal practices deployed by government agencies, non-government organizations and civil society constituents affecting access to and use of local natural resources.

The complexity of analysing Indonesia’s rich and diverse ecosystems is compounded when considered in relation to equally complex social, economic and political aspects of resource use. These demand a sophisticated governance system that

\textsuperscript{14} UUD 1945 (the 1945 Constitution of the Republic of Indonesia), Article 33 (3).
provides mechanisms for responding to the significant challenges of natural resource management (Andersson and Ostrom, 2008).

The growing literature on the ‘commons’ indicates that the development of better governance systems for natural resource management is imperative. Hardin’s influential article on the ‘Tragedy of the Commons’ (Hardin, 1968) allegory asserts that degradation of the environment is expected whenever many individuals use a scarce resource in common without regulation; this points to the fundamental role of political systems and institutions in the preservation of the environment.

In contrast to prevailing responses to Hardin’s ‘tragedy’ thesis, which itself privileged state and especially private property ‘solutions’, Ostrom argues that ‘remorseless tragedies’ need not be an inevitable outcome, and endogenous institutions often manage common resources very successfully (Ostrom, 1990, p.7).

For the purpose of the thesis, I will focus on three main aspects of debates on local resource governance: local governance of natural resources; conflict resolution in NRM; and the role of local elites in natural resource management at village level.

### 2.2.1. Natural resource governance: Local institutions

Natural resources are important sources of livelihood and basic necessities for rural villagers across Indonesia. In the case of forest-dependent communities, for example, these resources include firewood for rural domestic energy, fodder for domestic animals, timber for local construction and non-timber products for a variety of local needs. Villagers’ dependence on these common resources has been affected by their decline due to degradation caused by over-exploitation and/or by the shifts in property rights away from communal to state and private individual hands (Agarwal, 2001).

Although natural resources are physically located at a local level, it is important to stress that access to and use of these resources are not limited to local villagers. Valuable common pool resources from forests or marine ecosystems typically draw a mix of stakeholders that range from the state (central, regional and local governments) to private individuals, either local or non-local, and also transnational
organisations (commercial companies, conservation agencies, etc.). This section of the chapter will not analyse the political arena of contestation, which will be discussed further in Chapter 3. Rather, it will focus on the role of local institutions as key stakeholders in the management of local natural resources.

In the case study research locations in Buton district, South East Sulawesi, there are two main formal categories of institutional ‘players’: government-mandated institutions and non-government institutions. The first category of institutions is established under the formal authority of district or national agencies (Antlöv and Eko, 2012). This category includes government-established local authorities (in this case, the village head and secretary, and the village council or BPD), the Family Welfare Institution (PKK), the youth organisation (karang taruna), and gapoktan (gabungan kelompok tani or user groups for farmers and/or fishermen). Mandates of the village head, village secretary, PKK, karang taruna and gapoktan are heavily dependent on administrative direction from sub-district and district levels of government. Although the village council (theoretically) represents the local constituents, their mandates are regulated by Law No. 32/2004 and Government Regulation No. 72/2005 (see Chapter 3). The members of the council mostly consist of village or community leaders such as hamlet heads, core leaders of community user groups, and prominent individuals (e.g. relatives of adat leaders, village cadres from program-related interventions and others).

The second main category of institutions found in Buton district consists of institutions not mandated by the government and includes customary (adat) institutions, arisan groups (rotating savings and credit associations in Indonesia whose members are mostly women), remaja mesjid (religious-based youth groups), and majelis ta’lim groups (religious-based women's groups). These institutions basically reflect the identity and characteristics of the villages. For example, the populations of Warinta and Holja villages (the case studies in this research; see Chapters 5 and 6) are mostly Muslim. Islam provides a common identity and organisational base (majelis ta’lim and remaja mesjid), although adat institutions play a much greater role in Warinta. Also, as banking services and provisions are lacking in both villages, the arisan groups are prominent.
In terms of the types of members’ interaction, formal government bodies conduct their regular meetings in a village hall; the themes of these meetings mostly concern village development. The non-government or customary groups conduct formal meetings and informal gatherings in the adat meeting place (for adat-related events and gathering) and at members’ houses (rotationally) or in the mosque for religious and other activities. The Gapoktan tends to convene meetings at the village hall or mosque. The main purposes of their gatherings are the improvement of family wellbeing, local practice of their religion, and adat-related events and rituals - the core elements of community level interactions on a daily basis.

Insofar as these institutions are concerned (directly or indirectly) with governance of natural resources, social cohesiveness arising from relationships they foster in the local community are hypothesised to have a major effect on the level of public involvement and effectiveness of management efforts. The case studies in Chapter 5 and 6 are intended to examine the proposition that communities characterized by strong social capital will be characterized by a high level of cohesion and that the density of social interactions or networks will lead to more dynamic responses to natural resource challenges in comparison to weakly bonded communities.

The level of community participation and involvement in NRM governance is also affected by the facilitation efforts of internal leadership, including village and hamlet heads, adat and religious leaders, and those who are considered in the community to be key figures in local natural resource management. Facilitation also comes from the external institutions particularly relevant to village development programs, funded by either central government or non-government organisations. The degree of involvement of these internal and external entities in NRM governance ranges from merely facilitating processes to strong domination in decision-making and is affected by the existing leadership style in a community, whether dominated by a single institutional entity (government or customary/adat) or parallel leadership (government officials in partnership with adat leaders).

Regarding participation and collective action, the new institutionalism literature (Agrawal and Gibson, 1999; Berkes, 2004; Brinton and Nee, 1998; Ostrom, 1990; Pretty and Smith, 2004) emphasises the potential role of communities or user groups
in collectively managing natural resources to achieve efficient resource management outcomes. In line with this thinking, Indonesia’s regional governments have begun to use community-based management arrangements with the support of non-governmental organisations (NGOs) to create conservation management institutions, sometimes with technical and institutional support from international donors. The crucial factor in the success of community-based approaches is community participation.

However, participatory approaches have attracted criticism, best represented by Cooke and Kothari’s (2001) edited collection of essays, *Participation: The New Tyranny?* The authors argue that efforts embracing participation often have the effect of maintaining existing power relations due to the failure to take account of inequalities within communities. Also, disempowerment is exacerbated through domination in decision-making by donor agencies and/or organisations outside the community. Participation has also failed in many community-based NRM programs, where village institutions have been harnessed to meet the project’s intended objectives rather than allowing the community to set the agenda. The bureaucratisation of participation (Juinio-Menez, 2000; Lele, 2000; Walsh, 2008), has more often than not contributed to passive participation rather than an active role in decision-making. Passive participation means being informed of decisions *ex post facto* or attending meetings to observe decision-making without speaking up (Agarwal, 2001; Pretty, 1995).

Without denying claims presented in Cooke and Kothari’s book, Hickey and Mohan (2004) extend critical debate on the process and importance of participatory development, particularly the conceptual and theoretical base for what they call transformative participation. The authors suggest that for participatory approaches to be transformative, multi-scaled strategies that are operationalized at all levels – individual, structural and institutional – must be linked to development programs. They argue for “the importance of being cognisant of local socio-political structures and practices”, but also the need to recognise “both the room for manoeuvre within the local, and that not all local elites and power relations are inherently exclusive and subordinating” (Hickey and Mohan, 2004, p. 15). In this context, participatory approaches need to be scaled up from projects to policies, and to engage with issues
of institutional change. As concerns about good governance and state responsiveness grow, questions about how citizens engage and make demands on the state also come to the fore.

As NRM governance is about influencing members to act together to govern local resources, and participation in collective action is particularly crucial, it is important to know what conditions contribute to active and constructive participation. A substantial literature demonstrates that trust is an integral element of social capital, for it creates willingness to engage in collective action to pursue shared objectives, because past experience leads participants to assume common good outcomes. Trust is seen as a pre-condition of cooperation (Coleman, 1988; Fukuyama, 1995; Gambetta, 1988; Kilpatrick and Field, 2001; Putnam, 1993), assuring each member that others of their community will act in a similar way (Jones 2009; Pretty and Ward, 2001). This line of thinking suggests that trust is both a product of social capital accumulation, and at the same time contributes to the production and strengthening of social capital (Adler and Kwon, 2000; Cohen and Prusak, 2001; Field, 2003; Woolcock, 1998).

Fukuyama (1995, p. 26) defines trust as “the expectation that arises within a community of regular, honest and cooperative behavior, based on commonly shared norms, on the part of other members of that community.” This implies that the construction of trust in social life is affected by the dynamics of everyday social relations. Ostrom and Ahn (2007) suggest that engagement in repetitive interaction among individuals is important, as it provides incentives to individuals to build a reputation for being trustworthy (Ostrom and Ahn, 2007). As both a pre-condition and a product of social capital building, case studies in this thesis will explore the role of trust in constituting active participation in collective action within the case study communities (see Chapter 5 and 6).

2.2.2. Reframing discussions on elite capture and elite domination.

Some scholars refer to ‘local elites’ as a group of people in societies characterised by social hierarchies who have power or influence over social, political and/or economic spheres (Balooni, 2010; Dasgupta and Beard, 2007; Fritzen, 2005; Platteau, 2004; Wong, 2010). These groups play an instrumental role – with positive or negative
consequences for the broader community – in shaping the struggles over local decision-making and the disposition of resources. In this context, they can undermine or contribute to equitable local development and effective natural resource management. The literature suggests that community involvement in governing and managing public goods is often characterised by ‘elite domination’ (Dasgupta and Beard, 2007; Fritzen, 2005, 2006). In some cases such domination can further result in ‘elite capture’, a phenomenon where resources transferred for the benefit of the general public are usurped by elites at the expense of less powerful groups. While the involvement of elites may tend to be self-interested, many argue that their inclusion may be important to local outcomes in instigating collective action and tapping into external knowledge, resources and strategic networks (Balooni, 2010; Beard and Phakphian, 2009; Bodin and Crona, 2008; Dasgupta and Beard, 2007; Platteau, 2004; Rao and Ibanez, 2003).

The social capital literature highlights the contentious role of local elites in social processes. Bourdieu (1986), in particular, emphasises the contribution of social capital in the reproduction of elite domination and capture. In his use of the concept privileged individuals maintain their position by strategically using connections with other privileged people. This interpretation, focused on vertical relationships, virtually ‘allows only for a dark side for the oppressed and a bright side for the privileged’ (Field, 2003, p. 28). On the other hand, Coleman (1988) and Putnam (1993) focus on social capital as resources embedded in a community that its members (including elite members) are able to access and/or mobilise. In this more horizontally focused approach, social capital generating institutions provide a set of norms and sanctions that encourage individuals to cooperate for mutual advantage (Field, 2003).

Local elites exert their influence either by moral claims, symbolic power, economic leverage and/or by coercion, and are likely to dominate the local political, social and economic arena, as well as the decision-making process in local development programs. Therefore, their role and interests cannot be ignored in any efforts to ensure that the concept of sustainable natural resource management (NRM) takes root at the local level. It is important to recognise that the involvement of elites does not necessarily lead to negative development or distributive outcomes. Scholars
argue that elite involvement may promote community participation and high levels of stakeholder satisfaction, hence increasing community ownership over projects and encouraging the communities to remain involved with the project in the future (Fritzen, 2005). This harnessing of elite roles to broader community agendas is mostly found in cases where elite involvement is transparent and where appropriate checks are in place (Balooni, 2010; Bardhan and Mookherjee, 2000; Dasgupta and Beard, 2004; Fritzen, 2005; Wong, 2010).

A review of one of Indonesia’s community-driven development programs, the Urban Poverty Project (UPP), “did not demonstrate a strong relationship between a community’s capacity for collective action, elite control over project decisions and elite capture of project benefits. In cases where the project was controlled by elites, benefits continued to be delivered to the poor, and where power was the most evenly distributed, resource allocation to the poor was [nonetheless often] restricted” (Dasgupta and Beard, 2004, p. 1). Furthermore, case studies of participatory forest management in rural India show that attempts at institutional reform at the level of the community in hierarchical societies should proceed with modest expectations (Balooni, 2010).

In regard to the role of local elites in promoting collective action, the quality of elite involvement (as opposed to its presence or absence) determines the short-run efficacy of community-driven natural resource management. Elites tend to be better educated, able to dedicate more time to community activities and to be better connected with outsiders and aid agencies than the rest of the community (Rao and Ibanez, 2003). Recognising the potential contributions of elite leadership and approaching them as partners are more likely to bring positive outcomes than efforts to ignore or exclude them. Along this line of thinking, scholars suggest that the approach to local elites needs to accept that power is not evenly distributed in communities and to take the pragmatic viewpoint that elite networks can be used to facilitate development programs, as well as addressing some practical problems of common interest. Elite control can be minimised by diverse and active representation

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15 The outcomes of participatory forest management programs in communities characterised by strong social hierarchies are likely to be more directly affected by the vested interests of local elites and implementing state actors than by the institutional reform agenda.
in the decision-making process (Platteau and Abraham, 2002; Wong, 2010). In other words, ‘local elites mattered to the degree that they constituted either a curse or a blessing for village institutions’ (Balooni, 2010, p.11), and interventions can be designed to contribute to improvements in local structures as well as resource management. The two case studies (discussed in Chapter 5 and Chapter 6) explore the role of formal and informal, government and non-government local leadership in assessing their effect on local participation and collective action.

2.2.3. Conflict resolution in natural resource management (NRM): A challenge for collective action
Conflict over exhaustible resources is inevitable in the local management of natural resources, necessitating recognised legitimate mechanisms for conflict resolution to maintain collective action and shared use. When conflict resolution mechanisms are not available or easily accessible, successful NRM is more difficult to achieve, and the sustainability of the resource system may be put at risk. Social capital is regarded as an important indicator of a community’s potential for collective action to address local problems and comply with rules. Local groups with locally developed rules and sanctions are able to make more of existing resources than individuals working alone or in competition (Fukuyama, 2001; Isham and Kahkonen, 2002; Pilkington, 2002; Pretty and Ward, 2001; Ritchie, 2000).

In the context of this thesis, conflict resolution in natural resource management concerns the resolving of conflicts through dispute mechanisms among local people, as well as those involving wider private and state interests. A sufficient level of legitimacy is needed for conflict resolution in resource management (Heyd and Need, 2004). Natural resources disputes over access to and control and use of resources involve a variety of actors, ranging from local communities concerned over the use of specific trees or woodlands, for example, to state and non-state organisations asserting claims to the use and management of large forest tracts in which they are located. Conflicts emerge over competing claims to resource benefits, competing alternative uses for resources or different approaches to their management. The relationships between actors are complex and unequal, and those with greater power typically attempt to use this to control or influence natural resource decisions in their favour (Buckles, 2005; FAO, 2000).
Effective conflict resolution mechanisms are widely regarded as essential prerequisites for common property resource management. When resolution does not take place, conflicts can adversely affect livelihoods and result in resource degradation. The way individuals or groups deal with resource management conflicts may be formal or informal, violent or collaborative, based on their personal and cultural preferences, their understanding of the sources of conflicts, their relationship with their opponents, and the availability of established and mutually accepted mechanisms/institutional arrangements for resolving them (Ostrom, 1990, as cited in Bodin and Crona, 2008; FAO, 2000).

There are two main types of mechanisms for local conflict resolution in Indonesia: customary (adat) and legal/national (statutory) systems. Each mechanism has its own strengths and weaknesses. The main strength of customary adat systems is wider participation by community members and the embeddedness of rules in long-standing local values and customs. The customary system encourages decision-making based on collaboration, with consensus emerging from discussions that are aimed at fostering local reconciliation (Bodin and Crona, 2008; Buckles, 2005; FAO, 2000). However, customary systems are challenged by the increasing heterogeneity of communities, which may undermine the shared values and sources of legitimacy necessary to deal with resource conflict through consensual processes. The contemporary legal plural situation in Indonesia often leads to ‘forum shopping’, with customary practices increasingly superseded by legal or national systems, making it difficult to accommodate and resolve conflicts in traditional ways (Bodin and Crona, 2008; Buckles, 2005; FAO, 2000). At the same time, official legal mechanisms do not always produce results accepted as legitimate, with the consequence that local conflicts may remain unresolved.

Legal/national systems involve judicial mechanisms that lead to decisions that are theoretically legally binding and enforced by the state and that take national principles and interests into consideration in response to conflicts between diverse

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16 Forum shopping is a term used to describe a process where individuals may choose one or another of these legal frameworks (customary or national/formal) as the basis for their claims (Benda-Beckmann, 1981; Meinen-Dick and Pradhan, 2002).
communities. However, these systems are not accessible for all community members, especially marginalised groups, and importantly, they are not participatory and may not consider local knowledge, leading to short-term and inappropriate decision-making (FAO, 2000).

Government and non-government interventions in natural resource management may only serve to introduce and intensify conflict when there is not adequate local participation in all phases of intervention. Several studies suggest that the mechanisms for conflict resolution should involve strategies that are participatory and aim toward consensus, while also building upon existing formal and informal mechanisms within local communities. They should seek to strengthen the capacity of local institutions and communities to manage conflict and promote sustainable resource management (Buckles, 2005; FAO, 2000).

2.3. Summary

In this chapter, the importance of taking into account the social dimensions of natural resource management has been discussed. Social capital has become a vital concept in natural resource management, as it is asserted to play an important role in promoting collective action for the sustainable management of common resources. Natural resource governance can be facilitated (or constrained) by horizontal and vertical relationships among and between stakeholder groups. Effective horizontal networks are identified as having high levels of interaction and cohesiveness through social ties within localised networks (through building the bonding type of social capital), and having less dense and weaker ties, but importantly extending access to resources, across different groups or social networks (bridging social capital). Vertical networks establish relationships across groups at varying hierarchical levels (linking), providing potential access to resources, but at the risk of elite capture.

Higher levels of bonding social capital are asserted to correlate with higher levels of social cohesion, which increases possibilities for collective action and participation. Bonding social capital underpins trust and reciprocity within communities, hence facilitating effective internal conflict resolution, which is an important aspect of natural resource governance. However, such dense connected relations may result in
the homogenisation of knowledge and experiences, a characteristic which does not contribute to improving knowledge, attitudes and practices that may be required to manage resources sustainably (Oh et al., 2004; Bodin et al., 2006).

While bonding social capital is seen to apply to more inward-focused relationships, bridging and linking forms of social capital reflect more on the capacity to connect with other networks or groups of people beyond the immediate social sphere. Bridging social capital is found to be important for natural resource governance, as it provides the means to connect heterogeneous groups or networks of people into a larger network with diverse sources of information, knowledge, perspectives and resources that improve the capacity to address complex natural resource issues (Bodin and Crona, 2009; Hahn et al., 2006; Ramirez-Sanchez and Pinkerton, 2009). Linking social capital may facilitate vertical networks between local communities and hierarchical higher-scale institutions and political structures (Szreter and Woolcock, 2004; Warren et al., 2001).

The following table summarises how social capital is posited to affect participation at community level in governance networks for natural resource management (NRM), and what are its opportunities and challenges.
Table 2.1. Social capital and natural resource management

<table>
<thead>
<tr>
<th>Social capital</th>
<th>Characteristics</th>
<th>Opportunities and challenges in NRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding/intra-group</td>
<td>- Dense and cohesive social networks</td>
<td>Opportunities:</td>
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<tr>
<td>group/internal ties</td>
<td>- Fosters trust</td>
<td>- Strong local participation and collective action</td>
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<td></td>
<td>- Rapid diffusion of information</td>
<td>- Information is diffused faster and flows well among members</td>
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<td></td>
<td>- Provides for effective conflict</td>
<td>- Local communities more confident to determine their own goals in project development process.</td>
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<td></td>
<td>resolution</td>
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<td></td>
<td>- Long settled and relatively homogeneous communities are more likely to</td>
<td>Challenges:</td>
</tr>
<tr>
<td></td>
<td>more likely to have stronger bonding than migrant communities</td>
<td>- Homogenisation of experiences and knowledge (i.e. where all individuals tend to adopt similar</td>
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<tr>
<td></td>
<td>- Horizontal networks bring together agents of relatively equal status and</td>
<td>perceptions of issues at hand, and a limited repertoire of responses to change or challenge)</td>
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<td></td>
<td>power (e.g. closed network of family and friends/neighbours)</td>
<td>- If bonding discourages links to multiple networks beyond their own group, networks tend to</td>
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<td></td>
<td></td>
<td>become rigid, and less adaptive.</td>
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<tr>
<td></td>
<td></td>
<td>- Where association and bonding is weak/low, there tends to be over-dependence on key individuals.</td>
</tr>
<tr>
<td>Bridging/inter-group</td>
<td>- Cross group/network relationships</td>
<td></td>
</tr>
<tr>
<td>external ties</td>
<td>- Usually less dense compared to bonding relationships</td>
<td>Opportunities:</td>
</tr>
<tr>
<td></td>
<td>- More heterogeneous and relatively less cohesive relationships</td>
<td>- More diverse (different and potentially better) resources</td>
</tr>
<tr>
<td></td>
<td>- Need facilitation to foster trust, and to speed and diffuse information</td>
<td>- Potential for capacity to synchronise resource management rules across communities and ecological</td>
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<tr>
<td></td>
<td>flows</td>
<td>system.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Challenges:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Low level of participation and collective action</td>
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<tr>
<td></td>
<td></td>
<td>- Lack of trust towards other people outside own group.</td>
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<tr>
<td></td>
<td></td>
<td>- Where bridging social capital is weak/low, there is likely to be over-dependence on facilitation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or mediating individuals, and participation will decrease when facilitation becomes unavailable.</td>
</tr>
</tbody>
</table>
### Social capital

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Opportunities and challenges in NRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linking social capital/networks/relations</td>
<td>- Vertical networks: linking unequal agents in asymmetric relations of hierarchy and dependence (e.g. elite domination of <em>adat</em> institutions in a strongly bonded community)</td>
</tr>
<tr>
<td></td>
<td>- Vertical network: linking different types of institutions beyond the local group and community to leverage resources and ideas. Strategic access of certain actors may intensify elite capture.</td>
</tr>
</tbody>
</table>

Considering the complex nature of social capital and natural resource management issues, a local natural resource governance system is needed that provides a mechanism for responding to the challenges faced by local communities in managing their natural assets or resources. Natural resource governance involves local institutions whose constituencies develop and apply rules and sanctions to facilitate collective action in the common interest to achieve resource management outcomes.

In governing and managing local natural resources, the role of key individuals is important to initiate and sustain collective action. In this context, key individuals are referred to as community 'leaders' or local 'elites'. As elites, these leaders are often treated as problematic in the literature on natural resource governance, as they may dominate the decision-making process in resource management and/or steer benefits to their private advantage (elite capture). However, it is important to acknowledge their role as facilitators in the local socio-political dynamic, and to design conservation and development interventions to engage local leadership in ways that will contribute to the achievement of community participatory objectives.

Conflict resolution is a prerequisite and challenge for natural resource management. Within social capital theories, strong bonding communities are argued to be more likely to have clear mechanisms for resolving conflict over access to and utilisation of local natural resources. Access and flow of information in conflict management is clear because social networks are dense and cohesive. On the contrary, weak bonding
communities suffer from unclear mechanisms and the lack of access to information. Furthermore, conflict resolution needs a clear mechanism either through customary (adat) or national statutory/judicial systems. The customary system fosters local reconciliation, as it respects local values; however, it is not very effective when applied in conflicts between communities or in dealing with the state government and other external actors. The national statutory system involves legal judicial mechanisms, which are not always respected and are not all accessible for members of rural communities, particularly for marginalised groups.

Finally, the contribution of social capital approaches to sustainable use of natural capital is crucial. The capacity to work together collectively in governing and managing local natural resources is defined by the level of social cohesion (bonding social capital) in a society and collaboration with other external groups (bridging social capital). Key individuals embodied within local institutions may take the role of facilitating agents to nurture bonding and to expand beyond their own community and thus encourage the development of positive forms of bridging and linking social capital.
CHAPTER 3
DECENTRALISATION AND VILLAGE GOVERNANCE
IN RURAL INDONESIA

The decentralisation policy in Indonesia that was introduced with the 1999 regional autonomy legislation\(^\text{17}\) focuses primarily on decentralisation at the district (kabupaten) level, aiming to bring the governments closer to their constituents in order to deliver more effective and efficient governance systems. The policy empowers district governments to plan and administer most sectors of administration, including public works, health, agriculture, transportation, education and culture, industry and trade, investment, environment, land affairs, cooperatives and manpower. Prior to decentralisation, most human resource development programs targeted government officials at central and provincial levels, while district officials struggled to achieve levels of skills and knowledge comparable to those of their colleagues at provincial level. This lack of groundwork and robust preparation prior to decentralisation has brought natural resource management issues into the same condition as the other areas of concern at local government level: increased responsibilities with a lack of capacity for action (Aden, 2001; Lawry, 2007; Ribot, 2006; Ribot, 2011). Although the claims concerning limited local capacity have some validity, some commentators believe that these claims are used by higher levels of government, unwilling to relinquish power, to slow the pace of the decentralisation process (Arnold, 2008; Cheema and Rondinelli, 1983; Heyden, 1983; Cheema and Rondinelli, 1998, in Pepinsky, 2009; Ribot, 2006; Ribot, 2011).

Within the framework of decentralisation, local governments are assumed to have a better understanding than provincial and central government of the needs of local constituents; this local knowledge would arguably increase participatory policy making, ownership of local decisions, and enhance the effectiveness of local development (Agrawal and Ribot, 1999; Obidzinski, 2003; Ribot, 1996; Ribot, Agrawal and Larson, 2006). Although the logic of local ownership and accountability is central to any decentralisation process, most research has focused

on the institutional arrangements, in particular such issues as balance of power between central and local government levels. Not enough attention has been given to relationships between local government and its constituents at village/community levels (Benjamin, 2008; Ito, 2011). Therefore, in order to analyse the level of success of the decentralisation process at district level for natural resource management (NRM), it is imperative to understand the actual implications of these policies at the district level, and what it means for village-district relations in the decision-making process.

This chapter will address the following questions: How has the transfer of some powers to local (district) level impacted on village constituents? What are the implications of NRM decentralisation for local participation and for resource management outcomes? The discussion of these issues will refer mainly to their application in Buton district (South East Sulawesi).

Most data in this chapter were taken from: primary and secondary sources; discussions with local leaders, in particular with the traditional leaders, village heads and BPD (Badan Permusyawaratan Desa or Village Consultative Council) members; and focus group discussions involving ordinary members of the local community. A survey questionnaire included questions on local politics and institutions at village level, and related comments and observations were recorded to supplement quantitative measures with qualitative data. In addition, secondary data from relevant policies and regulations of village governments are taken into account.

3.1. Decentralised NRM: State - Society Relations

The logic underlying devolving power and the management of natural resources from central (state) to local communities was that the centralised state had failed in managing natural resources sustainably for the wider community benefit, and that communities were perceived by critics as offering a potentially more equitable and effective alternative to state management (Li, 2001). Decentralisation implies that communities should become the core constituents of local natural resource

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18 The selection process of focus group discussions is described in Chapter 1.
management,\textsuperscript{19} with an assumption that communities have a greater interest in maintaining their own resources and will willingly participate in collective actions to protect them. Local governments at district level are perceived as agents to enhance local accountability and participation, assuming that local communities are more easily reached by district administration than higher levels of government. This proximity presumably brings improved understanding and knowledge of local issues, as well as better capacity to monitor the utilisation of natural resources (Conyers 1981, cited in Obidzinski, 2003).

The devolution of fiscal powers to districts means that local governments have the power to decide on budget allocation and spending based on local priorities, as well as providing powers for new revenue raising.\textsuperscript{20} There are two consequences of this new arrangement. Firstly, it provides enabling conditions for local governments to increase NRM-based revenues (mostly from the timber sector in forested areas of Indonesia and from the granting of development permits generally).\textsuperscript{21} Secondly, local governments still depend on the transfer of funds from the central government for their sources of development and routine budgets to varying degrees, depending upon their own capacity to raise funds. According to some local government officials interviewed in Buton District (interview 31/05/2012, District Planning Agency), these subsidies from the central government are not sufficient to cope with the bigger responsibilities and powers devolved through the decentralisation process within their jurisdiction. The first result of the new system has implications for state – district relations, whereas the second consequence relates to district – village relations.

3.1.1. Implications of decentralised NRM: Central – district relations

The revised decentralisation legislation UU32/2004 (Regional Governance) and UU33/2004 (Fiscal Balance) has an impact on local NRM, particularly on the interpretation of the right to share revenues. The fiscal balance law distributes the

\textsuperscript{19} For the purpose of this thesis, the term ‘communities’ refers to local constituents at the lowest administrative level of government (i.e. villages or user groups based at village level).

\textsuperscript{20} Government Regulation No. 38 of 2007 concerning the Division of Authority between the Central Government, Provinces and District/Municipalities.

\textsuperscript{21} UU2/2004, Article 21, concerning how regional governments have a right to share in revenues from natural resources.
NRM-based revenues in the following proportion in the forest and fisheries resource sectors relevant to the Butonese case studies discussed here:

(a) Timber-based revenues: two-thirds of the revenues from the reforestation fund (*dana reboisasi* or DR), which timber companies pay based on their harvest volumes, will be shared by the district (40%) and central government (60%) (Article 14[b]). The other one-third, the revenues taken from the one-off licence fees and royalties, will be distributed to district (64%), central (20%) and provincial government (16%) (Article 15). This significant portion of revenue sharing to the district has the potential to encourage over-allocation of licences and over-production in the timber sector.

(b) Fisheries: state revenues from fisheries (derived from levies on fishing companies and levies on fish products) received at national level will be divided 80% to districts (in equal shares) all over Indonesia and 20% for the central government (Article 14[d], Article 18)

An example from Buton district in South East Sulawesi shows that the sustainable management of Lambusango Forest located near Warinta village is affected by the conditions that enable an increased level of extraction of local natural resources to top up the locally generated revenues for the district budget.²² Lambusango Forest is a lowland rainforest covering fifty percent of the land in Southern Buton island, with a total area of ± 65,000 ha, spread among six sub-districts – Kapontori, Siotapina, Wolowa, Pasarwajo, Lasalimu and South Lasalimu. As a consequence of the decentralisation process, the proliferation of regional governments (*pemekaran*), in this case, the division of the original Buton district into four separate districts (Bau-Bau, Bombana, Wakatobi and Buton), has indirectly impacted on the level of resource extraction and put pressure on the sustainability of local resources in the study district of Buton. Most of the physical infrastructure and industrial facilities in the original district of Buton are located within the jurisdiction of the district level municipality of Bau-Bau. Large production forests and irrigated agricultural land on the South East Sulawesi mainland are now within the jurisdiction of the Bombana district, while the international divers’ paradise of the Tukang Besi islands is now under the jurisdiction of Wakatobi district. As a consequence, Lambusango Forest

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²² For the Warinta case study see Chapter 5.
(in particular, the production forest areas) has become the main resource of revenue generation for Buton district.

One of the means to increase local revenues is through timber production from the forest, which has resulted in rising pressure for increased timber production within the newly formed districts. The development of Buton and Wakatobi District capitals (Pasarwajo and Wanci) and Bau-Bau municipality has greatly raised demand for sawn timber in those areas. Since Lambusango Forest, located within Buton District, is the main source of timber for these new districts, Buton District is experiencing big gaps between timber demand and supply. The legal annual allowable cut for Buton District is 2,000 m$^3$, but the actual rate of supply is at least ten times greater than the legal supply (OWT, 2009).

In a response to the decentralisation process, the Government of Indonesia enacted a new Forestry Law. Law No. 41 of 1999 (UU41/1999) concerning Forestry, replacing the Basic Forestry Law of 1967, reasserts and reaffirms central control over all forests. It establishes three categories of forest: (1) production forest with the main purpose of supporting the commercial exploitation of forest products; (2) protected forest, which provides benefits for human ecosystems, such as through controlled waterways and the prevention of erosion; and (3) conservation forest, containing ecosystems deemed worthy of protection. Under this Law the central government remains the authority in regard to classifying forest and regulating logging, confirming that the central government still holds the ultimate power and control over the vast natural resources in Indonesia. In addition, the law only makes a few provisions in regard to shared responsibility at regional levels, such as areas of ‘forest monitoring’ and ‘forest management by third parties’. However, the Law also states that the Central Government has the responsibility of monitoring the forestry activities of regional governments. Essentially, this law downplays the role of regional governments and maintains power at the central level (Arnold, 2008; Ito, 2011).

In its role as the ultimate authority over the classification of forests in Indonesia, the Ministry of Forestry has categorised Lambusango Forest into three different zones: a total of 29,320 ha of conservation forest areas (Kawasan Konservasi) spread
throughout the forest, with the remainder of approximately 35,000 ha listed as protection forest area (hutan lindung) and production forest (hutan produksi) with a ratio of 60:40. Both conservation forest and protection forest areas are currently being managed by the Natural Resource Conservation Agency (BKSDA) South East Sulawesi, on behalf of the central government (Ministry of Forestry), whereas the production forest is being managed by local government, that is, the Buton District Forestry Office (BDO/Dishit Buton).

Under the umbrella of UU41/1999 on Forestry, and in efforts to synchronise with regional governance law, a Government Regulation 06/2007 was also enacted to give authority to the district government to issue (lesser) permits to allow extraction of timber for non-commercial purposes (within the production forest zone) from areas of up to 100 hectares, and for large-scale permits to remain in the hands of the central government. These two government regulations, PP38/2007 concerning the functional assignments between various levels of government and PP6/2007 concerning forest planning, forest management plans, and the utilisation of forest and forest area, clearly contradict each other. One suggests local governments have a right to raise their own timber revenues, with the provision of significant revenue sharing, while the other limits district government to extract timber only for non-commercial purposes.

The explicit contradiction between UU41/1999 on Forestry and UU22/1999 on Regional Governance24 has allowed both central and local governments to claim legitimacy for policy positions that are in conflict with one another. District governments have interpreted the Regional Governance Law as providing authority to exercise power and administrative responsibility over forest resources that fall within their district boundaries. On the other hand, Ministry of Forestry officials in Jakarta believe that UU41/1999 gives the central government power and authority over all aspects of forest administration. It appears that there is a lack of clarity in the policy of decentralised natural resources in Indonesia, with contradictions among

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23 Through the ministerial decree of the Ministry of Forestry and Estate Crops (Keputusan Menteri Kehutanan dan Perkebunan) No. 310, Article 4[2].
24 And also the revised version, Law No. 23 of 2004.
laws/decrees/regulations (Arnold, 2008; Casson and Obidzinski, 2002; McCarthy, 2004; Resosudarmo, 2003).

The exploitation of Lambusango Forest has become an arena of power struggle between the central government (through its regional offices in provinces and districts) and district/local governments. While the central government controls the use (and exploitation) of the forest by focusing on large-scale permits, district governments concentrate on their power to raise revenue through the timber sector regardless of the size of permits. Under these circumstances, both authorities devote their attention to accessing forest-based resources; with little interest in managing these resources in a sustainable manner (Obidzinski, 2003). This power contestation between central and district governments has accelerated the exploitation and degradation of Lambusango Forest in Buton district.

3.1.2. District – village relations in the context of decentralisation

A desa (administrative village) is the lowest-level political and administrative unit established in the New Order era and remains part of the village governance system today. The New Order government introduced UU 5/1979 on Village Government to strengthen its power over local communities and to standardise the vast diversity of local governments in Indonesia according to the Javanese model of village government structures. As a result, local customary (adat) systems were marginalised. The Law introduced structures that concentrated village power almost entirely in the hands of the village head (Tjondronegoro, 1984; Warren 1993; Antlöv, 1995; Woodhouse, 2012).

The village heads, although elected by their villagers, were accountable only to higher officials through the district head and not to the villagers. In addition, the Law introduced the Lembaga Ketahanan Masyarakat Desa (LKMD) or Village Community Resilience Council, for development planning, and the Lembaga Musyawarah Desa (LMD) or Village Consultative Council. In consultation with the sub-district government, the village head appointed the members of these councils (Antlöv, 2003, p. 197; Article 17 of UU5/1979 concerning Village Government), which strengthened his power even further. Effectively he had authority over these councils (that is, there was no counterweight to his power). This system gave
villagers few avenues through which to express their interests; the structure of village government under the law limited community participation in decision-making and hampered responsive and accountable village leadership (Evers, 2000).

Initiating the decentralisation process, UU22/1999 on Regional Governance was put into effect, introducing stronger community control over formal village leaders. The law eradicated the old LMD by introducing a directly elected Badan Perwakilan Desa (BPD) or Village Representative Council – a democratic village institution with powers to draft village legislation, approve the village budget, and oversee the village government. Although BPD leadership was elected directly ‘by and from villagers’ (paragraphs 104-105), the Law did not stipulate the election process clearly. Nothing prohibits the village head and his/her officers from being a candidate for BPD leadership, and a degree of variance in practice appears to be the case across many villages. However, the changes from the previous law were meaningful in terms of breaking up the ultimate power of village head and providing a mechanism for checks and balances in village government. Under this Law, village heads were made accountable by submitting an annual accountability report which the BPD could challenge (Antlöv, 2003; Evers, 2000).

The Law was subsequently revised in 2004 through UU32/2004, which downgraded the powers and function of the BPD. Under the revised law, village heads are accountable to the district head, rather than to the new BPD (now termed the Badan Permusyawaratan Desa or Village Consultative Council). The annual accountability report is submitted to the district head. The members of the new BPD are appointed through consensus, rather than elected by the village population. In the studied locations (see case studies chapters; the fieldwork was conducted after the introduction of the revised law), the selection process for the members of BPD has effectively been through appointment by some prominent figures in the village (that is, local elites), rather than enabling the people at hamlet level to propose their representatives for the selection/voting for the BPD members at village level.

25 The legal basis of decentralisation in Indonesia is established by Law No. 22/1999 on Regional Governance, and Law No. 25 of 1999 (UU25/1999) on Fiscal Balance between Central and Local Governments; these laws were revised to Law No. 32 of 2004 (UU32/2004) on Regional Governance, and Law No. 33 of 2004 (UU33/2004) on Fiscal Balance.

26 Notably the 2004 Law replaced the term Perwakilan (Representative) with Permusyawaratan (Consultative) in naming the BPD.
The core elements of village governance in accordance with government regulations in the decentralised era are thus referred to as *Pemerintah Desa* or *PemDes* (village government) and *Badan Permusyawaratan Desa* or *BPD* (Village Consultative Council). Village government now consists of a *kepala desa* (village head) and *perangkat desa* (village officers), who are the executive officers in the government system. These village officials comprise: a *sekretaris desa* (village secretary), who is selected by the district secretary (on behalf of the head of district/mayor); a *pelaksana teknis lapangan*, a person who is technically responsible for issues regarding the implementation of village government on a day-to-day basis; and an *unsur kewilayahan*, a person in charge of matters regarding village boundaries. The last two are selected by the head of the village.

As a legislative council, the BPD is considered to be the embodiment of democracy at the village level. The members of BPD are village representatives selected by *musyawarah mufakat* (consensual decision-making) every six years, and ratified by the district head. In line with the government regulations (PP72/2005) regarding *Village Governance*, the members of the BPD should be drawn from the *kepala dusun or kadus* (hamlet head), *ketua rukun warga* (heads of neighbourhood groups), *pemangku adat* (customary adat leaders), professional groups, religious and other prominent local community figures. These representatives then form and select their leadership team, composed of a BPD head, a deputy, and a secretary. One of their main tasks is to implement the process for the selection of the village head. The BPD forms a committee consisting of several elements in the village, such as community leaders, group or association leaders, and prominent figures. This committee comes up with the short list of the candidates to be directly selected by the villagers. The winning candidate will be the one who has the most votes. The selected candidate is then proposed by the BPD to the district head for legal endorsement/approval.

The selected (and approved) village head is required to submit a village governance implementation report to the district head once a year for evaluation purposes. The same report will be shared with the local community either verbally or through the village billboard. The village head is also required to submit an accountability report.

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to the BPD once a year during the consensus decision-making meeting or *musyawarah* BPD (PP72/2005).\(^\text{28}\)

Although it might be assumed that direct election would enhance accountability,
evidence on village governance in contemporary Indonesia does not always reflect
this assumption. Although village heads are selected directly by villagers, the
reporting mechanism does not facilitate the process of accountability. Putting up
written reports on the billboard in front of a village hall neither guarantees the
interest or ability of local constituents to read and assess the report, nor does it
provide avenues for villagers to address its contents. Sharing the report verbally
through a formal (BPD or village) meeting in a village hall will not necessarily
facilitate the accountability process, as villagers do not all feel at ease attending
formal meetings, let alone addressing questions to their leaders. It appears that rather
than addressing the accountability to local constituents, village heads focus their
energies on submitting their report to the district government, as it is used as an
evaluation tool to assess performance in implementing village government.\(^\text{29}\)

Another implication of decentralisation can be seen through the implementation of
the government regulation (PP72/2005) on villages, and ministerial regulation
(Permendagri No.37/2007) on village financial management.\(^\text{30}\) The village financial
system according to these two regulations depends on different sources:

(a) *Alokasi dana desa* (village allocation funds), which is a portion of the district
*APBD* (*Anggaran Pendapatan dan Belanja Daerah* or Regional Government
Budget) – derived from the *dana perimbangan* (balancing fund) from central and
regional financial allocations – and distributed to villages;\(^\text{31}\)
(b) *Pendapatan Asli Desa* (village revenues);\(^\text{32}\)

\(^{29}\) Concrete examples will be elaborated in the case study chapters.
\(^{30}\) Both regulations come under the provision of UU32/2004 on Regional Governance – Article 212[6].
\(^{31}\) The ADD is distributed to villages based on two principles: equally distributed among villages
within each district (which is 60% of the allocated ADD), and fairly distributed based on local
capacities (e.g. poverty level, health, education, etc. this accounts for 40% of the allocated ADD).
\(^{32}\) Referring to Article 157[a] of UU32/2004, sources of village revenues may come from local tax and
levies derived from commercial or business services and certain permits or licences.
(c) Tax revenues shared by the district government (*bagi hasil pajak daerah kabupaten atau kota*); as at least 10% of tax revenue raised by the districts must be allocated to villages;

(d) Financial support from the government at district and provincial levels for the purpose of administrating the local government system; and

(e) Grants and donations from third parties.

Through the village budgetary system — *Anggaran Pendapatan dan Belanja Desa* (APB Desa) — the village government manages its revenue and expenditure. APB Desa is the annual government budget at village level, discussed and approved by the village head and BPD. Table 3.1 below gives an example of sources of village income in Holja and Warinta (research study locations). It shows that the majority (82% and 73% respectively) of the sources are from the higher levels of government that are allocated by the district government.

Table 3.1. Sources of income of Holja and Warinta villages in 2011

<table>
<thead>
<tr>
<th>Sources</th>
<th>Holja</th>
<th>Warinta</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IDR</td>
<td>%</td>
</tr>
<tr>
<td>Village funds (<em>alokasi dana desa/ADD</em>) — derived from central government and allocated by district government to villages within the district’s administration</td>
<td>10,000,000</td>
<td>14</td>
</tr>
<tr>
<td>Village revenues (<em>pendapatan asli desa/PAD</em>)</td>
<td>12,500,000</td>
<td>18</td>
</tr>
<tr>
<td>Tax revenues shared by the district (<em>pajak bumi dan bangunan/PBB</em>)</td>
<td>200,000</td>
<td>0</td>
</tr>
<tr>
<td>Financial supports from district</td>
<td>8,000,000</td>
<td>11</td>
</tr>
<tr>
<td>Grants and donations from governor/provincial government and allocated by district government</td>
<td>40,000,000</td>
<td>57</td>
</tr>
<tr>
<td>Total</td>
<td>70,700,000</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Interviews with village officials in Holja and Warinta

The government structure and financial systems of villages continue to place them in a subordinate relationship to their district governments (Ito, 2007). Distribution of financial resources is still largely in the hands of district governments, and this encourages village heads to continue to resort to clientage relations to be effective (e.g. village heads as followers of district officials who act as patrons). At the same

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33 Warinta is able to raise double the PAD than of Holja. However, the allocated ADD is the same in both villages. Here, it shows that the district government does not apply the correct percentage of the ‘fair distribution’ (40% of the ADD), which should be based on local capacities.
time, in order to stay in power, district heads need political support from village constituents, who can be mobilised by the village head. The number of votes cast in district elections is mainly dependent on the effectiveness of the village head in generating local support.

Such a patronage relationship appears to be familiar to the people of Buton, where the patrons are not only related to village leaders or people of high rank (political elites), but also to the wealthy and influential (economic elites). Patron-client relations have persisted and are anchored firmly to economic interests, where wealthy traders in Boneoge village (located in Buton district) have continued to utilise patron-client relations in order to pursue their economic (wealth) and social (status) interests (Palmer, 2009).

For the people of Buton, patron-client relations appear to have existed since the Sultanate period, where nobles – as patrons – used wealth to acquire followers and thus labour and status. The historical perspective (which will be briefly described in the next sub-section) reveals the linkage between the pre-existing structures and current practices under decentralisation.

3.1.3. A brief historical background to local government in Buton.

At the beginning of the 13th Century, the Kingdom of Buton was established with its first (female) raja named Wa Kaa Kaa. The sixth raja (raja La Kilaponto or Haluoleo) converted to Islam in 1538, and so become the first sultan (Sultan Qaimoeddin Khalifatuh Hamiz or Murhum). Under his reign (1538 to 1587), the whole kingdom formally converted to Islam. Murhum/La Kilaponto/Haluoleo/Sultan Qaimoeddin was one of the most famous sultans in Buton, as he was the first to introduce Islam and change the governance system. He was born in Konawe (a son of Sugi Manuru—Raja Muna IV—and Wa Tubapala—daughter of Raja Konawe) and became a Tamalaki or Pobendeno Wonua (warlord) for Konawe, Mekongga.

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34 The first raja was a woman, named rajaputri Wa Kaa Kaa; the second raja was also a woman, named rajaputri Bulawambona. The third king was a male, raja Bataraguru; the next was raja Tuarade, followed by raja Rajamulae, and the last one was raja Murhum.

35 District of Kendari.

36 Mekongga is located in the Kolaka district of South East Sulawesi. Most of suku (ethnicity) Tolaki are from this area.
and Moronene. He then became the 6th raja of Muna (part of the Buton sultanate) and changed his name to Raja La Kilaponto (in 1534 to 1537). He then left Muna, married a daughter of Buton’s 5th Raja, and became the 6th Buton raja (1537 to 1538); he soon changed his title to the first Sultan in Buton (Tamburaka, 2004). The last (38th) Sultan, Muhammad Falihi Kaimuddin, died in 1960; the sultanate officially ended and was fully incorporated into the Indonesian nation (Bisht and Bankoti, 2004; Darmawan, 2009; Zahari, cited in Palmer, 2009; Tamburaka, 2004).

During the rajahdom and sultanate periods, the people of Buton were classified into four strata: Kaomu (nobles), Walaka (gentry), Papara (commoners) and Batua (slaves). Kaomu people were the status group from whom the sultan was chosen and for whom certain positions in leadership were reserved. Walaka people also belonged to the ruling elite, sitting in the legislative council as Siolimbona (representatives of the people of Buton), and retaining the responsibility for ordaining a sultan. Papara people were the inhabitants of the villages living in autonomous communities, while Batua were slaves who usually worked for the Kaomu or the Walaka. Buton governance was framed around these social strata, in which Kaomu and Walaka people were the elites, based in the capital city of Buton (then named Wolio), and Papara and Batua were perceived as ordinary villagers of Buton. Although the sultan's position was appointed by the Siolimbona (the council), and not necessarily automatically assumed by the crown prince (putra mahkota), political conditions and traditional adat belief had restricted the sultan's selection to the Kaomu stratum (Bisht and Bankoti, 2004; Darmawan, 2009).

In order to govern the people, the sultanate grouped them into several geographical areas called kadie (roughly the same size as present-day kecamatan/sub-districts). There were 72 kadie during the sultanate period. Each kadie was more or less autonomous in internal affairs, and had its own government (sarana kadie or local government). Each kadie had its own leader, one for administrative governance (called bonto) and one for defence and security of the area (bobato or lakina). Bonto (from the Walaka stratum) and bobato (from the Kaomu stratum) were physically

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37 Moronene is located within the jurisdiction of the sultanate of Buton; then during the Sukarno and Suharto era, it belonged administratively to the district of Buton, but has now become part of Kendari district.
based in Wolio, the centre of government in the sultanate. Each *kadie* also had its own council (*sarana*), which operated under the supervision of one of the members of the council of the state of Wolio (*sarana wolio*). With the approval and guidance from the *sarana wolio*, the *sarana kadie* (local government) governed land ownership and forest harvesting (Tamburaka, 2004).

Although in theory the sultan introduced a form of decentralised governance by selecting the leaders from their own local regions (*kadie*), in practice, a meaningful decentralisation remained problematic for the following reasons. First, these local government leaders were required to be based in Wolio, the capital city and centre of government of the Buton sultanate, and therefore had closer contact with the central government (the sultan and his council) than with the people they led in the *kadie*. Loss of privilege and position, as well as demotion to a lower rank, were some of the consequences of not following the sultan's orders. Otherwise a secure job and rank, as well as other privileges, were guaranteed. This was one side of the coin. The other side of this coin was that these leaders’ main responsibility was to support the sultan and his council (*sarana wolio*) with contributions of money, food and manpower through their power over the people at *kadie* level (Bisht and Bankoti, 2004; Schoorl, 2003). Thus, the relationship between the *kadie* and its council (*sarana kadie*), with their vertical authorities (*wolio* and *sarana wolio*), was strongly based on a patronage system.

The current decentralisation era has strengthened the patron-client system of the four-centuries-old sultanate system of *kadie*, and the relations between regional (district) government and village elites. With the strong level of control over finances held by the district government, it is no surprise that village heads continue to resort to patronage ties with district officials to be effective. That is to say, decentralisation has facilitated local forms of the patron-client system at the expense of democratic participation (Ito, 2011; Mosse, 2008).

### 3.1.4. Participation and representation in the village governance system

Scholars argue that greater local participation in decision-making is a key element of effective decentralisation (Agrawal and Ribot, 1999; Ribot, 1996; Ribot and Larson, 2004;), as it encourages accountability at the local level. Participation is usually
exercised through some form of local representation (Gregory and Smith, 1986) and theoretically acts in the best interests of the local populace. Local participation through representation is, therefore, a critical means of enabling meaningful decentralised governance. Representation, either through direct election of individuals or nomination by local organisations, has a central purpose: accountability towards the people who are represented (Gregory and Smith, 1986; Ribot, 2007).

Direct election seems more democratic, as the representatives are chosen or elected by individuals as local constituents. The village council (BPD) serves as an example. In the village governance system, village representation in the decision-making process is conducted through the village council. Hamlet heads (kepala dusun or kadus) are members of the council, elected by the community members of each hamlet. The BPD is expected to be able to perform its legislative function as the community’s channel for local aspirations.

In both case study villages, BPDs have not functioned optimally and are perceived as a legitimating tool for prior decision-making. The underlying cause of this perception (by the community) is not that the members were not chosen through local elections; rather, it is the lack of community meetings at hamlet level where the villagers can voice their concerns, as opposed to passively listening to reports from the hamlet leaders.

The only ‘accountability’ meeting the villagers have is the annual BPD meeting, which is usually held in a formal village hall venue. The formal setting of the meeting discourages ordinary villagers/commoners from attending, as they consider that this meeting is for the local leaders or elites whom they generally trust, who know local conditions, and are therefore perceived as the best persons to attend (see the Holja case study - Chapter 6).

Since local villagers select their respective hamlet heads (who are members of BPD) as their representatives at hamlet level, it is crucial to have a clear mechanism to facilitate the accountability process. These representatives need to report back to the local villagers at hamlet level rather than at village level. It is clear that the village
level accountability process seems to be too overpowering (i.e. conducted at too high level) for the villagers to fully participate in the decision-making process.

Another form of representation is through a nomination process. Nomination by local organisations may seem simple, as it has a visible constituency. However, these local groups may inadequately represent all sections of the community. For example, as shown in the case study chapters, PKK is perceived to represent the women’s group in the village. However, in practice, wives of the local elite (village head, BPD leaders, adat leaders, and so on) are the ones most active in the group, leaving the less advantaged women (poorer and/or less educated than these elites) outside the group’s decision-making framework feeling inferior. According to a SMERU (2011, pp 15-18) study, most villagers feel that their socio-economic status in the community determines whether they have the right to participate.

The PNPM Rural program’s representation mechanism is an example. Meetings conducted in the name of the project are attended by representatives of local groups, with the intention that these representatives will act as a voice for people they represent (such as the PKK head for the women’s group, Gapoktan head for user groups, and so on). However, in practice, these local groups do not necessarily represent the overall picture of the community; rather, they too are dominated by local elites and hence encourage only the passive participation of villagers, because of their perceived inferiority (see also SMERU, 2011; Wetterberg, 2002).

One of the most important meetings conducted by PNPM Rural is penggalian gagasan or pegas (a formal brainstorming session to canvas ideas for proposals to be funded by the program), which starts at hamlet level; here, supposedly, ideas are talked about among the local constituents at hamlet level and then continue to be discussed at village level. The participatory idea of pegas is not realised in practice, at least not in my research locations. Pegas at the hamlet level was conducted only ‘on paper’ and was mostly implemented only at the village level, where all village representatives attended the meeting and discussed ideas about ‘village needs’ for development funding. The case study in Holja (Chapter 6) shows that the list of village needs derived from this meeting is dominated (78%) by infrastructure type activities. This is different from the list taken during focus group discussions (FGDs)
(42%) and household surveys (30%) conducted for the purpose of this research. While PNPM Rural pegas meetings revealed a strong domination of a certain type of activity, FGDs and surveys showed a broader picture of what was considered as ‘village needs’. Both results taken through FGDs and surveys were gathered by involving the broader spectrum of the local community, while the PNPM Rural meeting was dominated by the elites.

Table 3.2. List of ‘village’ needs in Holja (see case study chapter)

<table>
<thead>
<tr>
<th>PNPM Rural pegas meeting</th>
<th>FGD</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water tank for the village (infrastructure)</td>
<td>Access roads (infrastructure)</td>
<td>Infrastructure (30%)</td>
</tr>
<tr>
<td>Access roads (infrastructure)</td>
<td>Public toilets (infrastructure)</td>
<td>Education (30%)</td>
</tr>
<tr>
<td>Piped water supply (infrastructure)</td>
<td>Water supply (infrastructure)</td>
<td>Finances/income (20%)</td>
</tr>
<tr>
<td>Drainage (infrastructure)</td>
<td>Health clinic/post (health)</td>
<td>Health (20%)</td>
</tr>
<tr>
<td>Fences for hamlet (infrastructure)</td>
<td>Junior high school (education)</td>
<td></td>
</tr>
<tr>
<td>Recharge well (infrastructure)</td>
<td>Rumpon (finance/income)</td>
<td></td>
</tr>
<tr>
<td>Mangrove planting (finance/income)</td>
<td>Pest control (finance/income)</td>
<td></td>
</tr>
<tr>
<td>Seawall embankment (infrastructure)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training in making Abon – shredded meat/fish that has been boiled, fried and dried (finance/income)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Documents review, focus group discussions, and household surveys.

Furthermore, both types of representation (direct election of individuals and nomination by local organisations) have failed to deliver accountability within the decision-making process. On one hand, representatives do not have the responsibility/requirement to report back to their local constituents and on the other hand, the representatives are dominated by local elites. Participation through representation within the decentralisation framework continues to be problematic, due to the lack of accountability mechanisms and the operation of a well-established elite system at village level. Elite domination through the representation system has made ordinary villagers targets of rural development rather than partners in development. Without accountability mechanisms, even elected representation may increase the dominance of village elites in local politics (Ito, 2007).

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38 During the meeting, this was classified as ‘finance/income’ instead of ‘environment’ because the expected benefit was the increased catches of fish or shellfish, hence improved local income.
3.2. Decentralised NRM: What Does It Mean for the People?

The power struggle between central and local governments that is triggered by the contradictory regulations applied in the decentralisation process has seriously affected the efforts toward sustainable natural resource management. The contradiction has led to a situation where multiple authorities are involved in the management and exploitation of natural resources and contend with each other, but neither authority is prepared to take responsibility for managing the resources in a sustainable manner (Arnold, 2008). In addition, as mentioned above, it is evident that patronage relations between the village head and district officials are strong, due to the fact that control over the village’s financial system lies with the higher authority (that is, the district head).

Having described the background picture of central-district and district-village relations, we arrive at the most important part of the discussion. The questions are what these circumstances mean for the local populace who should be the beneficiaries of the decentralisation process and, most importantly, whether the villagers have a great interest in maintaining and managing their own resources, knowing that other authorities are exercising their power mainly to get the most short-term financial benefit out of the natural resources under their control.

Although the Ministry of Forestry, through its current regulation on community forests, provides for forest communities to gain benefits from the local forest, the interpretation of the provision does not grant them equal weight compared to benefits given to ‘outside’ interests. The regulation (Articles 7 and 17) allows forest communities to extract up to 50 cubic metres of timber per year for non-commercial purposes. The limitation of these Articles is that the extraction is only applied in areas that are not subject to other concessions, and extraction is only allowed for the purpose of obtaining building materials for community facilities (Article 17[6]). Another provision of this regulation is that forest communities are allowed to harvest timber from trees that they planted in areas within production forest, subject to

39 Ministerial Regulation Number 37 of 2007 regarding Community Forests or Hutan Kemasyarakatan.
payment of royalties upon harvest (Article 22). At the same time, the regulation allows ‘outside’ loggers to access timber from the (same) production forest that they never planted in return for a similar royalty rate. This central government regulation shows the limited intention of the state to share the benefits of commercial timber extraction with local communities, while limiting the extent to which they are allowed to harvest and benefit from the resource.

It is crucial to note that community forests differ from adat forests, as they are not linked to local adat law; hence, they do not have connotations of rights based on recognition of traditional ownership (Arnold, 2008). Articles 1[1] to 1[5] of the Regulation of the Ministry of Forestry No. 37 of 2007 concerning community forests distinguish community forests (CF) from adat forest (hutan adat), stating that CF’s purpose is to empower local communities. In this regulation, there is no clear provision for recognising customary rights. Local communities to which the regulation refers are social units of Indonesian citizens who live in and/or surrounding the forests and whose livelihoods depend on the forest ecosystem (forest-dependent communities).

In one of my case studies communities, Warinta village (located near Lambusango Forest), villagers are not well informed of the provisions of this community forestry regulation. During interviews, the village head gave an indistinct indication that there have not been any instructions from the district government to introduce community forestry to his village. One explanation may be that since the provision was stipulated through a ministerial regulation (by the Ministry of Forestry at central level) rather than by a higher level government regulation (Peraturan Pemerintah), it could mean that district government is less likely to expect its implementation. In any case, due to the patronage relations of district/village heads discussed in the earlier section, there seems to be no gain in implementing the Ministry of Forestry regulations; rather, regional government regulations are more likely to be taken serious.

Although Warinta villagers have not applied for recognition under the Community Forestry regulation, their adat institutions are strong enough to enable them to assert authority within their own community to manage their own natural resources. Within
their community, they apply hutan adat (customary/adat forest), including rules against logging due to the sacredness of certain areas. Although this rule is adhered to by local communities and nearby villages (to some extent), unfortunately, Warinta local adat is not recognised by people from distant villages. Outsider loggers (whether legal or illegal) will have the leverage from connection to higher authorities within district government or the Ministry of Forestry to enable logging trees in nearby forests, and Warinta villagers do not have the bargaining power to stop the logging unless they have equally strong vertical relations with these higher authorities. At the time of writing this chapter (2012), I have identified no such linkage between the local population or village officials with the higher authorities within the MoF.

Adat institutions have a strong influence in people’s daily lives as well as on village governance. Current management of their local forest (especially the adat forests) is solely taken regulated by adat custom and institutions. So far, they have successfully managed the forest, and adat rules are being observed by the members of the community. However, logging by ‘outsiders’ is difficult to control; hence sustainability remains a question.

In summary, the first core point is that decentralisation has encouraged a power struggle between central and district/local government levels and has strengthened patron-client relations between officials in district and village governments. These two relations effectively make decentralised state NRM policies appear meaningless to local constituents (village communities and user groups), as they are seen as effectively ‘outside of the picture’. Chart 1 below reveals that local constituents have weak linking relations and a less prominent role within the whole picture of decentralised NRM in the state-society context. In the case of Buton district, such compromised relations have increased the pressures on Lambusango Forest (see Chart 2).
Secondly, the effectiveness of promoting local constituents as an alternative to the state in natural resource management remains open to question. Although in some places local adat is still strong enough to regulate internal pressures upon the exploitation of natural resources, this is not enough to manage pressures from the external loggers, who have the formal or informal blessing of higher authorities (central and district governments). Under this circumstance, decentralisation has allowed both state and district authorities to authorise the extraction of timber from the forests, exacerbating degradation of the resource. The Lambusango case study distinctly illustrates how these authorities instead of acting as checks and balances on resource use, have made their own slice(s) to extract from the production forest. It is clear that over-exploitation continues, while sustainable management of the forest remains elusive.
3.3. Summary

Decentralisation of natural resource management is complicated by the socio-political issues involved, mainly because of the nature of local resources and the conflicting interests invested in them. While villagers perceive natural resources as sources of local subsistence and income generation for their livelihoods, at the same time, central, district, and village elites see the same resources as the basis of significant wealth and power to support regional government, political parties and private accumulation (Ribot and Larson, 2004). The ideal of accountable and democratic decentralisation of NRM is challenged by power struggles, as implementation of sustainable and equitable resource access threatens state authorities and other elites with the loss of income or patronage, and thus increases resistance to a meaningful decentralisation.

The devolution of power from the central government down to district level is the core principle of decentralised natural resource management in Indonesia. The laws and regulations that legalise the transfer of power contradict each other, leading to a power struggle between central and district governments. In addition, the practice of decentralised NRM is framed by patron/client ties between district government and its counterparts at village level. These political interests have governed the management of local natural resources so far. As matters stand, over-exploitation is inherent in the political-economy of decentralised governance currently in place. Political interests and patronage relations have provided the enabling conditions for each government level to extract resources.

Source: This chart is based on data taken from OWT’s report (OWT, 2009) and application of the MoF regulation.
While the character of the political movement towards decentralisation has contributed to further degradation of local natural resources, local social dynamics have also contributed to failures in sustainability of natural resource management. Local elites (village head, adat leaders, BPD leader) have dominated the representation of constituencies at village level, discouraging active participation by ordinary villagers. Scholars argue that decentralisation will only work where local constituents actively participate in the decision-making process, as this encourages downward accountability (Agrawal and Ribot, 1999; Gregory and Smith, 1986; Ribot, 1996; Ribot and Larson, 2004). Therefore, local participation is a critical means for a meaningful decentralisation. This theory is valid where bodies of representatives form a diverse and broad spectrum of the community. However, this research shows that the representation system in Indonesian villages is dominated by local elites, which has discouraged the active participation of local constituents.

Although state and local elites supposedly act in the best interests of the local populace, in practice they do not have the responsibility to report back to the people they represent. Bringing the government closer to local constituents does not necessarily enhance accountability and participation (Ito, 2011) unless accountability mechanisms exist and are utilized by the public. In this framework, downward accountability (a core element of decentralisation) has yet to be achieved, and participation has typically been shaped and constrained by existing power relations and incompatible legislation.
CHAPTER 4
PNPM GREEN:
MAINSTREAMING NATURAL RESOURCE MANAGEMENT (NRM) INTO A COMMUNITY-DRIVEN DEVELOPMENT (CDD) PROGRAM

Community-driven development (CDD) is an approach that has been the focus of the development process in Indonesia since the decentralisation era began in 2001. The approach is intended to enable community groups to engage in development planning and make decisions about the use of financial resources. Two parallel government projects with major World Bank support were implemented at national level with these objectives; one, the Kecamatan (or sub-district) Development Program (KDP), focused on rural areas, and the other, the Urban Poverty Project (UPP), focused on urban municipalities. Although both programs apply CDD principles, that is, community participation and empowerment as well as transparency in the decision-making process, they have used different methodologies, due to the differences in context and in departmental administration. KDP was administered by the Ministry of Home Affairs (MoHA), whilst UPP was administered by the Ministry of Public Works.

In the effort to embrace all poverty programs that use the CDD approach in Indonesia, in 2007 the government introduced the National Program for Community Empowerment, abbreviated in Indonesian as ‘PNPM’ (Program Nasional Pemberdayaan Masyarakat), later renamed ‘PNPM Mandiri’ in a development of the project in 2008. PNPM Mandiri is the government’s operational umbrella for all poverty programs that use the CDD approach, as follows: PNPM Mandiri Perdesaan (using the KDP method); PNPM Mandiri Perkotaan (using the UPP method); PNPM

40 The implications of community development programs in Indonesia vary in terms of size of funding, approach and mechanism. For example, a program approach that is applied in the ACCESS project (an AusAID-funded small grant scheme) encourages participating communities to identify initiatives they could implement in the absence of donor funding. The program funds community planning process, but not the activities thereby identified (Robinson and Mc William, 2015). In this respect, the parameters of the ACCESS program are different and its successes and failures are not directly comparable to PNPM Green.
41 The Indonesian term for KDP is PPK (Program Pengembangan Kecamatan).
42 The Indonesian term for UPP is P2KP (Program Penanggulangan Kemiskinan di Perkotaan).
43 Mandiri means self-reliant.
Mandiri support for the Poor and Disadvantaged Areas (SPADA); PNPM Mandiri Rural Infrastructure (RIS); and PNPM Mandiri Regional Socio-Economic Infrastructure (RISE). These five programs are also supported by sectoral programs: PNPM healthy and smart generation (PNPM Generasi); PNPM Mandiri Development of Rural Agribusiness; PNPM Mandiri Fishery; PNPM Mandiri Tourism; PNPM Housing and Settlement; and PNPM Green (formerly known as Green KDP), which is the particular focus of this study.

For the purpose of this thesis, I will focus on the application of both PNPM-Mandiri Perdesaan (PNPM-MP - hereafter called PNPM Rural) and PNPM Green in the two case study sites, viewed in the context of local natural resource management. Firstly, I will briefly describe the PNPM Rural process (mechanism and stakeholders), and some characteristics of the program that are relevant to questions of community participation and empowerment in the Sulawesi case studies. The discussion will then move to the implications of PNPM Green, the pilot environmental/natural resource management initiative within the PNPM program.

My goal in this chapter is not to evaluate the impact of the PNPM Green program as a whole. To do this would require: (a) an empirical examination ‘prior to’ and ‘post’ intervention; (b) a broad research sample that would represent the characteristics of program beneficiaries in 8 provinces; (c) a set of output and outcome indicators corresponding to the program’s development objectives. This would be beyond the scope and resources available for this PhD research. Instead, the thesis adopts an in-depth case study approach to test the implications of the theoretical debates concerning village governance, social capital and natural resource management. Overall, with the contributions of this chapter, the thesis aims to advance the practical knowledge of how NRM outcomes are affected by local community dynamics and by the approach to capacity building adopted in the PNPM Green program.
4.1. PNPM Rural: The Process and Mechanism

Throughout the years of implementation, the World Bank-funded KDP pilot project evolved through several stages: KDP-1 (1998 to 2002); KDP-2 (2003 to 2006); and KDP-3 (2005 to 2006). The final stage of KDP placed greater emphasis on trying to decentralise and institutionalise the KDP process at the local level to enhance sustainability. In 2008 it was ‘rebranded’ as the National Community Empowerment Program for Self-Reliant Rural Villages (PNPM-Mandiri Perdesaan or PNPM-MP) and rolled out across Indonesia.

One of PNPM Rural’s main mandates is to facilitate local development through efforts to empower local communities by forming and strengthening local (sub-district or kecamatan and village level) institutions and groups. One of the program’s core working principles is to improve social capital – collective action and cooperation – of local communities through a more inclusive, transparent and effective process for meeting local development needs as a result of widened and intensified social networks. Inclusiveness refers to expanded participation and through involvement at project meetings and in village decision-making processes; while transparency is to be improved through active community involvement in project monitoring.

In meeting its mandates, the program utilises direct facilitation for capacity building, and providing block grants (Bantuan Langsung ke Masyarakat or BLM) directly to communities through an ‘open menu’ system. These grants range from 750 million to 3 billion rupiah (see Table 4.2 below) per sub-district (depending on the population in the sub-district and poverty level) for small-scale infrastructure, social and economic activities. All participating districts must provide matching grants on a scale established by the fiscal and poverty index (Indeks Fiskal Dan Kemiskinan Daerah / IFKD), regulated by the Ministry of Finance (PMK No. 54/PMK.07/2012). Applying the IFKD to fiscal year 2013, Coordinating Ministry for People’s Welfare

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44 PNPM Rural promotes an ‘open menu’ system whereby villagers engage in a participatory planning and decision-making process to allocate resources for their self-defined development needs and priorities. Sub-projects can range from a wide variety of small infrastructure works, to local economic development activities, to education and health initiatives. The village level sub-projects are not pre-identified at the national level.
or Kemenkokesra determined the following matching grants arrangement can be seen on Table 4.1:

**Table 4.1. Cost sharing or matching grants of PNPM Rural for fiscal year 2013**

<table>
<thead>
<tr>
<th>District with fiscal capacities</th>
<th>Block grants (BLM) through National Government Budget (APBN)</th>
<th>Block grants (BLM) through Local Government Budget (APBD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>95%</td>
<td>5%</td>
</tr>
<tr>
<td>Medium</td>
<td>90%</td>
<td>10%</td>
</tr>
<tr>
<td>High</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>Very high</td>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Kemenkokesra letter, 5 October 2012

**Table 4.2. Criteria for allocated funds per sub-district of PNPM Rural (2010)**

<table>
<thead>
<tr>
<th>No. of population</th>
<th>Poverty category*</th>
<th>Allocated total block grants / BLM (IDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Java and Bali</td>
<td>Not poor</td>
<td>700,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>40,000 – 60,000</td>
<td>Not poor</td>
<td>800,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>&gt; 60,000</td>
<td>Not poor</td>
<td>900,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Other than Java and Bali</td>
<td>Not poor</td>
<td>600,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>7,500 – 15,000</td>
<td>Not poor</td>
<td>700,000,000</td>
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<tr>
<td></td>
<td>Average Poor</td>
<td></td>
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<tr>
<td></td>
<td>Poor</td>
<td></td>
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<tr>
<td>15,001 – 25,000</td>
<td>Not poor</td>
<td>800,000,000</td>
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<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>&gt; 25,000</td>
<td>Not poor</td>
<td>900,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Papua and West Papua</td>
<td>Not poor</td>
<td>400,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>&lt; 2,500</td>
<td>Not poor</td>
<td>500,000,000</td>
</tr>
<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>2,500 – 5,000</td>
<td>Not poor</td>
<td>600,000,000</td>
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<td></td>
<td>Average Poor</td>
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<tr>
<td></td>
<td>Poor</td>
<td></td>
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<tr>
<td>5,000 – 7,500</td>
<td>Not poor</td>
<td>700,000,000</td>
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<td></td>
<td>Average Poor</td>
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<tr>
<td></td>
<td>Poor</td>
<td></td>
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<tr>
<td>&gt; 7,500</td>
<td>Not poor</td>
<td></td>
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<tr>
<td></td>
<td>Average Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Poor</td>
<td></td>
</tr>
</tbody>
</table>

Source: Kemenkokesra letter dated October 10, 2012

* Note: Categories of Poverty (GoI’s national standard, 2012):
By delegating important stages of the decision-making process to village level, the project aims to enhance villagers’ role in local governance. In essence, therefore, the program seeks to empower the villagers and encourage more democratic and participatory forms of local governance (Annual Report PNPM, 2008; Voss, 2008).

The program consists of layers of forums46 from village to sub-district levels. Through the facilitation process of the planning stage, villagers are assisted in deciding whether to use the allocated funds for infrastructure, social or economic activities. These funds are available to each sub-district on the basis of a project cycle that generally takes 12 to 14 months for the various stages: socialisation/information dissemination, planning, proposal preparation and verification, funding decisions, implementation, and follow-up (see the flow chart below). All stages of this one-project cycle aim to have a high level of community participation throughout the process. The distribution of funds takes place through a sub-district forum (MAD – Musyawarah Antar Desa) to a village level forum (Musdes – musyawarah desa). The MAD forums consist of representatives selected through a voting method from each participating village. These forums also create a unit called the Financial Management Unit (UPK – Unit Pengelola Keuangan) to manage the funds.

The planning stage begins with the inter-village meeting (Musyawarah Antar Desa – MAD sosialisasi), which is attended by representatives from all villages in the sub-district or kecamatan, aiming to ‘socialise’47 the program at sub-district level. Then follows a village level meeting (Musyawarah Desa or musdes sosialisasi) where sub-district facilitators disseminate information about the procedures of PNPM Rural,

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45 Formula used by the Ministry of Finance to calculate the percentage (%) of poor population is as follows: \( \frac{\sum \text{Penduduk Miskin} + \text{Penduduk Sangat Miskin}}{\sum \text{Penduduk}} \) (PPLS 2011)/\( \sum \text{Penduduk} \) (PODES 2011).

46 This is the ideal model of how the process should run, the actual implementation may varies in each location.

47 The term ‘socialise’ here refers to a process of introducing the program and disseminating information to the target beneficiaries about the program.
and encourage villagers to submit ideas/proposals for funding. During this meeting, the participants also select two village cadres/facilitators (KPMDs, one man and one woman). The selected village facilitators are trained by the project facilitators. Further village-level meetings are conducted to discuss ideas for potential projects to be put forward to the sub-district inter-village forum as proposals (*musdes penggalian gagasan* or *musdes pegas*). The process of *pegas* (formal brainstorming) ideally has two stages: it starts off at hamlet level by stocktaking and brainstorming on the local issues and needs of the people in each hamlet (resulting in a social map). The outputs of the hamlet-level brainstorming meeting are then discussed at village level, and a list of village priorities (issues and needs) is developed. A village-wide public meeting is then held to decide on proposals for funding (*musdes perencanaan*). Villagers must select a team whose members prepare the proposals (up to three proposals can be submitted to the inter-village forum); the team members are trained by the project’s facilitators. This stage usually takes one to two months, while villagers learn about the procedures and submit ideas for funding.

After these village-level meetings, inter-village meetings are then conducted at sub-district level to discuss, screen, verify and prioritise submitted proposals from the villages (*MAD prioritas usulan*), and a meeting is held to decide which proposals will be funded (*MAD penetapan usulan*). A sub-district verification team plays a major role at both meetings. This team usually includes community leaders, sub-district facilitators, and appropriate technical staff recommended by the technical facilitator at district level (FTKab). The findings of the verification team are presented at the MAD forum, which must then select by consensus which proposals get funded. Any proposals that are found to be unfeasible are discussed with those who attended the forum (represented by six people from each participating village, comprising the village head, two from the BPD, three from *tokoh masyarakat* (community leaders) so that the proposals can be modified, or at least they can understand the reasons for rejection. The outcomes of the *MAD penetapan usulan* are

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48 The verification team reviews such criteria to determine whether: proposals are technically and economically feasible; they benefit large numbers of people, especially the poor; there are maintenance plans (or repayment plans in the case of economic loans) in place; people have genuinely participated in the formulation of proposal ideas; there is a local community contribution to the project in cash or kind (PNPM Rural’s technical guidance/PTO, 2008. Section 1.7.2 and Form 11 of PTO).
shared at village-level meetings (musdes informasi hasil MAD). This process usually takes three to four weeks.

When a proposal is selected to be funded by PNPM Rural, the process of implementation takes place according to stages set out in Figure 4.1. During this phase, at least two village-level forums need to be held for accountability purposes (musdes pertanggungjawaban) by the project management team (Tim Pengelola Kegiatan or TPK). One is held after 40 percent of funds are disbursed, and the other after the next 40 percent of disbursement.

**Figure 4.1. Stages of process in PNPM Rural**

The implementation of the program relies heavily on the following agencies, categorised by administrative boundaries/levels:

- Village level: village head, villages representative council (BPD), project management team, proposal development team, monitoring team, maintenance team, village facilitators, and community groups;
• Sub-district level: sub-district heads, sub-district operations officer (local government officials at the sub-district level who are assigned full-time to the project), verification team, financial management unit at sub-district level, facilitators at sub-district level, and community groups;

• District level: district head (*bupati*), district coordinating team, district operations officer (government officials at district level who are assigned full-time to the project), district facilitators;

• Provincial level: governors, provincial coordinating teams, provincial operations officer (government officials at provincial level who are assigned full time to the project), facilitators at provincial level;

• National level: The National Team for Accelerating Poverty Reduction (TNP2K), the coordination body for the government’s poverty strategy in the Office of the Vice President, which provides overall strategic guidance to the poverty program; Bappenas (National Development Planning Agency); Coordinating Minister for People’s Welfare (Menko Kesra); Directorate General for Community and Rural Empowerment of the Ministry of Home Affairs (Ditjen PMD Depdagri); National PNPM-Rural coordination team, which is assisted by the National Management Consultant (NMC) in implementing the tasks.


Investments in PNPM Rural and its predecessors have been mostly granted for village infrastructure projects to date, since that was what most communities were familiar with from past experience and what facilitators often advocated (e.g. Village Infrastructure Project, Water and Sanitation Project, etc.). After eight years of ‘typical’ rural infrastructure projects with some safeguard measures in environmental management, there was a demonstrable need to ensure that environmental conservation and natural resources management were mainstreamed into the local development agenda. In response to this need, PNPM Green (initially named Green KDP) was initiated as a pilot project in early 2007 with the main objective of achieving more sustainably managed land and natural resources in rural Indonesia. As a pilot stage (Green KDP), the project was introduced in three provinces in
Sulawesi (i.e. South Sulawesi, Southeast Sulawesi, and North Sulawesi); it then became a full program (PNPM Green) in 2008 covering 8 provinces. West Sulawesi, North Sumatra, West Sumatra, Aceh and Bengkulu were added into its scope. The strategy includes mainstreaming environmental considerations and sustainable natural resource use into KDP/PNPM Rural village-level investment choices, which then should lead to projects that are not only environmentally benign, but that also proactively improve the environmental situation.

Using the same core principles, mechanisms and main players of PNPM Rural, with a few additional measures, PNPM Green was applied in parts of Sulawesi and Sumatra. The program involves developing and implementing a transfer mechanism to provide incentives for ‘green’ project selection by villages, for example, by earmarking the specific funds of PNPM Green and parallel block grants with the PNPM Rural funding mechanism.49 Other than earmarking funds for this intervention, the main additional measure to support the implementation of the program involved the provision of an additional facilitator at sub-district level. PNPM Green is supported by a Kecamatan (sub-district) Environment Facilitator (FKL or Fasilitator Kecamatan Lingkungan) specially hired by the central government. FKLs are backed up by two technical specialists, an environmental specialist (stationed in the province) and an assistant to the specialist who is based in the district.

Also, two consortia of NGOs provide technical support for environmental/natural resource management. These consortia (OWT and WCS)50 are contracted by the World Bank. In principle, these two additional players (FKL and NGOs) at sub-

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49 PNPM Green, like PNPM Rural within which it is embedded, operates in the same context of an ‘open menu’ system. The block grants or sub-projects are not pre-determined at the national level; rather, they are self-identified by the participating communities. However, the block grants are earmarked for specific funds that fall under the four categories (NRM, IGA, Renewable Energy and Capacity Building). Participating communities are free to propose any activities (based on self-defined needs and priorities) for funding within the framework of these categories.

50 OWT: Operation Wallacea Trust; working for awareness raising and capacity building in Southeast and South Sulawesi. OWT is a Bogor-based national NGO; working with two local NGOs – Yascita (Yayasan Cinta Alam) and LePMIL (Lembaga Pemberdayaan Masyarakat Daratan dan Kelautan). WCS: Wildlife Conservation Society; working for awareness raising and capacity building in North Sulawesi, and Sumatra islands. WCS is a Bogor-based transnational conservation NGO; working with RECOFTC- Indonesia (the Regional Community Forestry Training Centre for Asia and the Pacific; Indonesia program) and one local NGO – Yayasan Lestari).
district level are the key motivators to increase awareness and the capacity of communities to understand local environmental/natural resource issues leading to projects (or proposals) that improve conditions.

There are four types of activities that are supported by PNPM Green: (a) Natural Resource Management or NRM; (b) Income Generating Activities or IGA; (c) Renewable Energy or RE; and (d) Capacity Building and Training. Table 4.2 below provides a description for each of these categories as well as illustrative examples of the types of community-selected activities, which are grouped under them.

Table 4.3. PNPM Green categories and illustrative activities

<table>
<thead>
<tr>
<th>Categories</th>
<th>Description</th>
<th>Illustrative sub-projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Resource Management (NRM)</td>
<td>Activities with main objectives to protect, conserve and rehabilitate the condition of local environmental and natural resources</td>
<td>Forest management, water resource management, coastal area management, waste management, marine conservation area (or Daerah Perlindungan Laut – DPL)</td>
</tr>
<tr>
<td>Income Generating Activities (IGA)</td>
<td>Activities with main objectives to utilise local natural resources on a sustainable and environmentally friendly basis for the purpose of income generating or improving the local economy.</td>
<td>Fish farming, seaweed cultivation, fishing aggregate devices (FADs such as rumpon), Agro-forestry, fruit tree nursery, fruit tree planting, organic fertiliser production</td>
</tr>
<tr>
<td>Renewable Energy (RE)</td>
<td>Activities or subprojects with the use of environmentally friendly energies</td>
<td>Micro-Hydro Power (MHP), Photo-Voltaic Power (solar cell), Bio-gas, fuel efficient stove production</td>
</tr>
<tr>
<td>Capacity building</td>
<td>Activities with the main objectives to improve capacities and skills in managing and maintaining local natural resources.</td>
<td>Training for community and local government officials</td>
</tr>
</tbody>
</table>

Source: PNPM Green Technical Guidelines section 1.7.3.

During the first three years of its implementation, PNPM Green experienced challenges in mainstreaming natural resource issues through a CDD operation (i.e. PNPM Rural), mainly due to the following concerns: the level of community participation, the one-year project cycle, inter-village competition for funds at sub-district level, quality of facilitation, local empowerment through village institutions, and program ownership that is affected by the level of local contributions. The following sections consider these issues in turn.
4.2.1. Community participation

As PNPM Green was implemented within the PNPM Rural framework, one of the essential features of PNPM Rural adopted by PNPM Green is the role of community participation. There are two forms of participation required: the community’s contribution to the projects they propose in the form of voluntary labour,\textsuperscript{51} cash and materials (in-kind), and attendance at village and/or inter-village meetings. During the first stage of KDP (KDP-1), communities contributed 17 percent of the value of the block grant funds disbursed to fund KDP activities. This percentage decreased in 2007 to 6 percent, then down to 3.4 percent in 2009, due to a change in program policy that no longer required the amount of in-kind contribution by villages to be included among the selection criteria for winning proposals. This change was necessary because, as the program focused its resources more on the very poor, it became clear that large in-kind contributions were becoming an unfair burden on very poor communities (MoHA, 2007; MoHA, 2008; MoHA, 2009).

Significant and consistent increases in community participation at the meetings have occurred since KDP-1 (1998), with an average participation rate\textsuperscript{52} of 53 percent, increasing to 61 percent in KDP-2 (2000), and 68 percent in KDP-3 (2003). The percentage slightly decreased\textsuperscript{53} in the early stage of PNPM Rural (2007) to 63 percent, and further decreased in 2009 down to 53 percent. Not only has the quantity or rate of participation decreased over time, it has also been revealed that the quality or level of active participation is low, due to some systemic issues within the program, such as the representation system and the routine approach at project meetings (McLaughlin, 2007; MoHA, 2007; MoHA, 2008; MoHA, 2009; PSF Progress Report, 2010; SMERU, 2011; Voss, 2008).

Compared to the 2009 figures for PNPM Rural, showing in-kind contributions of 3.4\%, PNPM Green seems to have a slightly higher percentage, accounting for

\textsuperscript{51} Voluntary labour does not apply to the tree-planting type of activity introduced in PNPM Green for which labour is compensated (see the earlier section on PNPM Green).

\textsuperscript{52} The participation rate is measured by the number of people attending meetings divided by the number of people in that area. Data were taken from the project Monitoring Information System (MIS) established as part of the project mechanism capturing number of attenders in each meeting. Project facilitators at sub-district and village levels are responsible to complete the form and submit for entry at the MIS.

\textsuperscript{53} Although the trend is to lower representation, it is still relatively high compared to other development projects (MoHA, 2007; MoHA, 2008; MoHA, 2009; SMERU, 2010; Voss, 2008).
approximately 8 percent of the total project costs. Of this percentage, natural resource management activities are considered to have the highest contributions, amounting to 48 percent of the total value of community in-kind contribution (see Table 4.3 below), while capacity building activity has the lowest contribution levels. These figures are explained by the fact that as most NRM activities involve land donations and labour, contributions are higher than for other types of activities.

Table 4.4. Value of in-kind contribution of KDP/PNPM Green project categories

<table>
<thead>
<tr>
<th>Project categories</th>
<th>Total community in-kind contributions in each category (Rp Million)*</th>
<th>Percentage of total community contributions (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Resource Management</td>
<td>11,000</td>
<td>48</td>
</tr>
<tr>
<td>Income Generating Activities</td>
<td>5,700</td>
<td>26</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>5,500</td>
<td>22</td>
</tr>
<tr>
<td>Capacity Building</td>
<td>700</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>23,000</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Rambe and Johnsen, 2012, p. 27. (Data were collected from PNPM Green-MIS – Monitoring Information System).
*Note: Figures are rounded to the nearest ‘00.

As for attendance numbers, results of an evaluation conducted by the World Bank (Rambe and Johnsen, 2012)\(^54\) suggest that participation is weak at the project maintenance stage. This is mostly due to the fact that expected benefits are observable in the medium to long term (i.e. beyond the post-project implementation), thus negatively affecting the incentive to maintain completed sub-projects. This qualitative finding was cross-referenced with the previous quantitative analysis of the high percentage (76 percent) of respondents who are still active in project implementation as distinct from project maintenance. The explanation for this inference is that across project categories, NRM sub-projects have the highest percentage of respondents who are still active (53 percent). Such subprojects may include tree planting or mangrove development, and it is understood by communities that such investments do not necessarily need to be maintained like other infrastructure sub-projects. Hence, participation in maintenance is low, but the participating communities are still active as project beneficiaries. It appears that

\(^{54}\) The evaluation utilised both qualitative and quantitative methods. Household surveys were conducted at village level with a total of 1,273 households from 86 villages. Focus group discussions, key informant interviews and direct observation were applied at village, subdistrict and district levels.
these participating communities need to be supported (through facilitation and/or capacity building) throughout the stages, particularly after the project’s hand-over (MDST) stage.

In addition, data analysis from household surveys and interviews conducted during the project evaluation studies reveal that the level of attendance varies at each stage of the project cycle. At the hamlet (sub-village) level, the number of participants in project meetings is high, with the majority of survey respondents having participated twice, or more than twice. Participation is low at village level, particularly during the musdes perencanaan (planning meeting) when the village decides on a proposal for funding. This may be due to the representation approach within the project design, which allows village constituents to be represented by certain individuals or group leaders. Although it is clear who should attend the meetings, the project’s technical guidance does not specify how these representatives should be selected or chosen.

Aligning with PNPM Rural’s principles of transparency, the representative system is applied in the program’s operation. This system generally allows direct involvement of villagers only at hamlet level, but not at village level. Participation at the village level is most often limited by strict representation of community leaders or prominent figures in the village (hamlet heads represent the dusun or hamlet; women are represented by the head of PKK, which in most cases is the wife of the village head, etc.). This system does not encourage active participation by marginalised groups such as women and the poor, since they rarely hold these representative positions. In cases where these groups participate in meetings, the nature of their involvement is found to be passive, due to lack of confidence in voicing their requests or objections. They mostly perceive that they are not capable of participating in village government, and that community leaders are the ones who have a better understanding of the development project.

This shows that although the program is effective at generating a minimum level of attendance and is able to bring marginalised groups into the process as a formality,

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55 Following the New Order system which continues to be practiced, PKK is a hierarchal organisation of public servant’s wives. The leadership is determined by the husband’s rank in the government bureaucracy. At village level, the leader is the village head; and at national level, the head of PKK is the President’s wife.
decision-making is facilitated by certain individuals/groups of people (who may be regarded as elites) in the village, including government officials, activists who lead interest groups at village level, the wealthy, and the customary and religious leaders (McLaughlin, 2007; PSF Report, 2010). This approach to representation may contribute to inequalities within communities, and serve to reinforce or strengthen already existing relations of power, rather than empowering the poorest and most marginalised (Contreras, 2000; Cooke and Kothari, 2001).

The representation system works effectively when flows of information are clear and there is a mechanism to report back to the people being represented, providing information for those unable or not selected to attend (thus providing accountability). This is not the case in the program. At the inter-village meeting for program socialisation (Musyawarah Antar Desa – MAD sosialisasi) conducted at sub-district level, representatives from villages within the participating sub-district attend the socialisation process where project facilitators disseminate information and explain the context of the program. At this stage, community involvement is through the attendance of village leaders (village head and members of the BPD) as their representatives. The next meeting conducted by the program is a village-level meeting to disseminate information about the program (Musyawarah Desa or musdes sosialisasi). At this meeting, representatives from hamlets attend to learn about the program through sub-district facilitators. Since there is no mechanism for the representatives to report back to the people they represent, information about the program is only understood by these leaders.

Although project information can also be accessed by communities through the written media of papan pengumuman (notice boards) at the village hall, not all villagers (especially those who have a low level of education) are interested or able to understand the content of posted notices. With limited access to information, villagers tend to rely on their representatives to act in their interests during the decision-making process at the village level.

Another reason for the low level of community participation is familiarity with the procedural approach at project meetings of PNPM Rural, which has been routinely carried out over the years; some villages have been involved in the project since the
first stage of KDP in 1998. At least ten ‘must attend’ meetings for the general public (see Figure 4.1) are held in a one-year cycle of a project; members (or representatives) of the community need to be present in order for them to obtain the funds. Participating sub-districts that have become recently involved in PNPM Rural are keen to make the effort to attend the meetings. However, those sub-districts that have been involved in the project since the KDP program first started are reluctant to participate in these meetings (McLaughlin, 2007; PSF, 2010; SMERU, 2011). Community fatigue with routine meeting rounds has resulted in a pro-forma rather than consultative process, and attendance has become a time and resource burden for some of the members of participating villages. Furthermore, people have become accustomed to the standardised processes in the meetings. This increases these representatives’ ability to ‘manipulate’ the system for short-term local gain (cf. Cooke and Kothari, 2001; Hickey and Mohan, 2004). For instance, designated representatives are able to come up with a list of community needs without discussing local issues in a more consultative manner.

The representation system and routine meetings that are applied in PNPM Rural affect villagers’ engagement and participation in the program of PNPM Green. Passive participation by villagers and domination by elites in the decision-making process appear to have become routine in most of the meetings conducted in the course of the program.

4.2.2. A one-year cycle of a project
PNPM Green adopts the year-by-year approach established for infrastructure activities funded through PNPM Rural. Internal reports claim that this approach may not be suitable for PNPM Green activities because the nature of its activities requires longer time frames to demonstrate noticeable outcomes or economic returns. This claim is based on the fact that the majority (75%) of proposals selected for funding over the first three-year period reviewed have been related to tree-planting: reforestation, agro-forestry, community forests, timber/fruit tree planting, and mangrove restoration. Tree planting or the management of other biological natural resources takes a long time to implement and requires continued maintenance and inputs over several years.
Furthermore, assessment should be based on a holistic approach from both social and ecological viewpoints. It is therefore imperative to understand the underlying reasons why participating villages proposed such investments. Through some field observations and being directly involved in the project, I found that the main issue contributing to the high percentage of tree planting-related investments over other natural resource and/or environmental management activities is the lack of awareness and understanding of the intended objective of the program. The program was intended to deal with a broad range of environmental and NRM issues and not necessarily focusing on a tree-planting model. The program was supposed to work on the basis that funds are available to villages to promote a higher degree of awareness of environmental issues and sustainable use of natural resources, shown by an increase in understanding of the environmental challenges relevant to the focus area.

During the first three years of program implementation, MoHA (Ministry of Home Affairs) did not have enough facilitators at the sub-district level to lead and facilitate the socialisation and planning processes. Of 159 facilitators expected to lead the program, only 132 had been recruited by the end of 2010. This occurred in programs in both Sulawesi (started in 2008) and Sumatra (started in 2010). As a result, participating villages did not receive the required level of technical assistance from the project proponent (i.e. MoHA), and the process of planning and selection of proposals for funding was unnecessarily rushed to meet the deadline of the one-year cycle of funding.

Given the vacancies for environmental facilitators (FKLs) for PNPM Green in some locations, the non-governmental organisations (NGOs) contracted by the World Bank took the initiative to lead and facilitate the socialisation by working together with PNPM Rural sub-district facilitators (FKs). Although the NGOs managed to socialise and facilitate the planning process of the program, their capacities were limited, as NRM technical specialists rather than community development facilitators. This affected the sustainability of outcomes as the nature of the facilitation was directed to the technicalities of handling issues on local natural

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56 The development objective of PNPM Green is to make the utilization of natural resources by rural communities sustainable.
resource management rather than improving community engagement in the decision-making process. Also, even though PNPM Rural’s facilitators at sub-district level (FKs) assisted the process, due to their workload, their support proved to be limited as well.

Those participating sub-districts that received facilitation from environmental facilitators (FKLs) in any case have experienced a low quality of service due to the limited field experience of the new graduates who were mostly recruited for the work. Most of these young facilitators apparently preferred giving examples on tree planting-related activities as a possible proposal, as they are easiest to describe to villagers. As a consequence, proposals have been biased towards this type of investment.

This lack of awareness of the overall framework of the program due to limited facilitation has encouraged a misconception that has led to the domination of tree planting investments. This issue would likely not have been the case if a year of awareness-raising, training and technical outreach had been delivered by the project (through NGOs), as was originally designed. The project was supposed to work on the basis that funds be made available to villages to promote a higher degree of awareness about sustainable use of natural resources, evidenced in increased understanding of the environmental challenges in the focus area. Working on this basis would give the NGOs the opportunity to prepare and equip the community on local environmental/NRM issues while learning the program’s operations in a practical way, through collaboration with the PNPM Rural facilitators, at the same time expecting the PNPM Green facilitators to be in place.

This is to say, the one-year cycle mechanism of PNPM Rural could be applicable to PNPM Green activities only on condition that adequate awareness-raising and capacity building at the local level are delivered prior to the project funds being opened to the villages. A greater variety of proposals for local natural resource management that are relevant and needed by each community could thus be achieved.

57 The program put priorities on tree plantings on degraded lands, rather than those lands already well established.
4.2.3. **Inter-village competition for funds at sub-district level**

Villages compete for funds at sub-district level meetings, at which the findings of the verification teams, and the merits and the budgets of each proposal are reviewed. This competition is conducted through voting by the village representatives. In most cases, the voting system increased the level of negotiation power between the villages. Winning proposals are determined by the ability of village representatives to persuade the neighbouring (competing) villages to support their proposals, based on friendships, networks and/or a ‘give and take’ approach, rather than on technical feasibility and the urgency of the proposals. Also, it seems that infrastructure proposals that relate to environmental services are more competitive than proposals that relate to the management of local natural resources. For example, in the sub-district of Sampolawa, South East Sulawesi, the rehabilitation of drainage proposed by Gunung Sejuk and Katilombu villages won more votes than the critical land restoration proposed by Hendea and Sandang Pangan villages (OWT, 2010).

However, the application of competitive principles by PNPM Green key players seems to be technically or substantively (i.e. in the areas of environment/NRM) problematic. It relies heavily on the power and willingness of the competing village heads to negotiate. In other words, it is a political process rather than a technical process. Nevertheless, the principle suggests a path to develop and maintain bridging networks among competing villages. Bridging networks are important in enhancing a community’s social capital, and encouraging the villages to communicate with others having different views, thereby improving their negotiating power and experience (Ancona, 1990; Bodin and Crona, 2008; Granovetter, 1973; Volker and Flap, 2001).

Competition for funds through PNPM Green may encourage villagers to work together with other villagers beyond their own community. This is essential, as the management of local natural resources requires communities to engage beyond villages, because the characteristics of the natural resources/ecology do not correlate with administrative boundaries. For instance, the construction of a micro-hydro...

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58 In theory, technical (i.e. substantively related to environment/NRM) advice from the verification team can weed out some proposals on the grounds of technical infeasibility. However, in practice, a “give and take” approach in the voting mechanisms means a *quid pro quo* or turn-taking strategy is the usual case.
scheme for rural electricity requires a strong level of community participation beyond any one user group or village, since the scheme will cover a wide watershed management area (Van Noordwijk, Tomich and Verbist, 2001). Other examples of environmental issues that have trans-local impacts and require inter-village responses are erosion in upland areas, coastal abrasion, and fisheries degradation. Mutual cooperation or collective action beyond official village boundaries is therefore crucial.

Although the principle of mutual cooperation between villages is found to be essential in establishing or maintaining negotiation power, putting it into practice remains a struggle. Cooperative collective action is not a natural or social given; it is the product of ongoing effort by institutions (Marginson, 2004). Also, difficulties emerge as the intensity of relationships decreases beyond a particular neighbourhood, where diverse resource characteristics and interests prevail (Granovetter, 1973; Lin, 2005). Facilitation of informal or deliberative interactions may help people to get to know each other and develop networks. In other words, the inter-village competition for funds that is applied in PNPM Green may have some negative implications for the quality of proposals; however, it may bring longer-term benefits in fostering the bridging type of social capital. In order to improve the quality of community proposals at the same time as enhancing bridging social capital, it is necessary to strengthen the quality of applications and clarity of winning criteria. Community proposals would then be better filtered at the village level prior to competing at sub-district level. The role of village and sub-district facilitators is therefore crucial.

4.2.4. Quality of facilitation

The facilitation process is a critical mechanism in PNPM Rural; due to the technical/substantive nature of PNPM Green, the quality of this process is even more crucial. Internal reports claim that the community facilitators and consultants employed by MoHA mostly use their time on procedural and administrative routines and reporting, rather than substantive issues, due to their lack of experience in environment/NRM-related areas and the onerous burden of the reporting requirements of the program. Meanwhile, NGOs (non-governmental organisations: Operation Wallacea Trust/OWT and Wildlife Conservation Society/WCS) partners
that work under a Grant Agreement with the Bank are faced with the criticism of inconsistency in helping communities to make more informed decisions in managing their environment. Although these NGOs are qualified, they tend to promote activities for which they have demonstrated competence, but not necessarily activities that are in demand by the communities (PSF, 2011).

Being active in 78 sub-districts, PNPM Green needs more than a hundred graduates or certificate holders with an environment/NRM background to facilitate the process of community proposal/sub-project development and the capacity building that includes awareness raising and training (NGOs). It appears that the demand for competent facilitators is higher than the supply of graduates and/or certificate holders in this particular area of technical expertise. This has affected project implementation, since a high level of performance outcome from these facilitators was anticipated by the project proponents. The facilitators were expected to deliver a broad range of services, from technical support (fisheries, forestry, agriculture, renewable energy, etc.) to business and marketing strategies for products developed, through to income-generating activities (e.g. charcoal briquettes, coconut oil).

Considering the current shortage of competent environment/NRM personnel, it is almost impossible to expect these facilitators to cover such a broad range of products and services. The roles of these facilitators need to be broadened to enable the transfer of knowledge from networks of expertise to the beneficiaries (local communities). Networks of expertise or local knowledgeable people (local champions) can be identified from within the villages and/or beyond through a bridging network. Knowledge of where to find such champions and whom to call upon is crucial. The role of bridging networks, reaching out to resources beyond the villages, increases the chances of accessing better resources (Lin, 2005).

Furthermore, PNPM Green’s results evaluation report (Rambe and Johnsen, 2012) suggests that there is a link between the role of village/community leaders and the effectiveness of project facilitation, particularly in terms of encouraging communities to attend (although not necessarily engage with) project meetings. This does not mean that these leaders dominate the decision-making process at village level; rather they co-facilitate the meetings.
4.2.5. Local empowerment through village institutions

As described earlier, PNPM Green is implemented by various actors and teams selected through community forums/meetings, such as TPU or Tim Penulisl Usulan (proposal development team), TPK or Tim Pengelola Kegiatan (project management team), and TP or Tim Pemelihara (maintenance team). These groups of people receive training from sub-district facilitators. Although they are held accountable to the community they represent, they are guided by the project rules.

Even if implementing groups have been well trained, knowledge seems not to be transferred to the wider society. Evaluation of results (Rambe and Johnsen, 2012) shows that the majority (70%) of respondents claim they have not learned any new NRM-related skills or knowledge through the project implementation groups. This finding is supported by qualitative research which shows a lack of intensity or frequency of village-level meetings held by the implementing groups to share what they received from the training. The lesson from this is the need to intensify meetings in a more informal way (rather than multiplying formal meetings) and link these informal engagements through the existing local groups/networks, so that information may be shared more widely.

The creation of new institutions/groups and attempts to 'empower' them through capacity building and decision making at ineffective levels of government, instead of nurturing the existing institutions (such as traditional/adat institutions), may hinder active participation in collective actions. These new groups do not link well with the local village institutions such as BPD (village consultative council), LPM (Lembaga Pemberdayaan Masyarakat or community empowerment body), or other local institutions/organisations.

These existing local institutions/organisations usually serve with varying degrees of effectiveness as a collective action base to accommodate certain community needs and purposes, such as spiritual needs (Majelis Ta’lim and Remaja Mesjid) and improved agriculture or fishery practices (Gapoktan). The number of members may vary, depending on the level of obligation or other inducements to make individuals act in their common interest (Olson, 1965, cited in Ostrom, 1990). In theory,
empowerment through these local institutions could build on and reward existing collective action that then leads to sustainable resource management (Boyce, 2001; Kurien, 2004).

4.2.6. Program ownership and the level of local contributions

Community contributions (in the form of land, labour, and/or cash) for PNPM Green amounted to approximately 8 percent of the total project costs. The World Bank’s Annual Report on PNPM Green (PSF, 2011, p.55) indicated that the low level of contributions correlates with the low level of ownership by the beneficiaries, thus affecting the sustainability of the program. Discussions with participating villages indicated that they did not contribute much because the program funds are sufficient to cover all costs associated with their sub-project/activities.

Furthermore, the use of a community-driven development (CDD) approach to implement an NRM-related program is likely to have different responses and outcomes compared to other sectoral projects or other PNPM pilot projects dealing with education, health, and agriculture, where direct benefits and short-term gains are observable. For instance, it is relatively easy to assess rates of child immunisation before and after the intervention of a health-related pilot project of PNPM Rural. Also, the number of primary school enrolments and/or schools that have been rehabilitated or built by an education-related pilot project can be witnessed by communities and/or the project’s proponents. These short-term measurable indicators can be assessed annually; hence, they fit well within the one-year cycle of PNPM Rural.

Unlike these other pilot programs, PNPM Green needs more than one year to show the impact of the majority of its projects. For instance, tree-planting activities (which account for 75 percent of the total number of sub-projects/activities funded by the project as of 2011) will show their benefits, such as mangrove restoration and water catchment management, long after the first year of implementation. It takes a shift of perception and expectation to be able to notice the benefits that can be yielded over the long term.

Of this percentage, NRM-related sub-projects contribute the most (48%). See Table 4.3.
The non-physical outcomes of NRM projects should reflect the elements of knowledge, behaviour and practice in the management of local natural resources. These elements may support the sense of ownership of the program, or even better, sense of responsibility for the community’s own local natural resources, leading to more sustainable environmental/natural resource management. For instance, the benefits of mangrove restoration need more than one year to be apparent, and it takes some level of cohesiveness for the community to maintain the planting collectively (Hardin, 1968, cited in Kurien, 2004). Cohesiveness may be achieved through having an adequate knowledge of the benefits of the mangrove restoration (that is, livelihood, protection and security for the villagers who live along the coastline); this then affects a community’s attitude towards supporting practices for maintaining the mangrove plants. Building upon a positive attitude towards their resources, the practice of collectively protecting and maintaining the mangrove can be sustainably achieved.

Furthermore, PNPM Green was designed and implemented with an assumption that working in improved social capital communities is a prerequisite for maintaining and improving natural capital. As discussed earlier, the implementation of PNPM Green was framed under the umbrella of PNPM Rural in which improving social capital and community empowerment – through community involvement in project monitoring, participation in decision-making processes and collective action in project implementation – have been core goals of the project. However, the challenges that the project faced during the implementation stage seriously affected the process of meeting the intended objectives of the program.

Although the program faced challenges in meeting its objectives; however, results evaluation conducted in the target provinces shows that sub-projects of PNPM Green have generated positive results in terms of economic viability, and restoration and/or enhancement of natural assets. The following section provides a brief summary of these benefits, taking into account the assessment of the overall sub-projects within the 8 target provinces.
PNPM Green: Positive Benefits from Project Intervention

PNPM Green, as mentioned earlier, is designed to mainstream natural resource management into the local development agenda. The main emphasis of the project design is to improve environmental and natural resource management and associated governance processes, while at the same time increasing economic and livelihood benefits. There are three main components that are essential for the project to meet the intended objectives. These are economic viability, natural protection or enhancement, and social acceptability (Rambe and Johnsen, 2012).

After four years of implementation, extensive qualitative and quantitative studies were conducted to assess the effects of PNPM Green in the application of these elements (economic, natural and social). The Sustainable Rural Livelihoods Framework was used as the main basis for analysis of the results of PNPM Green. Its central idea is that sustainability of livelihoods depends on access, use and development of different types of assets. These assets are considered to be stocks of different types of ‘capital’ that can be used directly or indirectly to generate livelihoods.

4.3.1. Economic and financial assets: productivity and viability

The project was found to have contributed to a 90 percent increase in the number of original NRM-related investments since 2008, reaching 2,926 community investments among 66 sub-districts in eight target provinces (South Sulawesi, South East Sulawesi, West Sulawesi, North Sulawesi, North Sumatra, West Sumatra, Bengkulu and Aceh) as of 2012. As shown in Figure 4.2 below, natural resource management subprojects seem to be the majority (45%), followed by income-generating activity (31%), then renewable energy (14%), while the least common is

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60 Section 4.3 is based on a PNPM Green Evaluation Report, published by the World Bank, for which the researcher was primary author (Rambe and Johnsen, 2012).
61 Three extensive studies were conducted in 2012 dealing with Economic and Livelihood Studies, MHP-Return of Investment, and Spillover. The amalgamated analysis report from these three studies was primarily written by Vivianti Rambe (the researcher). A brief description of the methodologies used is given in Chapter 1.
62 Investments constitute community sub-projects funded by the program, which were categorised into four main investments: natural resource management, income-generating activity, renewable energy and capacity building. These were official categories under which sub-projects were selected, but the degree of overlap in impacts makes it difficult to draw conclusions regarding the overall contribution to each goal.
capacity building (10%). The majority of respondents (54%) also indicated that these subprojects meet their immediate livelihood priorities. This percentage includes responses from those respondents 'no longer active'; the actual percentage within 'active' respondents is likely to be higher. This suggests that overall, PNPM Green investments are reasonably well-match to livelihood priorities, and that active sub-projects more successfully meet livelihood priorities. Qualitative assessments explain the reasons why NRM activities are the majority of those being implemented by participating communities. These NRM activities predominantly involve tree planting, in which the community may benefit from additional wages for their labour and procurement of tree seedlings. In addition to the short-term financial benefits from employment, the participating communities may also see future economic benefits from tree planting through utilisation of timber (Rambe and Johnsen, 2012).

The study reveals that, as the PNPM Green project is implemented, sub-projects or activities that meet livelihood needs of the local people are most likely to succeed. Mangrove planting is an example: it serves not only as protection against storm surges along the coastal villages, but also as breeding ground for fish and crabs, which will bring additional household income and supplement food supplies. Another example given by beneficiaries of Micro Hydro Power suggests that a better quality of light enjoyed by households connected to the scheme enables longer opening hours for their kiosks, and also more time for their children to study.

**Figure 4.2. Percentage of project categories**

Source: Rambe and Johnsen, 2012.
Sub-projects and activities generate a range of direct financial benefits for communities. These may arise from selling products, such as fish or fruit, or provision of employment opportunities such as contracted labour for tree-planting activities or continued employment within the group. The project evaluation (Rambe and Johnsen, 2012, p. 15) indicated that implementing sub-projects and activities generated direct benefits for only a small proportion (less than 20%) of respondents. The size of this direct benefit is also small. For those employed in activities such as tree-planting, a typical daily income was IDR 60,000 (equivalent to US$ 6). Employment income was not limited to immediate project beneficiaries; anyone in the village can be employed by PNPM Green activities. Less than one third of respondents said that participation in PNPM Green activities or sub-projects increased their household income. The average annual income reported by these participants was IDR 630,000 (equivalent to US$ 63).

For communities participating in specific Income Generating Activities (IGAs) or related sub-projects, reported current household income was doubled. For example, one of the most well-known coastal community investments was in rumpon, fish aggregating devices. This platform structure is placed in the open ocean. It initially attracts small fish, which then attract larger fish such as tuna. These larger fish are targeted by villagers. The beneficiaries testified that their fish catch has almost doubled in volume, and increases are expected to continue. A few respondents mentioned during the PNPM Green evaluation household survey (LPM survey data, September 5, 2012) that “hasil tangkapan meningkat karena rumpon sebagai tempat tinggal (ikan)” (‘the fish catch increased due to the application of rumpons as fishing grounds); “ikan tidak kemana-mana lagi hanya tinggal di rumpon” (‘fish gather only around rumpon’ [hence, are easy to catch]); and that “sebelum proyek ada, tangkapan ikan rata-rata sekitar 7 kg, setelah ikut proyek kami bisa tangkap sekitar 12 kg (‘prior to being involved in the project, the average catch was about roughly 7kg per trip, but after participating in the project, the catch increased to around 12 kg in each trip”).

The study also indicated that some economic benefits may emerge after a delay, such as income from the sale of timber. Such benefits are evaluated as 'expected future benefits' and have the potential to be significant over the medium-long term. The
time frame over which benefits are generated will vary between different sub-
projects and activities. For example, income generated from harvesting fruit trees
will only be possible after the crop matures. As the crop reaches maximum yield,
benefits will increase; after this maximum, benefits will then decrease over time,
unless periodic replanting occurs. The income generated from harvesting timber will
vary between tree species and season of harvest. Increases in fish catches secondary
to mangrove planting activities will take time to emerge, but may maintain a peak
once mangroves mature. Table 4.5 describes expected household incomes derived
from the two key activities over the medium and long-term.

<table>
<thead>
<tr>
<th>Activity / sub-project</th>
<th>Expected annual household income generated (IDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medium-term (2-5 years)</td>
</tr>
<tr>
<td>Mangrove Planting</td>
<td>0.687 million</td>
</tr>
<tr>
<td>Tree Planting</td>
<td>25 million</td>
</tr>
</tbody>
</table>


In addition to direct and indirect economic benefits, the study also measured the
estimated economic benefits through reduced expenditures. It is suggested that total
annual saving for all studied sub-projects/activities is IDR 676,000 (equivalent to
US$ 68) per household. The main savings indicated are related to reduced need to
buy kerosene or firewood.

All in all, the studies suggest that there are positive effects from the active projects
on household financial and economic assets, both in terms of direct income, mainly
from wages or sale of products related to the projects, and savings arising from
reductions in usual expenditures. Even stronger positive results for the households
are expected in the future, both as expressed by participating householders
themselves and as computed by environmental economic methods.

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63 This table shows the estimated results based on household surveys with 913 households interviewed
in 50 villages.
4.3.2. Natural assets

The positive effects on natural assets (environment and natural resources) in terms of improved environmental services are highly significant, but will mainly be felt a few years into the future, as plantations of trees and mangroves mature. The benefits include erosion control, improved protection against storms, increased productivity of marine food webs, and improvements in soil fertility. Several of these have positive effects on the local economy, both for individual households and the community as a whole. Some also have wider, positive effects for society in general.

As for the current effects of the project on improvement of natural assets, particularly in terms of environmental services, an economic valuation using the benefit transfer method was conducted. Contributions made by environmental services at the village/community level, as attributed in environmental economic valuation, are considered to be part of the benefits or results of the project. The contributions are described below:

(a) Estimated average of expected environmental services from mangrove planting

Mangrove plantings have several beneficial results. The biggest one is protection against coastal erosion. Stabilisation of marine food webs, which is estimated to be the largest direct effect to households (see section above), is a significantly smaller value than this protection, but still substantive. This effect will also be beneficial to a much larger section of society, as many species that breed in mangroves and whose young grow up in the protected environment provided by the mangrove, will later migrate to the larger ocean and potentially be caught by fishermen from other locations.

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64 The Benefit transfer method is a tool to estimate economic values for ecosystems services by transferring available information from studies already completed in another location using the same conditions at studied locations (Brouwer, 2000; Garrod and Willis, 1999). The formula used is $V_m = Bt(1 + r)^N W$ with $V_m$=benefit value; $Bt$=transfer value; $R$=Interest; $N$=Year; $W$=the area of PNPM Green Sub-projects
Figure 4.3. Benefits of Mangrove Planting

![Chart showing estimated average per project value of future environmental services from mangrove planting.](image1)


(b) *Estimated average of expected environmental services from tree planting*

The estimated environmental benefits from tree planting are quite diverse, and most are of similar size. Effects such as erosion protection, flood protection and increased ground water resources are also beneficial to the greater community, while an increase in soil nutrients is a more local effect. Improved biodiversity will have beneficial local effects, but in many respects also contributes a global benefit in terms of biodiversity and carbon storage.

Figure 4.4. Benefits of Tree Planting

![Chart showing estimated average per project value of future environmental services from tree planting.](image2)


Note: The value for carbon storage is not shown in the graph, as it is far below Rp 2million. The exact value is Rp. 281,638.
(c) Benefits from Micro Hydro Project (MHP)

The Green PNPM project has positively contributed to general society through reduced greenhouse gas (GHG) emissions. This positive contribution was primarily effected by the implementation of renewable energy sub-projects/investments, particularly micro-hydro-power (MHP) schemes. These schemes provide a clean alternative energy source, as the power generated does not produce GHG emissions. By replacing fossil fuels (kerosene, diesel and gasoline) that were previously used in villages for electricity generation, MHP reduces the GHG emissions which would have previously been emitted. Table 4.5 below provides a monthly estimate of GHG reduction from replacement of kerosene, diesel and gasoline/petrol by MHP, and the estimated annual GHG reduction for each participating village. This includes TSU (a specialised technical unit)-supported sites and non-TSU-supported sites.

Across all sites, the greatest estimated reduction in GHG emissions was 3,901kg of carbon dioxide (CO₂) per year, in Buangin village (District of Tana Toraja, South Sulawesi), while the smallest reduction (32kg CO₂ per year) was estimated for Orabua Selatan village (District of Mamasa, West Sulawesi). The average estimated annual GHG reduction for sites supported by TSU from fossil fuel displacement is 2,144kg CO₂ per year; in non-TSU sites, this reduction is 565kg of CO₂ per year.

Overall, TSU supported sites exhibit a greater reduction in GHG emissions than non-TSU sites. This is largely because TSU sites used diesel or gasoline generators. Use of generators is associated with higher baseline emissions; on average, one generator serves three households. The amount of GHG reduced is proportional to the amount of kerosene and/or diesel/gasoline displaced. In other words, villages that use generators have greater capacity to reduce GHG emissions using alternative energies such as MHP. In contrast, non-TSU supported sites only used MHP to displace kerosene use, limiting the scope of GHG reduction.

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65 The allocation of TSU resources follows a regionalisation approach: Sumatra (4 provinces) and Sulawesi (4 provinces). Annual allocation of block grants per district is based on the number of proposals received and on the verification of suitable sites (MHP potential and geographical nature of the regions).
Table 4.6. Estimated GHG emission reduction from fossil fuel displacement

<table>
<thead>
<tr>
<th>Site/Village Name</th>
<th>GHG reduction from Kerosene/month (kg)</th>
<th>GHG reduction from Diesel/month (kg)</th>
<th>GHG reduction from Gasoline/month (kg)</th>
<th>Estimated annual GHG reduction from fossil fuel (kg of CO2/annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alur Kejrun</td>
<td>40.4</td>
<td>82.1</td>
<td>n.a</td>
<td>1,469</td>
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<tr>
<td>Marapan</td>
<td>9.8</td>
<td>145.9</td>
<td>n.a</td>
<td>1,869</td>
</tr>
<tr>
<td>Batu Basa</td>
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<td>206.5</td>
<td>n.a</td>
<td>2,652</td>
</tr>
<tr>
<td>Mesakada</td>
<td>40.4</td>
<td>n.a</td>
<td>271.3</td>
<td>3,739</td>
</tr>
<tr>
<td>Masoso</td>
<td>53.8</td>
<td>n.a</td>
<td>n.a</td>
<td>646</td>
</tr>
<tr>
<td>Salutambun Barat</td>
<td>43</td>
<td>n.a</td>
<td>22.6</td>
<td>788</td>
</tr>
<tr>
<td>Orabua Selatan</td>
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<td>n.a</td>
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</tr>
<tr>
<td>Bokin</td>
<td>13.5</td>
<td>n.a</td>
<td>203.4</td>
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<td>53.8</td>
<td>n.a</td>
<td>271.3</td>
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<tr>
<td>Bare Penanian</td>
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<td>n.a</td>
<td>271.3</td>
<td>3,739</td>
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<tr>
<td>Average estimated annual GHG reduction</td>
<td></td>
<td></td>
<td></td>
<td>2,144</td>
</tr>
<tr>
<td>Max estimated annual GHG reduction</td>
<td></td>
<td></td>
<td></td>
<td>3,901</td>
</tr>
<tr>
<td>Site/Village Name</td>
<td>GHG reduction from Kerosene/month (kg)</td>
<td>GHG reduction from Diesel/month (kg)</td>
<td>GHG reduction from Gasoline/month (kg)</td>
<td>Estimated annual GHG reduction from fossil fuel (kg of CO2/annum)</td>
</tr>
<tr>
<td>Non-TSU</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timpuseng</td>
<td>40.4</td>
<td>n.a</td>
<td>n.a</td>
<td>484</td>
</tr>
<tr>
<td>Barugae</td>
<td>53.8</td>
<td>n.a</td>
<td>n.a</td>
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<tr>
<td>Saluburonan</td>
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<td>969</td>
</tr>
<tr>
<td>Leppan</td>
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<td>n.a</td>
<td>n.a</td>
<td>161</td>
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<tr>
<td>Average estimated annual GHG reduction</td>
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<td></td>
<td></td>
<td>565</td>
</tr>
<tr>
<td>Max estimated annual GHG reduction</td>
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<td>969</td>
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<tr>
<td>Min estimated annual GHG reduction</td>
<td></td>
<td></td>
<td></td>
<td>161</td>
</tr>
</tbody>
</table>

Source: PNPM Green – MHP ROI study, 2012, p.35

4.3.3. Social assets

PNPM Green investments generate a range of benefits for communities. Many of the economic and environmental benefits stemming from these sub-projects and activities will increase and accrue over time. Consequently, the sustainability of these sub-projects and related benefits are dependent on the commitment of participating communities to manage and maintain investments. This highlights the importance of effective management and maintenance of community investments through strengthening natural resource governance, empowering formal and informal local institutions.

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66 All sites are located in West and South Sulawesi, except Alur Kejrun, Marapan and Batubasa, which are located in Aceh and West Sumatra
To assist with new sub-projects and activities, PNPM Green established specific implementation groups. Groups selected at the village level are TPK (*Tim Pengelola Kegiatan* - Implementation Team), TPU (*Tim Penulis Usulan* - Proposal Writing Team), and TP (*Team Pemelihara* - maintenance team). Groups at the sub-district level are TV (*Tim Verifikasi* - verification team) and UPK (*Unit Pengelola Kegiatan* - implementation unit). However, findings indicate that participating communities obtained new skills specifically via capacity-building activities rather than through participation in these specific implementation groups. In fact, the majority of respondents (70%) reported that they did not learn any new skills through these groups (Figure 4.5). Qualitative analysis suggests that implementing group meetings were too infrequent or lacked sufficient intensity to transfer new skills. This finding highlights the potential for more frequent or more intensive meetings and the need to link these with existing local groups to ensure that benefits to participants are optimised.

**Figure 4.5. Level of skills acquired through participation in implementation groups**

![Pie chart showing learning of new skills by participating in groups](chart.png)

Source: Rambe and Johnsen, 2012

Furthermore, three quarters of respondents from the evaluation survey reported that PNPM Green has low effectiveness in strengthening existing local groups or institutions. It is likely that this finding relates to the fact that most PNPM Green implementation groups are created explicitly to implement the sub-projects, and they do not always collaborate with the existing local groups. This may have also influenced low participation rates observed at village level during the planning stage,
where meetings were conducted by village cadres (KPMD) and sub-district facilitators. These village-level meetings are the main domain for implementing groups to meet and discuss the progress of sub-projects and activities.

This is to say, natural resource governance does not appear to have been successfully strengthened throughout project implementation; lack of networks or links with existing social groups appears to be the primary reason for this. Therefore, the evaluation report (Rambe and Johnsen, 2012) concludes that it is imperative that PNPM community meetings need to be strengthened by developing formal and informal links with existing effective local groups.

4.4. Summary

PNPM Green’s program is unique, with its complex process and detailed mechanism for mainstreaming environment/natural resource management as part of a community-driven development agenda. The program is embedded within one of the most established poverty alleviation and community empowerment programs in Indonesia, namely PNPM Rural - a continuation of the Kecamatan (sub-district) Development Program (KDP). Both PNPM Rural and KDP have a strong element in their design that aims to build and enhance social capital at local level. Collective action through community participation (in decision-making and contributions) has become the prime indicator of the success or failure of the program. Collective action is also considered to be an important element in building, enhancing and maintaining local natural resource management capacity. Based on this principle, PNPM Green was designed and implemented on the assumption that working to improve social capital in communities is a prerequisite for maintaining and improving natural capital. This should lead to projects that are not only environmentally benign, but that also proactively improve the state of the environment and natural resource management.

The PNPM Green Results Evaluation conducted by the World Bank (Rambe and Johnsen, 2012) highlights that the project to date has made strong contributions in terms of increased productivity of community investments that are related to access to and utilisation of local natural resources. The increased NRM-related investments
have indeed increased economic/financial benefits for participating communities and enhanced natural assets to a small degree in immediate terms and to a large degree in medium and long terms.

Despite these positive findings about the level of benefits to the community in economic and natural assets during project implementation, without the commitment of participating communities to collectively manage and maintain the investments by improving and strengthening their social capital assets, the sustainability of these NRM-related investments remains in question. The conclusion from this evaluation is that PNPM Green has only partly met the intended objective, that is, to make the utilisation of natural resources by rural communities more sustainable. To ensure the sustainability of local NRM, it is crucial to strengthen social capital and empower villagers for natural resource governance. For example, as discussed above, a mangrove development investment may provide immediate benefits to the economy of participating villages by providing a breeding ground for fish and crabs. However, in the medium term, the same mangrove will not help the coastal community to prevent shoreline abrasion and sustain more established breeding grounds (when mangroves reach their mature stage) if the local communities do not collectively maintain this investment. Community empowerment through existing NRM governance will be the key to the full success of PNPM Green – a critical element that needs to be dealt with in the next phase of the program\(^67\) – an element that will be discussed in the following two case studies.

\(^{67}\) At the time of this research, the Government of Indonesia was keen to continue the program, either as a second phase of PNPM Green or by applying the same principles through other community development programs. The PNPM Green program ended in 2012 and it was not yet clear how its community-driven approach to natural resource management would be implemented in the future.
CHAPTER 5
CASE STUDY 1: WARINTA VILLAGE

5.1. Village Profile

Warinta village lies in hilly terrain in the upland area of Pasarwajo sub-district, about two hours’ drive – on 13 kms of damaged roads – from the sub-district/district capital. The village borders the Lambusango Forest. The village population, according to the 2010 survey, is 1404 people in 318 households: 737 males and 667 females. The village has four hamlets: Barabaa, Karya Bugi, Banaue1, and Banaue2. The main sub-ethnic group is the Cia Cia Laporo, and the entire village population is Muslim. The majority (80%) of the villagers rely on rain-fed agriculture, growing corn, cassava, fruits, and upland rice; the rest of the population (20%) work as government officials and pedagang (local traders).

The majority (52%) of the population in the village are of working age (over the age of 15), and the rest (48%) are categorised as dependent, consisting of elderly people and children. The number of dependent elderly is not significant, and they normally live together with their adult eldest child. The eldest sons (or in cases where the family does not have sons, then the eldest daughters) of the community have the greatest responsibility in their households, as they inherit their parents' house and are expected to take care of their elderly parents.

The level of income is low, according to the surveys, with the majority (82.5%) earning below IDR one million per month (equal to US$100 per month). This gives a broad idea of the average income of the villagers; however, this does not give a full picture of their economy and welfare. Warinta villagers also have some assets on which they can rely to meet basic needs (sembako). The villagers’ main staple food

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68 Village Map can be found in the Appendix 3.
69 The island of Buton has three districts: district of North Buton (the capital is Buranga), the City of Bau Bau (the capital is Bau Bau) and district of Buton (the capital is Pasarwajo). Pasarwajo town just recently became the capital of the newly established Buton District.
70 Sembako (Sembilan Bahan Pokok) covers nine categories of food seen as meeting basic daily needs, consisting of: rice/cassava, sugar, margarine/cooking oil, meat (beef/chicken), eggs, milk, corn, LPG/kerosene, salt.
is not rice, but cassava. Almost all households have planted cassava in their house-yard or garden. Cassava is an important plant in this village, as all parts of the plant can be consumed or used by the villagers. Its leaves can be cooked as healthy vegetable dishes, the trunks are good for making fences, and the roots can be cooked as their main staple dish. The cultivation of vegetable gardens and a subsistence way of life have contributed to supplying an adequate level of basic nutrition.

Almost all households have their own plot of land. As indicated in the surveys, 87% of respondents own a piece of agricultural land where they grow vegetables and fruits for their own consumption and, when a surplus is produced, for the market. The overall area for agricultural land in the village is 183.55 ha; this consists of 126 ha of rain-fed agricultural land (rice and palawija or secondary dry crops), 34.25 ha for vegetable crops, and 23.3 ha of fruit crops. The total area for local smallholder gardens is 94 ha, mainly planted with cashews (75 ha), some cocoa (12 ha), and the rest with coconut (2 ha), and coffee (5 ha).

In terms of market value/business-related assets, only 30% have small kiosks (kios/warung) and the majority (70%) do not own any non-agricultural productive assets. Few households own a vehicle (motor or non-motor); 32.5% own a motorbike, 5% a bicycle, 2.5% a becak (pedicab; used in the sub-district capital), and the rest do not possess any means of transport. Owning a vehicle such as a motorcycle that can be used as a taxi (ojek) is an asset, since these vehicles can be used to earn supplementary income on an occasional basis. Work experience is regarded as an asset here, because not all individuals in the village are able to work outside their village. Those who currently do or have worked outside the village have more advantages in bringing in wages, knowledge and skills to the wider society. Most of the villagers (55% of surveyed household members) who have worked outside the village travelled and worked in Kalimantan, Papua, or Maluku for an average of 4 to 12 months.

Surveys show that 22% of respondents own adat assets such as kain ikat (ethnic handwoven tie-dyed cloths), keris (a kris or dagger with a wavy, two-edged blade) and pakaian adat (traditional costumes used for adat festivals), and mangkok tua (Chinese ceramics). These adat items are considered as symbolic assets, since they
have great spiritual and cultural value, and those who own them are regarded as ‘wealthy’ in their cultural belief system; it is mostly the family of parabela or adat leaders who have these assets. These ‘wealthy’ families are classified as traditional elites based on their cultural/symbolic capital.

Maintaining a subsistence way of life and needing to own both physical and cultural assets, Warinta villagers are concerned about their children’s education and their family health when they allocate their cash income. As indicated later in this section, the level of education is low, since all villages have only a primary school, and higher education (beginning with junior high school) is located in the sub-district capital. So, it is costly in terms of transport and boarding for parents to send their children there. The village is also lacking in health facilities, which means that medical treatment requires substantial transportation and accommodation costs.

5.1.1. Public facilities

The village has only one formal meeting hall (balai desa) at the village office, and three baruga; located in Barabaa hamlet, Karya Bugi hamlet, and one baruga shared by Banaue1 and Banaue2 hamlets. Baruga are informal meeting places where discussions and meetings about customary/adat matters needing the involvement of parabela (adat leaders) mostly take place. As mentioned, the village lacks facilities to support higher education, with only one government primary school building accommodating grades 1 to 6. Once their children have completed primary school, most parents cannot afford to support their children’s education continuing to junior high school (SMP) or senior high school (SMA), since these education facilities are located outside the villages (about 30 minutes by motorbike, with the cost of travel being IDR 2,000 one-way). Children would have to travel to school by public transport (mostly ojek), or stay with their relatives. This has resulted in a relatively low level of villagers’ education in Warinta. Village-wide statistics (Monografi Desa Warinta, 2009) indicate that 43% have completed formal education at the primary level, 29% have finished junior high school, and 26% completed senior high school, while only 2% have reached tertiary level.

There are three mosques and thirty small kiosks (warung) where people can buy their basic needs (sugar, salt, etc) and fruits grown locally. The village does not have any
kind of market facilities (the closest one is an hour away by ojek), and there are no medical clinics (puskesmas) other than the village delivery/maternity clinic/unit (Polindes – Pondok Bersalin Desa). Villagers have to travel 30 minutes by motorbike or public transport to go to a market or medical clinic. The Polindes facility is staffed by only one midwife, who does not live in the village, but resides in the sub-district capital of Pasarwajo.

There is only one public transport vehicle from the sub-district to the district capital; therefore, villagers have to make their own arrangements for travel from their hamlet/village to the sub-district and district capital (Pasarwajo) in order to get the public mini-bus to Bau Bau (the capital City of Bau Bau). Almost all villagers have access to piped water (ledeng kampung), and 55% have access to toilets (in their homes and/or public toilets). Only 20% of households are on the state electricity grid (PLN), and the rest use ‘traditional’ electricity generation (such as lampu tembok – lamp that is attached to house wall) or connect ‘illegally’ to neighbours who are registered on the grid. The majority (85%) of villagers own TVs, and of these 4% have a parabola (satellite dish). Most of the villagers own a mobile phone, even though the signal is weak and can only be received on hilltops. This does not discourage them from acquiring one, as they can receive texts on the mobile, but have to make an extra effort to make and receive phone calls.

5.1.2. Adat in Warinta

Warinta village is believed to have one of the strongest adat systems in Buton island, at least according to the perceptions of people from Warinta itself. Warinta is named after a sacred mountain located in the village. People from these hamlets are considered to be penduduk asli (original inhabitants/natives) of the sub-ethnic group of Cia Cia Laporó.

The Parabela is the adat leader in their community, chosen through a spiritual ceremony in an adat meeting called kilala. Prior to the ceremony, community leaders propose a few people who they think would meet the criteria to be a parabela, including having descended from the family of the previous parabela, or being of the paternal lineage of a parabela. If they meet these criteria, they need to be checked as to whether, during the rule of the previous parabela, the villagers were at peace and
improving their living conditions. Once a few candidates have been selected, then the *majelis/perangkat adat* (*adat council*) conducts the ceremony to select the next *parabela*, ensuring that the candidate is the one chosen by Almighty God. A *bhisa* (shaman) is asked to lead the selection of these candidates. The shaman uses spiritual *mantra* (or magic words) and burns incense on a coconut shell. The incense will be taken towards these candidates, and when the smoke of the burning incense blows three times towards one of the candidates, then the person will be chosen to be the next *parabela*.

Before his inauguration, the chosen *parabela* will need to conduct several spiritual ceremonies to make sure that he is the true *parabela* sanctioned by Almighty God. The chosen *parabela* will need to fast for four days, and during those days he is not supposed to touch the earth nor see or be touched by the sun. If during these four days, there are some misfortunes happening to the people in his hamlet (death, rare sickness, etc.), then it will be proof that the selected one is not the one chosen by God. In this case, the leaders will have to go through the selection process again until all are in line with the spiritual guidance of the Almighty. Being a *parabela* is not an easy task. The *parabela* is supposed to be a man trusted and respected by the whole community. He is allowed to have only one wife (in this Muslim community, a man can have more than one wife) and is not supposed to work in a government or religious institution. *Parabela* can be requested to step down from this position by the *adat* council only when there are *kerombo* (bad signs) affecting the whole village, such as a harvest failure, incurable sickness that affects numbers of people, and no peace in the village. These signs are believed by the villagers to be sent by Almighty God.

Each hamlet in Warinta has its own *adat* institutions, and they all work together at village level, especially when conflicts to be solved are outside their respective hamlets. These institutions have formed a solid structure through a forum at the village level comprising leader, secretary, treasurer and members. The forum was not established in a conventional way through a formal meeting; rather, it was through a series of informal get-togethers of the *parabela* and in efforts to solve community-related problems across hamlets. The establishment date was unknown; however, current members indicated that the forum began to be effective during the New
One of the tasks of the treasurer is to keep the money collected from any penalties/fines from those villagers who breach *adat* rules. The collected money is used for the hamlet’s common needs/activities.

An example of rule-breaking on *adat* grounds is adultery; the *parabela* is the one who will be called upon to solve the problem. *Parabela* in each of the offenders’ hamlets will decide the sanction and penalty/fine for the rule breakers; this is called *kaboka-boka* (fine/sanction for an act that has already been cursed due to the nature of the sin/transgression). One *boka* equals IDR 24,000, and the number of *boka* constituting a fine is decided in an *adat* meeting conducted in the *baruga*. The *boka* paid by the transgressor can either be shared among the members of the *adat* council or also can be put into the *adat* treasury, depending on the decision taken by the council. Since the *boka* is considered as tainted due to the cursed nature of the transgression, most of the members of *adat* council usually do not want to receive the shared amount; rather, it is put into the *adat* treasury.

Community members are allowed to observe the process of decision-making of *kaboka-boka* from the outside of the *baruga*. Only community leaders, the *adat* council and the *parabela* are allowed to sit in the *baruga* during such a meeting. Then the outcome of the meeting is announced to the community. The whole process of decision-making and public announcement of sanctions and fine(s) is conducted for the purpose of cleansing the name and soul of the rule breaker(s) in the presence of the whole community/public.

As the leader of local *adat* institutions, the *parabela* heads the *majelis adat* (*adat* council), which consists of *moji*, *waci*, and *pandesuka*. The *moji*’s role is to support the community in *adat* events that are related to religious needs (but not necessarily involving the mosque), such as weddings and funerals. Both the *imam* (who leads prayers in the mosque) and the *moji* can lead these prayers; however, the *moji*’s role is primarily for *adat* purposes. The *waci* functions as an assistant to the *parabela*; for example, when the *parabela* needs to get the people to meet in the

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71 Note that *moji* in Holja village (Chapter 6) have different roles. The *moji* in Warinta is a part of the *adat* council and primarily operates within the context of *adat* purposes. The role of the *moji* in Holja, where *adat* is less significant, is more directed to Islamic religious purposes, such as leading prayers when the *imam* cannot exercise this responsibility.
baruga, he will ask the waci to deliver the message. The pandesuka leads the ceremony for the opening of new land for cultivation, particularly to avoid bala (curses), such as pests or other bad spirits that will damage the fertility of the land. The selection process of the members of the council, as for the parabela, is through the kilala ritual.

The baruga is the meeting place where parabela and other community leaders at the hamlet level meet; the baruga can be used as a meeting place for other informal gatherings with their local leaders, as well as for adat matters. The existence and condition of a baruga usually reflects the economic level of the community it represents. The structure and exterior are the same for all baruga across all Buton. However, it can be built either as a traditional construction with wood or from concrete.

Sangia (customary norms) are still prevalent in Warinta village. One of the norms of sangia is that villagers are not allowed to cut trees in the nearby forest in waelaki areas (protected areas, such as hills and mountains, or headwaters of springs/tributaries); if villagers transgress this norm, then the village will experience a long dry season. And since the majority of the population relies heavily on rain-fed agricultural land, sangia have become their strongest way of conserving local natural resources.

In addition, Warinta villagers carry out a certain adat ceremony, which is called, in the language of Cia Cia Lapor, Ma’ata’a (feast). The main purpose of this ritual ceremony is to express gratitude to Almighty God for the current harvest. A communal feast is prepared by the whole community and conducted in the baruga. Using community funds allocated for adat ceremonies, the villagers purchase one or several goats (depending on the funds raised), which are then cooked for all the villagers and presented on a kapopore (a large flat tray). In addition to the meat(s), each household will come to the baruga offering any type of foods they can bring with them (vegetables, fruit, or rice). After naik talang (a procession where the parabela blesses the meats on the tray), the villagers can start their feast. During the feast there is a core ceremonial gesture called posambua, where the adat leaders
(parabela, moji, waci and pandesuka) feed each other as a symbol of unity in their leadership.

5.1.3. Social structure

The social structure in Warinta is very much related to the strongly established *adat* system. The traditional local structure is identifiable by the existence of the *parabela* and the *adat* council. The role of the *adat* institutions (the *parabela* and *adat* council) is crucial in the community, and this has an effect on how village members interact with these institutions in their society.

*Adat* institutions have an important role in all decision-making that is related to the daily life of the villagers — planting/farming seasons, harvesting, weddings, funerals, circumcision, dealing with conflicts, and so on. When government institutions (the village head and BPD – the village consultative council) face difficulties in solving conflicts among the villagers, they usually ask the *parabela* to help them in resolving the issues.72 According to the *sekretaris desa* (the village secretary), there are no issues in the village that cannot be solved by the *parabela* (interview with the *sekdes*, 25/02/2010).

The ancestors of the Cia Cia Lapor in Warinta are closely related to the Sultanate of Buton; the land in Warinta belonged to the Sultanate and was given directly to the villagers. Consequently, the land in Warinta is considered as *adat* land. It is the norm in this village that when a newly wed couple need land to build a house or for cultivation, they will ask the *parabela* for a permit to live/work on a certain piece of land. Then the *parabela* will discuss their request with the council and give decisions. Since the *parabela* and the *adat* council are fully aware of the history of the land and their ancestors and know the whole community’s types of property ownership, they also know which land can be ‘given away’, in accordance with the couple’s family lineage.

Although it is a common practice to ask for a piece of *adat* land from the *parabela*, after receiving the land, some of the villagers have also obtained a certificate from

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72 This suggests positive ways to create partnerships with elites for wider community benefits.
the National Land Authority or BPN (*Badan Pertanahan Nasional*) to ensure the formality of ownership. Obtaining the certificate is only for those who can afford the cost of processing the certificate. The surveys show that 58% of the applicants for *residential* land ownership in the village have obtained the certificate, and their children or the next generation of this category of ownership (*hak milik*) will lose the right to claim *adat* land and instead will inherit the land from their parents. The remainder (42%) of respondents occupy *adat* land without the certificate.

As for land ownership for *cultivation*, 81% of the land in the village is categorised as *adat* land, and only 19% have obtained the land ownership certificate for cultivation purposes (which in most cases is covered under a residential land ownership title). *Adat* and other community leaders have made a strong commitment to the members of the community in Warinta that they will provide the land for cultivation needed by the Warinta people. The land can be claimed and converted to *hak milik* (ownership) subject to the claimant being able to show that it has been well taken care of and cultivation has proven to be successful. Although this sounds encouraging, the trend of claiming *adat* land for farming and cultivation has decreased, since most members of the young generation are not interested in farming. The process of conversion of *adat* land to *hak milik* (ownership)\(^7\) does not seem to create any debate or conflict among the members of the community in Warinta.

Furthermore, the historical background of the Cia Cia Lapor in Warinta and their close relationship with the Sultanate of Buton (they were historically among the Sultan’s advisors) have had an effect on social cohesion in the village. My interviews with the *parabela* and the *adat* council have elicited that Warinta’s villagers all share a common ancestor or the same lineage of origin (*consanguineal*). Homogeneity (by means of sub-ethnic and kinship ties) in the village has affected the way they socialise with each other.

Regarding mutual interactions with surrounding villages, it seems that Warinta villagers are not strongly oriented to activities beyond their village. They visit and participate in rituals and ceremonies, such as weddings and funerals, in neighbouring villages.\(^7\) In this case, private property has existed since the New Order.
villages only when relatives are involved or they are invited by friends. This is not the case if the ceremonies are conducted in their own village of Warinta; usually all people within the village come to a wedding or funeral without having to be invited, since it is considered as a communal event. This has been the norm in the village, because they are all considered as relatives, and those who attend these events will participate in helping the family who hold the feast or ceremonial event. For instance, when a family is having a wedding party, men in the village will help with putting up tents/pavilions, arranging chairs, getting the sound system working and so on, while women will help in the kitchen (cooking, washing dishes or cleaning up). Also, some closest relatives and friends will contribute cooking materials (rice, cooking oil, etc.) for the event.

In terms of more formal interaction, 70% of Warinta residents belong to and are active within groups or associations within their village; only 8.5% of villagers join other groups that are based outside Warinta, such as cooperatives and political parties. Survey responses confirm that the majority of respondents (77%) do not attend formal meetings beyond the village, while the remaining respondents have attended meetings such as workshops or training in agriculture and education, or external project-based meetings (PNPM).

It is clear that the social structure in Warinta village affects local social and political dynamics, especially in regard to how people interact within the village (bonding social capital), as well as their connections with neighbouring villages (bridging social capital). The next section will discuss the level of social cohesion in Warinta village and its relation to the bonding type of social capital and associated community dynamics.

5.2. Local Dynamics as an Indicator of Social Cohesion in Warinta: Strong Bonding Social Capital

Villagers of Warinta consider themselves to have the strongest adat institutions in Buton. Gatherings in the baruga to consider adat matters are attended and discussed by most of the community. If the meeting involves an adat ritual opening ceremony, then only men are allowed to sit in the baruga during the ceremony. Once the ceremony ends, then the women can join the discussion in the baruga. The
participation is high at most of the adat meetings, as they are relevant to their daily lives and it is important for them to know what has been decided. Even though decisions are not made by a vote among all community members, the members have full respect for their adat leader and believe that whatever decision is taken must have divine sanction. This is part of the strong implicit compliance with local rules and customs by adat members in the village.

The dynamics of local activities are mainly based on adat institutions. The mediation of adat is central to preparing the ground for cultivation, harvesting their crops, blessing weddings and leading prayers in funerals, children’s circumcision and their baby’s first haircut, celebrating the entry into a new house, and many other events that bring people together. Since these events are related to their work and belief system, participation is consistently high.

Other than adat institutions, there are several local associations and groups that have been established by the community and religious leaders to meet the practical needs of the community. Most of the villagers belong to farmers’ associations (Gapoktan), the Penggerak Kesejahteraan Keluarga or PKK (Family Welfare Movement), Majelis Ta’lim (a religious group aiming to teach its members to read and learn about the Koran) and Ikatan Remaja Mesjid (a Muslim association for youth). These organisations have memberships ranging from 6 to 20 people. Some members of these organisations mentioned during interviews that membership at the establishment of these associations was high, but has decreased over time. They also commented that farmers’ associations are not as dynamic as they had hoped; they only gather when there is a penyuluhan information session run by an extension agent that relates to their agricultural needs. This penyuluhan is not a regular event in the village. Some members are not motivated to attend penyuluhan directly, because they can learn from their farmer friends in a more practical way. The lack of activities that they can share together and lack of motivation to attend meetings have contributed to the decreased membership in each gathering over time.

Most women will attend either the PKK and/or Majelis Ta’lim. The regular attendance at these meetings is around 50 for PKK and 20 for Majelis Ta’lim. Activities conducted by these groups have not only revolved mainly around women’s
core activities, such as keeping the village clean and visiting sick families (PKK) or reading the Koran (*Majelis Ta’lim*), but they have also formed a *kelompok arisan* (rotating credit group). This has encouraged the members to come regularly.

Besides PKK and *Majelis Ta’lim*, women in the village have several other occasions for gatherings, such as to practice *kasidah* (religious chanting in Arabic or Indonesian, sung to the rhythms of a *gambus* or *gendang* – tambourine). There are three groups of *kasidah* in the village, and they practise regularly – mostly in *baruga*, especially for the purpose of a *kasidah* competition that is usually conducted within the village, as well as with other neighbouring villages.

The villagers also meet for more informal events, such as playing sports and maintaining village infrastructure. The village has several sporting facilities (one soccer field, two volleyball courts and two tennis tables). Most of the sports activities are conducted in the afternoons or Friday mornings to avoid conflict with other work and religious obligations.

As for infrastructure maintenance, the villagers are actively engaged in maintaining the village’s piped water system, using gravity levels. The system has been in place since 1986 when CARE initiated the process. Although the program was completed in 1987 and the original maintenance groups established to maintain the system are no longer active, villagers have continued to maintain the system by setting up a maintenance committee. This committee has eight members, two people from each hamlet, and their main task is to manage monthly *iuran* (regular contributions) paid by members of the community of IDR 3,000 per household. Since the piped water system uses simple gravity levels,74 it does not imply high maintenance that requires hiring outside workers or repairers.

Focus group discussions75 were conducted to ascertain the villagers’ perceptions of the main issues in the village, how they resolve them and whether or not the issues have remained the same over the last decade. This approach aims to assess their capacity to work together to solve local issues. The data summarised in Table 5.1

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74 A lesson learned for a small-scale rural infrastructure
75 See Section 1.2.4 on FGD methodology
indicate that issues that villagers have faced over the last ten years are mainly concerned with village infrastructure, such as improvement of access roads in the hamlets, water storage (for dry seasons), extension or construction of a new mosque, extension of the sports field area. Issues such as health, education (affordability of continuing schooling), agriculture (pests and fertiliser), job opportunities and youth fights were constantly mentioned. Survey data confirm the FGD findings: the largest proportion (45%) of respondents believe that infrastructure-related development is the most important need of the village, and the rest of respondents perceive education and health as the two other issues that need attention and development in the village. It seems that there have been no significant perceived changes in the issues and needs expressed by villagers.

Table 5.1. Significant development issues: current compared to previous (10 years ago) priorities in Warinta (in order of importance to the group)

<table>
<thead>
<tr>
<th>Men’s Group</th>
<th>Women’s Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong></td>
<td><strong>Now</strong></td>
</tr>
<tr>
<td>Access roads</td>
<td>Access roads</td>
</tr>
<tr>
<td>Pest problem</td>
<td>Pest problem</td>
</tr>
<tr>
<td>Education</td>
<td>Education</td>
</tr>
<tr>
<td>Agriculture (seedlings, fertiliser)</td>
<td>Agriculture (seedlings, fertiliser)</td>
</tr>
<tr>
<td>PNPM Rural (operational, etc)</td>
<td>Water resources (alternative/containers)</td>
</tr>
<tr>
<td>Job opportunities</td>
<td>Health and religious (mosque) buildings</td>
</tr>
<tr>
<td>Water resources (alternative/storage)</td>
<td>Sports (arena and equipment)</td>
</tr>
<tr>
<td>Health and religious (mosque) buildings</td>
<td>Job opportunities</td>
</tr>
<tr>
<td>Sports (arena and equipment)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Young Adults Group</th>
<th>PNPM Implementation Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong></td>
<td><strong>Now</strong></td>
</tr>
<tr>
<td>Pest problems</td>
<td>Pest problems</td>
</tr>
<tr>
<td>Education: affordability</td>
<td>Job opportunities</td>
</tr>
<tr>
<td>Job opportunities</td>
<td>Education: affordability</td>
</tr>
<tr>
<td>Sports equipment</td>
<td>Youth fights</td>
</tr>
<tr>
<td>Youth fights</td>
<td>Sports equipment</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Focus Group Discussions, Desa Warinta, February 06, 2011

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76 Focus group members were asked to identify and list issues/problems they faced 10 years ago.
The strong level of cohesion, hence indicating a strong bonding social capital, in the community is expressed in more informal interactions and also in collective activities or events that affect their daily lives, such as maintaining the piped water system, cleaning up the village, participating in sports, and in adat-related events or ceremonies.

The next section will discuss other important aspects of bonding and bridging social capital in Warinta, which include the level of diversity, participatory and collective action in village governance, and community attitudes (importance, trust, influence) towards local institutions in order to build a comprehensive picture of community engagement and interaction, both within the village and beyond it.

5.3. Village Governance and Local Institutions: Diversity, Participation and Collective Action

Villagers in Warinta are considered descendants of the original inhabitants who settled in the Warinta area in the 16th century according to oral sources. With the advent of regional autonomy and the proliferation of administrative units (pemekaran), Warinta was considered to be ready for separation from its parent village of Lapodi, considering its long-standing distinct settlement and social arrangements, in order to become a new administrative village (desa) in 2001. Since then there have been changes in administration (village head/kepala desa) three times. The current elected village head had just been formally inaugurated at the time of my field research (2010).

The operation of the Badan Permuyawaratan Desa (Village Consultative Councils) or BPD in Warinta does not seem to be effective. The survey data show that the majority (55%) of households in this village are either not satisfied (48%) with their representative in BPD or did not give an opinion (7%), as they could not see any output of BPD leadership. Most of them said ‘BPD tidak berfungsi, selama ini tidak

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77 According to the Ministerial Decree of Home Affairs (Permen Dalam Negeri) No. 28/2006, there are several conditions to be met in order to establish an administrative village; among others: (a) having at least 1000 people or 200 households; and (b) having sufficient potential natural and human resources.
ada hasil dan kegiatan yang jelas’ (‘BPD is not functioning well, so far there are no outcomes and activities that are clear to the community’). As a result, most of the villagers (70%) prefer to directly attend formal meetings rather than voicing their concerns through their representative in the BPD.

In addition, most of the villagers were rather sceptical when asked to comment on village development agendas proposed by the village head and BPD. The tone of respondents interviewed in informal conversations changed dramatically when the topics were about village government; they were not as enthusiastic as when discussing other topics. Responses to questions about village government or the village development agenda were different in formal public situations compared to those in more informal settings. In a formal setting, when discussion on the selection process of BPD members was held in the village hall, most villagers who attended the meeting agreed that the process was transparent. However, responses contradicted this when further discussions on the same topic were conducted while having coffee together with members of the community in the baruga (informal situations). They said:

‘… soalnya ada pak desa kita ndak enak kalau bicara yang jujur dan terbuka. Sebenarnya, proses pemilihan tidak seperti begitu. Bukan masyarakat yg mengajukan pilihan, tetapi sudah ditunjuk oleh orang-orang penting… (‘… the head of village was there during the meeting, so we were not comfortable speaking honestly and openly. The truth is that the election process was not like what had been explained by the village head. The community did not actually propose their representatives [in the BPD election], they were selected by the prominent figures [of the village]...’).

Apparently, villagers do not see the difference in the selection process from the previous form of the BPD – Badan Perwakilan Desa (Village Representative Council) — stipulated in UU 1999, when compared with the current BPD (the revision of the decentralisation law UU 32/2004). The selection process for the members of the BPD has effectively been through appointment by some prominent figures in the village rather than getting the people at hamlet level to propose their representatives for the selection/voting of the BPD members at village level.
Furthermore, the level of transparency in decision-making and the village financial system is a big question in Warinta. The villagers are in agreement and fully understand that the roles of village government (village head and BPD) should be very important for the future of their village. Nevertheless, data show that village government officials have mostly disappointed the villagers by their lack of transparency in the decision-making process; only 45% of survey respondents were satisfied, and the rest were either not very satisfied or not satisfied at all. Although some meetings are open to the community, and most of the villagers prefer to attend them rather than rely on their representatives, most of the topics at these meetings are too general and mainly project-oriented, such as discussing activities for gotong royong (collective community work based on concepts of mutual aid/obligation), what types of social projects/activities are being planned, and so on. However, most of the villagers feel that issues such as the types of programs to be funded or the sources of funding and so on have been decided internally by the leadership team of BPD and the village head, without prior consultation among the members who are supposed to represent the villagers’ voices.

In terms of the village financial system, the annual village budget (APB Desa) in Warinta is approximately Rp. 53.6 million, with routine expenditure of Rp. 38.7 million, and development expenditure of Rp. 14.9 million. The revenue comes partially from Rp. 25.6 million of village level PAD (Pendapatan Asli Desa or village-originated revenues). These data were given by the village secretary; however, when asked for the details of sources of revenues and expenditures, the village officials were reluctant to share the information. Instead, the secretary gave general information showing that sources of village revenues are mainly from agriculture and livestock.

Transparency in managing the village budget is important to build the trust of villagers in their government; a democratic system requires openness as to how revenues are received and what is spent from the village financial resources. Data from the household sample survey show that the majority of Warinta villagers did

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78 APB (Anggaran Pendapatan dan Belanja) Desa is the annual government budget at village level, discussed and approved by the village head and BPD, as stipulated in the village decree.
not believe that administrative village government officials have been transparent enough in regard to the village budgetary process. Some of their comments include:

‘Tidak diketahuinya metoda pengelolaan anggaran’ (‘[We are] not well informed on the management method of the [village’s] budgetary [system]’);

‘Setiap dana yang ada di desa untuk pengelolaannya tidak jelas, hanya dinikmati pemerintah desa saja’ (‘The management of each fund in the village is not clear, these are only for the benefit of the village officials’);

‘Setiap anggaran yang masuk di desa kebanyakan masyarakat tidak mengetahui, karena tidak transparannya anggaran yang masuk’ (‘Most of the villagers are not well informed on the funds that come into the village budget, there is no transparency about the incoming funds’);

‘Pimpinan desa kurang transparan kepada masyarakat, karena kepala desa memilih orang-orang tertentu’ (‘Village officials are not transparent to the villagers, and the village head only chooses certain people [to be informed]’).

Those who believe that their local government has been transparent enough in managing the village budget are mostly the passive participants. A typical comment is: ‘Masyarakat keseluruhan tidak hadir tapi lewat perwakilan tokoh, disyukuri saja, umumnya sudah cukup transparan’ (‘Not all of the community attended [the meeting], instead [it was] through representation by local prominent figures; we just gave thanks [for the result, as it is] generally transparent enough’). These passive participants are more tolerant or not interested in the process and tend to accept the outcomes of the meeting. This attitude needs to be carefully assessed, as these respondents are not necessarily indicating that they are satisfied with transparency within the local government system.

The attitude of terima saja (accept just as it is) or disyukuri saja (just be thankful [for whatever decision came up]) was a typical reaction to government during the pre-reform era, when government leaders had power to decide for the community and a low level of accountability towards those on whose behalf decisions were supposedly made. During the pre-reform era, the community was ‘represented’ through the LMD Councils, and since the members of LMD were chosen by the village head, they were only accountable to him, and not to the community. This contributed to the system where the community did not feel comfortable voicing their concerns within the
government system, and decisions were made for them. Within such a system, the behaviour of accepting the results and process without questioning their government became the ‘culture’ within the decision-making process within local government. As a result, passive attitudes towards decision-making in government-related activities have carried forward into the post-reform and decentralisation era. It may take generations to change the deep-rooted behaviour of passive participation in government-related activities, especially in a situation where there is a continuous lack of involvement in the decision-making processes.

One might argue that past experiences with non-responsive government may not be the only reason for passivity; rather, as in Holja (next chapter), some people are unable or unwilling to devote the time and commitment needed to make active participation meaningful (cf. Cooke and Kothari, 2001; Hickey and Mohan, 2004). This could be true in a situation where both government and non-government related activities show the same level of participation. However, in the case of Warinta, such a trend (of passive participation) has only occurred in government-related activities or meetings. Non-government related gatherings show more active participation, as the following sections demonstrate.

### 5.3.1. Density and diversity of membership in local institutions

The PKK (Penggerak Kesejahteraan Keluarga or family welfare movement), Majelis Ta’lim (Muslim women’s group), Gapoktan (farmers’ association), Arisan (rotating credit association) and youth groups are the main local institutions that play a major role in shaping the level of collective action in Warinta. Survey data show that the density of membership in local institutions is high, with 100% of respondent households indicating membership in at least one organisation and 70% having members belonging to two or more.

#### Table 5.2. Percentage of total households by number of organisational memberships

<table>
<thead>
<tr>
<th>Number of total organisations</th>
<th>Percentage of membership (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Household survey in Warinta
In terms of diversity of the membership of these local institutions, the surveys show that they are relatively homogeneous: most members have the same religion, with 100% Muslim affiliation; the same ethnicity — Cia Cia – and sub ethnicity, being Cia Cia Laporo; the same main occupation as farmers; and, on average, the same level of education, with the majority having completed primary school. Also, the villagers have dense kinship ties, as described in the social structure section of this chapter. Table 5.3 below describes kinship networks in relation to village leadership.

Table 5.3. Relationship in Warinta

<table>
<thead>
<tr>
<th>Local Groups</th>
<th>Position and relation to village head: K (Kinship), M (Marriage), N (No relation)*</th>
<th>Position and relation to other village leaders (mention the type of leadership, e.g., adat, religious, local groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majelis Ta’lim</td>
<td>Leader: Wa Teni (N) Secretary: Suhartina (N) Treasurer: Wa Eni (N)</td>
<td>Leader: Wa Teni’s husband is a grandchild of Warinta’s Parabela (adat leader).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secretary: Suhartina is a grandchild of the parabela, a cousin of the MT’s leader, a niece of the Hamlet head.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treasurer: Wa Eni is a sister of Wa Teni.</td>
</tr>
<tr>
<td>Gapoktan</td>
<td>Leader 1: La Gani (N) Leader 2: La Jawapu (N)</td>
<td>Leader 1: La Gani is an in-law of BPD leader, and cousin of penghulu (the traditional celebrant).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leader 2: No relation</td>
</tr>
<tr>
<td>PKK</td>
<td>Leader: Wa Ati (M) Secretary: Suhartina (N) Treasurer: Nuruini (N)</td>
<td>Leader: No relation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Secretary: Suhartina is a grandchild of the parabela, a cousin of the MT’s leader, a niece of the Hamlet head.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Treasurer: Nuruini is a niece of a Hamlet head, and niece of the parabela</td>
</tr>
<tr>
<td>PNPM Green implementation team</td>
<td>KPMD1: La Gani (N) KPMD2: Wa Teni (N)</td>
<td>KPMD1: La Gani is an in-law of BPD leader, and cousin of the traditional celebrant.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KPMD2: Wa Teni’s husband is a grandchild of Warinta’s Parabela (adat leader)</td>
</tr>
</tbody>
</table>

Source: Interviews with local leaders in Warinta

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*Although kinship can be universally defined in various ways, for the purposes of this research, it will be limited to the social recognition of biological relationships between persons in a culture, as well as of relatives by marriage, adoption or other rituals (Carsten, 2004; Schneider, 2004; Stone, 1997; Tonkinson, 1991).*
The chart below illustrates the relations of institutional functionaries across the institutions in Warinta.

**Chart 5.1. The relations of institutional functionaries in Warinta**

Both the table and the chart show that those people who hold the key positions in the groups to implement local governance activities, with the exception of the PKK, are not directly related to the village head; rather, most commonly connected node in these relations is the *parabela*. As the role of a *parabela* in the society is crucial and highly regarded as the most trusted and respected institution in the village, this has an effect on people's perception and attitude towards the *parabela* and his family.
members (by kinship and marriage), who take on active roles within the local institutions.

5.3.2. Collective action and social cohesion
Collective action and social cohesion in Warinta are strong in more informal interactions, as described in the previous sections. Adat institutions foster high levels of collective action because these institutions reach out to the villagers’ needs and are relevant to their daily social interactions and sense of identity. The role of the adat leader (parabela) seems to unite the whole community. In addition to adat, all other local institutions show the same trend, except for the farmers’ associations (Gapoktan); here, collective action was strong when it was first established, but decreased over time due to the lack of events/activities which engaged the members and from which they could benefit. Survey data show that the extent of collective action in local institutions within a period of six months prior to the survey was high, with 64% of respondent households attending 6 to 12 times on occasions of any form of collective action, 13% reported attending twice, and 20% attending only once.\textsuperscript{80} The data also reveal that participation in decision-making in the context of these local institutions is high, with 38% of respondents considering themselves very active, 42.5% rather active, and 12.5% non-active; the rest (7%) did not give any responses.

As for connection to other networks for practical (e.g. financial) help and mutual support, most of the community members tend to turn to their family outside the household, to neighbours, to friends and to the bank (BRI – Bank Rakyat Indonesia). Also, they get together in times of need, contributing to mutual aid collective actions (gotong royong), such as helping their friends in the neighbourhood to build or repair their homes, contributing food and assistance for wedding receptions, maintaining public facilities, cleaning the mosque, cleaning up the areas around the spring water catchment area, harvesting together, supporting adat party/events, and so on. The survey revealed that 83% of respondents were involved in this type of voluntary collective action. In contrast, only 17% of respondents turned out for more official (compulsory) gotong royong activities prescribed by the village government.

\textsuperscript{80} See survey question number 2.1 in Appendix 6
officials, such as getting together to clean up the village hall, tidying up the PKK’s garden, or renovating the village government’s office.

5.3.3. The perception of villagers towards their local institutions: Level of importance and trust
It is essential to understand the roles that various village institutions play in different aspects of villagers’ lives, as well as whether the villagers perceive that they have any control or influence over these institutions. Therefore, the level of importance (pentingnya) and trust (percaya) attached to village institutions and leadership were assessed for this research.

Firstly, to analyse the level of importance (pentingnya) of local institutions, all focus groups were asked to list different institutions in the community, and then place them along the first column of a matrix that was prepared on paper using marker pens. Secondly, these groups discussed the basis on which they differentiate these institutions; they were asked several questions leading to the main question, ‘Which institutions are important in their lives?’ Some questions were: ‘Which government and non-government institutions have the most positive or negative impact in your lives? Why?’; ‘Where do you get help from (instructions, support, etc)?’; ‘Which institutions support you when you face a crisis or have problems?’; ‘Which institutions support your livelihood?’ They were asked to give examples of their experiences. Based on the answers to these questions, with facilitation by the group leader, they ranked all the institutions in the list. After ranking (for more details on the ranking method, see Chapter 1), each group re-listed the institutions in order of importance (see Table 5.4). The majority of participants in the FGDs perceive adat institutions, religious institutions (TPA, Majelis Ta’lim, celebrant), and user groups (e.g. farmers’ groups) as the most important institutions in their village. These institutions provide activities and services that are relevant to the community’s daily life. These are the main criteria by which the groups’ participants ranked the level of importance. When we compare these FGD data with the surveys and participant observation, the high level of importance attributed to these institutions correlates with more active participation in collective action.
Table 5.4. Group perceptions of the most important local roles and institution (in order of importance).

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
<th>Young Adults</th>
<th>PNPM Team</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Adat</em></td>
<td>Village head</td>
<td><em>Taman Pengajian Alquran (TPA)</em></td>
<td><em>Adat</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>(Koran reading – religious group)</em></td>
<td></td>
</tr>
<tr>
<td><em>Penghulu</em> (traditional</td>
<td><em>Penghulu</em> (traditional/religious</td>
<td><em>Kelompok Tani</em> (farmers’ group)</td>
<td>Village government</td>
</tr>
<tr>
<td>celebrant)</td>
<td>celebrant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Pengajian Alquran</em></td>
<td><em>Adat</em></td>
<td><em>Majelis Ta’lim</em></td>
<td>PNPM facilitators</td>
</tr>
<tr>
<td><em>(Koran reading group)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health check</td>
<td>TPA/Koran Reading Group</td>
<td>Health check post <em>(Puskesmas)</em></td>
<td><em>Bidan</em></td>
</tr>
<tr>
<td>post <em>(Puskesmas)</em></td>
<td></td>
<td></td>
<td><em>(midwife)</em></td>
</tr>
<tr>
<td><em>Poskamling</em> (neighbourhood watch)</td>
<td>School</td>
<td></td>
<td>School</td>
</tr>
<tr>
<td><em>Warung</em> (kiosk)</td>
<td>K dus (head of hamlet)</td>
<td><em>Warung</em> (kiosk)</td>
<td></td>
</tr>
<tr>
<td>Village government</td>
<td><em>Bidan</em> (midwife)</td>
<td><em>Penghulu</em> (traditional celebrant)</td>
<td></td>
</tr>
<tr>
<td><em>BPD</em></td>
<td><em>Majelis Talim</em></td>
<td></td>
<td><em>BPD</em></td>
</tr>
<tr>
<td><em>Bidan</em> (mid wife)</td>
<td>PKK</td>
<td></td>
<td>Kadus</td>
</tr>
<tr>
<td></td>
<td>BPD</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Warung</em> (kiosk)</td>
<td></td>
<td></td>
<td>TPA</td>
</tr>
<tr>
<td><em>KPMD</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Focus Group Discussions in Warinta

These FGDs show a few results that need to be noted. Firstly, according to the FGD results, the members in the women’s group ranked the village head more highly than did the men. The reason given was that village head in Warinta is very supportive in helping the villagers in resolving administrative matters. This women’s group also ranked the PKK low because their perception of the institution is that it merely helps organise the neighbourhood clean-up. In addition, the *puskesmas* is mentioned in the men’s list rather than in the women’s. Informal discussions during FGD sessions reveal that this was due to different interpretations of the particular FGD question. FGD members in the men's group interpreted the question to include any institutions that are needed by the villagers, including those not located in their village, while members in the women's group only included institutions that are physically located and found in the village.
The FGD results also show that the young adult group ranked the farmers’ group highly, but there is no mention from the adult male FGD who are mostly farmers. This indicates that the young adults who are not members of the FGD still have a positive attitude towards the institution, hoping that it will benefit the farmers. However, in reality, the farmers who are mostly members of this institution have a better understanding of what can be expected of Gapoktan. In this case, the lack of activity explains the passive membership.

Another aspect of the villagers’ perception that needs to be looked at is the level of trust held in these institutions, as it is suggested by many scholars that trust facilitates participation in collective actions (Kilpatrick and Field, 2001; Pretty and Ward, 2001; Putnam, 1993). In terms of levels of trust, the participants of FGD scored all local institutions and groups as at the level of most trusted institutions, except for the puskesmas (health check post) and BPD. Villagers generally trust that all decisions made by adat and religious institutions are appropriate and practical for the villagers’ daily lives. The nature of the institutions that are strong in the villagers’ belief system has impacted on their level of trust, and the fact that their daily lives have revolved around adat activities/events has encouraged a high level of participation in collective action in this sphere.

As for the administrative village government, most of the participants in the FGDs distinguished between the village head and the BPD (the village representative council). The participants interpreted ‘trust’ in the village head in terms of reliance on his primary support in village administration, for instance, for obtaining a kartu tanda penduduk/KTP (identification card), managing village funds for development, organising lomba desa (village competitions) for Independence Day, and other activities that are not immediately related to the villagers’ basic livelihoods. Participation (either active or passive) in collective action varies according to the events/activities/meetings concerned. However, it is a different case with the BPD. Since villagers have a low level of trust in this institution, they prefer to attend the meetings directly rather than through their representatives in the village government. Survey data correspond to this finding, showing that 70% of respondents attend formal meetings instead of relying on representatives in BPD.
Table 5.5. Trust level towards local institutions

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Trust (scores: 10 to 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men’s Group</td>
</tr>
<tr>
<td>Adat</td>
<td>50</td>
</tr>
<tr>
<td>Traditional celebrant (Penghulu)</td>
<td>50</td>
</tr>
<tr>
<td>Pengajian Alquran/TPA (Koran reading group)</td>
<td>50</td>
</tr>
<tr>
<td>Neighbourhood watch (Poskamling)</td>
<td>50</td>
</tr>
<tr>
<td>Warung (kiosk)</td>
<td>50</td>
</tr>
<tr>
<td>Village head</td>
<td>50</td>
</tr>
<tr>
<td>BPD</td>
<td>30</td>
</tr>
<tr>
<td>Mid-wife</td>
<td>50</td>
</tr>
<tr>
<td>School</td>
<td>50</td>
</tr>
<tr>
<td>Head of hamlet</td>
<td>50</td>
</tr>
<tr>
<td>Majelis Talim</td>
<td>50</td>
</tr>
<tr>
<td>PKK</td>
<td>50</td>
</tr>
<tr>
<td>KPMD/PNPM facilitator</td>
<td>50</td>
</tr>
<tr>
<td>Farmers’ group (Kelompok Tani)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Focus Group Discussions in Warinta
Notes: The list of the institutions/groups was taken from the same list as the previous table (Table 5.3), as the discussions on the topic of ‘trust towards local institutions’ referred to those institutions and groups that the members of the FGD groups perceived as the most important institutions.

It is evident that the perceptions of villagers in Warinta about their local institutions (in terms of level of importance and trust) affect their participation in activities and vice versa. The lack of participation by members of the Young Adults group affected their lack of assessment of village institutions other than religious and health groups. The majority of these institutions are perceived as significant and have gained trust across the group. Participation in collective action is strong, except for the farmers’ associations (Gapoktan), whose collective action was strong when first established, but decreased over time due to the lack of activities (i.e. most of the activities related to agriculture or animal husbandry occur only during the visits of agriculture extension staff from the district’s agriculture department).

In addition, the FGD results also show that the perceptions of villagers towards their local institutions tend to highlight the existence of strong bonding social capital within the community of Warinta. However, as we will discuss further in the next sections of this chapter, effective natural resource management requires more than
strong bonding social capital. Bridging and linking forms of capital are also necessary for the protection and management of natural resources to achieve sustainability in the long run.

5.4. PNPM Green Initiative: Effectiveness and Applicability at the Local Level

Most of the projects/programs funded by government and non-government organisations (see Table 5.6) and carried out in Warinta have community participation as one of the key elements in their agenda, aiming – in theory – to ensure community ownership of a program, its relevance to local circumstances, and to increase a project’s sustainability. In order to accomplish these objectives, the quantitative measure of numbers of people participating in a project-related meeting is as important as the qualitative measure of the interactions and influence of the groups of people who attend the gathering. In this context, project-oriented activities like those in PNPM Rural and PNPM Green face challenges in achieving active participation in their meetings. Unintentionally, some of the facilitators of the programs put quantity over quality at the meetings, by making sure the numbers of attendees meet a quantitative threshold, regardless of the lack of interaction and participation in decision-making.

The program also struggles to maintain the number of attendees across the stages of the program; the surveys show that the level of attendance in the socialisation stage of meetings is high, but it drops down during the implementation. This section, therefore, will explore and discuss: the practices and processes of community proposal development; the level of social cohesion influencing local responses to PNPM Green initiatives; and whether the program has led to greater capacity to address the most significant local environmental issues. Within this context, the implications of bonding and bridging social capital are explored.
Table 5.6. List of programs/interventions related to capacity building, community development and natural resource management

<table>
<thead>
<tr>
<th>Project names</th>
<th>Institutions Involved</th>
<th>Objective</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipanisasi (waterpipe provision)</td>
<td>CARE (NGO)</td>
<td>Clean water and sanitation provisions</td>
<td>1986-1987</td>
</tr>
<tr>
<td>PNPM-MP (including KDP)</td>
<td>Government</td>
<td>Community development and poverty alleviation</td>
<td>2000-present</td>
</tr>
<tr>
<td>Lambusango Forest Conservation Program (LFCP)</td>
<td>Operation Wallacea Trust (NGO)</td>
<td>Socialisation of Lambusango Forest management, establishment of a working forum for villages near the forest</td>
<td>2005-2008</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project names</th>
<th>Institutions Involved</th>
<th>Objective</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNPM-LMP (PNPM Green)</td>
<td>Government</td>
<td>NRM and poverty alleviation</td>
<td>2008-present</td>
</tr>
<tr>
<td>P2WKSS (Program Peranan Wanita menuju Keluarga Sehat Sejahtera)</td>
<td><strong>Dinas Sosial at provincial level (Government)</strong></td>
<td>Pilot project to improve roles of women in livelihoods of selected villages at provincial level</td>
<td>Feb – Oct 2009</td>
</tr>
<tr>
<td>Program Peningkatan Kesejahteraan</td>
<td><strong>Dinas Sosial</strong></td>
<td>Program to improve entrepreneurial skills</td>
<td>2009</td>
</tr>
</tbody>
</table>

Sources: Participant observation and informal discussions, semi-structured interviews in Warinta

5.4.1. PNPM Green in Warinta: Practices and process

The village has been exposed to the PNPM Rural and its predecessor KDP program since 2000, but villagers only became actively involved in 2006 when their first proposal was approved. The PNPM Green pilot program commenced in the village in 2008, alongside PNPM Rural. The Green program requires several teams to work at the local level: project management teams, proposal development teams, and maintenance teams. Since 2006 the members of these teams have changed each year. Attendance at meetings is encouraged, as it is written in the guidelines for project implementation that a certain number of villagers must attend in order for the meeting to be viable.

One of these subsequent meetings is conducted through the process of village development planning or MMDD (Menggagas Masa Depan Desa). There were several local issues and challenges that the villagers put forward during the meeting. The complete list is as follows: access road improvement, extension of the housing area, a neighbourhood patrol post at hamlet level, water containers to be used during the dry season, the mosque’s ceiling, drainage, roadside lights, extension of the
sports field area, rehabilitation of the weir near the spring, a rice milling machine, training in tailoring, sanitation, erosion, operating funds for business, extension of the mosque, agricultural training (coffee, cashews), upgrading of roads.\footnote{81}

Both FGDs and survey data described in the earlier sections confirm that the MMDD results for the main PNPM Rural program in regard to the list of needs at village level have shown the same trends. Their priority was mainly on development funding for village infrastructure, which was apparently considered more important than protecting or managing local natural resources (in this case Lambusango Forest). This does not necessarily mean that the villagers do not perceive it is important to protect their local forest. This emphasis arises because village infrastructure requires a large amount of funding that can only be obtained from projects/interventions. Furthermore since the village has been exposed to several village infrastructure funding projects since 1986, as well as a community-driven development program since 2000, the majority of the villagers are familiar with funding mechanisms for that type of project. Therefore, when the villagers were asked about their community’s needs at village level during both the FGDs and survey, they could easily frame their answers in relation to the MMDD.

Although the MMDD meeting results show a majority of projects indicating infrastructure needs as greater than protection or management of natural resources, with the facilitation of the village cadre of KPMD (\textit{Kader Pemberdayaan Masyarakat Desa}) throughout the consecutive meetings, the village proposed a \textit{penanaman bibit pala} (nutmeg nursery and tree planting) that was funded by PNPM Green in 2008. Nutmeg – as commercially productive trees – generates income and protects the environment. Nutmeg trees producing high revenue crops survive deforestation pressure because they earn more every year than their value as wood products. The nutmeg trees start bearing within 5 to 7 years. Under normal conditions, a fully-grown tree yields approximately 2000 to 3000 fruits per year. Other effects, such as erosion protection, flood protection, increased ground-water resources and increase in soil nutrients, are beneficial to the community as well.

\footnote{81} The list was taken from the PNPM Green’s MMDD documentation during fieldwork in 2010.
The role of local KPMDs in facilitating the core principles and objectives of the program was crucial. In Warinta there are two KPMDs, one male and one female, as is standard for all villages in the program. The male KPMD is the son of a parabela of the village, and he is generally active in all social activities in the village, while the female KPMD is very active and dominant in community gatherings. She has been involved in the KDP/PNPM program since it was first initiated in 2000 (it was then called KDP), and her knowledge of the program has caused her to be selected for implementation teams. Recently, she was chosen to be one of the KPMDs due to her competence and social connections.

Although both KPMDs play a major role in the project and are effective in the facilitation process, there are positive and negative implications for general public participation. The positive side is that the villagers are well represented, resulting in a funded proposal. However, the negative side is that the villagers become over-dependent upon these KPMDs. Meetings are mostly attended during the socialisation stage of the project, and, then after that, the villagers tend to leave the rest of the process to these two people, rather than attending the meetings themselves. Surveys confirm that 57.5% of respondents did not participate in project meetings. Some of the interviewed villagers mentioned that they did not come to meetings because both KPMDs knew what they would propose and how to write the proposal. They were happy to let the KPMDs make the decisions.

As a certain level of attendance at the meetings is encouraged to implement the project, these KPMDs managed to gather sufficient numbers of people to come to the meetings. However, according to the KPMDs, it is mostly the same people who make it to the meetings, although all villagers have been invited. The main reasons for the same persons attending PNPM meetings are not that the others were too busy and could not spare their time to meet and discuss village development, since meetings were usually conducted after people return home from their farms. Rather, they trust that the KPMDs are capable of making the right decisions for the village, and that those who are active in attending the meetings will represent them well enough. Therefore, they do not see that it is necessary to join the meetings. A member of FGD groups suggested that both KPMDs helped the villagers in managing the community activities ("memfasilitasi masyarakat dalam program..."
Another villager mentioned during the interview (26/03/2010) that the KPMDs were very active and know everything about the program, so they just let them handle everything (“KPMD sangat aktif dan mereka tau segalanya tentang program ini [PNPM Rural], kami serahkan ke mereka saja”).

Village head and BPD members in Warinta attended the inter-village meetings at sub-district level (socialisation, prioritising proposal, and decision on funding proposals), as well as meetings at village level (Musdes) for socialisation and planning. While the adat leaders (parabela) attended the village-level socialisation meeting. Their attendance at these meetings indicated their support towards the implementation of the program in the village. However, in practice, these village government officials and adat leaders have less influence over the program decision-making process; instead, the KPMDs are the dominant agents. In one of my informal (over a cup of coffee and fried cassava) interviews with the village head, he indicated his trust towards these KPMDs. He mentioned that the female KPMD could be a good candidate for the next village head election, if she wanted the position.

5.4.2. Responses to PNPM Green initiatives influenced by the level of social cohesion

The level of knowledge of the community on NRM issues is relatively adequate (judging by comments given during the survey and interviews). Data from the survey show that the villagers perceive that almost 50% of the challenges in the village are ecology-related, such as forest fires, illegal logging, drinking water pollution, erosion and loss of farming land. Furthermore, the majority (63%) of the villagers believe that they give their full support in protecting the environment/NRM; within this majority, 80% have been directly involved in the management and protection of local natural resources. In terms of environment-related activities, both formal and informal, the following list shows what most villagers think they have contributed (Survey 2010)\(^\text{82}\):

\(^{82}\) The question asked was: “Jika mendukung [perlindungan sumber daya alam atau SDA], apakah anda/anggota rumah tangga ini pernah membantu pengelolaan dan pengawasan SDA tersebut” (Question Number 5.5. and 5.6). English translation: “If supporting [the protection of natural resources], have you/or members of your household ever helped manage and monitor these resources”
... helping to protect the forest from illegal logging by joining the other villagers when we heard sounds of a chainsaw from the forest [Respondents numbers: 12 and 40];
... working together with other villagers in cleaning up the village and protecting the forest [Respondents numbers: 1, 3, 6, 9, 14, 22 and 23];
... guarding the areas surrounding the spring from illegal logging; fixing broken pipes [Respondents numbers: 15, 17, 18 and 19];

The high level of social engagement in the community affects the flow of information between villagers. In the case of program information for PNPM Green, the majority of the villagers have heard about the program, although not all know what the program is about. This was indicated when the community was asked about types of activities the village proposed; some were not sure what to answer and some confused PNPM Green with another government project. It appears that general information about the program that was delivered in the socialisation stage was transmitted well. However, detailed information on the guidelines and processes for submitting community proposals was mainly shared during subsequent meetings. Survey data confirmed that participation is high during meetings at the socialisation stage, but dropped down during the subsequent meetings at the project implementation stage, due to over-dependence on the capabilities of village facilitators (KPMDs) to manage the decision-making process.

Those who are familiar with the program have learnt or heard about it through various personnel, such as government officials at sub-district, village and hamlet levels, facilitators at village level (KPMDs) and sub-district level (FKs), NGO members who work for the program (OWT), and adat leaders. The majority (over 50%) access information about this project directly through formal meetings conducted for the project; and most (42.5%) of the respondents said they discussed the project informally in warung (kiosks) and neighbours’ houses. These figures reflect the high density of groups and social networks and the strong level of social cohesion in the village, indicating the strength of the bonding type of social capital among the villagers.

Although some did not attend subsequent meetings during the implementation stage of the project, the majority of survey respondents were very satisfied (22.5%) or satisfied enough (30%); 35% were not satisfied, and the rest (12.5%) did not have or
wish to share their opinions. The reasons for satisfaction were various: some said that they could see the evidence as facilities were being built; some appreciated that the program involved the community; and some that it helped the poor people. Those who were not satisfied mentioned that they were only involved during the earlier stage, but had not been involved during the implementation, and some said that the program only reached a certain group of people in the community.

The PNPM Green program emphasises the application of awareness-raising and capacity building at village level. The purpose is to increase the level of knowledge on environmental issues and local natural resource management, aiming for increasing the number and quality of environmental/NRM-related proposals that can be funded by the program. Although efforts have been expanded to diversify, it seems that they have not yet borne fruit. Many villagers, when asked about alternative activities that they would propose for future projects, still suggested proposals related to village infrastructure. This shows that there is less than expected impact on capacity-building and awareness-raising goals of the PNPM Green program. Village infrastructure remained the main agenda of the villagers before and after the introduction of the program. Although the program is still in its early stage, having started in 2008, the evidence to date indicates that the socialisation process does not necessarily alter people’s priorities in the context of village development, which may, in fact, for good reason place the provision of village infrastructure before environmental protection and natural resource management.

In terms of enhancing local capacity in environmental protection and NRM, the facilitation mechanism has been the core tool of the PNPM Green program. Facilitators⁸³ are hired by a national consultancy firm (National Management Consultant or NMC), assisting the government (Ministry of Home Affairs or MoHA) in day-to-day implementation. Since they are all funded by the national government, their performance and rules of conduct are guided and stipulated at national level.

⁸³ In each sub-district, two facilitators are provided for PNPM Rural, one focused on technical issues and the other ensuring that the social development aspect of the project is taken care of. In addition to these two facilitators at sub-district level, an environmental/NRM facilitator was provided at sub-district level to assist the community in implementing the green pilot plan of PNPM. At district level, the project provides two PNPM facilitators who are responsible for technical and social issues. For introduction of the green pilot plan, the project added an environmental consultant to assist the environmental specialist at provincial level.
The program has also been enriched by the involvement of a local non-government organisation, Operation Wallacea Trust (OWT). This NGO is funded through a Grant Agreement with the World Bank, with a clear mandate to assist the project in training and awareness raising of the project stakeholders, from provincial to village levels. OWT is an Indonesian Non Government Organisation with the mission of ‘Empowering Community for Conservation’. Started in early 1992, its working areas were focused on the Wallacea Region, especially forest, coastal and marine ecosystems conservation in Buton and Wakatobi districts (South East Sulawesi). Since 2007, OWT has been supporting the PNPM Green project in implementing awareness raising and capacity building for local government and community.

In-depth interviews with OWT have provided me with a better understanding of the limitations of the capacity building efforts they have been conducting for PNPM Green since 2007. One area that they find a challenge is getting the villagers to attend meetings or to gather together for training and other capacity-building efforts, mainly due to their committed and irregular schedules of work in the fields/farms. OWT’s members indicated that the irregular schedule is not the underlying cause of the poor attendance at meetings. Rather, most villagers perceive that the abundant natural resources they currently have in their village are enough to keep them going for generations and that they do not need to adopt other practices that OWT tries to introduce (which are believed by OWT to offer a more systematic approach to sustainability). Hence, they do not see strong reasons for attending gatherings arranged by the NGO.

All in all, responses to PNPM Green have been generally satisfactory in terms of getting the village proposal funded, and the villagers are generally satisfied with the process and outcomes. These have been promoted by the strong bonding social capital which is evidenced by the high density of local groups and networks in the village and the high level of trust indicated for most village authorities/institutions. However, responses also show that capacity-building efforts have not affected the community’s perception and priorities regarding the local development agenda and resource management-related issues. The following section considers the extent to
which the project has been effective in addressing local environmental and natural resource management issues, while enhancing local social capital.

5.4.3. The effectiveness of PNPM Green in addressing local environmental and NRM issues

Whether or not local natural resource management is improved by means of a community-driven proposal can mainly be seen through the outcome of project implementation. For this mandate, there are two core areas of development that PNPM Green needs to achieve effectively: to generate appropriate or relevant environmental/NRM proposals and to apply community-driven conservation and development mechanisms for their achievement.

In terms of generating a proposal with a result that benefits local NRM, PNPM Green in Warinta has achieved its purpose. However, this was not necessarily accomplished through a community-driven mechanism. Rather, it was achieved through the strong roles of local KPMDs in facilitating and influencing the decision-making process.

The funded proposal (i.e. a nursery for nutmeg seedlings)\(^{84}\) was not on the priority list that the villagers compiled during the MMDD meeting. However, under the influence and facilitation of KPMDs, the village eventually came up with the nursery proposal for the PNPM Green funding. During a project meeting at the village level – which was conducted in parallel to the PNPM Rural meeting – KPMDs had the opportunity to help the villagers to understand the focus area of PNPM Green funding and gave an example (rather than varieties of examples for the program funding, as outlined in the Table 4.4) of the tree-planting type of activity that would have the best chance to win PNPM Green funding. Also, the meeting was supposed to map out issues on local natural resources. Based on a mapping exercise, villagers were supposed to come up with a list of activities to be considered for project funding. However, in the Warinta case, the mapping exercise did not happen, as those who attended the meetings left the decision to the KPMDs as to what activity they needed to propose to win the funding.

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\(^{84}\) See table 4.4 of Chapter 4 for the list of fundable project activities
It seems that KPMDs in Warinta were well trained in developing an NRM-related proposal. The KPMDs have gained the trust of most villagers, who were happy to be represented by them in the decision-making process; therefore, development of the proposal has been dominated by the KPMDs. ‘Steering’ rather than community participation has characterised the decision-making process throughout the project development in Warinta. The effectiveness and sustainability of the project remain under question, as PNPM Green is not only about generating a ‘green’ project. It should also be proposed through and by means of community consultation and participation.

5.5. Conflict Resolution in Natural Resources Management (NRM) and the Limits of Bonding Social Capital

An adequate level of legitimacy is needed for conflict resolution in resource management (Heyd and Neef, 2004). In the case of Warinta, most conflicts have been resolved peacefully through the adat system. The two main areas of conflict that relate to resource management concern water distribution and illegal logging.

Conflict resolution regarding water distribution among the four hamlets in Warinta was primarily achieved through the leadership of all the parabela in the village. These parabela called a meeting where other local prominent figures, such as the heads of hamlets and religious leaders, were invited to solve the problem. The water system in Warinta has utilised the gravity piped system that was initiated by CARE. The system had been working and maintained well by the community until the time people in the hamlet of Karya Bugi (topographically located at the downstream end of the system) noticed that the amount of water distributed to their hamlet had decreased. The local leaders investigated and found out that most people in the upstream area (hamlet Banaue2) used pump machines, and they also found a few holes in the pipes that were causing leakage in the system. These have contributed to the low availability of water for the people downstream (i.e. Karya Bugi).

The problem escalated in 2010 when a few members of the community downstream got into a physical fight with people of Banaue2. The parabela then called the community leaders from the four hamlets to sit together in the baruga to solve these
problems. Several solutions were reached. Firstly, the use of water pump machines in Banaue2 was strictly regulated. They are only allowed in the hamlet to use the machine during off-peak hours, which are midday, when most people are off working on their farms, or during the night for those who have a generator they can use for power. They can fill up their containers and then they need to turn off the pump immediately; previously, these people sometimes left their pumps turned on all the time. Both sides of the community were happy to accept this solution.

The second solution to the water distribution issue was to set up a committee of eight people, represented by two people from each hamlet. The main task of this committee is to collect and manage community contributions each month. The amounts collected are used for the maintenance of the pipes. These two major decisions were brought up to the village head for official recognition, which he provided. These issues were resolved soon after the decision took place and no further disputes in this regard have arisen since

Illegal logging within the Lambusango Forest has been a concern to the local community in Warinta village. Within their community, *adat* rules are adhered to, ensuring that any activities within the forest in their jurisdiction are regulated by *adat* rules and sanctions. The rules are considered by the villagers to have more power and effect than an official village decree (*Peraturan Desa*/Perdes). Therefore, there has not been any official regulation (perdes) applied in the village for the purpose of protecting the forest. Since 1987, *adat* rules protect the spring water (or *matanotopo*) located inside the forest and the *Waelaki* areas (protected areas such as hilly and mountainous terrain, or catchments for spring water/tributaries). If these rules are broken by Warinta villagers, they believe that the village will experience a long dry season. This applies also if the transgressors come from outside their village; however, adherence to the Warinta's *adat* rules by ‘outsiders’ depends on their belief system. If these outsiders share the same beliefs, then the rule will be effective; otherwise, the *adat* stipulations will not lead to resource protection.

Sanctions for the transgressors from within the village vary depending on the magnitude of the action. The most destructive action will be punished by isolation *(or dikucilkan)* from the society. The person(s) who are isolated will not be allowed
to attend any social gatherings, and villagers are not allowed to visit the isolated person except for a funeral. This is the highest sanction in the community, and it is considered ‘very shameful’ to be isolated; as one interviewed villager said, he would prefer to die rather than be isolated by the society, as one who is isolated is alive but tortured emotionally.

While the sanctions applied within the community are intense, sanctions for ‘outsiders’ are applied in a different way. If the ‘outsiders’ are from the neighbouring villages, these ‘outsiders’ will have to bear the consequences by paying the boka (fines) decided by adat leaders of Warinta. If the transgression occurred within Warinta village territory, the adat system in Warinta would be applied as well. If these transgressors do not pay the fine/penalty, then community leaders in Warinta will bring the issue to the local leaders of the transgressor’s village to put pressure on them to apply the rules from Warinta. And if this effort does not work, then the transgressor (and his family) will not be welcomed in the village (Warinta) until he or she adheres to the local rules (i.e. pays the fine/penalty).

Under local adat, Warinta villagers resolve and monitor conflicts in their village, and the mechanism of conflict resolution is known and followed by all members subscribing to the institution (that is, the villagers in Warinta). This is an essential prerequisite for common property resource management, as suggested by Ostrom (1990; Bodin and Crona, 2008) and the FAO (2000). The villagers are well informed on the avenues and processes for conflict resolution. This information has been relayed verbally through adat meetings from generation to generation. The system is so strong that even the younger generation in the village is able to describe the process exactly:

‘pertama-tama pemimpin adat akan mencoba menyelesaikan masalah, jika tidak sanggup maka pemimpin adat akan diskusikan dengan kepala dusun. Dan jika masalahnya sangat kompleks maka akan dibawa ke kepala desa dan polisi’ (‘Conflicts will be taken to adat leaders to be resolved, if they cannot handle them, then the hamlet head will be involved. And if the conflict is too complex, then the village head and police will be involved as well’).

This has become the practice in the village; everyone knows on whom they need to call, in relation to which issues at what stage. There is no formal written rule on the
process of conflict resolution; it is part of an orally transmitted and sustained system in their daily life, in which the roles of adat leaders are prominent.

Although villagers are well aware that they can bring complex conflicts before the administrative village government, in practice it is the adat system to which the community adheres. Even the village head admitted during the interview that the role of adat institutions is stronger than the administrative village government. He would ask the parabela to become involved in government-related cases that cannot be solved by his office. Therefore, theoretically (by means of the formal mechanism that is known to the villagers) it appears that the conflict resolution mechanism is a hybrid of adat and dinas (local government); however, in practice, the adat system has a record of satisfactorily resolving conflicts in the community.

In this case study, the mechanism for conflict resolution within the village is ultimately a customary system, which depends upon and reinforces respect for local values (Bodin and Crona, 2008; Buckles, 2005; FAO, 2000). In addition, villagers are satisfied with the current mechanism, and data from the survey indicate that the majority of villagers (73% of respondents) do not think that they have experienced problems in the implementation of the adat rules. The level of respect and trust towards their adat institution is strong, which encourages peaceful reconciliation.

Adat rules protect the watershed area surrounding the spring water source and prohibit illegal logging and any activities that will degrade the forest. Villagers understand the role of forests in maintaining the abundance and quality of the water on which they strongly depend for agriculture and household consumption. The functions of forests are not considered in terms of biological conservation per se, but are recognised as providing environmental services that support livelihood needs. This has contributed to a high level of participation and collective action where these values are threatened. For instance, the community will chase away illegal loggers when they hear a chainsaw in the forest. During informal discussion with the younger generation in the village, they reported several incidents when they saw some unknown vehicles from outside the village (easily identified, since few vehicles pass through the village) carrying heavy equipment identified as tools for cutting trees. The youth gathered together and called for help from other men in the village.
They stopped the vehicles on the road, and asked them to leave the village at once, warning that if they did not leave, the villagers would attack their vehicles. Fortunately, there was no physical engagement, and the drivers of the vehicles drove away. This story became the highlight of village talk, and they pride themselves on having been able to fend off the loggers. For this action, they did not need an instruction from local authority or government regulations to protect their forest. Through adat rules, they collectively acted to protect the forest. Again, this was not done solely for the purpose of conservation, but also in order to sustain their livelihoods (i.e. economic benefits). It is important for conservation efforts to be related to livelihood activities in order to readily gain support and effectively achieve their goal(s).

Although the customary system is adequate to deal with issues within the village of Warinta (depending on strong bonding social capital), it struggles when it comes to issues that deal with actors who are identified as ‘outsiders’ beyond their village (i.e. as a result of weaker bridging and linking social capital). These ‘outsiders’ do not share Warinta's customary rules and responsibilities and may rely for access claims on institutions beyond the village, including state (district and central government) and non-state (companies based at central or regional level) institutions with competing claims to authority over Lambusango Forest. The diversity of actors involved and the power they have in dealing with such conflicts require a higher level of the judicial system to ensure that resolutions are taken with legally binding mechanisms.

The conflict between district and central government in exercising power to manage Lambusango Forest has not yet affected the villagers in Warinta directly, as access to other parts of this forest can be gained from other villages surrounding the forest. So far, Warinta villagers have been able to protect the areas of forest near their village using the adat system. However, as conflict over the utilisation of the forest area can only be partially managed locally, all the villages surrounding the forest need to work together to resolve the issues. Hence, the need to build bridging social capital between Warinta and other villages is crucial. This will be a serious challenge for villagers in Warinta, as they will need to be more open to ideas from ‘outsiders’ and able to negotiate with a more diverse group of actors with competing interests.
Active facilitation will be needed to prepare the community to take these issues beyond the local domain.

This is to say, in the case of Warinta, the *adat* system (of conflict resolution and sanctions) within its local jurisdiction is strong enough and sufficient to protect parts of Lambusango Forest that are adjacent to the village, and to some extent around the neighbouring villages. However, the village will face struggles when it comes to conflicts beyond these jurisdictions. There are no *majelis adat* (*adat* councils) at the sub-district or district levels that can represent the voices of the villages around the forest, and there has not been any local government decree at village level (*perdes*) that strengthens their legal position against the license-granting powers of higher institutions (i.e. district and central governments). The forest will inevitably come under increasing pressure from institutions beyond the jurisdiction of Warinta village. Therefore, Warinta villagers need to be prepared to utilise other legal/formal measures that can be effective to strengthen their position in protecting their local forest and other parts of Lambusango Forest near their village.

5.6. Summary

In the Warinta case sustainable natural resource management at the local level is greatly dependent on a level of local social cohesion that fosters collective action. Notable features of this case study are that: (a) the customary *adat* community in Warinta generates strong cohesiveness and encourages participation and collective action, evidenced in the community's capacity to conserve and protect its local forest; (b) the high density and shared identity of local groups and networks have contributed to the high level of cooperation among members; (c) passive participation in government-related meetings has been affected by the lack of transparency in decision-making processes and the financial system, as well as the tendency to rely on trusted representatives; (d) the effectiveness and sustainability of the NRM-related intervention that utilises a community-driven development approach (i.e. PNPM Green) remain an open question, for although it has generated a ‘green’ project, the process was dominated by village facilitators rather than conducted through genuine community consultation and participation; and (e) the level of legitimacy of the *adat* system in conflict resolution in resource management
at village level is sufficient, but issues that involve authorities beyond the village level will require a higher-level formal system.

The attitudes of villagers in Warinta towards their local institutions (adat, local associations/groups and networks) affect their level of participation. Most of these institutions are perceived as significant, have gained trust, and are considered to have a powerful effect on the villagers. Participation in collective actions within these institutions is strong. The most powerful institution in the village is the adat council, which is led by the parabela. The council makes the ultimate decisions in the community and has gained the fundamental trust of the villagers. Most decisions by this institution are considered the right ones for the whole community. Since the adat institution has an important role in all decision-making related to the daily life of the villagers, and adat norms have spiritual and social significance for them, participation in adat-related meetings, ceremonial events, and a range of collective activities is high, fostering social cohesion.

Social cohesion is also evident in other local associations/groups and networks, due to the density of interaction (for example, a majority of respondents households were active in more than two groups) and the relatively homogeneous character of their membership due to the historical background of the Warinta settlement. These groups and networks provide basic needs in terms of financial (e.g. arisan) and spiritual (e.g. Majelis Ta’lim) aspects of their lives. Because these groups meet the needs of the villagers and are relevant to the activities of daily life, the members are motivated to participate and interact in these organisations, as well as in other social activities.

The strong social cohesion demonstrated in adat, arisan and Majelis Ta’lim activities does not transfer to dinas or governance practices within the village (cf. Wetterberg, Dharmawan and Jellema, 2013 –LLI3 study). The level of trust in leadership and

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85 The LLI3 study suggests that PNPM activities (in the context of strengthening village institutions for participation, or improving transparency and accountability mechanisms) do not have spillover effects on village capacities in governance practices. Rather, it is more likely to reinforce existing capacity in villages with higher levels of social capital than to facilitate improved capacity for better governance in lower capacity villages. Targetting this issue in program design seems to be the best approach. More focus on lower-capacity communities (rather than high capacity villages) might be needed (Wetterberg, Dharmawan and Jellema, 2013, pp. 21, 105-106).
representation in governance practices appears to be one of the reasons why there are no spillover effects of *adat* practices to broader governance institutions. Although, survey data show that many villagers turn up for more formal gatherings/meetings conducted by village government, this is not because the villagers trust their representatives and see the village government institutions as relevant to their lives and meeting the needs of the members of groups and networks. Rather, villagers are sceptical of their representatives in the BPD village council and do not consider them to be selected by the villagers. Moreover, they are not satisfied with the performance of the village government officials, particularly in the areas of transparency in decision-making and administration of the village financial system. Because of their lack of trust in the government system, most villagers prefer to come to the meetings themselves rather than be represented by the BPD members. Participation in village meetings varies but generally only a few members are active, and the rest are passively engaged.

In this context, PNPM Green was introduced into Warinta in 2008, following several years of engagement with the World Bank community-driven development program (i.e. KDP since 2000). The mechanism and facilitation process of PNPM Green is the same as the one in KDP/PNPM; therefore, those who have been active since KDP have an adequate knowledge of the operational principles of the project. In the case of project implementation in Warinta, both local cadres (KPMDs) have been involved in the project for a number of years. In addition to their knowledge of the workings of the project, these two KPMDs are known to be actively engaged in most gatherings and have developed good reputations and gained trust in the village. This has affected the process of decision-making in project development, which is characterised by ‘steering’ rather than active participation.

The strong roles of the KPMDs have dominated most of the decisions taken during the meetings, and since they understand the objectives of the project, they have been able to come up with the proposal (submitted on behalf of the village) which has been approved and funded by the project. In this case, the effectiveness and sustainability of the project remain a question, as PNPM Green is not only about generating a ‘green’ project; it should also be proposed through and by means of community consultation and participation.
In addition to managing social relations and natural resource management, the adat system is the strongest agent of conservation in the village. This customary system is effectively applied and adhered to by the villagers and, to some extent, by the communities in neighbouring villages. The level of legitimacy in conflict resolution in the area of resource management within the village is therefore regarded as sufficient through the adat system. Although the system is adequate within the village, the villagers need to extend their capacity for engagement and collective action to work together with other villages, as conflict over the utilisation of the forest area cannot continue to be managed only locally and partially.

Lambusango Forest has become increasingly financially attractive to both district and central governments as a consequence of decentralisation. The conflict between district and central government in exercising power to manage Lambusango Forest has not yet affected the villagers in Warinta directly, as access to this forest can also be gained from other villages surrounding the forest. However, Warinta needs to be prepared to face the challenges of dealing with actors and interests beyond the village level. It needs a higher level of official recognition and the capacity to coordinate political pressure to ensure that resolutions are made with legally binding mechanisms. In this context, it seems that the adat system alone will not be sufficient. Therefore, a thoroughly designed facilitation will be needed to prepare the community and its leaders to face this challenge.

All in all, the case study shows that the villagers in Warinta still have strong bonding forms of social capital within their customary adat framework, allowing villagers to conserve and protect the forest area near their village. The study confirms the position of some common property management literature (Cernea, 1993; Dahal and Adhikari, 2008; Uphoff, 1996), arguing that customary adat communities are capable of generating strong connectedness among members and producing successful collective action in some domains. Nonetheless, the study finds that Warinta village has a lack of capacity for engagement and collective action to work together with other villages (weak bridging social capital), and passive participation in government-related engagements due to the lack of trust in the government system (weak linking social capital). As it is necessary to work together with other villages
within the Lambusango Forest’s perimeter to manage and conserve this natural resource in a sustainable manner, weak bridging capital in Warinta affects their level of contribution to the protection and conservation of the forest. This is to say that bonding, bridging and linking social capital are necessary for the protection and management of natural resources to achieve sustainability in the long run.
CHAPTER 6
CASE STUDY 2: HOLIMOMBO JAYA (HOLJA) VILLAGE

6.1. Village Profile

Holimombo Jaya or Holja village, in the sub-district of Pasarwajo on the island of Buton, was administratively established in 1997, as a result of the partitioning of Holimombo village within the sub-district of Wabula. The village is bordered by Kondowa village in the north, Holimombo in the south, Wagola in the west and the Flores Sea in the east. The village is about three hours’ drive – on 23 kms of damaged roads – from the capital of Buton district (Pasarwajo). The total number of inhabitants recorded at the time of the 2010 research survey was 1,252 people — 669 males and 583 females, comprising 267 households. The village consists of two dusun or hamlets, Belo and Wakunama. It is dominated by the Butonese Cia-Cia ethnic group, one hundred percent of whom are adherents of Islam. The level of income is low, with the majority of the villagers earning below IDR 1 million per month (equal to approximately US$100 per month at that time). Their main source of income is fishing and other marine-related activities (91%), and the rest of the population’s main income is earned by upland farmers, growing maize, cassava (the village’s staple food) and some cashews, and by tukang kayu (carpenters) and tukang batu (bricklayers).

6.1.1. Public facilities

Public facilities are very limited. There is only one public school building, which accommodates grades one to six at the primary level. For most villagers with low incomes, sending children to high school or tertiary institutions is beyond their means; thus, the village has a very low level of education, with the majority only reaching the primary level of education (63%) and only a few graduating from the junior (10%) and senior (8%) high school, which is located in Dongkala village of Pasarwajo sub-district.

Village Map can be found in the Appendix 3.
The village has one health post for babies/children and mothers (Posyandu – Pos Pelayanan Terpadu). Although the health post is in the village, the staff members mainly live far away from the village in the surrounding districts. The need for the medical staff to live near the village to provide better access to health services for villagers has been a common point made in village meetings and focus group discussions conducted to take stock of village needs.

Village meetings are mainly held in the balai desa (village hall) located in the village government office. The facilities of the meeting hall are very limited, with only chairs and a few desks. Another meeting place is the village mosque, where, for the most part, only men get together for informal conversations after the Friday prayers. Women meet in more informal gatherings within their neighbourhoods. They may sometimes meet while cleaning up the village hall or the main road, and they also meet up during a weekly pengajian (reading the Koran).

There is a small village stall-type market facility where middlemen from both within and outside the village come to buy fish catches from the fishermen in Holja. These small stalls are not permanent; they are made of local bamboo. When the transactions are finished, the stalls are cleaned and left on the site for the next morning’s trading sessions. Within the village papa/mama lele (fish vendors/traders) buy fish catches from fishermen at agreed prices after negotiation on the spot. Usually, the agreed price is relatively lower than the price they could get at the local market. These fish vendors are members of local fishermen’s families. Since there are no established fish markets or cooperatives (koperasi) in Holja that can facilitate the transaction with more competitive prices, papa/mama lele are the main vendors to whom the fishermen sell their fish catches. These small traders meet every morning at a certain place in the local stalls to do their trading. There are ten kios (stalls) run by local women located throughout the village selling goods to fulfil basic daily needs.

There are 27 households on the state electricity grid (Perusahaan Listrik Negara or PLN) and 233 households with access to local electricity generation using kerosene for a more traditional lighting called lampu tembok/teplok (or kerosene lamps with wicks and reflectors) and small generators (jenset), while the majority of households connect ‘illegally’ to the house of a neighbour who is on the registered grid. The
main cause of the small number of grid connections has to do with the process of obtaining initial grid access rather than with routine consumption costs. Most villagers have experienced that it takes years to get connected once they put in their application, and they also have to use middlemen to get their paperwork processed in the district office, which adds to the total costs. Seventeen households have televisions, and of this number, there are five households that have parabola (satellite dishes). About 50% of the population own mobile phones, while the use of radio has decreased.

In terms of connectivity and mobility, the village can be reached from the provincial capital Kendari by speedboat in six hours to the city of Bau Bau, followed by four hours by car or motorbike. Only a small number of people who are considered ‘well-off’ have motorcycles, while the majority of the villagers own perahu sampan (canoes), which they use both for catching fish and for transportation to other villages along the coast.

6.1.2. Adat in Holja
The villagers of Holja are originally from the Burangasi hamlet of Lapandewa sub-district. The people from this area are from the sub-ethnic group of Cia Cia Burangasi, which is known also as picupasi. In local understandings, this implies that people from Holja are courageous and brave people; however, the meaning does not have any reference to their hierarchical status.87

The original inhabitants of Holja village once lived in Burangasi, but due to cruelty and forced labour demanded by the head of the sub-district who ruled Burangasi at the time (1960s), many villagers left Burangasi village for other places like Holimombo, Maluku, Wakatobi, Lasalimu, Matawia, and Pasarwajo. Those who arrived in Holimombo asked for permission from the local adat leader (parabela of Holimombo) to settle there. Once they received approval in 1973, they established a hamlet named Belo. During that time the majority of people who had formerly lived in Belo had left the hamlet looking for a better life outside their village, so that became an opportunity for Burangasi people to move into the hamlet. With the

87 See section 3.1.3 of Chapter 3 on the description of social rank in Buton.
increase in population of the Burangasi people and village expansion, the people in Belo were allowed to separate themselves administratively from Holimombo and form a new village (desa) named Holimombo Jaya in 1997. There is no specific meaning of this new village’s name; they just added ‘Jaya’, which means ‘prosperous’, with the hope of improvement from their new village status. Nowadays Holimombo Jaya has two hamlets, Wakunama and Belo.

The Cia Cia Burangasi have a different adat system than other sub-ethnic groups (suku) of Cia Cia, such as suku Cia Cia Lapor of Warinta village, the first case study. It is well-known that people who left Burangasi and moved to other places did not bring their adat leader (parabela) and adat meeting house (baruga) to their new place(s). Their parabela has remained in Burangasi, and every year all other Burangasi people who live outside Burangasi village, including Holja villagers, come to Burangasi village to attend the adat ceremony, called Maacia (feast) in the Burangasi language. The purpose of the ceremony is for the parabela to bless the Cia Cia Burangasi people so that they may have good fortune, better means of gaining a livelihood and long lives. Holja villagers who attend this annual gathering only observe the ceremony as spectators.

Another traditional gathering attended by Holja villagers is conducted in Burangasi every five years. This gathering aims to unite the Burangasi people who reside in other places. During this event, they also conduct other traditional ceremonies, such as aqiqah (the first haircut for their babies, widely practised throughout Indonesia), pingitan (one who is being kept secluded; a ceremony done at the parent’s house for their daughters who enter the age of maturity), and sunatan masal (mass circumcision). Most of the Holja villagers are keen to attend (though not necessarily to participate in) these events, since they get to see their extended families who live far from Buton island.

A parabela is a trusted adat leader who is respected by the members of his community. It is believed that he possesses supernatural skill in foreseeing events or predicting the future (melihat dan meramal), either good or bad. He is highly

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88 The Warinta case study (see the previous chapter) provides detail on the role of the parabela.
regarded in *adat* ceremonies and exerts considerable control over any behaviour by the villagers that undermines or breaks *adat* rules. Within a community, the *parabela* is the person who decides when to start planting or to open new land for cultivation, and also suggests the best time or day of departure for people who are going away from their village. He is also able to heal the sick spiritually. Most *adat* rituals and ceremonial meetings take place in the *baruga*, which is a traditional meeting place for Cia Cia people. Nowadays, the *baruga* is also used as an informal meeting place.

Whilst the Burangasi people do not have their own *parabela* and *baruga* in Holja, the people who inhabited Holimombo (or *suku* Holimombo) before their arrival have their own *parabela* and *baruga*, since they are of a different sub-ethnic group than the Burangasi. This encourages the integration of Burangasi people within Holimombo, as there is only one *parabela* and one *baruga*, which belongs to *suku* Holimombo, in the area. If they had come with their own *parabela*, two different *parabela* might not be able to work together. In addition, during the integration period, it was agreed that in cases involving *adat* interventions, the *parabela* of Holimombo should be the one to make decisions.

The implication of not having their own *parabela* and *baruga* is that the Cia Cia Burangasi villagers of Holja meet mainly in a more formal administrative venue – the village office hall. For matters relevant to *adat*, the *sara* (the *adat* leader of Holja) is the leader of the meetings, whilst the *kadus* (*kepala dusun*, hamlet head) and *kades* (*kepala desa*, the head of the dinas/official village) lead meetings on any other community matters. This *adat* leader (*sara*)\(^{89}\) is chosen by prominent figures in the village during *adat* ceremonies/meetings. First, they will search for descendants of the *parabela* of Burangasi who might live in Holja; if they cannot find any, then the prominent figures will select someone who meets certain agreed criteria, such as having a wife, being healthy, as well as having knowledge of their origins in Burangasi and its *adat*.

The role of the *sara* differs from that of the *parabela* in the community *adat* system described earlier. Unlike the selection process of *parabela*, which is believed to be

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\(^{89}\) The *sara* is not a lower rank in an *adat* hierarchy than the *parabela*. He, however, is a less authoritative *adat* functionary, substituting for the *adat* leader where there is no *parabela*. 
spiritually led, the *sara* is chosen through a consensus of the community leaders in
the village. Therefore, the *sara* in Holja does not have the ability to predict or control
supernatural interventions/events. Rather than deciding when to plant or harvest, or
when is an auspicious or inauspicious day for a wedding, or healing the sick, the *sara*
is able to carry out only some aspects of the *parabela* role in a less charismatic and
authoritative way. For instance, when a man and woman want to get married, they
will not call on the *sara* to check what is a ‘good or bad’ day for a wedding
ceremony or ask for a specific supernatural intervention so that there will be no rain
during the wedding celebration. They will invite the *sara* to start off their wedding
by blessing the couple and praying that the ceremony will run smoothly.

6.1.3. Social structure

The social structure of *suku* Burangasi in Holja has evolved since they left their
village of origin. In Burangasi, Holja people had their own *parabela* and *baruga*,
which implies a strong *adat* system. Local opinion holds that their reputation as
courageous is due to the fact that they have been brave enough to move to other
place(s) during their times of trials, in search of a safer and better life. Nowadays,
members of the *suku* Burangasi are known as *perantau* (travellers), for they have
travelled and resided in different places.

The Burangasi people who arrived and resided in Holimombo have experienced
inevitable changes in their social structure, from a close group of people with their
own *parabela* and *baruga*, to travellers without their original *adat* in place. These
changes have impacted on the dynamics of community relationships within the
village. For example, the use of the *sara* (instead of *parabela*), who has less power
and authority in the *adat* system, has caused the level of interaction or engagement
with *adat* to decline. Survey responses show that most respondents (50%) have been
active in community organisations in relation to religious activities, but none (0%)
indicated involvement with *adat*-related activities. The rest of the respondents
attended activities that related to infrastructure development, health, social, and
ecological objectives (such as PNPM Green and COREMAP). The majority of the
activities or involvements listed by survey respondents were initiated mainly by the
village government (72.5%), religious leaders (12.5%), local NGOs (7.5%), and none (0%) by the adat leader.\textsuperscript{90}

Having a weak adat system and a low level of community engagement with their adat institutions means that their reliance on government institutions is relatively greater, particularly in regard to conflict resolution and to obtaining information needed to conduct their daily lives. Surveys show that the majority of respondents believe most conflicts at village level have been resolved by village government officials (50%) or by government officers at district and provincial level (20%). The rest of the respondents referred to adat and community leaders, the local NGO, and members of the community as conflict managers. General information needed by the villagers is mostly disseminated by village government officials (60%), either through a formal gathering and/or a notice board located outside the village hall. As for information on specific development project activities, these data show that the government (at village and sub-district levels) plays a major role, with 37.5% of respondents relying on the information from these entities, whilst project-related agents play an equally important role (37.5%).

In addition to revealing a high reliance on government entities, data from the survey also show that the majority (67.5%) of the Burangasi people in Holja do not formally own land (as defined by the state, this means holding a certificate from the National Land Authority or BPN – Badan Pertanahan Nasional). However, they state that they have inherited the place where they currently live from their parents, and therefore they believe they have ‘ownership’ rights, even though they do not hold formal certificates. When the Burangasi people first arrived and received permission from the Holimombo adat and community leaders to reside in Belo hamlet (which then was part of Desa Holimombo), they began establishing their livelihood there with only use rights to the land, which they recognised as belonging to the adat community of Holimombo. When the government approved the establishment of Holja village, the status of land remained largely unchanged. They do not see the point of applying for certificates, as not only is the process of official certification costly, but also they know that the land belongs to the adat community of

\textsuperscript{90} Survey number 2.1 (see Appendix 6).
Holimombo. Those who can afford to obtain a certificate from the BPN have to purchase the land first from the Holimombo people through a negotiation on the basis of personal relations.

Most of the lands (84%) which are used by Burangasi people in Holja for upland farming (by a minority of the population) belong to the original Holimombo people (although also without certificates of ownership), and they have verbal agreements among themselves regarding share-cropping such crops as maize, cassava, and cashews. The practice has been in place since the Burangasi people first arrived in Holimombo. These shared rights have forged a mutual relationship between the people of these two villages.

The limited amount of land available for farming in Holja leaves the Burangasi people heavily reliant on fishing for their main income. These fishermen work at night, and the daytime is for rest and sleep. This has an effect on their social norms: women take active roles in daily domestic and subsistence routines. The division of labour is clear; anything that relates to domestic tasks (cooking, taking care of children, cleaning the house inside and outside) is women’s work. It is an embarrassment to see a man carrying a broom or sweeping floors or yards. The men’s main job is to go fishing or farming. Since the fishermen work during the night and sometimes stay out for a few nights, when they come back from the sea in the morning, women help their husbands by selling the catches, while their men rest at home. These livelihood conditions affect the involvement of men in collective action or group activities. Those involved are men who have another job to supplement their income, such as government (support) staff, bricklayers and carpenters. These men are in a better position to participate actively, since they do not need to go to sea as often as others who only have one job as a fisherman. However, during the high tides under the full moon, fishermen do not often go to sea and may take part in collective activities in these periods.

Furthermore, as mentioned earlier, most of the members of the current working population have adopted the perantau way of life and have travelled to other places (Maluku, Dongkala, Monokwari, Sorong, Surabaya, Jayapura, Jakarta, Kendari, Bau Bau) in search of a better income. However, since their level of education is low,
they have mostly ended up in the same occupation, as farmers or fishermen. Since this generally has not brought a better income for the *perantau*, they eventually have decided to return home. Although they did not bring home more money, some of them ended up marrying people from different ethnic groups. This has brought another dynamic into the village, making it an ethnically more diverse community.

### 6.2. Local Dynamics as an Indicator of Social Cohesion in Holja: Weak Bonding Social Capital

Using the same methodology applied in the earlier case, I conducted several focus group discussions (FGDs).\(^91\) This part of the study aimed to identify whether the villagers have the initiative and organizational capacity to get together and solve issues within their village, or whether they depend on assistance (both funding and initiatives) from outsiders. From this exercise, I found that the majority of issues and problems in the village ten years ago are the same as those prevailing today. Only a few issues have shifted position within the list of priorities listed by both men’s and women’s groups (see Table 6.1). Furthermore, participants indicated that the main reason why most of the issues (which are related to rural infrastructure) have not changed over the years is that they cannot afford to finance the required infrastructure development, hence their dependence on outside resources. However, the expressed need for even relatively low cost non-infrastructure social goods (such as uniforms, sports equipment and the like) has also remained unchanged over ten years. There apparently has been a lack of initiative in raising funds or finding alternative solutions to these issues. Participants pointed out that raising funds to buy uniforms for the Muslim women’s group (*Majelis Ta’lim*) or sports equipment for the young adult groups is not easy, as most of the community members are poor and are more concerned with their daily necessities, which are more immediate and urgent than some of these perceived communal needs.

During discussions, almost all participants in the groups spoke, especially when asked about the local needs. As expected, education was the issue that all the groups considered among the most important they face. Health is the main concern of women, young adults and PNPM team group members, while the men’s groups gave

\(^{91}\) The limitations and validity of this method have been discussed in Chapter 1.
priority to more infrastructure development, such as provision of drinking water, *rumpon* (a floating fish aggregating device – FAD), and seawall embankments.

It is interesting to note that when expressing their perceptions, most of the time the villagers cross-checked with the others as to whether their comments were acceptable and whether they were answering the questions well. For example, when the head of *Majelis Ta’lim* mentioned the need to have facilities for this group, she first looked to some other women (apparently also members of the *Majelis Ta’lim* group) before she said to the facilitator of the discussion what she meant — that they needed uniforms, as they always have to borrow uniforms from groups in other neighbourhood villages. Apparently having their own uniform is a matter of pride (*gengsi/kebanggaan*) amongst the members, as it helps build the identity of the group. They mostly use the uniforms during *Kasidah* (religious chanting in Arabic or Indonesian, sung to the rhythms of a *gambus*, a six-stringed, plucked instrument of Arab origin, or *gendang*, a drum) within the village or during competitions of *Kasidah* with other villages.

At other points in the session, when the women’s group talked about health issues, they first discussed among themselves the issue of medical staff who were supposed to be in the clinic on certain days, but were often not available during scheduled times. Then, between them, they decided that instead of having a regular time when the medical staff turned up at the health post, they preferred the staff to live near their village so they could ask for help during medical emergencies. From my observation, the participants were articulate about communal issues. Consensus was easily reached among themselves, and they chose a group facilitator who was known as the most active and able to lead the discussion. Although this informal recognition is important in the analysis of social cohesion among villagers, FGD is not designed to represent the whole community in the village; rather, these discussion groups are selected to represent particular sections or groups with common interests. Therefore, further inquiry was necessary (see section 6.3 of this chapter) to discover the extent of such cohesion in other instances of the villagers’ social interaction.
### Table 6.1. Significant development issues: current versus previous priorities in Holja (in order of importance to the group)

<table>
<thead>
<tr>
<th>Men’s Group</th>
<th>Women’s Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong></td>
<td><strong>Now</strong></td>
</tr>
<tr>
<td>Access roads</td>
<td>Access roads</td>
</tr>
<tr>
<td>Water supply (container)</td>
<td>Public toilets</td>
</tr>
<tr>
<td>Talud (seawall embankment)</td>
<td>Water supply</td>
</tr>
<tr>
<td>Education: junior high school building</td>
<td>Education: junior high school building</td>
</tr>
<tr>
<td>Public toilets</td>
<td>Rumpin</td>
</tr>
<tr>
<td>Water supply (piped system)</td>
<td>Water supply (piped system)</td>
</tr>
<tr>
<td>Feral pig pest control</td>
<td>Talud (seawall embankment)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Young Adults Group</th>
<th>PNPM Implementation Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before</strong></td>
<td><strong>Now</strong></td>
</tr>
<tr>
<td>Education: junior high school building</td>
<td>Youth fights</td>
</tr>
<tr>
<td>Economic problems faced by fishermen</td>
<td>Village government</td>
</tr>
<tr>
<td>Village government</td>
<td>Education</td>
</tr>
<tr>
<td>Sports equipment</td>
<td>COREMAP (coral reef management project)</td>
</tr>
<tr>
<td>Youth fights</td>
<td>Economic problems faced by fishermen</td>
</tr>
<tr>
<td>Environment/NRM</td>
<td>Religious matters</td>
</tr>
<tr>
<td>Sports equipment</td>
<td>Youth fights</td>
</tr>
<tr>
<td>Health</td>
<td>Lack of understanding of PNPM</td>
</tr>
<tr>
<td>Environment/NRM</td>
<td></td>
</tr>
</tbody>
</table>

Source: Focus Group Discussions, Desa Holja, September 20-24, 2010

These FGD data are confirmed by the household surveys conducted in the village. These show that most respondents believe that infrastructure (30%), education (30%) and household economy (20%) are the main issues at village level. Also, they believe that for future development funds offered to the village, they would mainly propose infrastructure (45%) and educational (32.5%) activities.\(^92\)

During participant observation, I had the opportunity to interact with the villagers in more informal settings, such as having general conversations with the women while cooking in their kitchen, sharing in informal discussions over afternoon coffee and

\(^{92}\) Survey question number 3.1 and 4.8 (see Appendix 6).
fried bananas, or being invited for lunches of delicious fresh catches of barbequed fish. Women were eager to talk about the education of their children and the health issues they face as a family, which are extremely important for them. For example, sending their children to school is a topic that they liked to talk about during these conversations, especially those who have children of junior high school age, when the time comes to decide whether to send them outside their village. Those who can afford the fees and have relatives or close friends with whom their children can stay are the fortunate ones; otherwise, they have to be content with their children completing primary school education.

Some women privately expressed their frustration over the low level of education, which impacts on the way they do things together. One of the dasa wisma group leaders mentioned that it has been difficult to get some information through to most of the women in the village; she has to deliver even simple messages (verbally) many times on several occasions. The village head’s wife complained that leading the PKK has not been an easy task for her. Both were convinced that this was due to the low level of education of most women in the community, where some did not get formal education at all and only a few went to high school. And the fact that those women who lead local groups are at the same level of education as other group members raises challenges for the facilitators of group meetings. To these group leaders, it seems that the lack (or low level) of education of the majority of women in the village has affected their level of understanding in receiving the message. Hence, these ordinary village women are not able to participate in the meetings prepared by the group leadership team.

The group leaders, in this perception, do not seem to share the same values as most of the women in the village who are not in the leadership positions. Ordinary village women stress the fact that they are too busy attending to household chores, and when they have spare time, they prefer to help their husbands selling fish catches. Their main concerns are to provide their family’s basic needs, making sure they have enough food for the day and money to support their children to go to school. In this

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Dasa Wisma are neighbourhood groups for women which are organisationally under the PKK (Pembinaan Kesejahteraan Keluarga or Development of Family Welfare, national women’s groups). They are established to support PKK activities (e.g. Friday clean-up, collecting household information for the family planning database taken by the district government, etc).
sense, they do not see the benefits of being actively engaged with activities or meetings conducted by these women’s group. If the gathering is not related to their needs (such as education for their children or health for their family), they would not be willing to attend.

Although during the FGD, infrastructure-related issues such as public toilets and water supply were ranked as first and second most important for the women’s group, within more informal discussions, education and health issues were women’s favourite themes. Provision of local infrastructure was mostly talked about by the men in the household. Infrastructure provision lies in the male domain, whilst the women’s task is to ensure their children are well taken care of (i.e. food, health, education, clothes, etc). When it comes to meetings related to infrastructure, such as COREMAP, PNPM, and other community meetings concerned with provision of rural infrastructure, the men feel obliged to come in order to fulfil their role as head of household (kepala keluarga). However, when asked about other gatherings like Gapoktan (Gabungan Kelompok Tani/Nelayan or farmers/fishermen group) meetings, most men showed reluctance to answer the question. They believe that Gapoktan is important for most of the fishermen; however, the members of this group said they are too busy to come to these group meetings. However, at the same time they indicated that Gapoktan could do better in keeping the members active if more interesting subjects could be shared among the members, such as practical ways of improving catches, marketing strategies to improve their current earnings, other alternatives for income-generating work, and so on. Typically, members have not been exposed to group discussion of such practical subjects. Rather, this type of information is shared informally, without having to attend meetings or gatherings conducted by the group. This has meant that important information is often limited to a certain group of men, mostly on the basis of friendship or close kin ties; little information is systematically shared across/beyond informal groups, an indication of inadequacy of bridging social capital at this case study site.

Initial observation during the FGD sessions showed that participants interacted well with each other and that there was a level of cohesion. However, closer analysis of the FGD discussions and information gathered from participant observation indicated that several aspects of local dynamics have affected the level of social cohesion.
Firstly, a continuing pattern of over-dependence on outsiders’ financial support to fund village infrastructure, due to the low income levels in the community, has discouraged the involvement of villagers in voluntary groups or collective activities (hence low bonding social capital). Secondly, the low level of education and limited or non-existent government extension services have affected villagers’ perceptions of the relevance of communal gatherings; meeting individual household necessities has become their main priority. Thirdly, the fact most men rest/sleep during the day (due to the nature of their work) and women attend to daily chores has given them less time to interact in group activities. Thus, local social structure and livelihood rhythms play an important role in the level of participation in collective actions. The low level of interaction among the villagers in group settings appears to be a major index of the poor social cohesion in Holja; hence there is low bonding social capital (survey results on the level of social cohesion are presented in Table 6.2).

To extend this analysis of social cohesion in Holja, the following section will explore diversity, participation and collective action within the spheres of village governance and other local institutions.

6.3. Village Governance and Local Institutions: Diversity, Participation and Collective Action

This section will discuss the state of current village governance and local institutions in Holja in terms of their diversity, the level of participation and collective action. It will discuss whether the current forms of social cohesion embedded within customary and other social groups relate to the levels of community involvement and collective action for sustainable resource management. There are two main local domains that play critical roles: village government (BPD and village head) and local civil society institutions (adat and religious). The executive and legislative arms of government have experienced the effects of the changes of the government system at the national level over the last couple of decades. As discussed in Chapter 3, the BPD has evolved in two stages from the LMD, which was established under the 1979 Village Government Law. During the Reform Era, the BPD (Badan Perwakilan Desa or Village Representative Council) was established to replace the LMD, and has changed again since the revision of the regional government legislation in 2004,
bearing the same abbreviated name, BPD, but with a different meaning and character — Badan Permusyawaratan Desa (Village Consultative Council).

To understand the degree of impact that these changes have had on the community, it is important to analyse the villagers’ perceptions and experiences of the changes. I was privileged to interview some of the older generation who were actively involved during the LMD (UU5/1979) era, as members of the early BPD (UU22/1999), and now are still keen to attend meetings called by the current BPD council (UU32/2004). Most of them claim that the selection process for BPD members is the main distinction between the three systems. The roles of village head and village secretary under the New Order had a dual function, both legislative and executive; the kepala desa also led the LMD. In fact, the village head selected and appointed the members of the LMD. The BPD, the Badan Perwakilan Desa under the first regional government law (UU 22/1999) was intended to be democratic and to act as an autonomous legislative council. Every five years villagers selected the five members, who then chose the BPD head. The BPD was charged under the law to receive verbal accountability reports from the head of village at the end of his tenure; this had never been done in the New Order / LMD era. This requirement of the first regional government legislation of the Reform Era made the heads of villages subordinate to the BPD, since they were accountable to these councils. Since the revised regional government law was introduced in 2004 (UU32/2004), however, the role and composition of the current BPD, now the Village Consultative Council rather than Village Representative Council, has been more or less restored to its former subordinate status. Members of the village council are appointed every six years through consensus (musyawarah mufakat).

Looking into this transformation, the relationship between the village head and LMD / BPD can be summarised as follows: from the New Order structure in which the village council (LMD) was clearly subordinate to the kepala desa, there was a move towards the system that made the village head accountable to the elected BPD council, and then back to the New Order time when the village council was subordinate to the village head. Villagers report that this trend has impacted significantly on their participation in decision-making and meetings arranged by village government staff.
By villagers' accounts, during the LMD era, government-mandated meetings were attended by almost all villagers, since they were mandatory. The more people turned up for the meeting, the more successful the village head (and the LMD) appeared to higher authorities. The meetings were orchestrated by village government staff who decided who would speak, what would be spoken about and what decisions would be made.

In comparison to the LMD, the first 1999 BPD representative council was perceived as a breakthrough in terms of channelling community voices. However, although villagers attended the meetings, they still did not feel comfortable to speak out when village government officials asked for their opinions, due to previous experiences with local governance in the LMD era. The BPD members believe that during that 1999 - 2004 BPD period, voicing their needs was gradually becoming a new custom for most of the villagers.

The post-2004 revised BPD brought a different structural relationship, as a result of the restoration of executive authority. Although the village head is no longer accountable to the village council, however, the members of this BPD appeared to have a good working relationship with the village head (and vice versa), both during the meetings I attended and also during some of my informal discussions with the members of BPD on separate occasions. One of the members of the BPD claimed during interview that its members are partners of the head of the village in governing the village. 'Partnership' (mitra) relations within the village government bodies have impacted on the level of participation in meetings conducted in this formal domain. Since two of the current BPD members are the heads of hamlets (sub-villages), they have facilitated the process of getting the villagers to attend the government-initiated meetings. This shows the favourable influence of the village government (that is, the head of the village and the BPD) in bringing people together in the public formal domain. However, this does not necessarily mean that active participation and collective action in the formal domain are high. The 2010 sample survey shows that only 23% of respondents claim to have participated in decision-making in the public
domain, and 42% through representatives, while 35% did not participate in these meetings.\textsuperscript{94}

This shows that the villagers’ level of trust in their government leaders is sufficient to motivate them to get to the meetings. With good rapport over two periods of leadership, the current village head has gained the villagers’ trust. Despite this, and his influence in the village, the villagers’ participation in collective actions remains low in government-mandated meetings (in this context, villagers are motivated to come to the meeting out of respect for the village head’s invitation, but do not necessarily engage meaningfully in discussions). This is mainly due to the infrequency of meetings conducted by the village head and his staff. Meetings at village level where all villagers are required to attend have only been held twice in six years, for the election of the members of BPD and the election of the village head. Most village meetings were conducted between BPD members and the village head. Other than these meetings, villagers at the hamlet level meet up during \textit{penggalian gagasan} (pegas) or formal brainstorming sessions to canvas ideas for proposals to be funded by PNPM (see more details in Section 6.4). Apparently, unlike many villages in Indonesia where the greatest level of involvement in local governance is found to be at hamlet level (Bebbington et al., 2004), the pegas held by PNPM offers the only formal interaction at hamlet level in Holja.

Aside from official government structures, local civil society organisation plays an important role in shaping the level of participation and collective action in Holja. Local civil society institutions include all the existing social networks/associations/groups within the village, namely: \textit{dasa wisma} (neighbourhood groups for women), PKK (\textit{Pembinaan Kesejahteraan Keluarga} or Development of Family Welfare, for women), \textit{adat} through its leader (\textit{sara}), \textit{farmers/fishermen groups} or \textit{Gapoktan}, youth/young adult groups or \textit{Kelompok Pemuda/Karang Taruna}, Muslim women’s groups or \textit{Majelis Ta’lim}, and \textit{Kelompok Arisan} or rotating-credit associations, which are women’s groups.

\textsuperscript{94} Survey question number 3.9 (see Appendix 6).
Unlike those in Warinta village – where hamlet-level interactions are strongly promoted by *adat* and religious-related activities (*kasidah* practice, gathering in each *baruga* for *adat* related events, and so on) – social interactions of local associations in Holja are all established at village level. All members of community at hamlet level who are keen and interested to join these institutions meet and gather together at the village level.

### 6.3.1. Density and diversity of local institutions’ membership

In the social capital literature (Anderson, 2006; Brewer, 2003; Hahn, 2006; Jones, 2009; Lin, 2001; Olsson, 2004; Sandstrom and Rova, 2010; Sandstrom, 2011) characteristics of density and diversity of membership are important to understanding the level of social cohesion and collective action of local institutions. For the purposes of this thesis, density is assessed by the percentage of surveyed households with members belonging to community groups/associations/institutions. The density of household membership in local institutions is low in Holja (see Table 6.2), considering that most (45%) households have only one member belonging to a single institution. Only 15% of survey respondent households had members belonging to two institutions, while the rest of the respondents/households, which constitutes the second largest proportion (40%), do not have members in any local institution.

<table>
<thead>
<tr>
<th>Number of total organisation(s)</th>
<th>Percentage of membership (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Household survey in Holja

In addition to density, diversity was also assessed. For the purposes of this thesis, diversity refers to differences based on ethnicity, religion, main occupation, education and kinship. The data revealed that memberships within the local institutions that form the basis of focus group discussions for the purposes of this thesis are generally homogeneous: most members have the same religion (one hundred percent Muslim), the same ethnicity (Cia Cia), the same main occupation for men (fishermen), and, on average, members have the same level of education, with
the majority having completed primary school. However, although members are homogeneous in terms of ethnicity, it is found that most members in each organisation/institution are less likely to be related to each other by kinship or marriage, as a result of the recent migration history of Holja village. Most of the members have not been in the village for long; some have just returned from Maluku province, some from other villages, and some have married into Holja. Most of them do not share close kinship relations with other members of local organizations. Consequently, even though memberships in all institutions are homogeneous in terms of their main ethnicity (i.e. Cia Cia), within certain institutions they are heterogeneous in terms of kinship ties.

Using the same methodology applied in the earlier case study, an analysis of kinship networks was conducted. Within this context, the core group of people who originally migrated together to Holimombo were not assessed, as they have all reached an age when they are not actively engaged in any organisation. Most of the religious and adat (or sara) leaders are considerably younger, and they are only active in their own institutional sphere. For instance, religious leaders are actively engaged in religious events and not in the Gapoktan association.

Another method of understanding the nature of kinship in the membership of the local/community groups is by looking into the strategic decisions of resource allocation linked to the groups’ programs. The purpose of this is to see whether the people who are allocated key positions in groups to implement the activities or projects are related by kinship or marriage (affinal ties) to those who have decision-making roles (see Table 6.3 below). Below is the table of relationship among the key positions in local Holja groups.
Table 6.3. Relationship table in Holja

<table>
<thead>
<tr>
<th>Local Groups</th>
<th>Position and relation to village head: K (Kinship), M (Marriage), N (No relation)</th>
<th>Position and relation to other village leaders (mention the type of leadership, e.g. adat, religious, local groups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majelis Ta’lim</td>
<td>Leader: Masni (N) Secretary: Amria (N) Treasurer: Ny. Ica (N)</td>
<td>Leader: No relation Secretary: Amria’s uncle is Gapoktan’s secretary Treasurer: Ica’s husband is the head of Gapoktan</td>
</tr>
<tr>
<td>Gapoktan</td>
<td>Leader: Ahmad Yani (K) Secretary: La Siraba (K) Treasurer: La Juhani (K)</td>
<td>Leader: Ahmad is a third cousin of La Hamiti (BPD secretary); and Ahmad’s wife is a cousin of prominent adat figures. Secretary: La Siraba’s niece is the secretary of Majelis Ta’lim Treasurer: no relation</td>
</tr>
<tr>
<td>PKK</td>
<td>Leader: Jumria (M) Secretary: Ati Madi (N) Treasurer: Marina (K)</td>
<td>Leader: No relation Secretary: Ati’s uncle is a community leader (tokoh masyarakat) and Ati’s father is the village secretary’s third cousin (distant relative*) Treasurer: Marina’s mother is the village secretary’s third cousin (distant relative) [note that relationship between Ati and Marina is not based on the same descent line; Ati is from the village secretary’s father’s line while Marina is from the village secretary’s mother’s line]</td>
</tr>
<tr>
<td>PNPM Green</td>
<td>KPMD1: La Demi (N) KPMD2: Sitti Rahmatia (N)</td>
<td>KPMD1: La Demi’s uncle is one of the religious leaders, his nephew is the village secretary KPMD2: No relation</td>
</tr>
</tbody>
</table>

Source: Interviews with local leaders in Warinta
Note: * distant relatives (third or fourth cousins) will not be considered as close kin in this analysis, as they are not in a direct descent line.

In order to understand the overall picture of the relationship of local groups’ leadership presented in Table 6.3, below is a network diagram showing the linkages.
Both the table and the chart show that those people who hold the key positions to implement the activities in these groups are not related to the village head as the chief village decision maker. Also, within the groups, members (or the leadership team) are not related to each other. This shows the level of heterogeneity in kinship relations is found not only in the leadership of each group, but also in the relations between the groups. From the chart we can see that the Gapoktan group has the most links to the village head and the leadership of other groups (Majelis Ta’lim). In particular, the leader of Gapoktan has a kinship relation with the adat leader and with village government officials (village secretary and village head). Nevertheless, the strong kinship links that Gapoktan has with the local decision makers do not mean
that it has a positive correlation with the level of cohesiveness and collective action. This will be discussed further in the next section.

Furthermore, since Holja village is primarily occupied by migrants from Burangasi, it is interesting to see the kinship links of at least the leading families in the migration process and how they have affected the composition of groups in membership engagement in local groups. Observation and interviews revealed that there were seven heads of families who led the migration: La Katu, La Jaula, La Noja, La Taba, La Dapo, La Jawa and La Ntalu. Out of these seven leading families, only La Katu and La Noja had important roles in the village as adat and religious leaders. Although these families were well known as the families who first moved to Holja, their descendants do not have significant roles in the village and were not members of any local groups.

The kinship analysis suggests a high degree of heterogeneity of members within the local groups and a weak linkage among the groups. It shows also that the current leadership of local groups is not linked to the original leading migration families. In addition to the heterogeneous composition of these institutions, the fact that members do not have common origins and long-standing relationships affects the level of engagement and participation. Most of the members of these institutions are relatively recent migrants and have travelled to several parts of Indonesia. This history of mobility among the villagers appears to have affected the stability of the membership of these institutions. In addition, most men in the village spend most of their time at sea (for fishing). Therefore, lacking sustained relationships within and across village groups affects the level of bonding in the community. The lack of long-standing relationships among the villagers is hypothesised to contribute to weak social bonding and lower levels of social capital which have a negative effect on participation in collective action (Coffee, 2009; Dahal and Adhikari, 2008; Putnam, 2000).

6.3.2. Collective action and social cohesion
Focus group discussions and interviews with key informants at village level indicate that the main triggers that act to encourage Holja villagers to get together or that deter them from doing so and that act to support or detract from cohesion in the
community are: trust in their leader; the level of cooperation between the members; economic benefits (for example, from attending the rotating-credit association); having the same profession or hobbies (e.g. Gapoktan for farmers/fishermen, sport for the young male adults); and having the same goal of helping the community solve problems within the village (e.g. adat, Majelis Ta’lim). These factors of common interest guide the villagers to choose whether or not to join local groups and define their informal networks.

_Dasa Wisma_ and _PKK_ are government-initiated women’s groups, established to support the head of the village governing system; they are crucial in terms of getting statistics on population growth, family planning, and so on. Formally, the total membership of these two groups is 94; however, actual members’ attendance at meetings is lower. The current count of active members across the two groups is 14 (5 from Wakunama hamlet, and 9 from Belo hamlet). The last meeting I attended turned out to be big, as they explicitly invited inactive members to attend. The purpose of the meeting was to discuss the _rumpon_ proposal which was to be considered by PNPM Green in the next annual cycle of the inter sub-district allocation fund. _Dasa Wisma_ has six small group leaders, who are coordinated by the village head’s wife (who is also the PKK leader). The leaders of _Dasa Wisma_ are selected by the PKK leader; in most cases the chosen leaders will accept the appointment, and those who do not want to be a leader of _Dasa Wisma_ will have to become one eventually, since a rotation principle is assumed. Because there are so many inactive members, _Dasa Wisma_ meetings are conducted together with PKK meetings at the village level.

The main regular collective action that these groups carry out is maintaining the cleanliness of the village. They are supposed to do this every Friday, as agreed in their meetings. However, during my research time in the village, I hardly saw any collective cleaning that was conducted at the appointed time and on a regular basis. When I asked the PKK leader, she said that she had tried her best to encourage the women to do this every Friday, but “most probably they were too busy attending to their own household chores”. At that time, she shared with me her frustration about leading the group. She found it a challenge to get women in her village to get together to carry out an activity, even though she had regularly gone to their houses
and informed them about meetings or gatherings. Most of the women preferred to stay at home minding their child(ren) and preparing food for their family, or even helping their husband selling the fish catches. Though they do visit one another at some stage during the day, facilitating several women to come together for collective purposes is a real challenge for the PKK leader.

Another women’s group association is the Majelis Ta’lim – a Muslim women’s association. This is a self-initiated group that is trying to get women together to read and study the Koran. At the start of the establishment of this association, almost all women in the village attended the Koran reading meetings. However, the attendance has dropped over time, and currently there are only three women who regularly meet. Most of the women whom I interviewed shared their perception of this group. They claimed that they became bored with attending meetings since all they did was to read the Koran together without more spiritual development or teaching offered by the leader. The leader apparently is very skilled in reading the Koran; however, she never had any other training in spiritual development, hence cannot deliver what the members seek.

Kelompok Arisan or the rotating-credit association — a women’s group gathering for the purpose of conducting a rotating credit fund within the village — is the only group that has a considerable number of regular active members. The members of this group have a regular meeting where they not only implement the rotating credit fund, but also exchange cooking recipes and sell household objects that members can pay for in several instalments at low interest (e.g. linen, clothes, etc). Even though the membership has fluctuated, it is steadily active. Some of the women who are members of this group were interviewed; they said that they do not have a koperasi or a local bank within the village where they can conduct economic transactions or deposit savings (the closest small bank is in the sub-district capital area). The arisan group appeals to them, and they have experienced some practical benefits from being members There are three arisan groups that are currently still active in the village: (1) an arisan group with member contributions of Rp 12,000/month; (2) one with member contributions of Rp 100,000/month; and (3) one with contributions of Rp 500,000/month. The Rp 12,000/month arisan group was formed in 1999 by all women in the village, with an initial contribution of Rp 1,200 per month. In 2010 the
group decided to increase the contribution up to Rp 12,000 a month. The purpose of the group is to purchase equipment (such as tent, chairs, pots and pans) that can be borrowed by members when needed. The equipment is kept in the house of the village head as communal stock. The group meets in the village hall every month, usually on the 12th of the month. Most of the members are happy to be involved, as the contribution is affordable and they see it as their way of saving.

The second arisan group (Rp 100,000 a month) was established in 2010, joined initially by 28 women. The group meets on the 7th day of the month at the posyandu (health sub-clinic). Currently, the number of members has reached 60, of whom 10% are also members of the first arisan group (i.e. Rp 12,000), while only one person is also a member of the first arisan and the third arisan group (i.e. Rp 500,000). Most of the members are happy to join, since the time is suitable for them (while getting their children’s health check in the posyandu). The group does not have a formal rule of penalties for ‘nonpayment’. However, since the membership is based on trust, the members are considered able to pay their contributions (based on previous experience). What happens in practice is that in cases where members are not able to contribute, they are not allowed to take a turn drawing funds until a catch-up contribution has been paid.

The third arisan group (i.e. Rp 500,000) was established in 2011 to help its members to support local business, and was initially joined by 22 members. The members meet on the 10th of the month. Currently, the number of members has dropped to ten people, mainly due to the amount of the contribution. Only those who are considered mapan (rich) and have a regular income are able to join and continue as members.

Just as most women’s groups are experiencing a hard time in getting their membership together for collective action, so it is with the men’s groups. The membership of the Gapoktan started high (30 members) and then dropped over time (5 people). The group was established in 2009 by the COREMAP (Coral Reef Rehabilitation and Management Program) project, aimed at capacity building at the village level. When first started, it was joined by almost all fishermen in the village, and they made a commitment to have a regular meeting every three months. However, there have been no regular meetings since then. Nowadays they only get
together when there is a training session from district or sub-district offices, as well as for program activities under COREMAP and PNPM Green programs. Some villagers gave the impression that the lack of involvement is because most of these fishermen are at sea at night and they rest (or sleep) during the day. There are only certain times of the year when they do not go to sea and are available during the day, thus limiting the ability of these fishermen to attend meetings at a regular time. However, the regular three-monthly meetings were agreed to by the members after considering this limitation; therefore, this does not fully explain why the three-monthly meetings are a struggle for the members to attend.

Other male-dominated groups are the customary/adat (lembaga adat) and religious groups. Regarding the adat group, the villagers remark that the membership consists of the leader (or sara), the secretary and a few members. The religious groups are attended only by the spiritual leaders in the village, the imam(s) and moji(s); the imam is the one who leads the congregation in prayer, whereas the moji usually represents the imam when he cannot exercise his leadership in prayer. In both types of group, the members work closely only within their circle. The members deal mainly with issues related to local adat and religious rules; for instance, they will lead certain events like weddings, khitanan (circumcision for young children – a Muslim tradition), funerals, and other related traditional/ritual and religious ceremonies. Sara, Imam and Moji hardly attend meetings conducted outside of these ceremonial and ritual occasions. In terms of villagers’ perceptions of the adat system, respect and honour towards their original tradition/adat have given them the motivation to maintain certain rules or practices related to those traditional ceremonies within the village. However, since these institutions do not directly engage villagers, the government or other social interactions beyond the ritual/religious sphere, their function is one of representing their culture and religion rather than fulfilling any practical function in day-to-day social and economic life.

There is also a Young Adult group (kelompok pemuda/karang taruna) in the village. Currently, on paper it has 46 members. However, the real number engaged in collective actions is less than ten. The members of this group not only engage in

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95 See further discussion on PNPM Green in section 6.4.
sporting activities, they also meet in a certain place to read the Koran together. The number of active members has been low, due to some concerns that they do not have the facilities or equipment they need in order for them to sustain their membership, for instance, sports equipment and facilities for soccer and volleyball. The main source of funds has been from villagers’ donations; however, these are very limited.

Factors of cohesion such as trust and having the same objectives (such as income support, economic benefits, sports, religious studies, and so on) have guided the villagers to become members of particular groups. However, more than these interests are necessary to ‘glue’ them together and to encourage members to be actively involved in collective action. It appears, from this research, that activities that will help the villagers to find new ways of having their needs met would enhance social cohesion in Holja village.

6.3.3. The perception of villagers towards their local institutions: Level of importance and trust
Using the same FGD method applied in the previous case study, the focus group processes show some interesting trends in villagers’ perceptions of the most important institutions and roles (see Table 6.4). The men’s group puts adat, religious leaders and economic institutions like the kiosk as the three most important ones, and village government officials (pemdes), COREMAP and local police officers as the three least important. For the women’s discussion group, women’s institutions (established for religious and government purposes) are the most important for them, while the religious leaders and Gapoktan are the two least. Young adults perceive both pemdes and BPD, as well as adat institutions, as the three most important, and teachers, head of hamlet and police as the three least. The PNPM team ranks head of village, adat and religious leaders as their three most important and PNPM team members and penampung ikan tuna (persons who collect tuna from fishermen and sell it to outside the village – an economic activity) as their least important. Analysis of the data, although it shows the level of importance of each institution, does not necessarily reflect the degree of collective involvement. From information gathered by participant observation, these institutions (except for the rotating credit groups) are experiencing a struggle to get their members to actively participate in their gatherings.
Table 6.4. Group perceptions of the most important local roles and institutions\(^{96}\)
(in order of importance)

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
<th>Young Adults</th>
<th>PNPM Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adat leader</td>
<td>Majelis Ta’lim (Muslim women’s</td>
<td>Pemdes (village government)</td>
<td>Kades (village head)</td>
</tr>
<tr>
<td></td>
<td>association)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imam/Moji (religious leader)</td>
<td>PKK (women’s association)</td>
<td>BPD (village council)</td>
<td>Adat leader</td>
</tr>
<tr>
<td>Warung (Kiosk)</td>
<td>Arisan (rotating credit</td>
<td>Kelompok adat (adat group)</td>
<td>Pengurus mesjid (Mosque leaders)</td>
</tr>
<tr>
<td></td>
<td>association)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posyandu (health post for</td>
<td>Kades (village head)</td>
<td>Kelompok agama (religious</td>
<td>BPD (village council)</td>
</tr>
<tr>
<td>mother and babies)</td>
<td></td>
<td>group)</td>
<td></td>
</tr>
<tr>
<td>Puskesmas (community health</td>
<td>Imam/Moji (religious leader)</td>
<td>Kades (village head)</td>
<td>Kepala dusun (head</td>
</tr>
<tr>
<td>clinic)</td>
<td></td>
<td></td>
<td>of hamlet)</td>
</tr>
<tr>
<td>Polisi masyarakat (local</td>
<td>Gapoktan (association for local</td>
<td>Guru mengaji (Koran teacher)</td>
<td>Pelaku PNPM (PNPM</td>
</tr>
<tr>
<td>police)</td>
<td>fishermen)</td>
<td></td>
<td>implementation team</td>
</tr>
<tr>
<td>Pemdes (village government)</td>
<td>Kepala dusun (head of hamlet)</td>
<td>Penampung ikan tuna (people</td>
<td></td>
</tr>
<tr>
<td>COREMAP</td>
<td>Guru (teacher)</td>
<td>who collect tuna catches from</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>local fishermen)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Focus Group Discussions in Holja

Table 6.4 above also shows two general findings. Firstly, both health-related institutions – posyandu and puskesmas – are mentioned in men’s list rather than in women’s. Informal discussions during FGD sessions reveal that this was due to different interpretations of the particular FGD question. FGD members in the men's group interpreted the question to include any institutions that are needed by the villagers, including those not located in their village (i.e. medical support staff working for posyandu and lack of provision and services of puskesmas) while members in the women's group only included institutions that are physically located and found in the village. Hence, these two institutions are not listed by other groups.

\(^{96}\) The term ‘institutions’ (lembaga) was introduced to the members of the group discussion by the facilitator. Institution (for the purpose of the FGD) refers to formal and informal organisations and the norms, rules and values associated with them. Institutions can include associations, groups, networks and individuals, both within and outside the community, with whom the people have some relations. Some examples are a bank, a shop, the church, school, hospital, police, government department, an NGO, farmer’s groups, women’s groups etc. It can also include individuals such as the village religious leader, adat leader, the headman, a village-level worker or a doctor (Narayan, 1999).
Secondly, one would expect that the association for local fishermen (Gapoktan) would be mentioned in the men’s list rather than that in women’s list. Although most FGD members in the men's group are members of Gapoktan, they rarely engage in activities and meetings that are conducted by this institution. Therefore, they have slight meaningful experiences of being members of the institution. On the contrary, FGD members in the women's group anticipate potential economic benefits of this institution, although it does not necessarily mean that the institution delivers what is expected.

Another aspect of the villagers’ perception that needs to be looked at is the level of trust held in these institutions, since many scholars assert that trust facilitates participation in collective action (Kilpatrick and Field, 2001; Pretty and Ward, 2001; Putnam, 1993). This proposition does not appear to apply in the case of Holja, where there is a high degree of trust in the head of the village, but participation in decision-making is low. Data from the village survey shows that 65% of the respondents believe that they have participated in decision-making processes at village level; however, this does not mean that they have directly participated in those meetings. Rather, they have mainly been involved by getting someone to attend the meetings for them, or titip telinga dan mata (asking those who attend the meetings to listen to the decisions and inform them of the outcomes; usually they ask their neighbours or friends). The remaining respondents (35%) indicated no sense of participation. Although participation seems to be more passive, the majority (70%) of respondents were satisfied with the process of decision-making (either through representatives or direct involvement), 22.5% rather satisfied, 5% not satisfied, and 2.5% did not give a response.

The role of the village head is crucial in Holja, as (72.5%) of survey respondents indicated that they were motivated by him, whereas the rest were motivated by religious leaders on religion-related activities and by the local NGO on projects/interventions. As for issues related to natural resources, 55% of respondents agreed that most of these issues were handled by local government (BPD and village head) and 10% by local NGOs (the latter responses are from those involved directly through project interventions, such as PNPM Green and COREMAP). Some of the respondents (32.5%) believed that local resource management issues were handled
by adat or religious leaders, by the hamlet head or government officials at sub-district and district levels, and the rest (12.5%) believed they were dealt with by friends, neighbours, community members, and by individual effort.

Paradoxically, it appears that there is a correspondence between villagers’ lack of participation in formal meetings and gatherings and their high level of trust in their local leader (in this case, the village head). It seems that the villagers do not bother to attend formal meetings as they have put their trust in the village head to make decisions on their behalf. Some villagers mentioned during one of the interview sessions in 2010 that the village head is a trustworthy person and that he will make decisions in the best interests of the village, saying ‘Kita tidak ragu lagi dengan keputusan beliau, pasti bagus untuk masyarakat di desa’ (‘we do not doubt his [the village head’s] decisions anymore, they are certainly good for people in the village.’)

This shows that in the case of Holja, trust does not necessarily facilitate participation in formal gatherings, as the social capital thesis would suggest. The question then remains: Does trust generate participation in more informal settings within local institutions?

Focus group discussions, surveys and participant observation were conducted in order to find the answer to this question. A scoring method was used (details of this method can be seen in Chapter 1). The results (see Table 6.5 below) show that men’s groups accorded the highest trust level to all institutions except medical clinic/health staff (puskesmas), local police, and the COREMAP team. Women and PNPM groups gave the highest score to all institutions on their list. The young adult group gave the highest score to adat, religious groups, and gave the lowest to official, government institutions - local police, village government (BPD and village head), and teachers.

Across the groups, it appears that religion-related groups are the most trusted institutions in Holja. This can be verified by data from surveys showing that the majority (52.5%) of respondents have attended religious events or activities. It appears that trust in the religious leaders corresponds with the level of participation. However, in the case of other local institutions, it seems that not only does a high level of trust not encourage participation in formal meetings, it also does not necessarily facilitate participation in informal gatherings conducted within these institutions.
Table 6.5. Trust levels expressed towards local institutions

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Trust (scores: 10 to 50)*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men’s Group</td>
</tr>
<tr>
<td>Parabela (Adat leader)</td>
<td>50</td>
</tr>
<tr>
<td>Imam/Moji (religious leader)</td>
<td>50</td>
</tr>
<tr>
<td>Warung (Kiosk)</td>
<td>50</td>
</tr>
<tr>
<td>Posyandu (health post for mother and babies)</td>
<td>50</td>
</tr>
<tr>
<td>Puskesmas (community health clinic)</td>
<td>10</td>
</tr>
<tr>
<td>Polisi Masyarakat (local police)</td>
<td>15</td>
</tr>
<tr>
<td>Pedes (village government: BPD, village head)</td>
<td>50</td>
</tr>
<tr>
<td>Project Team (Coremap, PNPM)</td>
<td>20 (Coremap)</td>
</tr>
<tr>
<td>Majelis Ta’lim (Muslim women’s association)</td>
<td>50</td>
</tr>
<tr>
<td>PKK (women’s association)</td>
<td>50</td>
</tr>
<tr>
<td>Arisan (rotating credit association)</td>
<td>50</td>
</tr>
<tr>
<td>Gapoktan (association for local fishermen)</td>
<td>50</td>
</tr>
<tr>
<td>Koran Teacher</td>
<td>50</td>
</tr>
<tr>
<td>Head of hamlet</td>
<td>40</td>
</tr>
<tr>
<td>Teacher</td>
<td>20</td>
</tr>
<tr>
<td>Penampung ikan</td>
<td>50</td>
</tr>
</tbody>
</table>

**Source:** Focus Group Discussions in Holja

**Notes:**
* Score 10 is the least and 50 is the most trusted
* All the blank cells indicate that the group did not have the institution(s) on their list as trusted institution(s)
* Scores were allocated by consensus among the FGD

The data suggest that although these village institutions in Holja, both formal and informal, whether initiated/established by government or by local communities, have gained trust within the village, most of them attract a low level of collective action and participation, which represents a real challenge to participatory governance and development strategies. The only significant concern for the villagers, apparently, is whether or not an institution meets their needs in a significant and meaningful way. This takes account of their ‘spiritual’ needs as well, particularly for the members of the Koran reading group (*Majelis Ta’lim*). Reading the Koran together in a group
setting does not necessarily meet their spiritual needs. As described earlier in this section, most of the former members of the group were bored with the regular meetings due to the lack of spiritual teaching or development for which they long.

Most local institutions started well (with many members), but have not been able to maintain participation and collective action. This is because villagers have learned that attending gatherings or meetings has not brought benefits. Unlike the others, the arisan groups have continued to perform well, because of their consistency in meeting members’ needs. Apparently, the level of importance and trust with which villagers regard local institutions does not necessarily facilitate collective action; rather, the degree to which a group consistently meets its members’ needs might be seen as one of the answers.

6.4. PNPM Green Initiative: Effectiveness and Applicability at Local Level

PNPM Green was designed to be applied within the overall objectives of PNPM, which are poverty reduction, strengthening community institutions and improving local governance. As discussed in Chapter 4, the project fosters villagers’ engagement through a participatory planning and decision-making process. The main focus of PNPM Green is on mainstreaming environmental protection/issues and sustainable natural resource use, shaping PNPM investment choices at village level that will lead to activities or proposals promoting sustainable environmental/natural resources management. PNPM Green aims to build social capital through empowerment and capacity building for community participation in local decision-making informed by resource management issues. Several issues in the local context arising from this program will be discussed in this section: (a) the practices and processes of community proposal development; (b) the level of social cohesion influencing local responses to PNPM Green initiatives; and (c) whether the program has led to greater capacity to address the most significant local environmental issues.

6.4.1. PNPM Green in Holja: Practices and processes

There have only been a few intervention programs that have reached Holja village (See Table 6.6) since the PPK (Program Pengembangan Kecamatan, the Indonesian term for KDP or sub-district/Kecamatan Development Program) started its activities
in 2001. To date, this program has been the longest conservation or development intervention in the village. Since the program evolved as the national program for community empowerment (PNPM), Holja has subsequently been selected as one of the PNPM Green pilot project sites.

Table 6.6. List of programs and interventions in Holja since 2001

<table>
<thead>
<tr>
<th>Project</th>
<th>Institutions Involved</th>
<th>Objective</th>
<th>Time frame (Start - End date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPK (KDP) / PNPM Rural</td>
<td>Government</td>
<td>Poverty alleviation, community empowerment, governance improvement</td>
<td>2001 - current</td>
</tr>
<tr>
<td>NUSSP (Neighbourhood Upgrading and Shelter Sector Project)</td>
<td>NGO</td>
<td>Provision of public toilets</td>
<td>2006</td>
</tr>
<tr>
<td>PNPM Green</td>
<td>NGO, Government</td>
<td>Mainstreaming NRM into PNPM process</td>
<td>2008-current</td>
</tr>
<tr>
<td>Coastal rehabilitation and development (COREMAP)</td>
<td>NGO</td>
<td>Initial stage: building a post for monitoring, control and surveillance</td>
<td>2009 - current</td>
</tr>
<tr>
<td>Bahteramas (Membangun Kesejahteraan Masyarakat – Community Welfare Development)</td>
<td>Government (Provincial level)</td>
<td>Village infrastructure development</td>
<td>2009</td>
</tr>
</tbody>
</table>

Sources: Participant observation, informal discussions, and semi-structured interviews in Warinta

Procedurally, community involvement for PNPM Green should start with the program’s socialisation stages (see Chapter 4 for details), which are the MAD sosialisasi (sub-district meeting) and musdes sosialisasi (village meeting), where villagers learn about the new pilot program. And the next community engagement is penggalian gagasan (pegas) or brainstorming session on project ideas, where the learning process of observing and stocktaking their local natural resources takes place.

Even though the procedure clearly sets out the process and expected outcome, this did not happen in Holja. Instead of stocktaking environmental and natural resources-related issues in the village and coming up with proposal(s) that can be funded through the PNPM Green, in 2008 people in Holja (who attended the meetings) compiled a list of village infrastructure such as drainage, piped water supply, and
seawall embankment (*talud*), all of which technically could be funded by PNPM Rural as a main project. Apparently, this list was taken from one of the regular PNPM Rural meetings conducted in the previous year to generate a list of community needs for village development funding.

During the MAD II (Second inter-village meeting to rank village project proposals) on the 18th of April 2009, Holja village proposed a seawall embankment (*talud*) construction for PNPM Green funding. This proposal was considered ‘not feasible’ by the verification team due to the large amount of funding needed for the proposal, given that the total cost of the proposed embankment could absorb the whole amount allocated at sub-district level. In addition, the verification team believed that the proposal was not ‘green’ enough (i.e. it would not directly improve local natural resources). The *faskab* (the facilitator at district level) decided to repeat the inter-village meeting (MAD II) process and organised a ‘special MAD II’ (MAD II *khusus*) on the 29th of April 2009. One of the outputs of the special MAD II was to cancel the seawall construction proposal, and, instead, the village was asked to submit another proposal. Then with the help of the sub-district facilitator (KPMD), the proposal development team (*Tim Penulis Usulan*) of Holja village submitted an alternative proposal for construction of a fish aggregation device (*rumpon*), which was eventually selected for funding.

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97 The seawall embankment proposal seems appropriate for consideration as an environmental project as it protects settlements in the immediate area against coastal erosion by deflecting the energy of the waves back out to sea. However, this structure is also widely known to be ineffective in the long term, as it can lead to unintended consequences for local natural resources (i.e. where waves are deflected by the wall, unintentional scouring is accelerated, resulting in the eventual loss of beach and wetland adjacent to the wall). (NSW Department of Environment, Climate Change and Water, 2010).

98 At the regular PNPM Green meeting Holja villagers prepared the following list (in order of importance): *air minum/bak air* (Water supply/water container for the village), *jalan setapak* (access roads), *perpipaan* (piped water supply), *drainase* (drainage), *pagar dusun/lingkungan* (building fences at hamlet level), *pembuatan sumur resapan* (recharge well), *penanaman pohon bakau* (mangrove planting), *talud* (seawall embankment), *pelatihan pembuatan abon* (training in making abon, which is shredded meat or fish that has been boiled, fried and dried), to add value to the low fish catches during the January to April period, so that they can be used for both home consumption and the market.

99 Repeating the MAD II in order to win a proposal is not a regular operational process of PNPM. However, apparently it was allowed only for the initial cycle of the pilot program (although it is not written in the PTO – *Petunjuk Teknis Operasional* or Technical Operational Guidelines).
I assumed that the facilitators did not initially assist villagers with guidelines that would focus their discussions on a feasible option. However, after observations and attending their meetings, it became apparent that the facilitators did their best to assist the villagers in regard to project expectations. In performing their tasks, two main obstacles were faced: dominance of the village leaders (including the village head’s wife) during discussions, and personal conflicts with the village head. During one of the meetings I attended leading up to the initial proposal, I observed how the village head’s wife frequently interrupted the presentation of the facilitators. On one occasion, she bluntly said to the facilitators, ‘You have talked enough, we all know what the project is about. We already have ideas to be put into the proposal’ (member of women's group, March 2010). With such interruptions, facilitators asked the rest of the participants whether they were clear with the presentation. Echoing their leaders, those attending agreed that they knew enough to get their proposal started. However, considering the outcome of the proposal, it seems that the dynamic of the meetings discouraged some/many villagers from fully understanding the project. The lack of informal meetings to further facilitate discussions about the project contributed to misconceptions, resulting in a rejection of the initial proposal.

The fact that the original proposal was not feasible and that a second proposal had to be written meant that all the villagers (or their representatives) were not involved in the selection of the new (second) proposal, and that the decision had to be made by a certain group of people who were mostly from the local PNPM implementing team (that is, the KPMDs of Holja, the proposal development team (*Tim Penulis Usulan*) and PNPM Green facilitators at sub-district level). Holja villagers did not reject the approved proposal, and the fact that their village did receive funding has satisfied them.

There are a few inferences that can be made as to why the socialisation and planning stages of the overall project implementation in Holja were not conducted in accordance with technical operational guidelines. The first inference is that villagers or those who attended the PNPM Green village meetings are not fully aware of the intended objective of the pilot project, which is to fund proposals that aim to improve the condition of local natural resources and/or promote sustainable environmental
management through a community participation process. Also, it appears that during the preparation of the (first) proposal, the funding limit\textsuperscript{100} was not taken into account.

It seems that information needed in order to prepare a proposal for the PNPM Green funding did not reach the community. Information from the project facilitators and local leaders did not seem to flow smoothly to the intended project beneficiaries (the villagers as a whole) in a sparse (low density) social network like the one in Holja. This is particularly so when information is mainly provided through formal gatherings which are rarely attended by the villagers. Survey data show that most of the respondents (85\%) believe the information on PNPM (both Rural and PNPM Green) has been made through formal meetings; the rest of the respondents get information through public announcements (pamphlets posted on the village announcement board, located outside the village hall), and only five percent through informal discussion. In addition, information on the project mechanism has mainly been given by project facilitators (32\%) and village government officials (35\%); while the rest of respondents received information from hamlet leaders, friends, neighbours, local NGO, community leaders, and government officials at the sub-village level.

This inference is in accord with other researchers’ findings on the relationship between low levels of local participation and village social cohesion. Dense social networks, indicating strong social cohesion (bonding social capital) within a village, are a major factor affecting the effective communication of project goals and processes, and minimise the probability of non-compliance due to ignorance or misunderstanding (Anderson, 2006; Jones, 2009; Lin, 2001). Also, information on local natural resources management and sustainability may be transmitted through effective social groups and networks (Cramb, 2005), thus increasing natural resource-related collective actions by villagers (Lubell and Fulton, 2007).

A second possible inference is that project facilitators (FKL, local NGO and KPMD) have failed to communicate the project objectives and expected outcomes at village

\textsuperscript{100} PNPM Green has a different funding limit (IDR 500 million per sub-district; and IDR 300 million per proposal); This is separate from the main project/PNPM Rural funding (IDR 750 million to IDR 3 billion per sub-district).
level. The underlying cause is not due to the level of background knowledge of the facilitators. My several interviews with these facilitators indicate that the level of knowledge on the program (PNPM) in general and towards the pilot project (PNPM Green) is adequate and that they received several training sessions prior to commencing their work. Although the project facilitators are equipped with adequate knowledge and skills to deliver information and facilitate the process, to effectively facilitate, the community must be accessible. This requires an avenue to get the messages across, either through formal or informal mediation. In other words, facilitation of the project information goes hand in hand with the availability of the community. In the case of Holja, facilitation has proven to be a struggle because of the lack of participation in the meetings held by local facilitators, and the general lack of activity in local community organizations. Survey data show that only 35% of respondents believed they had heard about the project and been involved in some of the meetings held about the program. Most (65%) of the respondents have not been involved in PNPM; and of this percentage, 20% did not give comments because they have not even heard about the program, and 45% never participated in it.

As mentioned earlier, there is a lack of participation and collective action not only in formal meetings or through official organisations or networks; it is apparent that informal networks are also not often activated. Therefore, it follows that the main reason why project implementation in Holja is found to have been unsatisfactory is not primarily due to a lack of effort by the project facilitators to deliver the message and facilitate the process, but more due to the fact that the flow of information is impeded by the low degree of social cohesion and low density of networks.

6.4.2. Responses to PNPM Green initiatives influenced by the level of social cohesion
The procedures, agents and rules applied in PNPM Green are the same as the ones in the general PNPM Rural program. Administratively, there is nothing significantly different about the pilot program, PNPM Green, other than the substantive nature of the aims of the pilot. PNPM Green only funds proposals that are considered to be related to environmental and natural resources management. In meeting its mandate, the pilot project experienced a real challenge to get the community in Holja, with its low level of social cohesion, to act together and produce a relevant proposal for
funding. Regardless of the lack of participation, the satisfaction level with the outcomes of the project was high, with 55% of respondents very satisfied and 45% not satisfied.

Facilitators for PNPM Green (FKL) and the local NGO (OWT) expressed their frustration with persuading the villagers to get together for the preliminary socialisation stage of the pilot project. One of the main tasks of this NGO was to raise awareness among local villagers about issues related to the local environment and their natural resources. The hope was that villagers would be able to identify their own local environmental or natural resources issues, and a relevant proposal could be made as the outcome of the awareness-raising efforts.

MAD I, or inter-village socialisation meetings to inform the villages’ representatives of the program at sub-district level, were conducted as the first step of the PNPM cycle. The first meeting was the formal forum when PNPM Green was socialised by the local NGO, which presented relevant environmental problems and issues at sub-district level. The meeting was attended by 97 people from the 20 villages within the Pasarwajo sub-district (OWT, 2009), so it was attended by an average of about four people per village (mostly, the head of village, head of PKK and BPD members). Since the meeting was conducted at sub-district level (kecamatan), attended by representatives from all villages in Pasarwajo and aimed at the village leaders, this meeting was not directly relevant for the purpose of assessing the amount of local-level (i.e. village) participation. Rather, more relevant was the effectiveness of communication from their representatives at the meeting.

The next several gatherings within the project circle are more directly relevant: Musyawarah Desa/Musdes (a few village meetings were called for project socialisation and planning, including a special meeting for women) and Penggalian Gagasan or Pegas — brainstorming sessions to come up with ideas for project proposals based on the priorities of villagers’ needs. The process of Pegas has two stages: it starts off by stocktaking environment/NRM issues that are conducted at village level, then continues with discussions in each hamlet. In the first cycle of the project (2008), both pegas and musdes planning sessions were attended by 15 to 20 people (excluding project facilitators and village government officials).
From interviews with some villagers, I learned that they only heard about meetings conducted by PNPM Green on the same day the meeting was carried out. Therefore, they were not sure whether or not they had to attend. Those who came to the meetings mentioned that they came unprepared. Therefore, their only involvement there was to attend and listen to the project facilitator and KPMD. This happened with all the meetings, both the Musdes and Pegas. As for the women, they were invited, but admitted they did not want to attend because they were too busy doing household chores, working in the fish market or selling fish catches; some were simply not keen to join the meetings.

Villagers mentioned that they did not all come to the brainstorming session held by PNPM Green, as they already had the list of the village needs taken from other village meetings (MMDD - PNPM Rural)\(^{101}\) held in previous years. Several items on the list were funded, but many of the items have not been able to be funded. From this list, with the facilitation from KPMD, the villagers who came to the meeting chose one or two projects that they wanted to propose for PNPM Green funding.\(^{102}\)

Villagers did not object to this process because to do another ‘proper’ brainstorming would take more time, and the results would most probably be the same as the list they already had. Therefore, since they were not keen to get together in a longer process, they preferred to use the previous list. As long as they could get funding for the project, they were satisfied with the process.

Apparently Holja villagers have learned the processes of PNPM quite well, since they have been exposed to this intervention since 2001 (it was then named KDP). Therefore, the mechanics and processes of local participation and how to get the proposals funded seemed familiar to most of the villagers, particularly the local leaders who have followed the project since then. From their point of view, having

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\(^{101}\) **Menggagas Masa Depan Desa** or MMDD is a process of village development planning within the PNPM mechanism, which includes brainstorming session (**pegas – penggalian gagasan**) and **musdes perencanaan** (MD planning).

\(^{102}\) More details on the kinds of projects needed and proposed have been covered in Chapter 4 (PNPM Green).
another separate meeting of *pegas* would only be a waste of time, so they decided to take a short cut.

At the end of the village planning process, as we learned from the earlier section, Holja village came up with a proposal that was technically not feasible for PNPM Green funding. When the villagers heard that their proposal did not get through, they started pointing fingers at the KPMD members, accusing these local project actors of not involving the villagers in the meetings and not informing them about the criteria and objectives of the pilot project funding mechanism. Kadus Belo (the leader of the hamlet Belo) expressed his strong objections to the KPMD. He said, ‘*Kita dengar saja tapi penjelasan tidak tahu*’ (‘We just listened [to the socialisation of the pilot project] but we did not fully know what they were explaining’). The reason why Kadus Belo was upset is that during project preparation, he was approached by the project facilitators (KPMD and FKL), and his name was mentioned in all the documents, though he was not sure of what they were about; so when the proposal was approved, he felt left out of the process, and there was no one coming to him anymore for advice or updates on the progress. At point, he attended a meeting when the project team explained about the funds (which must have been one of the meetings conducted after the proposal was approved and the allocated funds made available). On this occasion, Kadus Belo had some questions in regard to the spending; however, rather than giving an open explanation, KPMD and FKL cut him off, saying that he (Kadus Belo) could report to a higher authority if he did not agree with the reports.

Apart from personal conflicts between the KPMD and certain people in the village, the complaints by the villagers about the project actors are not entirely convincing. During my observations in the village around other meetings that villagers were supposed to attend, it emerged that the process of inviting them to meetings via several methods (both formal and informal ways of communicating the invitation) was not an easy or straightforward one. Blaming each other’s weaknesses or having excuses (“busy”, “lazy”, and so on) seems to be a simple way of covering up the underlying cause of the lack of involvement in these meetings.
Regarding the complaints raised by some villagers, it is clear that the approved/funded proposal – rumpon – was not the outcome of a collective decision through PNPM-supported meetings or local group initiatives. Rather, it was the result of program interventions which ensured that the proposal was within the funding criteria. The lack of encouraging/positive responses to the PNPM Green initiative is largely attributable to the low level of active engagement and the fact that the process was less than inclusive.

6.4.3. The effectiveness of PNPM Green in addressing local environmental and NRM issues.
As part of PNPM Green’s program of awareness-raising, Operation Wallacea Trust (OWT) - an NGO based in the city of Bau Bau, South East Sulawesi - has done a rapid appraisal of local environmental and natural resource issues in Holja. OWT was hired by the World Bank to implement a grassroots-level of awareness raising and training for PNPM Green’s stakeholders. One of the main issues found during the appraisal was coral reef degradation due to destructive fishing practices, such as reef bombing, where the fishermen drop dynamite underwater onto the reef and the shock sends dead fish floating to the surface while completely destroying the reef underneath. Another issue is trawling, which is a method of fishing in coastal waters that involves dragging a fishing net through the water behind boats; this can directly kill coral reefs by breaking them up and burying them in sediment. Based on this assessment, the NGO made efforts to raise awareness through village meetings conducted as part of the regular PNPM mechanism, and presented issues related to coral reef sustainability and possible solutions relevant to local conditions. The poor attendance at these meetings meant that this information did not get through to the intended beneficiaries, the fishermen. As noted above, although the first proposal to MAD II for seawall construction did not get through to funding, with the involvement of the NGO and FKL, eventually the village got a proposal funded, which involved construction of three sets of rumpon.

The rumpon, now funded and in place, are not only reducing the practice of destructive fishing methods and offering alternatives to continual reef-fishing, they have also shown economic benefits for the villagers. Village income has increased since the rumpon were put in place in 2009; from between Rp.30,000 and Rp.50,000
per night, average fishing incomes have increased to between Rp.100,000 and Rp.200,000 per night. Therefore, as far as addressing local environmental and natural resources issues are concerned, PNPM Green is steering the course towards coral reef conservation in Holja, albeit not entirely by the route that was anticipated (i.e. community-driven proposals). In addition, as an example of giving alternative solutions for environmentally benign community practices, the project has successfully shown the villagers that they can protect their coral reefs and at the same time improve their livelihoods. In other words, the strategy for facilitating sustainable natural resource management and development interventions in a community that has a low level of social cohesion needs to be implemented by focusing on the economic benefits that conservation can bring to the community. Once the community (either individually or collectively) experiences the benefits, conservation objectives might be attainable. This means that in order for the community to experience the benefits, they will first need access to resources which can, in turn, be a reason for collaboration — a prerequisite for conservation efforts (Ostrom, 1999; Pretty and Ward, 2001; Rydin and Falleth, 2006).

6.5. Conflict Resolution in Natural Resource Management

Mechanisms for conflict resolution are regarded as essential prerequisites for common property resource management (Ostrom, 1990). This section discusses types of conflict and mechanisms for managing conflict. There are two main instances of conflict that Holja villagers have experienced with other villages nearby since 1999. There was a conflict with neighbouring Kondowa village, where the house of a Holja villager was built across the border with this village. Both heads of village met and resolved the problem. In 2009, there was a conflict (fight) among youth or young adults from Holja and Koholimombono villages. Heads of the two villages and prominent figures met up with the families in the dispute and gave some advice. The families then came up with an agreement, and within a week they solved the problem. Even though there is no written rule on mechanisms for conflict management/resolution, and villagers are not all aware of appropriate ways to deal with disputes, or else have differing approaches, when it comes to conflict beyond their village, the village head takes the lead in resolving the issues. A survey was conducted and found that over fifty percent of respondents agreed that most issues
were managed by village governments, and only five percent of respondents referred to resolution by *adat*.\(^{103}\)

As mentioned above, there has been a conflict between the local PNPM Green actors (KPMDs – who come from within the village) and local leaders of official government (head of village, head of hamlet, and head of PKK). KPMDs said that the root of the problem is not merely to do with PNPM matters. The head of the village and the KPMD have had some personal issues since the election of the village head. Both men were candidates, and they had the same number of votes. Then, when the village had to decide the winner of the election, the current village head was selected through another voting round, and some villagers claimed that they were not invited into this second round of voting. This is some indication of poor communication at both formal and informal levels. In the absence of other respected community leadership such as *adat* or religious figures to mediate conflicts within the village, this conflict has remained unresolved.

In terms of conflicts related to local natural resources management, the previous *ombo* (a customary harvest management system) and the current *perdes* (village decree) systems have been applied in the village with different outcomes. When Burangasi people first arrived, settled and then established their own village (Holja), they did not have their own *adat* mechanisms (*parabela* and *baruga*) to protect and manage local marine resources. Therefore, through consultations among their local leaders, they decided to replicate the *adat* system from Holimombo, called *ombo* - a customary harvest management system (Acciaioli, 2009). *ombo* is implemented only within certain areas that are decided by the village government and local leaders on the basis of availability and quantity of fish and other marine resources like sea cucumbers, octopus, and so on. During the *ombo* season, people are not supposed to harvest certain marine resources within these appointed locations until these resources are declared ready to be harvested (for approximately 15 to 18 weeks), or during special community events in which fish supplies are needed for a feast. Sanctions or penalties were imposed upon those who broke the *ombo*. Sanctions vary according to type of offence, for instance, offenders will need to pay IDR one million

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\(^{103}\) Survey question number 3.14 (see Appendix 6).
for those who catch fish using a fishing pole, IDR two million for using a fishing net, IDR three million for harvesting sea cucumbers (teripang) and large top shells (kerang lola) and for harvesting wood from mangrove areas IDR five million. In cases when offenders deny the act and do not want to pay the penalties, social sanctions will be applied (for instance, isolation from social interaction within the village).

The implementation of ombo in Holja is not as strict as in Holimombo due to the weak position and role of the adat system. Also, there is no mechanism in place to resolve conflicts when sanctions and penalties are applied, both among the villagers and people from outside the village who are not familiar with the ombo system. These limitations have discouraged the application of the system more generally within the village itself, especially with the increase in fish consumption and the economic needs of Holja people. Therefore, local leaders decided only to apply ombo for specific species like sea cucumbers and large top shells whose main habitats are in reefs. In addition, the application of ombo in Holja was not limited to a certain period of time; rather, it was based on the needs of the villagers, which did not necessarily coincide with the harvesting limit of 15 to 18 weeks.

Because of these circumstances (the weak adat system and lack of mechanism for imposing sanctions) and the fact that the ombo system has not been effectively applied in Holja, in 2009 local leaders and the village government decided to stop the ombo system and replace it with a village decree (peraturan desa/perdes); this was at the time when COREMAP started its operations in the village. The drafting of this perdes was facilitated by the COREMAP project team. The Perdes constitutes Daerah Perlindungan Laut (Marine Protected Areas) or DPL within 200 to 300 metres from the coast, limiting fishing seasons, fishing gear and catch types. The process of legitimating the DPL is currently in process at the district level.

Having a perdes as the basis for NRM protection instead of adat illustrates the relatively higher degree of the village government influence, although the effectiveness of the DPL remains to be assessed. This confirms findings of the research project survey showing that 55% of respondents perceive that village
government should be the main institution responsible for natural resource management.

6.6. Summary

The Holimombo Jaya (Holja) case illustrates a number of critical issues: (a) a weak adat system has led to domination by the village head in decision-making processes; (b) the low level of social cohesion manifested throughout local institutions, groups and networks has affected the level of collective action and community participation; (c) the level of trust between the members of groups and towards the group/network leader have been important elements in participation of membership, although it takes more than these elements to act collectively; and (d) if mainstreaming of local NRM in a community-driven development program such as PNPM Green is applied within a community of low social cohesion, extra effort by project agents will be needed to facilitate collective action.

The absence of a parabela (adat leader) and baruga (communal meeting place for adat and other informal meetings) in the village, due to the history of migration of its inhabitants, has led to the domination of local governmental officials in the decision-making process. There is no significant leadership other than the village head, who can enact decisions on behalf of the village. Whenever conflicts arise among the villagers in Holja, the village head has successfully resolved the conflicts; whilst for conflicts between villages, he will work together with the neighbouring village leaders to manage conflicts. However, since there are no other community leaders of equal standing, the head of village could not solve his own internal conflict with village member(s), including the PNPM Green facilitator.

Villagers of Holja are relatively satisfied with the current decentralised system of village governance. They recognise the difference between the previous systems and the current one. Compared to the previous systems, villagers feel that they have (comparatively) more voice over the selection of their representatives in the current BPD. The strong dominance of village head with support from the BPD seems characterise the village governance system in Holja. This has contributed to some involvement of villagers in the formal domain in CDD projects such as PNPM,
although this it does not necessarily amount to encouraging more active participation in decision-making.

Local institutions in Holja are experiencing instability due to the low level of social cohesion. Efforts by leaders of these local institutions to get their members to be active are challenged by the factors described above. The low density of interaction and the lack of long-standing relationships among the memberships of these institutions are found to be correlated with the level of participation in collective action. The evidence shows that less than optimal information dissemination is related to the low level of social cohesion.

It is essential to understand villagers’ perceptions of the role that various village institutions play in the different aspects of their lives that might influence collective action. Two main perceptions were analysed: the value that members put on local institutions (level of importance) and the level of confidence or conviction (trust) regarding the person/institution with whom they are interacting. The analysis shows that although certain institutions are important for the members and have gained trust, none of them seems able to catalyse collective action readily.

The research shows that leaders of these institutions, groups and networks were chosen by their own members within the village on the basis of trust. It takes time to build trust; and these (trusted) leaders are those who have shown their trustworthiness through good or effective deeds. However, although the leaders are generally trusted, it is not enough to drive their members to actively engage and participate in collective action. It takes some level of trust to become a leader of a spiritual gathering like the Majelis Ta’lim group. However, this alone does not bring local Muslim women (the entire female population) together. Moreover, their trust in their PKK leader has not given them the drive to come together and participate in communal activities, as this group was intended to do. According to the villagers, the most important consideration determining levels of participation is whether or not they can benefit from attending the group’s activities, either as an individual (for example, spiritual development) or for their family, such as through finding alternative sources of income.
This is the reason why the rotating credit association (women’s group) is the only group in the village that is steadily active, albeit with a fluctuating membership. Members of this association have their financial needs met by attending the meetings or activities conducted by the association. Since there are no alternatives for credit or banking access in the village, keeping up the attendance is important to its members. The degree of trustworthiness among the members and in their leader it is evidenced by the fact that the women's rotating credit association has been steadily active over the years.

From these findings in the case study of Holja, it is evident that trust may be a necessary, but not sufficient, condition needed to enhance collective action. Building participatory activities around programs which are aimed at meeting needs (financial and spiritual in Holja’s case) seems to be one of the approaches that would encourage villagers to greater participation in collective actions.

Within the context of the low level of social cohesion in Holja, a pilot program of PNPM (PNPM Green) was introduced in 2007. The program has so far achieved one of its purposes through the provision of an alternative fishing solution that is more sustainable compared to previous local practice. However, in terms of the objective of building community capacity for participatory planning and decision-making, the project has failed to deliver. Project actors both at sub-district and village levels, as well as a local NGO, found challenges in getting villagers to become actively involved in village meetings and decision.
The main purpose of this chapter is to analyse the implications of the two case studies by comparing community responses to important natural resource management issues highlighted in each case, and put them into the context of the theoretical and practical frameworks concerning village governance, social capital and natural resource management discussed in chapter 2 as well as responsiveness to the PNPM Green intervention raised in chapters 3 and 4.

The village profile of each study location has distinct characteristics. Although both villages are largely composed of the same ethnic group (Cia Cia), their populations are of different sub-ethnicities. Furthermore, while the Cia Cia Laporo of Warinta maintain strong customary (adat) institutions, the Cia Cia Burangasi (the majority sub-ethnic group) of Holja observe their adat traditions, called sara, the term they use for adat as well as the title of their adat functionary, mainly as ritual formalities. Compared to Warinta, Holja is demographically denser and its inhabitants have a
lower average level of education, but it has a slightly higher average income (mainly due to the size and value of their fish catches).

Public facilities and utilities are limited in both villages, with only one primary school that has a limited number of classrooms in each. The villages do not have a market place, and access to the closest market is by public transport that passes through each village twice a day to and from the market. Both villages lack adequate health facilities, with no health post at Warinta and no local staff based at the clinic/health post at Holja.

**Table 7.1. Village profiles: Warinta and Holja**

<table>
<thead>
<tr>
<th>Profiles</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2010 survey)</td>
<td>1,404 (318 households)</td>
<td>1,252 (267 households)</td>
</tr>
<tr>
<td>Sub villages</td>
<td>4 Hamlets</td>
<td>2 Hamlets</td>
</tr>
<tr>
<td>Ethnic</td>
<td><em>Cia Cia</em> (sub-ethnicity <em>Laporo</em>). Members of this sub-ethnicity bring their <em>parabela</em> and <em>baruga</em> when they move out to other places as a community</td>
<td><em>Cia cia</em> (with the majority sub-ethnicity <em>Burangasi</em>). Members of this sub-ethnicity do not bring their <em>parabela</em> and <em>baruga</em> when they move out to other places as a community</td>
</tr>
<tr>
<td>Religion</td>
<td>100% Islam</td>
<td>100% Islam</td>
</tr>
<tr>
<td>Income</td>
<td>82.5% below IDR 1 Million per month</td>
<td>67.5% below IDR 1 Million per month</td>
</tr>
<tr>
<td>Main occupations</td>
<td>80% farmers, 20% government officials and local traders</td>
<td>91% fishermen, 9% government officials, bricklayers, carpenters, upland farmers (growing maize, cassava and cashews)</td>
</tr>
<tr>
<td>Education - highest qualification</td>
<td>38% primary level of education, 26% secondary level of education, 3% tertiary level of education, 33% no formal education</td>
<td>63% primary level of education, 18% secondary level of education, 1% tertiary level of education, 18% no formal education</td>
</tr>
<tr>
<td>Public facilities and utilities</td>
<td>1 primary school, No market, Distance from District capital: 13km, No health clinic/post, Once a day public transport, 20% of HHs on state electricity grid (but 85% of HHs own TV; tapping the grid ‘illegally’)</td>
<td>1 primary school, No market, Distance from District capital: 23km, 1 clinic/post (without staff), Once a day public transport, 10% HHs on state electricity grid (7% own TV)</td>
</tr>
</tbody>
</table>

Sources: participant observation; survey of 40 households in Warinta and Hoja

Comparison of the two villages profiled in Table 7.1 will assess the level and types of social capital in each village and consider whether these characteristics have an effect on sustainable rural natural resource management. Secondly, given that decentralisation has been in place for over a decade, the analysis will consider whether and how village governance in each studied village has been affected by this
political transformation. Thirdly, as part of the national government’s efforts to mainstream its environmental and natural resource management agenda into a community-driven development program (i.e. PNPM Green), the study will analyse the effectiveness of the program in each of the studied villages.

7.1. Social Capital and Natural Resource Management

7.1.1. Social dynamics and cohesion

The dynamic of local social interactions is highly dependent on the influence of existing institutions, either through traditional adat, as in Warinta, or administrative governmental institutions (dinas), as in Holja. The research examined the extent to which adat institutions are able to work together with government officials in village governance, particularly in terms of conflict resolution, as well as the extent to which government officials dominate social interactions.

In the case of the strong adat community (Warinta), social interaction is apparently more dynamic than in the weak adat community (Holja). Adat-related events/gatherings occur in Warinta village in addition to formal gatherings initiated by village government, as well as by local groups. Activities such as planting, harvesting, weddings, funerals, children’s first hair cuts, circumcision and other community events bring people together frequently; hence interaction and networking are more vibrant and dynamic. Survey data showed that 64% of respondents in Warinta attended social gatherings 6 to 12 times during the preceding period of six months; only 3% of respondents claimed that they never attended any collective gathering in the community in that period. On the other hand, in the case of Holja, where adat is weak, fewer interactions take place and government institutions are more dominant. This was reflected in the survey data showing that 40% of respondents in Holja had never attended any collective gathering in the previous 6 months, and only 2.5% of respondents joined social activities. The majority of activities in Holja that facilitate social interactions are mainly in the context of formal meetings conducted by village government for development purposes or gatherings initiated by local groups, such as Gapoktan, PKK, Arisan and Majelis Ta’lim.
In terms of social cohesion, the community of Warinta exhibits stronger bonding relationships/social capital\(^{104}\) than does Holja. The duration of settlement in the village (established in ca.1500) is long enough for all villagers to be considered descendants of the original inhabitants of the area; therefore, most members of the community in Warinta have well-established relations. According to the *parabela* (*adat* leader) and the *adat* council members, Warinta villagers all have a common ancestor and share the same descent and origin with the other families in each hamlet. Ethnic homogeneity and close kinship ties in the village have affected the way they socialise with each other. People from this village also have more dynamic social interactions in both formal and informal domains. Relational ties appear to encourage joining local institutions; the survey indicated that the majority (70%) of respondents were members of two or three organisations.

Social cohesion in Holja, in contrast, is found to be weak due to the recent establishment (1973) of the village, and the fact that it mainly consists of migrants from a number of villages in Buton, with some newcomers from other parts of Indonesia. Members of local origin groups do not have many overlapping family ties, and relationships are relatively more heterogeneous. It takes time for people to build solid cohesion in newly established communities, particularly when there are not many available avenues to facilitate networking. In Holja, most of the working villagers are fishermen, who mainly work during the night and rest/sleep during the day for certain seasons of the year. The lack of a long association between the members of the community and the lack of strong kinship ties among the members appear to account for the low level of membership of local groups/organisations, with only 15% of the surveyed respondents being members of two organisations and 40% not members of any organisation (see Table 7.2.).

In addition to the level of bonding among members of the community within their own village, these case studies also examined the network relations that the community members have beyond their home village (that is, bridging social capital). Community members in both Warinta and Holja do not have strong bridging relationships beyond their village. There are very few activities to build relations

\(^{104}\) Bonding social capital is discussed in detail in Chapter 2.
with neighbouring villages, and most are conducted in terms of ‘competition’, for example Kasidah\textsuperscript{105} (a religious event specially for women) and sports for the youth. These competition events only happen on special occasions such as Indonesian Independence Day or during Ramadhan/Eid Fitr (Idul Fitri).\textsuperscript{106} Most villagers in Holja village (the migrant village) do not tend to maintain close individual relationships beyond periodic attendance at occasional village festivals.

The case studies also reveal that linking social capital in Warinta (strongly bonded community) and Holja (weakly bonded community) is strongly affected by the level of engagement of the local elites\textsuperscript{107} that influence decision-making in each village. While exerting influence by moral claims and symbolic power within the social sphere, adat leaders in Warinta dominate the social arena in local decision-making processes; political influence of the government officials in Holja village is evidently dominant. In these case studies, the linking network within this community is defined by the strong engagement and influence of local elite (i.e. the adat leaders and government officials). These groups play an instrumental role – with positive or negative consequences for the broader community – in shaping the struggles over local decision-making and the disposition of resources.

7.1.2. Participation and collective action

Participation in the decision-making process appears to vary substantially between the two villages. In Warinta, adat has a strong role in local governance, and counter-balances the village government officials’ roles. The adat leader (parabela) is highly involved in customary decision-making, which is socially and culturally important for the villagers’ daily life. In addition, the parabela is involved in the village government decision-making process with the village government officials, especially in cases where government officials struggle to solve problems emerging at a local level. This parallel leadership seems to encourage participation in the

\textsuperscript{105} Religious chanting in Arabic or Indonesian, sung to the rhythms of a gambus, a six-stringed, plucked instrument of Arabic origin, or gendang – a drum.
\textsuperscript{106} Eid is a holiday marking the end of Ramadhan, the month of fasting, which is one of the most important religious observances in Islam, usually accompanied by visiting family and friends.
\textsuperscript{107} Scholars refer to ‘local elites’ as a group of people in societies characterised by social hierarchies who have power or influence over social, political and/or economic spheres (Balooni, 2010; Dasgupta and Beard, 2007; Fritzen, 2005; Platteau, 2004; Wong, 2010).
decision-making process, with 70% of respondents directly participating in formal processes and 30% through their representatives.

Although participation is high in local governance (both adat- and government-related activities), the case studies reveal that it is only in adat-related gatherings that community participation is considered to be active, while participation in government meetings tends to be passive. The level of trust in leadership and representation appears to be the reason for the quality of participation. Warinta villagers’ strong trust in their adat institution makes for active participation while a low level of trust in the administrative governmental body (BPD) explains why the community attends meetings conducted by BPD, but with a low or passive level of interaction (see Table 7.2).

While Warinta shows relatively strong participation in local governance, Holja evidences a weak level of participation. The lack of functions of adat institutions has contributed to the strong domination of village governance by the village head (kades - kepala desa). Although the trust level is found to be high towards the village head, and members of the BPD are perceived to be in mitra (partnership) with the village head, this has not resulted in active participation by villagers. The case study research shows that although the level of trust towards government leaders in Holja village has been effective in getting people to attend government-mandated meetings, active participation is low and passive. Survey results indicate that only 23% of respondents stated they have directly participated in the formal decision-making process, 42% have participated through their representatives, and 35% did not participate at all.

The level of participation in the decision-making process has a positive correlation with the level of collective action. The strong and continuing adat roles in Warinta reach out to villagers’ needs and solve community problems. The role of the parabela as the adat leader has united the members of community. The survey shows that the majority of respondents (64%) in Warinta have attended community-level collective gatherings six to twelve times in a six-month period, and only three percent have never attended collective action for community benefit. In contrast, of respondents in Holja, only 22.5% have attended community-level collective
gatherings six to twelve times within the same period of time, and 40% have never attended collective actions in their village.

In regard to institutions other than adat and village government, community engagement in both villages shows the same trend: strong when first established and declining over time due to the lack of activities that engage local interests (Warinta) and failure to meet members’ needs (Holja). The exception is arisan (rotating credit association) gatherings, which have a considerable and steady number of participants in both villages, with an average of between 22 members (for IDR 500,000 per month rotating credit) to 60 members (for IDR 100,000 per month). Collective action through the arisan groups has been kept relevant to villagers’ financial needs.

The study also analysed the level of trust among the members of the community/institutions and its relationship to the level and quality of participation. The case studies show the relationship of these two factors in village institutions as follows:

(a) Adat: trust in adat institutions is high in Warinta village, and participation in adat-oriented activities is high. The main reason is that activities are relevant to villagers’ daily life and meet local (financial and spiritual) needs. Trust is based on the long-established interaction with adat institutions, which has significant effects on villagers’ daily life. This has been the case in Warinta village, where adat actively functions on a daily basis. As Holja village evidences weak adat, this finding does not apply to this village.

(b) Village head: trust in the administrative village head (kepala desa) in both villages is high, and participation is either high but passive (Warinta) or low and passive (Holja). The main reason is that meetings are too formal for most villagers, who are generally perceived by the village governmental apparatus as not having enough capacity to contribute. Trust is based on the perception that village heads know what the villager’s needs are and have the capacity to make decisions in the official domain that benefit the common interest.

(c) Village council (BPD): trust in the village council of Warinta is low and participation is high, but relatively passive, meaning that they do not contribute to discussion, but act as observers/spectators. On the other hand, Holja villagers’ trust in the BPD is high, yet participation is low, both
because of the perceived lack of relevance of administrative matters and their technicality.

(d) Local institutions/groups (except arisan): trust in local groups is low and participation is low in both communities. The main reason is the lack of practical substance in the subjects discussed in the group meetings; also, members do not feel they share the same interests in activities as other members.

(e) Arisan: trust among the members in arisan groups in both communities is high and participation is active. This means that members meet regularly and socialise during the gathering. The element of trust among members is important to sustain in the group, ensuring that members who have already taken the arisan pool of money will continue to contribute so that every member eventually has a turn. The fact that members know the activities within the group are relevant to their financial needs largely accounts for high levels of involvement in both villages.

Although most of these groups do not have formal fines for non-payment, they apply social penalties such as not allowing the non-payers to join any other arisan groups in the village. Since most members in one arisan group are also members of other arisan groups, it is apparent that the social and economic benefits of membership are highly valued and, the frequency of non-payment is consequently low. In cases where members are not able to contribute (mostly due to economic pressures in their household), they are not allowed to take their turns at drawing funds until a catch-up contribution has been paid.

A substantial literature demonstrates that trust positively correlates with willingness to participate and engage in collective action. In this case, trust is seen as an integral element of social capital and a pre-condition of cooperation (Coleman, 1988; Fukuyama, 1995; Gambetta, 1988; Putnam, 1993). However, the findings of these case studies suggest that although trust is one of the elements that encourage villagers' decision to join an association, in order to get them to participate actively in collective action, they need to experience a shared interest or belief that these activities will contribute to their needs being met. In addition, it appears that the level
and quality of participation in local institutions do not automatically correlate with the general levels of trust in leaders. In fact, I found an inverse correlation in the case of Holja villagers’ dependence upon the kepala desa and PNPM facilitators.

Focus group discussions (FGDs) conducted in both villages revealed that *adat* and village government officials are the most influential agents/actors/individuals in the villages, due to their roles and the support they give to their communities. Their influence over decision-making, social activities, and villagers’ livelihoods is strong. This trusted leadership has a distinct influence in each village. It encourages villagers in Warinta, the long established village with strong community ties and *adat* institutions, to engage in collective action in support of common purposes. However, this is not the case in Holja, where the community is mostly made up of migrants in a newly established village and ties are heterogeneous. It appears that the pre-existing level of cohesion plays a major role in determining degrees of participation and engagement in collective action, regardless of the level of trust and the influence of local leadership.

### 7.1.3. Conflict resolution in local natural resource management

Ostrom (1990) states that effective mechanisms for conflict resolution are widely considered to be essential prerequisites for common property resource management. This proposition is well supported by the case studies in this research, which considers conflict resolution in relation to the level of cohesiveness between the members of the community. Warinta, which has strong bonding among members, has a clear mechanism through *adat* institutions for conflict resolution conducted through face-to-face interactions. Holja village, on the other hand, has weak bonding and does not have a clear mechanism for resolving community conflicts, beyond the role of the village head.

Each village is different in the way information flows, with the density and type of social networks determining the flow of information among the members of the community (Jones, 2009). In Warinta, there is a relatively smooth flow of information conveyed among the members of the community, as social networks are long-standing and dense, and the level of cohesion among the villagers is high. Most
villagers interviewed showed the same level of understanding of procedures for managing or resolving conflicts within their village.

On the other hand, villagers in Holja are not all well informed or aware of the procedures for conflict resolution within their village. The case study shows that information is mostly retained by village government officials and shared with members of the community only through a formal gathering and/or a notice board located outside the village hall. Also, the study reveals that conflicts within Holja village have mostly been resolved by government entities. Most of the general information is accessed through formal avenues, since the level of social cohesion is low and relationship ties are weak and heterogeneous. The flow of information is, in general, not as smooth as it is in Warinta.

In terms of conflicts related to local natural resources, the case studies reveal that a strong adat community will manage its natural resources through adat mechanisms, whereas a community that lacks effective adat institutions must rely on government mechanisms to manage its local natural resources. The former will use adat rules and processes, while the latter applies official village government regulations (peraturan desa or perdes). The level of participation and collective action in managing natural resources is generally found to be higher among observers of adat regulations (as in Warinta village) than where perdes regulations are the main mechanism for resource governance (Holja village). Level of social cohesion and bonding ties within the communities seems to affect the level of participation in resource governance, particularly in managing conflict related to local natural resources. In addition, the survey shows that most (40%) of respondents in Holja (in comparison to 27.5% of respondents in Warinta) believe that village government should be the main institution responsible for natural resource management. Over-dependence upon key individuals, in this case village government officials, has also contributed to the low participation in Holja.

The case studies indicate that irrespective of the strength of internal bonding, both villages have problems with weak bridging relations (cf. Wetterberg, Dharmawan and Jellema, 2013 – the LLI3 study). For instance, adat rules have made it possible for villagers in Warinta to maintain their forests within their village boundaries.
However, their *adat* rules are only respected by villages beyond Warinta that subscribe to the same *adat*. In Holja, with the lack of frequency and intensity of collective gatherings within their own village and beyond, the chances to extend relationships beyond the village are further reduced. In addition, the over-dependence on village officials in managing local natural resources has limited community members’ interactions with other communities beyond their village. Survey data indicate that only a few people in both villages have attended meetings outside the village for the period of one year (23% for Warinta and 28% for Holja). It appears that sustainable management of local natural resources not only requires strong bonding within the communities, but that effective bridging relations with neighbouring villages are crucially needed as well.

Table 7.2. Summary of social dynamics and cohesion in Warinta and Holja

<table>
<thead>
<tr>
<th>Social dynamics and cohesion</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village settlement</td>
<td>1500 (Long settlement)</td>
<td>1973 (Migrant)</td>
</tr>
<tr>
<td>Formal recognition as an administrative Village</td>
<td>2001</td>
<td>1997</td>
</tr>
<tr>
<td>Social interaction</td>
<td>Formal and informal (more dynamic and more frequent):</td>
<td>Formal (less dynamic and less frequent):</td>
</tr>
<tr>
<td></td>
<td>(a) Extent of collective action in the community (period of 6 months):</td>
<td>(a) Extent of collective action in the community (period of 6 months):</td>
</tr>
<tr>
<td></td>
<td>3% attend 0 times</td>
<td>40% attend 0 times</td>
</tr>
<tr>
<td></td>
<td>20% attend 1 time</td>
<td>7.5% attend 1 time</td>
</tr>
<tr>
<td></td>
<td>13% attend 2 times</td>
<td>10% attend 2 times</td>
</tr>
<tr>
<td></td>
<td>64% attend 6 to 12 times</td>
<td>22.5% attend 6 to 12 times</td>
</tr>
<tr>
<td></td>
<td>(b) Participation:</td>
<td>(b) Participation:</td>
</tr>
<tr>
<td></td>
<td>Voluntary: 83%</td>
<td>Voluntary: 61%</td>
</tr>
<tr>
<td></td>
<td>Compulsory: 17%</td>
<td>Compulsory: 39%</td>
</tr>
<tr>
<td></td>
<td>(c) Membership in organisation outside village: 8.5% (yes); 91.5% (no)</td>
<td>(c) Membership in organisation outside village: 9% (yes); 91% (no)</td>
</tr>
<tr>
<td></td>
<td>(d) Purposes of collective action:</td>
<td>(d) Purposes of collective action:</td>
</tr>
<tr>
<td></td>
<td>36% social</td>
<td>32% religious</td>
</tr>
<tr>
<td></td>
<td>32% infrastructure</td>
<td>29% infrastructure</td>
</tr>
<tr>
<td></td>
<td>12% <em>adat</em></td>
<td>20% health</td>
</tr>
<tr>
<td></td>
<td>7% environmental</td>
<td>9% environmental</td>
</tr>
<tr>
<td></td>
<td>4% religious</td>
<td>6% social</td>
</tr>
<tr>
<td></td>
<td>4% finance</td>
<td>3% financial</td>
</tr>
<tr>
<td></td>
<td>4% health</td>
<td>1% <em>adat</em></td>
</tr>
</tbody>
</table>

108 The type of collective action here refers to activities conducted by respondents that were aimed at the benefit of the village community (indicated in the questionnaire as *kepentingan masyarakat desa*). In case of Warinta, all types of *adat*-related events (include those for the benefit of village community and for household/individuals) were rated as high in participation.
<table>
<thead>
<tr>
<th>Social dynamics and cohesion</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant institutions/actors</td>
<td><em>Adat</em> (customary leaders)</td>
<td><em>Dinas</em> (village officials)</td>
</tr>
<tr>
<td>Local Institutions: density, and diversity</td>
<td>- Local institutions: PKK (and <em>dasa wisma</em>), Majelis Tal’im, Gapoktan, Youth groups, <em>Arisan</em></td>
<td>- Local institutions: PKK (and <em>dasa wisma</em>), Majelis Tal’im, Gapoktan, Youth groups, <em>Arisan</em></td>
</tr>
<tr>
<td></td>
<td>- Density (number of organisations to which household members belong): High 0%: 0 organisation 30%: 1 organisation 45%: 2 organisations 10%: 3 organisations 15%: 4 organisations</td>
<td>- Density (number of organisations to which household members belong): Low 40%: 0 organisation 45%: 1 org 15%: 2 organisations</td>
</tr>
<tr>
<td></td>
<td>- Diversity: Homogeneous (sub-ethnic and kinship)</td>
<td>- Diversity: more heterogeneous (sub-ethnic and kinship)</td>
</tr>
<tr>
<td>Participation in decision-making and local governance</td>
<td>- Parallel leadership: between adat Parabela and dinas leadership (village and hamlet heads and BPD)</td>
<td>- Single leadership: village head</td>
</tr>
<tr>
<td></td>
<td>- Parabela (adat leader) is highly involved in both customary decision making as well as government process; when the administrative village head cannot solve a problem, he will involve adat leaders</td>
<td>- Sara (adat leader replacing parabela) is considered as less respected and effective leader; only acts during ceremonial events.</td>
</tr>
<tr>
<td></td>
<td>- Level of participation in decision-making: 70% participate directly; and 30% through representatives in formal decision-making processes</td>
<td>- Level of participation in decision-making: 65% participate (23% directly participate and 42% through representatives); 35% do not participate in a formal decision-making process</td>
</tr>
<tr>
<td></td>
<td>- Level of satisfaction in decision-making: 94% satisfied and very satisfied</td>
<td>- Level of satisfaction in decision-making: 97% satisfied and very satisfied</td>
</tr>
</tbody>
</table>

### 7.2. Village Governance: Village Government and Adat Institutions

In both villages, village government officials, particularly the village head and the council (BPD), have proved able to work together in partnership with others. Village heads in both villages are trusted by the members of their community. What makes the difference between these two leaders is their skill and charisma (*karisma*) in governing their villages. Holja’s village head has been selected for two consecutive elections due to his reputation for effectiveness in leading the village. He dominates majority decisions taken for (and on behalf of) the village. Although the level of
heterogeneity is higher in this village, it seems that the village head’s role is crucial in facilitating and encouraging the members of the community to attend meetings at village level. However, this does not mean that those who attend actively participate in the decision-making process. Passive participation is evident, and collective action is a challenge.

While Holja’s village head has won two elections through his personal charisma and his (kinship and affinal) links to the key decision-makers within local user groups, Warinta’s village head has been in office for only one term to date. Although he does not have close kinship or affinal ties to the key decision-makers in the village, he is able to work together with adat leaders in the decision-making process.

As for the members of the BPD, either appointed by prominent figures (Warinta) or appointment through consensus by the village community (Holja), most of the villagers in both communities do not have a positive perception of the members of village councils. The majority of the villagers are not satisfied with their performance in village governance, and perceive the BPD as a non-functional institution (cf. Wetterberg, Dharmawan and Jellema, 2013 – the LLI3 study). Rather than an institution to represent the people’s voice and aspirations, the BPD has been made subordinate to the village head under revisions to national decentralisation legislation (UU32/2004) and is perceived as little more than a rubber stamp for the village head’s decisions. This reflects back on the level of community participation in the decision-making process; villagers in both case study sites do not feel able to voice their aspirations through this institution.

While the village head in Holja dominates the decision-making process and the dynamics of village governance, Warinta villagers consider their adat institutions to be their core governance system. The influence of the adat leader in Warinta village is strong enough to lead the decision-making process, not only in ceremonial and cultural events, but also in matters that affect villagers’ daily life, such as the time for planting and harvesting crops. In addition, villagers seek out the adat leader to discuss government-related matters, making sure that they are in line with adat principles before meeting with the village head or the council.
Having an *adat* institution working in the village governance system has brought a more cohesive dynamic into villagers’ interactions. Most of the activities and social events are decided through discussion with the *adat* leadership, and are mostly held in the *baruga* (traditional meeting place) rather than at the *balai desa* (village hall). It appears that the traditional meeting place is perceived as more community-oriented than the village hall, which is seen as government-oriented. Direct observations when attending meetings at Warinta revealed that participation in decision-making is higher in the *baruga* than it is in the village hall, where village government officials dominate.

**Table 7.3. Summary of village governance in Warinta and Holja**

<table>
<thead>
<tr>
<th>Village governance</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
</table>
| Customary/Adat     | - Strong  
- Has an influence over ritual ceremonies, government matters and other daily issues within the village.  
- *Baruga*: informal meetings; mainly communal decision-making takes place here | - Weak  
- A less functional role, and little or no influence over villagers’ daily life.  
- No *Baruga*, only the formal government village office hall where decision-making takes place involving village government officials. |
| Leadership         | *Adat* institution (*parabela* and *adat* councils) | Government institutions (village head and BPD) |
| Village government | - Village head (*kades*) and the council (BPD) working relations: partnership.  
- *Kades* has a broad knowledge and trusted by villagers  
- Decision-making process can be conducted either in *Baruga* or village hall (depends on the nature of the matter). Villagers meet not only during the election of BPD and *Kades*, but also in other forms of decision-making related to matters that are relevant for the villagers. | - Village head (*kades*) and the council (BPD) working relations: partnership. Current *Kades* has won two consecutive elections.  
- *Kades* has strong charisma and is trusted by villagers  
- Villagers meet during the election time of BPD and *Kades*. Other than this, internal meetings and decision-making is conducted between members of BPD and *Kades*. |
| Levels of satisfaction with decision-making process (in administrative (dinas) village planning and village regulation) | Satisfied: 45%  
Satisfied enough: 30%  
Not satisfied: 17%  
No opinion: 8% | Satisfied: 70%  
Satisfied enough: 22%  
Not satisfied: 5%  
No opinion: 3% |

Sources: participant observation; survey of 40 households in Warinta and Hoja
7.3. Mainstreaming NRM into a CDD Approach

7.3.1. PNPM Green: Participation and domination

The National Program for Community Empowerment in rural areas (abbreviated as PNPM Rural)\(^{109}\) is one of the government’s projects that has benefited both villages since the year 2000. The project applies a community-driven development (CDD) approach that encourages a bottom-up decision-making process, which includes socialisation, planning, implementation, and maintenance of village investments.

The mechanism of this bottom-up process works through community meetings, starting from sub-district levels down to village and hamlet levels. These meetings are conducted throughout a one-year cycle of the project, and are repeated each consecutive year. These meetings are meant to be the motor of the project in facilitating broad community involvement in the decision-making process. However, the routine and bureaucratic character of the meetings held each year have had a negative effect on the level of participation.

Motivation to attend the meetings has declined in both villages, which have been part of the KDP/PNPM program since 2000. This has affected the implementation of PNPM Green, an environmental and natural resource management pilot project under the umbrella of the PNPM Rural since 2008. Villagers perceive that they know the mechanism of PNPM Rural well, and that there is no need to attend project meetings, as all are considered to be repetitive. The pilot project (PNPM Green), applies the same mechanisms and receives the same responses. A low level of participation in most of the meetings prevails in both villages.

In addition to fatigue in attending project meetings, the main reasons the facilitators gave for villagers being uninterested to attend meetings were as follows: (a) Being preoccupied with household chores (mostly women; concerns about the timing of the meetings);

\(^{109}\) Formerly known as the Kecamatan Development Project, abbreviated as KDP or in Indonesian as the Program Pengembangan Kecamatan, abbreviated as PPK.
(b) Too busy to attend/working at sea or on the farm (mostly, concern was expressed about the timing and place of the meetings, which are considered to be unsuited to the villagers’ responsibilities); 
(c) Having trust in certain individuals within their community who have worked before with the project and are considered as the key people who understand the procedure for how to win a proposal and at the same time have knowledge about the needs of their village. These individuals are the village cadres\(^\text{110}\) in Warinta and the village head in Holja.

In both cases, it appears that lack of participation in the implementation of the project and the increased level of domination by certain individuals – the village cadres (Warinta) and the village head (Holja) – within the community may strengthen the existing power structure in contradiction to the intended aims of the project.

7.3.2. PNPM Green: Process and outputs

The core aim of PNPM Green is to mainstream the environmental agenda into local community-driven development processes. Thus, the project is aimed at both improving and maintaining local environment and natural resources, and improving community participation in NRM governance. This program includes the improvement of community participation and collective action to implement activities that support the environment and sustainable management of natural resources. In other words, the process of setting up sustainable, local, natural resource management is as important as the output of the project.

The Warinta and Holja case studies reveal that while outputs may be achieved, this does not necessarily reflect the development of the intended participatory processes. Both case studies show that PNPM Green has successfully addressed local environmental and natural resources issues, and that the outputs clearly give benefits to the local community. However, in neither village did the process achieve the 'community-driven' objectives of PNPM, although for different reasons. Different patterns of leadership and community involvement were involved in delivering the

\(^{110}\) KPMD (Kader Pemberdayaan Masyarakat Desa) or cadres for community empowerment at village level.
process at the two sites. The village proposal from Warinta was the outcome of a process that followed a community-driven development approach, albeit with heavy dependence on experienced KPMD village cadres, while the village proposal from Holja came through village government officials. The lack of encouraging/positive responses to the process of PNPM Green in Holja is largely attributable to the low level of active engagement in community affairs generally and the fact that the process was less than inclusive.

Within the framework of the process of delivering the project’s outcome, collective involvement in decision-making was found to be stronger in Warinta than in Holja. However, both show low levels of participation, due to the domination of certain individuals (village cadres and the village head respectively) in the decision-making process for the project. This can be explained as follows:

1. Warinta village: the attendance at project meetings is low. However, those who did participate were collectively involved in the decision-making process. The overall process is inclusive, although domination of the process by the village cadres (KPMDs), elected to act as village facilitators, who also are members of the community, is evident.

2. Holja village: here, the attendance at project meetings is low as well. Those who participated were not fully involved in the process of developing the proposal—both the original (rejected) and the finally funded versions of the proposal. The overall process is exclusive and dominated by the village head.

The existing level of social cohesion in each village seems to have an effect upon the process of achieving the intended outputs of PNPM Green. The strongly bonded community, Warinta, responded to the process collectively, and their proposal was approved. On the contrary, the weakly bonded community, Holja, responded in a more individualistic fashion, with the result that their initial proposal was rejected. Only after intervention from the PNPM project facilitators (from outside the community) was the output amended and approved.

In addition, the strong position of key individuals in the decision-making process seems to be one of the main attributes shared by both villages. This similarity highlights the limits to the depth of community involvement in both cases; hence, the
term ‘community-driven’ applied through the implementation of the program needs to be revisited. Also, it is critical to revise the strategy and recognise the importance of a continued focus on process as well as outcomes for the next phase of the program.

7.4. Summary
The research is based on two case studies, one located in an upland area, Warinta, where forestry and agricultural land are the main natural assets, and the other one located in a coastal village, Holja, where coral reefs and fisheries are the main natural assets. These two villages have distinct social characteristics: one is a dynamic adat community with strong bonding, and the other one is a less dynamic, community with weak adat, in which members do not share strong kinship ties, and bonding among the members of the community is weak.

The case studies reveal that participation in the decision-making process of village governance is not based so much on different levels of trust in the two communities; rather, the degree of social cohesion which is affected by the length of settlement in each community plays a major role. The strongly bonded community, Warinta village, has a high level of participation, regardless of the fact that village members lack trust in their representatives on the BPD village council, but have strong trust in the adat institutions and to a lesser extent the village head. On the other hand, the weakly bonded community, Holja village, has a low level of participation, which appears not to be directly related to the level of trust they have in the BPD (low) and/or their village head (high).\textsuperscript{111}

In addition, both case studies show the same trend of low participation in ongoing collective activities within local groups, with the exception of arisan rotating credit groups. These groups enable the members to deal with a wide variety of needs, including household savings and financing of economic activities (Anderson and Baland, 2002; Besley, Coate and Loury, 1993; Hospes, 1995). Also, the unavailability of banking services nearby the villages has increased the importance of arisan as a credit facility for villagers. This suggests that villagers would be

\textsuperscript{111}The village head in Holja is trusted by most of the villagers, except a few who opposed him during the village head elections (see Chapter 6).
willing to actively participate as members of local groups in collective actions when they perceive the activities as a means of supporting their household well-being, and therefore share an interest in taking part. In other words, a shared set of expectations and concrete positive experiences (in this case, meeting their financial needs) of being members of *arisan* groups have encouraged active participation.

Social dynamics and cohesion affect how a community manages its local natural resources, as well as associated conflicts. The strong bonding community of Warinta has a clear mechanism for conflict resolution, and *adat* institutions play a prominent role in encouraging community participation and collective action in natural resource management. On the other hand, the weak bonding community of Holja does not have a clear mechanism for conflict resolution, and their village government’s regulations (*perdes*) are the main mechanism for managing local resources. There is little evidence to suggest that *Perdes* provide a functional equivalent in Holja to *adat* regulations in Warinta. A lack of general awareness and understanding of the need for community-based natural resource management and related conflict resolution has affected the implementation of *perdes* in Holja. Some do not even know of the existence of the *perdes*.

Within the context of the local social and political dynamics in each village, an environmental and natural resource management pilot program (PNPM Green) was introduced through the national community empowerment program. As discussed in Chapter 5 and Chapter 6, the case studies reveal that the effectiveness\(^{112}\) of PNPM Green in addressing local natural resource management issues is dependent on the level of cohesiveness and social capital of a community. Although both villages appear to be successfully achieving the intended outputs, only the strongly bonded community of Warinta was able to achieve the intended output through a partially effective process of community-driven development.

In addition to the need for strong bonding social capital, the findings of this study indicate that sustainable natural resource management calls for better bridging relations with other communities beyond the local village. Natural resources are not

\(^{112}\) Effectiveness was measured by whether the project achieved its expected output through the intended process.
limited by administrative boundaries, but by ecologically and geographically defined areas, such as a watershed. Warinta villagers may be able to conserve forests within their village boundary through the *adat* system; however, the same forest is still at high risk of illegal logging by people from outside the village who do not share their belief and obligations under the local *adat* system. It is a challenge to sustainably manage natural resources without collaboration and support from neighbouring villages.

A community-driven development intervention such as either PNPM Rural (started in 1998) or PNPM Green (started in 2008) does not show strong evidence of improving bridging social capital in either Warinta or Holja village. The household-level survey shows that the majority (91.5% in Warinta and 91% in Holja) of respondents do not have links to organisations outside the village—hence weak bridging social capital. The effectiveness of the KPMDs in the Warinta case is a result of the long period of engagement with the KDP/PNPM system that contributes to familiarity with the program mechanism and expectation rather than engagements with organisations or groups beyond their village institutions. Such familiarity with the program and knowledge of what needs to be done in efforts to win a proposal have affected the KPMDs’ ability to translate those in varying degrees to the benefit of the community at large.

The program has built-in mechanisms to facilitate the development of bridging social capital through inter-village meetings at the sub-district level. However, in practice, these meetings are only attended by village ‘representatives’, usually the village head, village head’s wife, and BPD (village elites).\footnote{On the operational procedures (PTO Section 3.1.1.), it specifies that these MAD meetings are to be attended by 6 people (comprising the village head, two from the BPD, and three from *tokoh masyarakat* or community leaders) representing each participating village, and other community elements which include the general public or members of participating communities (*anggota masyarakat lainnya*).} Although these meetings increase the chances of getting together with other community leaders (networking for the elites), they do not necessarily encourage all members of the community to nurture bridging relations.
In summary, the case studies reveal that high-density social networks and homogeneous memberships of local institutions may positively affect participation in collective action, as such networks and institutional relationships decrease problems of access to information and foster trust and social cohesion, presumably leading to more effective resource management (Agarwal, 1999; Agarwal, 2001; Alesina, Baqir and Easterly, 1999; Boyce, 1994; Grootaert, 2001; Kilpatrick and Field, 2001; Naidu, 2005; Pretty and Ward, 2001; Putnam, 1993).

The density (having members closely connected together) of social networks, indicating strong social cohesion within a village, is a major prerequisite for effective communication in a community-driven development project and minimises the probability of non-compliance due to ignorance or misunderstanding (Anderson, 2006; Jones, 2009; Lin, 2001). For such a project, information on local natural resource management may be transmitted through social networking (Cramb, 2005), thus increasing natural resource-related collective action by villagers (Lubell and Fulton, 2007).

Finally, the role of certain individuals in facilitating local participation in collective action is significant – individuals who are community leaders or community members who have certain skills in, and knowledge of, NRM-related projects. These individuals may have both positive and negative influences on the quality of participation, which may be passive when domination is strong, or active when inclusiveness and relevance are evident.
CHAPTER 8
CONCLUSION AND RECOMMENDATIONS

Mainstreaming natural resource management (NRM) within a community development program to achieve more sustainable rural development involves diverse and complex dynamics of social capital and resource governance. This thesis has explored the underlying causes of the success and failure of such a program and how to unlock potential keys for more sustainable natural resource management by drawing substantively on the social capital concept. This concept is argued to be essential in community-based natural resource management, as it fosters participation in collective action for sustainable management of common resources and coordination of actions among various stakeholders. Scholars claim that the level of social capital in a society correlates with the level of environmental and NRM outcomes (Anderson et al., 2002; Bodin et al., 2011; Daniere et al., 2002; Koka and Prescott, 2002; Pretty and Ward, 2001).

The application of the concept of social capital in studies of collective action for such tasks as management of natural resources focuses on networks and associations as collective level units (Dahal and Adhikari, 2008; Pretty, 2002; Uphoff, 2000). These networks are mixes of ‘horizontal’ relations, bringing together agents of equivalent status and power, and ‘vertical’ relations, linking unequal agents in asymmetric relations of hierarchy and dependence (Putnam, 1993, p. 173). Both horizontal and vertical relations operate through the engagement within (bonding or internal ties) and between (bridging or external ties) social networks.

The latest addition of the social capital typology, known as linking social capital, pertains to connections with people – between individuals, across groups and beyond the community – in hierarchical relations with unequal power distribution. By definition, linking social capital has the same implication as the concept of ‘vertical’ relations that Putnam suggests in his seminal work in 1993, which applies in both bonding and bridging forms of social capital, with an additional focus on the relationship with formal institutions beyond the community's resources (Adler and Kwon, 2002; Fine, 2001; Pretty, 2002; Warren et al., 2001; Woolcock, 2001).
Although ‘linking’ social capital can be related to the vertical relations within bonding and bridging forms of social capital, the thesis also focuses on the implications of ‘linking’ social capital described by Szreter and Woolcock (2004, p.655) as ‘norms of respect and networks of trusting relationships between people who are interacting across explicit, formal, or institutionalised power or authority gradients in society’. In this particular context, linking social capital relates to social relations with formal institutions beyond the community and their effects on resources, skills and beliefs, either through influencing policies or making claims on useful resources. Patron/client ties between decentralised government institutions at district level and their counterparts at village level, for example, have effects on the resource governance.

This thesis has highlighted the contributions and limits of social capital approaches to sustainable natural resource management, including the correspondence between the pre-existing forms of social cohesion with the levels of community involvement and effectiveness of collective action for sustainable resource management. It has also discussed the implications of decentralised governance for levels of local participation and the degree of elite domination in resource governance. Its explicit focus has been on modes of building social capital and conducting natural resource governance in the development program PNPM Green through an emphasis on the extent to which local level empowerment and participation in efforts to improve sustainable development outcomes have been actualised. Recommendations suggested in this chapter are aimed to improve approaches to sustainable natural resource management (NRM) through the community-driven development (CDD) approach of the PNPM program in rural Indonesia. A realistic and promising approach to resource governance is the objective of these recommendations.

8.1. Social Capital, CDD and NRM: Contributions and Limits toward Improving Sustainable Natural Resource Management

Literature on the ‘commons’ suggests the crucial role of community-based natural resource governance as a system or mechanism to manage access and/or use of local natural resources and respond to challenges of environmental degradation
(Andersson and Ostrom, 2008; Finner, 1970; Hardin, 1968; Olson, 1965; Ostrom 1990; Rhodes, 1996; World Bank, 1992). In reform era Indonesia, resource governance involves rules and regulations that are applied in a context of decentralisation, as elaborated in Section 8.2 of this chapter, and the contributions of local institutions to the management of natural resources.

Rural villagers are known to have a strong dependence on local natural resources to meet their basic necessities. As these are a mix of common pool and open access resources, access to and/or use of some of these resources is not limited to local villagers, but is also open to various stakeholders beyond the immediate community. Bonding, bridging and linking forms of social capital play a major role in this resource governance. In this context, a CDD-NRM intervention aiming to enhance resource governance in rural Indonesia needs to pay particular attention to the dynamics of local (formal and informal) institutions, the representation system and the existence (and domination) of local elites.

The thesis confirms other scholars’ proposition that having higher levels of density (also referred to as higher levels of social cohesion) in local institutions indicates the existence of strong bonding ties that increase the possibilities for collective action and collaboration (Anderson, 2006; Brewer, 2003; Hahn, 2006; Jones, 2009; Lin, 2001; Olsson, 2004; Sandstrom and Rova, 2010; Sandstrom, 2011) and facilitate consensus building and effective conflict resolution in resource management. The household survey in long-settled Warinta village shows a high degree of density in local institutions, with the majority (70%) of respondents being members of more than one organisation. This correlates with the level of collective action, showing that 83% of respondents voluntarily participate in collective action and that they attend the community gatherings more frequently (64% attended 6 to 12 times within the study period of 6 months). By comparison, in the other case study set in Holja village (mostly migrants, established in 1973), local institutions have low density, with only 15% of surveyed respondents being members of more than one organisation. The level of collective action is lower than that in Warinta, with 61% of respondents voluntarily participating and only 22% attending 6 to 12 times in the 6-month study period. The levels of density in local institutions that contribute to the degree of bonding relations appear to be affected by the length of social association.
and interaction within the community, as related to the duration of village settlement, as well as social ties within the community, whether constituted by migrants or original inhabitants.

The implications for a CDD-NRM intervention or program are that it is crucial to nurture the existing local institutions (e.g. adat institution, local farmers associations, etc.) through inclusion in the program’s implementing groups, rather than just creating new groups. This strategy will not only encourage active participation of villagers in meetings and their capacity for engagement and collective action, but also enhance ownership of activities funded by the program. The more frequent formal and informal interactions within these existing institutions, the stronger cohesion they have, hence stronger bonding social capital.

Empowering existing local institutions is necessary for sustainability of the program, as the involvement of these institutions continues beyond the end of the project cycle. The process of equipping and empowering local institutions may increase the ability of beneficiaries to learn from previous failures, build on successes, and capture benefits generated by their stewardship of natural assets. This process-focused approach would contribute in rewarding collective action that then leads to sustainable resource management (Boyce, 2001; Kurien, 2004). Empowerment of local institutions requires coordination and cooperation between a considerable number of actors with varying interests and power to act, and a CDD-NRM related program can take the lead in this process.

Bonding ties also facilitate the flow of information among members of a community (Dahal and Adhikari, 2008; Jones, 2009; Putnam, 2000, 1993 p. 5; Coleman et al., 1966, cited in Tindall et al., 2011). Holja villagers – where bonding social capital is found to be weak – experienced a lack of understanding of the core mechanism of the PNPM Green program, as the flow of information was impeded by the low degree of social cohesion and low density of networks. This has affected the outcomes of resource governance as a whole, and the responses towards the program in particular. In addition, the case studies show that the flow of information and avenues for the community to access information on NRM affect their involvement in monitoring their natural resources. Acknowledgement of this proposition
contributes to the application of effective mechanisms for conflict resolution, which are widely considered to be essential prerequisites for common property resource management (Ostrom, 1990).

Although having strong bonding ties in a community indicates the prospects for collective action, this circumstance may also entail a lack of multiple networks beyond the immediate group or networks within the community, where overdependence on key local individuals prevails. A household level survey in Warinta (a strong bonded community) shows that the majority (91.5%) of respondents do not have links to organisations outside the village — weak bridging social capital. The main challenge of a weak bridging network in the management of local natural resources is the homogenisation of experiences and knowledge (that is, individuals tend to adopt similar perceptions of the issues at hand) in managing the diversity and complex nature of the natural resources. In this context, strong bridging social capital is positively linked to sustainable management practice, as it brings people together across diverse social divisions and improves the quality of information needed to manage and govern the changing ecological conditions (Bodin and Crona, 2008; Dahal and Adhikari, 2008).

A CDD-NRM program needs to build and encourage bridging relations that allow inherent diversity of ideas and perspectives, as well as access to external resources which could contribute to better governance (Bodin and Crona, 2009; Crona and Bodin, 2006). Incorporating multiple knowledge and skills enhances environmental decision-making (Berkes, 2009). Bridging networks among the villages, therefore, need to be enhanced and maintained throughout the application of a CDD-NRM operation/program. These bridging networks may be achieved through the application of both informal and deliberate interactions. One example is to establish a network of expertise or local champions\textsuperscript{114} for sustainable natural resource management from among the villages. Such a network will enhance the chance for villagers to become connected to resources beyond their own village, and vice versa. Networks of expertise or local champions can be selected from within the villages and/or beyond their villages through a bridging network. The knowledge of where to

\textsuperscript{114} Local champions are those who are experts in their fields, such that other members of their village might recognise their skills and expertise.
find expertise and on whom to call is crucial. The role of bridging networks to connect with resources beyond their villages is fundamental, as it increases the chance of having better and greater variety of resources (Lin, 2005). Also, bridging networks are pre-requisite to enabling resolution of conflicts over competing resource interests between communities and/or user groups and between elite and popular interests.

PNPM Green, a CDD-NRM program in Indonesia, utilised sub-district level meetings where representatives from villages meet, discuss and decide on proposals to be funded. This meeting arena could be used more effectively to cultivate bridging capacities for the participating villages only when the reporting-back mechanism is employed by the representatives. In the villages researched, such a mechanism was lacking, which encouraged the exclusiveness of these representatives (who are mostly local elites) and the passive participation of members of the communities in the program. In order to encourage more active participation and increase access to information, such a program needs to develop and exercise a clear mechanism of accountability within the framework of the representation system, particularly in terms of reporting any information received to the community that is being represented. The flow of information needs to be clear for the mechanism to work effectively.

The implication of competition for funds at inter-village meetings at the sub-district level may also encourage, build and maintain bridging networks among the villages in the longer term, through an enhanced capacity of the villages to communicate and work together with each other. Since the distributive characteristics of ecology/natural resources do not correlate with administrative boundaries, it is essential for the community to look beyond their own administrative neighbourhood and work together to solve their environmental/NRM issues. Mutual cooperation, collaboration and collective action may be enhanced through the process of negotiation among the villages. This presents an emerging opportunity for PNPM Green to support the process and facilitate wider social engagement through informal and deliberative interactions, thus developing social bridging networks.
Case studies also reveal that vertical relations still prevail in processes of engagement within local social networks, either in a strongly bonded community with the involvement of adat institutions, as found in Warinta village, or in a weakly bonded community, as in Holja, where domination by the village head is strong. These vertical relationships are dominated by the local elite — group of people in a society who have power or influence over social, political and/or economic spheres at the local level (Balooni, 2010; Dasgupta and Beard, 2007; Fritzen, 2005; Platteau, 2004; Wong, 2010). This thesis has highlighted how these local elites have both positive and negative consequences for managing local natural resources. The role of the adat institution in Warinta village is salient in both customary and government-related decision-making processes. Local forests are well protected by the community through the strong role of adat institutions. On the other hand, the strong dominance of Holja’s village head and members of the BPD contributes to villagers’ passive participation in managing and governing their coastal ecosystem. The challenge for a CDD-NRM program in the context of vertical relations within a society is to channel these powers and the influence of local elites into a more constructive and positive involvement. This channelling can be done through the provision of incentives for those elites who manage better resource governance, wherein one of the considerations should be community inclusion in the decision-making process.

Vertical relations also apply to other networks beyond the local group; they link different types of institutions, including state and private sectors (linking social capital). In this particular context, the thesis focuses on the vertical relationship between local community and higher levels of the hierarchy of government (Szreter and Woolcock 2004). Particular emphasis is given to the effect of decentralised natural resource governance, described in the following section.

8.2. Decentralised NRM: Participation and Elite Domination

The complex nature of the socio-political element of decentralised natural resource management in Indonesia demonstrates convincingly that the local community cannot stand alone in managing its local resources. A secure governance system is needed to facilitate the active participation of local constituents and thus encourage
downward accountability. This thesis has introduced a combination of three elements that complement each other:

1) A partnership between government and an independent third party — an existing non-government organization — to facilitate and strengthen the role of the local government in sustainable NRM;

2) A secure, accountable and transparent financial transfer to village level to retain rights rather than privileges;

3) Active participation through a meaningful representation system and better resource governance.

These elements are informed by the understanding that local communities can be most effective when they are fully involved in the decision-making process of the management and protection of natural resources. The policy implications of these three pillars are that development interventions should take into account the complexity of socio-political relations within the decentralisation framework. Firstly, the power struggle between central and district governments over access and management of local natural resources may be counterbalanced with the existence of legitimate non-government third party involvement that is able to collaborate and establish a partnership relationship. Secondly, patron-client relations between actors in district and village governments may be counteracted through the provision of secure financial transfer from higher authorities to village level. Thirdly, the tendency for elite domination within village boundaries may be lessened through the facilitation of hamlet interactions that enable a reporting-back mechanism through the representation system.

This thesis has shown that legitimate access to local natural resources is mostly in the hands of central and district governments. As power is mostly retained at the central level, and upward accountability to higher authorities prevails, decentralisation of natural resource management (NRM) has not fully been realised.

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115 The recent hutan adat decision of the constitutional court (Mahkamah Konstitusi/MK No.35/PUU-X/2012) indicated the potential for a significant shift to village level where adat claims are recognised; however, there has not been any meaningful follow up in terms of the implementing regulations of the MK’s outcomes. The constitutional court’s result needs to be implemented at ministerial level, particularly to lay out the mechanism for the identification (and sustaining) of hutan adat as well as institutional recognition for conflict resolution mechanisms, and to mandate adat mapping exercises, and so on.
In a short-term framework of engagement, in view of political reluctance to align government regulations to a more comprehensive set of rules and commitments, a more pragmatic approach is needed.

In practice, as discussed in Chapter 3, concerns with access to natural resources have typically had greater priority at every level of governance than sustainable management. Engagement with third parties – in this case, NGOs or CSOs with experience in natural resource management and local engagement – is therefore crucial to compensate for the weak enforcement of sustainable management principles. The third party agent needs to have a legitimate position in natural resource governance in order to be able to partner with its political counterparts. The main role of this agent would be to ensure the authorities implement their legal responsibilities in sustainable management of natural resources, rather than focusing only on access to and utilisation of these resources. The question is, who should be the third party?

The third party should not be a newly established institution that will add to a more complex set of actors in the political arena, but a consortium of existing regional or locally based (non-government) organisations that has a strong and clear mandate in NRM, as well as having capacity and experience in collaborating with government and community entities. In this collaborative context, NGOs and the government entities will operate in a partnership to facilitate the local communities' sustainable management of their resources. A CDD-NRM program may take a lead in supporting and facilitating such a partnership.

The second pillar deemed necessary to facilitate the conditions for a meaningful, decentralised NRM regime is to ensure that financial transfers are secure and transparent. Conditional/insecure financial transfers from (or through) districts to village governments have affected downward accountability. This condition has disempowered village governments in their response to local needs, as insecure financial transfers are perceived as privileges rather than rights. In this situation, the main focus of village government has been to seek the patronage of those individuals/ institutions with authority over the transfer so as to retain their ‘privileges’ (Conyers, 2002; Ribot, 2007).
Although the regulations (PP72/2005 on villages and Permendagri No.37/2007 on village financial management) indicate sources of funds for village budgets, in practice the district government has the right to allocate amounts or a percentage of amounts for each village (in practice often dependent on the level of political support received). A transparent and explicit rule/regulation on the exact percentage of village allocations may improve the certainty of amounts to be expected from the district government and thus provide a secure financial transfer and tangible rights for each village. If the sense of financial security is improved, villages will be assured that the funds are their right, which may help break the reliance on patron/client ties between district and village government. In addition, unconditional transfers from district to village should be complemented with a measure of accountability at village level. A mechanism for transparency and accountability of the budgeting and the use of village funds should become the village government’s best practice.

The third pillar for an effectively decentralised NRM is meaningful local participation through the genuine representation system. At village level, members of the village consultative council (BPD) – who are appointed through consensus (musyawarah mufakat) rather than elected by the village population (UU32/2004)\(^\text{116}\) – are the main agents of decentralisation under the revised regional autonomy legislation. These members, who are supposed to be representatives of the local populace, may consist of heads of neighbourhood groups/hamlet heads (kepala dusun/kadus), customary adat leaders (or members of adat institutions), religious leaders, and other local prominent figures. Although the selection process for these members is provided for in the regulations, the process of accountability of members towards the people they represent is not supported. Rather, these members meet a few times a year in a village hall, and together with the village head make decisions ‘on behalf’ of the villagers.

\(^{116}\) The change in selections process for the members of the village council (BPD) through the provision of the UU32/2004 has downgraded the powers and function of the village council (BPD) as the embodiment of democracy at the village level. The village head is no longer accountable to the council, but solely to the district head.
Since there are no clear and definitive mechanisms for reporting back, these representatives do not have the leverage to inform their constituencies on the outcomes of the meetings. This has affected the response of local constituents towards active participation in decision-making processes. Without knowing whether their aspirations were discussed in the meeting by the representatives, or how decisions were made, villagers have drifted away from actively involvement and from participating in decision-making at the local level.

Within the representation system, the reporting back mechanism is therefore crucial, as it will provide avenues for ordinary villagers to participate actively in both formal and informal interactions. Such interactions are viable at the hamlet level, due to the fact that the members (of the BPD) are selected in each of the hamlets. In this case, it is necessary to ensure that regulations related to village governance should include explicit rules on the application of such a mechanism.

Furthermore, not only do representatives on the village council not have a tool and mechanism to report back to local constituents, they are also dominated by village elites. Elite power at village level is characterised by the strong influence of village government officials (village head and BPD in Holja) and other community leaders (adat leaders in Warinta). As in any other villages in Indonesia, these elites are well established historically and culturally. It is almost impossible to encounter ‘local participation’ without the involvement and/or domination of these elites, and in most cases, participation is either superficial (to meet a project’s objective) or lacks quality because of a passive audience. As these elites are part of the village socio-political dynamic, their existence is tangible and evident. Their domination in the representation system of government-related decision-making processes has a negative impact upon downward accountability.

In order to counter the fact that elite power is prevalent and controls the decision-making process at village level, a grass-roots method should be considered to encourage the active participation of ordinary villagers. The opportunity to enhance social capital through empowering existing institutions (e.g. adat institution, local farmers association, etc.) to carry out local best practice natural resource governance is therefore crucial. One practical example is to recognise the existence of these
community leaders and other prominent figures who have disproportionate power or influence over social, political and/or economic spheres (local elites), and encourage them to exercise their role to empower members of their community in making decisions. Improving resource governance is not about pressuring these community leaders in the hope that their influence will be submerged; this is not possible, as they are trusted and respected by their constituents. Rather, it is necessary to work with them to achieve outcomes that strengthen their communities, by training them to be effective and empowering leaders. Some local champions in natural resource governance from other villages who have successfully implemented such an approach may be invited to share experiences and motivate the rest.

In addition, within the context of participation in resource governance, the research literature makes two different claims about how trust influences participation in government or political affairs. While some claim that trust levels positively correspond with levels of participation, others consider distrust might encourage involvement and participation in activities related to government or political matters (Gamson, 1968, p. 48; Levi and Stoker, 2000; Miller, 1980; Poortinga and Pidgeon, 2003; Rosenstone and Hansen, 1993, p. 150). The case studies presented in this thesis have demonstrated that levels of trust do not automatically correlate positively with levels of participation. The Holja case study shows that the level of trust towards local government leaders (village head and village council) was inversely related to participation. High levels of trust can lead villagers to rely on village leadership or program facilitators to take decisions and follow through on them, whereas low trust in local government officials can lead to villagers participating in meetings to make sure their opinions are heard and acted upon. The Warinta case study indicates a high level of community participation in local governance – active in the adat sphere and passive in government-related activities – regardless of levels of trust towards these leaders (high trust in adat and village head, and low trust in the administrative village council/BPD).
8.3. CDD and NRM: PNPM Green

PNPM Green was designed and implemented within the social capital platform of the KDP/PNPM Rural program. One of the program’s mandates is to facilitate local development through efforts to empower local communities by forming and strengthening local institutions and groups to undertake decision-making and implementation of community projects. A carefully designed process for planning and managing the projects was one of the core objectives of KDP/PNPM Rural, rather than aiming only at delivering predefined products (i.e. micro-infrastructure projects such as rural access roads, bridges, etc.). The explicit focus on building social capital and NRM governance through an emphasis on local-level empowerment and participation, such as in the PNPM Green program, in theory, should improve sustainable development outcomes and processes. However, in practice, the PNPM Green program struggles to improve and strengthen social capital assets (cf. Mansuri and Rao, 2012), despite the positive short-term economic benefits to the participating villages. It is recognized that development programs such as PNPM cannot be expected to generate social capital spillovers in a short period of time; as transformational social and institutional change inevitably requires lengthy time frames to develop the prerequisite experience (Wong, 2012).

Nonetheless, the program has made strong contributions in terms of increased productivity of community investments that are related to access to and utilisation of local natural resources. The increased NRM-related investments have indeed provided economic benefits for participating communities and enhanced natural assets by a small degree in immediate term and potentially a large degree in the medium and long terms. Despite these positive findings about the level of economic and environmental benefit to the community during project implementation, without the commitment of participating communities to collectively manage and maintain these assets by improving and strengthening their social capital assets, the sustainability of these NRM-related investments remains in question.

117 Tania Li highlighted in *The Will to Improve* (Li, 2009, p. 231) that the program’s chief architect (anthropologist Scott Guggenheim) emphasized that the program (KDP/PNPM Rural) saw “community-state relationships through the glasses of an anthropologist rather than those of a development economist, rural planner, or an irrigation engineer”.
The following list of recommendations is aimed at improving and strengthening social capital assets in efforts to sustainably manage local natural resources through a CDD operation:

(a) Build, strengthen and maintain bonding social capital through hamlet-level interactions. The more (formal and informal) interactions at the lowest unit of village governance there are, the more chances there will be for ordinary villagers to be involved. In addition, groups of people who represent the members of a hamlet at village (or even at sub-district) level need to report back to their hamlet members on decisions made during the village-level meeting. The avenues of the reporting back mechanism will be effective when they are conducted through a cultural, religious or traditional medium such as local mosques and/or churches, adat meeting halls, and others.

(b) Build, strengthen and maintain bridging social capital through the establishment and nurturing of a pool of resources consisting of local champions among villages, thus establishing a network linked to market products that are able to provide economic benefits without undermining sustainability. The income from these products can often boost local livelihoods\(^\text{118}\) and provide an incentive for sustainable local natural resource management.

(c) Reframing the involvement of local elites (vertical relations within bonding and bridging social capital) through the implementation of village-level leadership training in good governance, as well as the provision of incentives and accountability mechanisms for the leading villagers. The training should emphasise the role of local elites in fostering the opportunity for their local constituents to work together among several communities beyond the immediate village, and also in facilitating coordination of villagers for collective action. The focus on positive incentives and accountability mechanisms is to deter corruption of decision-making authorities.

\(^{118}\) Households have little interest in conserving forest unless it is important for their livelihoods.
(d) Improve linking social capital by ensuring local constituents’ interests are represented in the decision-making process of natural resource governance. This implies the provision of a support network for conflict resolution regarding natural resources. Although the customary system is adequate to deal with issues within the village, it struggles when it comes to issues that deal with actors who are identified as ‘outsiders’ from beyond their village. These ‘outsiders’ can belong to both state (mostly district and central government) and non-state (companies based at central or regional level) institutions, including those interested in gaining access to and control over the Lambusango Forest in the case of Warinta and the district of Buton. The diversity of actors involved and the power they have in dealing with such conflicts requires articulation with higher levels of governance to ensure that resolutions are taken with legally binding mechanisms. A CDD-NRM program should take the lead in supporting and facilitating the network between these customary and judicial systems.

In addition to this support network, linking social capital can be enhanced through the facilitation of non-government organisations, as suggested earlier in Section 8.2. A CDD-NRM program does not necessarily need additional community facilitators specially hired as environmental specialists in the program (beyond the FKL or Environmental Facilitators or Green Facilitators in PNPM Green). Rather, an independent local or regional non-governmental organisation can play the facilitation role to identify environmental issues at local and regional (or at watershed/landscape) level, as well as facilitating the establishment of local champions, and assisting resource governance in implementing their mandates in NRM.

Finally, the case studies in this thesis demonstrate that social capital matters within the context of mainstreaming natural resource management through a community-driven development approach. Recognising its importance means that the community-driven approach to conservation and development should not only aim to improve economic and natural assets of the affected communities, but should actively seek to enhance the social resources of local communities that are required
to support natural resource governance. An adequate level of cohesiveness and broadly based engagement of the community in governing its local resources is essential for sustaining collective investments (Hardin, 1968, cited in Kurien, 2004). These are critical elements that the PNPM Green program needs to effectively integrate as PNPM transforms into successor programs.
# APPENDIX 1

## CASE STUDIES COMPARISON TABLE

WARINTA AND HOLJA VILLAGES

<table>
<thead>
<tr>
<th>Profiles</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2010 survey)</td>
<td>1,404 (318 households)</td>
<td>1,252 (267 households)</td>
</tr>
<tr>
<td>Sub villages</td>
<td>4 Hamlets</td>
<td>2 Hamlets</td>
</tr>
<tr>
<td>Ethnic</td>
<td>Cia Cia (sub-ethnicity Laporo). Members of this sub-ethnicity bring their parabela and baruga when they move out to other places as a community</td>
<td>Cia cia (sub-ethnicity Burangasi). Members of this sub-ethnicity do not bring their parabela and baruga when they move out to other places as a community</td>
</tr>
<tr>
<td>Religion</td>
<td>100% Islam</td>
<td>100% Islam</td>
</tr>
<tr>
<td>Income</td>
<td>82.5% below IDR 1 Million per month</td>
<td>67.5% below IDR 1 Million per month</td>
</tr>
<tr>
<td>Main occupations</td>
<td>80% farmers 20% government officials and local traders</td>
<td>91% fishermen 9% government officials, bricklayers, carpenters, upland farmers (growing maize, cassava and cashews)</td>
</tr>
<tr>
<td>Education - highest qualification</td>
<td>38% primary level of education 26% secondary level of education 3% tertiary level of education 33% no formal education</td>
<td>63% primary level of education 18% secondary level of education 1% tertiary level of education 18% no formal education</td>
</tr>
<tr>
<td>Public facilities &amp; utilities</td>
<td>1 primary school education No market Distance from District capital: 13km No health clinic/post Once a day public transport 20% of HHs on state electricity grid (but 85% of HHs own TV; tapping the grid ‘illegally’)</td>
<td>1 primary school education No market Distance from District capital: 23km 1 clinic/post (without staff) Once a day public transport 10% HHs on state electricity grid (7% own TV)</td>
</tr>
<tr>
<td>Social dynamics and cohesion</td>
<td>Warinta</td>
<td>Holja</td>
</tr>
<tr>
<td>Village settlement</td>
<td>1500 (Long settlement)</td>
<td>1973 (Migrant)</td>
</tr>
<tr>
<td>Formal recognition as an administrative Village</td>
<td>2001</td>
<td>1997</td>
</tr>
<tr>
<td>Social interaction</td>
<td>Formal and informal (more dynamics and more frequent): (a) Extent of collective action in the community (period of 6 months): 3% attend 0 time 20% attend 1 time 13% attend 2 times 64% attend 6 to 12 times (b) Participation: Voluntary: 83% Compulsory: 17% (c) Organisation outside village: 8.5% (yes); 91.5% (no)</td>
<td>Formal (less dynamic and less frequent): (a) Extent of collective action in the community (period of 6 months): 40% attend 0 time 7.5% attend 1 time 10% attend 2 times 22.5% attend 6 to 12 times (b) Participation: Voluntary: 61% Compulsory: 39% (c) Organisation outside village: 9% (yes); 91% (no)</td>
</tr>
<tr>
<td>(d) Types of collective action:</td>
<td>(d) Types of collective action:</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>36% social</td>
<td>32% religious</td>
<td></td>
</tr>
<tr>
<td>32% infrastructure</td>
<td>29% infrastructure</td>
<td></td>
</tr>
<tr>
<td>12% adat</td>
<td>20% health</td>
<td></td>
</tr>
<tr>
<td>7% ecology</td>
<td>9% ecology</td>
<td></td>
</tr>
<tr>
<td>4% religious</td>
<td>6% social</td>
<td></td>
</tr>
<tr>
<td>4% finance</td>
<td>3% financial</td>
<td></td>
</tr>
<tr>
<td>4% health</td>
<td>1% adat</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dominant institutions/actors</th>
<th>Adat (customary leaders)</th>
<th>Dinas (village officials)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Institutions: density, and diversity</td>
<td>- Local institutions: PKK (and <em>dasa wisma</em>), Majelis Ta’lim, Gapoktan, Youth groups, <em>Arisan</em></td>
<td>- Local institutions: PKK (and <em>dasa wisma</em>), Majelis Ta’lim, Gapoktan, Youth groups, <em>Arisan</em></td>
</tr>
<tr>
<td>- Density (number of organisations in each household): High</td>
<td>- Density (number of organisations in each household): Low</td>
<td>- Diversity: more heterogeneous (sub-ethnic and kinship)</td>
</tr>
<tr>
<td>0%: 0 organisation</td>
<td>40%: 0 organisation</td>
<td></td>
</tr>
<tr>
<td>30%: 1 org</td>
<td>45%: 1 org</td>
<td></td>
</tr>
<tr>
<td>45%: 2 orgs</td>
<td>15%: 2 orgs</td>
<td></td>
</tr>
<tr>
<td>10%: 3 orgs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15%: 4 orgs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Diversity: Homogeneous (sub-ethnic and kinship)</td>
<td>- Diversity: more heterogeneous (sub-ethnic and kinship)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participation in decision-making and local governance</th>
<th>- Parallel leadership: between <em>adat Parabela</em> and <em>dinas</em> leadership (village and hamlet heads and BPD)</th>
<th>- Single leadership: village head</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <em>Parabela (adat)</em> leader is highly involved in both customary decision making as well as government process; when village head cannot solve a problem, he will involve adat leaders</td>
<td>- Sara (<em>adat</em> leaders to replace parabela) is considered as less respected and effective leaders; only act during ceremonial events.</td>
<td>- Level of participation in decision-making: 65% participate (23% directly participate and 42% through representatives); 35% do not participate in a formal decision-making process</td>
</tr>
<tr>
<td>- Level of participation in decision-making: 70% participate directly; and 30% through representatives in formal decision-making processes</td>
<td>- Level of satisfaction in decision-making: 94% satisfied and very satisfied</td>
<td>- Level of satisfaction in decision-making: 97% satisfied and very satisfied</td>
</tr>
<tr>
<td>- Level of satisfaction in decision-making: 94% satisfied and very satisfied</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Village governance</th>
<th>Warinta</th>
<th>Holja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customary/Adat</td>
<td>- Strong</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Has an influence over ritual ceremonies, government matters and other daily issues within the village.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Baruga: informal meetings; mainly communal decision-making takes place here.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Domination by local elites</th>
<th>Adat institution (<em>parabela</em> and <em>adat</em> councils)</th>
<th>Government institutions (village head and BPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Weak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- A less functional role, and no influence over villagers’ daily life.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- No Baruga, only the formal government village office hall where decision-making takes place involving village government officials.</td>
<td></td>
</tr>
</tbody>
</table>
**Village government**

- Village head (*kades*) and the council (BPD) working relations: partnership.
- *Kades* has a broad knowledge and trusted by villagers
- Decision-making process can be conducted either in Baruga or village hall (depends on the nature of the matter). Villagers meet not only during the election of BPD and Kades, but also in other forms of decision-making related to matters that relevant for the villagers.

**Levels of satisfaction with decision-making process (in village planning and village regulation)**

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>Satisfied enough</th>
<th>Not satisfied</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfied: 45%</td>
<td>Satisfied enough: 30%</td>
<td>Not satisfied: 17%</td>
<td>No opinion: 8%</td>
</tr>
<tr>
<td>Satisfied: 70%</td>
<td>Satisfied enough: 22%</td>
<td>Not satisfied: 5%</td>
<td>No opinion: 3%</td>
</tr>
</tbody>
</table>

- Village head (*kades*) and the council (BPD) working relations: partnership.
- Current *Kades* has won two consecutive elections.
- *Kades* has strong charisma and is trusted by villagers
- Villagers meet during the election time of BPD and Kades. Other than this, internal meetings and decision-making is conducted between members of BPD and Kades.
APPENDIX 2
MAP OF SOUTH EAST SULAWESI
APPENDIX 3
MAPS OF WARINTA AND HOLJA VILLAGES
APPENDIX 4
PROCEDURE FOR THE HOUSEHOLD SURVEY
(IN BAHASA INDONESIA)

A. Pemilihan Responden

1. Pemilihan responden untuk masyarakat desa dilakukan secara “stratifikasi-acak”
   (stratified random) berdasarkan system pemetaan rumah tangga di tingkat desa
   (menggunakan GPS); stratifikasi di tingkat desa dan kemudian responden dipilih
   secara acak di tingkat dusun dengan mengacu pada proporsi dan interval jumlah
   penduduk. Target respondent adalah 40 Rumah Tangga (RT) di tiap desa. Dengan
   pemilihan secara acak diharapkan keragaman masyarakat dapat terwakili dengan
   baik. Pemilihan responden menggunakan formula sebagai berikut:

1. Jumlah RT per dusun:
   \[ \chi = \frac{Y \times 40}{Z} \]
   
   Dimana:
   \( \chi \): Jumlah RT tiap dusun secara proportional
   \( Y \): Jumlah RT tingkat dusun
   \( Z \): Jumlah RT tingkat desa

2. Spatial Distribution Sampling:
   \[ SDS: \frac{Y}{\chi} \]
   
   Dimana:
   SDS: Spatial Distribution Sampling
   \( Y \): Jumlah RT tingkat dusun
   \( \chi \): Jumlah RT tiap dusun secara proportional
Contoh:
Desa #1: Desa Warinta (Kecamatan Pasarwajo, Kabupaten Buton - SULTRA) memiliki 318 RT tingkat Desa; Maka responden dipilih dengan acak di tingkat dusun untuk mencapai target 40 responden adalah sebagai berikut:

1. Jumlah RT per dusun:
   a. Dusun Barabaa: \[\frac{102 \times 40}{318} = 12\text{ RT}\]
   b. Dusun Karyabugi: \[\frac{46 \times 40}{318} = 6\text{ RT}\]
   c. Dusun Banaue 1: \[\frac{28 \times 40}{318} = 4\text{ RT}\]
   d. Dusun Banaue 2: \[\frac{142 \times 40}{318} = 18\text{ RT}\]

2. Spatial Distribution sampling:
   a. Dusun Barabaa: \[\frac{102}{12} = 8^{th}\text{ RT of the total 318 RT}\]
   b. Dusun Karyabugi: \[\frac{46}{6} = 8^{th}\text{ RT}\]
   c. Dusun Banaue 1: \[\frac{28}{4} = 7^{th}\text{ RT}\]
   d. Dusun Banaue 2: \[\frac{142}{18} = 8^{th}\text{ RT}\]

   Jadi untuk mendapatkan responden secara merata dalam tata ruang desa, dusun Barabaa, Karya Bugi, dan Banaue 2 akan di pilih 1 RT di setiap RT ke-8, dan untuk dusun Banaue 1 akan di pilih 1 RT di setiap RT ke-7.


3. Dengan formula di atas, maka diketahui berapa jumlah responden yang diambil pada setiap dusunnya serta pada setiap kelipatan berapa. Misalnya pada dusun Banauwe 1 responden dipilih pada setiap kelipatan 7 (every 7th) dan pada tiga dusun yang lain pada setiap kelipatan 8. Yang menjadi permasalahan kemudian adalah menentukan starting pointnya. Jika seluruh responden pada masing-masing dusun dimulai dari angka 1 maka akan terkesan tidak random. Sehingga untuk menentukan responden awal, maka untuk kelipatan 7 – misalnya - angka satu sampai 7 di keluarkan dan kemudian di undi (lottery) nomor mana yang menjadi nomor awal,
dan selanjutnya dipilih setiap kelipatan 7 dari nomor awal. Cara ini dilakukan pada ke tiga dusun lainnya, sehingga:

- Dusun Barabaa dimulai dari RT nomor 3
- Dusun Karya Bugi dimulai dari RT nomor 4
- Dusun Banaue 1 dimulai dari RT nomor 3
- Dusun Banaue 2 dimulai dari RT nomor 1

4. Wawancara akan dilakukan dengan Kepala Keluarga (KK) atau pasangannya atau anggota rumah tangga lain yang dewasa (15 tahun ke atas) yang mengetahui informasi mengenai rumah tangga. Jika salah satunya tidak berada di rumah pada waktu wawancara, maka enumerator akan datang kembali. Jika setelah 2 kali enumerator tidak berhasil, maka responden akan diganti dengan KK nomor berikutnya dari nomor KK yang dituju semula. Jika tidak berhasil, maka responden diganti ke rumah nomor berikutnya lagi dari Nomor sebelumnya. Misalnya apabila setelah 2 kali enumerator mengunjungi rumah no 25 maka pindah ke responden no 26, dan apabila setelah 2 kali ke nomor 26 tidak ada maka pindah ke nomor 27. Jika semua rumah yang didatangi menolak di wawancara, sebelum tiba di rumah nomor berikut yang dituju, maka enumerator akan pindah ke satu nomor ke belakang dari nomor yang dituju. Misalnya di dusun Banaue 1 rumah yang dipilih adalah setiap rumah ke 7, dan jika rumah no 8 sampai 13 menolak, maka responden akan dipilih mundur, yaitu rumah no 6. [note for Carol: the original idea was to go to house on the left or right; but since the houses have been numbered on the map, therefore instead of going ‘left’ or ‘right’, we used the sequence number which is more practical]

B. Panduan Umum Survei

Setiap melakukan survey di desa, enumerator bertemu dengan kepala desa untuk mengantarkan surat izin pengambilan data/izin tinggal, menjelaskan tujuan survey sekaligus mewawancarai kepala desa mengenai informasi umum desa tersebut untuk mendapatkan gambaran umum yang dapat dijadikan referensi bagi enumerator pada saat mewawancarai responden dengan kuesioner.
Pemetaan akan dilakukan secara partisipatif pada hari pertama setelah wawancara dengan kepala desa. Team enumerator akan meminta 2 atau 3 orang kepala dusun atau KPMD sebagai key informants yang mengetahui informasi/nama nama KK. Setiap rumah tangga akan diberi nomor yang berbeda serta nama Kepala keluarga, jenis rumah, dinding dan atap disebelahnya. Selain itu ada catatan keterangan untuk yang memiliki kios, listrik, parabola. Ketiga team akan memetakan satu desa terbagi dalam 3 team, team A akan mulai dari ujung desa, team B akan mulai dari ujung desa yang satunya dan team C akan memulai dari tengah. Salah satu team A atau B harus menyepakati meeting point/ending pemetaanya untuk menghindari replikasi. Pastikan bahwa key informants memberikan informasi nama KK yang tinggal dalam rumah bukan orang yang memiliki rumah tersebut.

Peta juga seharusnya menunjukan informasi sebagai berikut:

- Kondisi geografis seperti bukit, sungai, mata air pada sekitar pemukiman masyarakat.
- Physical features seperti besar pemukiman, lokasi rumah. Setiap rumah tangga harus dinomori pada peta. Tempat tempat umum milik pribadi dan umum juga harus ditandai dalam peta(tempat pertemuan, gudang, masjid, sekolah, pasar dll)
- Communication networks seperti jalan utama, jalan atau sungai menuju ke pemukiman.
- Social Structures, lokasi rumah kepala desa, tempat pertemuan, batas desa.
- Manpower for Development. Misalnya rumah pegawai dinas pertanian, guru dan pegawai kesehatan.

Sebelum melakukan wawancara enumerator menjelaskan tujuan dari pengambilan data/wawancara.

1. Dalam pengisian formulir survey, diharapkan setiap Enumerator menulis jawaban secara spontan seperti apa yang responden jawab; dan pengkodean dapat dilakukan setelah wawancara, kecuali pertanyaan ‘ya/tidak’ atau pertanyaan yang sudah ada kodena dalam interview.
2. Jika responden kelihatan tidak pasti dalam menjawab pertanyaan, enumerator dapat mencari kata/ungkapan lain untuk membantu responden untuk mengerti pertanyaan. Jika hal ini terjadi, maka enumerator harus membuat catatan dalam formulir untuk setiap kata/ungkapan tersebut.

3. Jika responden membutuhkan penjelasan lanjut dari pertanyaan, enumerator dapat memberikan contoh dari kode-kode yang paling relevan yang ada dalam daftar dibawah pertanyaan.

4. Survei ini memiliki tujuan pengambilan data secara kualitative, yang akan digunakan untuk ‘follow up’. Jika ada komentar yang signifikan dari responden, harap cantumkan dalam bagian ‘catatan’ dalam kertas survei, baik itu diminta atau tidak di dalam kertas survei.

5. / ‘garis miring’ berarti cara alternatif dalam menjelaskan pertanyaan tergantung dari pengertian di daerah setempat. Jika ada yang lebih cocok dengan ungkapan daerah setempat, enumerator diharapkan menuliskan dalam kertas survei.

6. Terminologi “Keluarga” mengacu pada anggota keluarga yang tinggal bersama dalam satu rumah tangga, atau yang sementara menetap di tempat lain (di recognized oleh Kepala Keluarga).

7. Terminologi “Anggota Rumah Tangga” (Source: BPS) adalah semua orang yang biasanya bertempat tinggal di suatu Rumah Tangga, baik yang sedang berada di rumah pada waktu pencacahan maupun yang sementara tidak berada di rumah. Anggota rumah tangga yang bepergian 6 bulan atau lebih, dan anggota rumah tangga yang bepergian kurang dari 6 bulan tetapi dengan tujuan pindah atau akan meninggalkan rumah 6 bulan atau lebih TIDAK dianggap sebagai anggota rumah tangga. Tamu yang lebih tinggal di rumah tangga 6 bulan atau lebih dan tamu yang tinggal di rumah tangga kurang dari 6 bulan tetapi akan bertempat tinggal 6 bulan atau lebih dianggap sebagai anggota rumah tangga.

8. Terminologi “pra-sejahtera”, ‘sejahtera; dan Sejahtera plus: 
(a). Pra-sejahtera: keluarga yang belum dapat memenuhi kebutuhan dasar secara minimal (pengajaran, agama, sandang, pangan, papan dan kesehatan)
(b). Sejahtera (gunakan definisi Tahap 3): keluarga yang dapat memenuhi kebutuhan dasar (tercantum dalam Pra-sejahtera), sosial psikologis (pendidikan, KB, interaksi dalam keluarga dan lingkungan), perkembangan (menabung dan memperoleh informasi); namun belum dapat memberikan sumbangan / kontribusi maksimal terhadap masyarakat dan berperan secara aktif dalam masyarakat
(c). Sejahtera Plus: keluarga yang dapat memenuhi semua kebutuhan keluarga (kebutuhan dasar, social psikologis, perkembangan) dan aktif dalam kontribusi masyarakat.

C. Penjelasan setiap pertanyaan

No. 1.1 – Bacakan pertanyaan dan tulis jawaban di masing-masing kolum dalam table:
“Nama”: tuliskan nama lengkap
“Umur”: tuliskan usia responden
“Jenis kelamin”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai.
“Suku bangsa”: tuliskan jawabannya saja, kode akan diberikan setelah wawancara.
Untuk pengkodean:
1. Jawa
2. Sunda
3. Bali
4. Malay
5. Bugis
6. Dayak
7. Papua
8. Cina
9. Lindu
10. Sasak
11. Lebong
12. Aceh
13. Kei
14. Bajau
15. Cia Cia
16. Lainnya
“Kepala keluarga”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai
“Termasuk dalam wawancara”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai
“Pendidikan terakhir”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai
“Pekerjaan utama”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai
“Pekerjaan sampingan”: bacakan pilihannya, lalu tulis nomor pilihan yang sesuai.
Untuk bagian yang memiliki pilihan, bacakan pilihan satu demi satu dan tulis
Untuk kolum paling bawah “Total anggota rumah tangga”: tulis jumlah anggota RT termasuk anak yang tidak terdaftar dalam wawancara

No. 1.2 - Bacakan pilihan satu demi satu, dan tulis nomor pilihan yang sesuai. Jika tidak ada dalam pilihan, tuliskan jawabannya.


No. 1.6 – Lingkari jawaban yang sesuai. Dan tulis komentar tambahan jika ada.

No. 1.7 – Lingkari jawaban yang sesuai. Tulis makna/pentingnya barang tersebut dalam kelompok masyarakat yang lebih luas atau kelompok kekerabatan yang lebih luas.

No. 1.8 – Tulis jawaban dan beri kode setelah wawancara.

No. 1.9 – Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan kalau ada

No. 1.10 - Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan kalau ada. Beri kode setelah wawancara
No. 1.11 – Bacakan pilihan 1, 2 dan 3. Jika responden segan memberikan jawaban, bacakan pilihan 4 dan 5

No. 2.1
– “Nama organisasi”: Daftar semua nama organisasi yang responden ikut serta sebagai anggota. Tulis nama-nama organisasi tersebut di setiap kotak/kolum tabel
– “Di luar desa?”: Tulis pilihan nomor yang sesuai
– “Pemimpin organisasi”: Tulis pilihan nomor yang sesuai
– “Tingkat partisipasi”: Tulis pilihan nomor yang sesuai.
– “Kalau aktif …”: Tulis jawabannya


No. 2.3 – Tulis jawabannya. Untuk bagian yang memiliki pilihan nomor, bacakan pilihan satu demi satu dan tulis nomor pilihan yang sesuai.

No. 2.4 – Bacakan pilihan satu demi satu dan tulis jawaban yang sesuai. Daftar 2 pihak, jika relevan.


No. 2.7
2.7.1. Tuliskan 3 nama kegiatan, dan urutkan dari yang paling penting
2.7.2. Tanyakan pertanyaan ini hanya jika tujuan jawaban sebelumnya (2.7.1) tidak jelas. Sebanyak 3 kode dapat diberikan untuk satu kegiatan.
2.7.3. Catat jawaban atau pakai nomor pilihan jika mudah. Sebanyak 3 kode dapat diberikan untuk satu kegiatan.
2.7.4. Tulis nomor pilihan yang sesuai


No. 2.9 – Catat jawabannya dan tambahan penjelasan kalau ada

No. 2.10 – Catat jawabannya dan tambahan penjelasan kalau ada


No. 3.2 – Jika responden tidak jelas/mengerti pertanyaan, beri beberapa contoh seperti daftar yang ada. Kemudian, lingkari jawaban yang sesuai dan tulis komentar tambahan jika ada. Kalau sumber informasi lebih dari satu, bisa lingkari sebanyak 3 yang paling utama

No. 3.3 – Jika responden tidak jelas/mengerti pertanyaan, beri beberapa contoh seperti daftar yang ada, dan tulis komentar tambahan atau contoh-contoh jika ada. Kemudian, lingkari jawaban yang sesuai dan tulis komentar tambahan jika ada.
Kalau jawaban lebih dari satu, bisa lingkari sebanyak 3 yang paling utama. Untuk pengkodean:

1. Tokoh adat
2. Tokoh agama
3. Tokoh masyarakat lainnya (catat yang mana: guru, pengusaha, dll)
4. Pegawai / anggota koperasi
5. Pegawai RT/RW
6. Pejabat / pegawai pemerintah di tingkat dusun
7. Pejabat / pegawai pemerintah di tingkat desa
8. Pejabat / pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9. Penyuluh departemen pemerintah
10. Fasilitator / anggota LSM
11. Teman / saudara / tetangga
12. Orang lain (sebutkan)

No. 3.4 – Lingkari jawaban, dan sebutkan cara proses dilibatkan

No. 3.5 – Lingkari jawaban. Jika responden memilih jawaban 1 atau 2, sebutkan / jelaskan siapa dan cara bagaimana

No. 3.6 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.7 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.8 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.9 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.10 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.11 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada

No. 3.12 – Lingkari jawaban, dan tulis penjelasan tambahan jika ada
No. 3.13 – Lingkari jawaban, dan jika responden menjawab “Ya”, catat jenis konflik / sengketa tersebut

No. 3.14 – Catat jawaban, penjelasan atau contoh. Beri kode setelah wawancara. Sebanyak 3 kode dapat diberikan kalau relevan. Untuk pengkodean:

1. Aparat dinas tingkat desa (kepala desa, dll)
2. Tokoh adat
3. Tokoh agama
4. Polisi / aparat keamanan
5. Aparat pemerintah di luar desa
6. Peradilan
7. Lainnya (sebutkan)
8. Tidak relevan

No. 4.1 – Jika istilah PNPM kurang dipahami atau tidak dimengerti oleh responden, beri contoh atau gambaran program PNPM yang sesuai dengan kegiatan PNPM di desa tersebut. Lingkari Jawaban yang sesuai, dan tulis komentar tambahan jika ada.

No. 4.2

4.2.1 – Catat jawabannya (misalnya, dari jalur apa). Beri kode setelah interview. Untuk pengkodean, lingkari kode dibawah berdasarkan kategori fungsional untuk jawaban yang sudah diberikan oleh responden:

1. Pendidikan
2. Kesehatan
3. Keuangan
4. Sarana-prasarana
5. Sosial
6. Politik
7. Ekologi (Lingkungan / SDA)
8. Agama
9. Adat
10. Lainnya (sebutkan)
4.2.2 – Bukan pertanyaan untuk responden; untuk enumerator (peneliti). Lingkari informasi dari desa / kecamatan tentang program PNPM yang sebenarnya diajukan:

No. 4.3 – Lingkari jawaban. Dan beri penjelasan tambahan jika ada

No. 4.4 – Lingkari jawaban. Dan beri penjelasan tambahan jika ada

No. 4.5 – Lingkari jawaban. Dan beri penjelasan tambahan jika ada

No. 4.6 - Lingkari jawaban. Jika responden menjawab nomor 3, catat penjelasan dimana pertemuan tersebut berlangsung, misalnya warung, dll.

No. 4.7 – Sebanyak tiga tokoh atau pihak dapat di tulis dalam daftar. Jika responden tidak jelas atas pertanyaan, beri beberapa contoh dari daftar berikut dan tulis komentar tambahan jika ada. Jika responden dapat memberikan contoh, tulis contoh tersebut. Untuk pengkodean:
1. Tokoh adat
2. Tokoh agama
3. Tokoh masyarakat lainnya
4. Pegawai / anggota koperasi
5. Pegawai RT/RW
6. Pejabat / pegawai pemerintah di tingkat dusun
7. Pejabat / pegawai pemerintah di tingkat desa
8. Pejabat / pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9. Penyuluh departemen pemerintah
10. Fasilitator PNPM tingkat desa
11. Fasilitator PNPM tingkat kecamatan
12. Fasilitator PNPM tingkat kabupaten
13. Anggota LSM
14. Teman/saudara/tetangga
15. Orang lain
No. 4.8 – Catat jawabannya. Jika pertanyaan tidak jelas, berikan beberapa contoh seperti daftar berikut. Sebanyak 3 kode dapat diberikan jika relevan. Untuk pengkodean:

1. Pendidikan
2. Kesehatan
3. Keuangan / penghidupan
4. Sarana-prasarana
5. Sosial
6. Politik
7. Ekologi (lingkungan/SDA)
8. Agama
9. Adat
10. Perhubungan/transport (misalnya jalan antar desa)
11. Lainnya (sebutkan)

No. 5.1.1 – Catat jawaban. Beri kode setelah wawancara. Sebanyak 3 kode dapat diberikan untuk setiap tantangan / masalah jika relevan. Untuk pengkodean:

1. Kebakaran hutan
2. Penebangan hutan yang di larang
3. Pencemaran air minum
4. Pencemaran danau/sungai
5. Pembukaan lahan/ erosi tanah
6. Hilangnya lahan pertanian
7. Perluasan gurun pasir
8. Pencemaran laut
9. Abrasi pantai
10. Perusakan terumbu karang
11. Perusakan bakau
12. Cara penangkapan ikan yang dilarang
13. Hilangnya hewan liar
14. Pencemaran udara dari mobil dan industri
15. Pencemaran kimia dari industri
16. Penggunaan bahan berbahaya seperti pestisida/herbisida
17. Pelanggaran sempadan pantai
18. Pelanggaran jalur hijau
19. Lainnya (sebutkan)

5.1.2 – Catat jawabannya. Jika responden tidak jelas/mengerti pertanyaan, beri beberapa contoh seperti daftar yang ada, dan tulis komentar tambahan atau contoh-contoh jika ada. Kemudian, lingkari jawaban yang sesuai dan tulis komentar tambahan jika ada. Kalau jawaban lebih dari satu, bisa lingkari sebanyak 3 yang paling utama. Untuk pengkodean:

1. Tokoh adat
2. Tokoh agama
3. Tokoh masyarakat lainnya (catat yang mana: guru, pengusaha, dll)
4. Pegawai / anggota koperasi
5. Pegawai RT/RW
6. Pejabat / pegawai pemerintah di tingkat dusun
7. Pejabat / pegawai pemerintah di tingkat desa
8. Pejabat / pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9. Penyuluh departemen pemerintah
10. Fasilitator / anggota LSM
11. Teman / saudara / tetangga
12. Orang lain (sebutkan)

No. 5.2 – Lingkari nomor pilihan.

5.2.1. Jika responden menjawab “Ya”, daftarkan sumber daya alam di dalam table
5.2.2. Cantumkan kode / nomor yang sesuai
5.2.3. Cantumkan kode / nomor yang sesuai. Bacakan daftar kode/nomor
5.2.4. Cantumkan kode / nomor yang sesuai. Bacakan daftar kode/nomor
5.2.5. Cantumkan kode / nomor yang sesuai. Bacakan daftar kode/nomor

No. 5.3 – Lingkari jawabannya. Jika responden menjawab “Ya”, catat siapa dan konflik atau kerugian apa

No. 5.4 – Lingkari jawabannya. Jika responden menjawab “Ya”, catat siapa dan peranannya
No. 5.5 – Lingkari jawabannya.

No. 5.6 – Lingkari jawabannya.
Jika responden menjawab “Ya”, catat siapa dan cara kegiatan atau bantuan
Jika responden menjawab “Tidak”, catat bagaimana sikap responden terhadap penggunaan areal / SDA tersebut

No. 6.1 – Lingkari jawabannya. Jika responden menjawab “Ya”:
6.1.1. Bacakan pilihan, dan catat nomor pilihan
6.1.2. Catat jawabannya
6.1.3. Bacakan pilihan, dan catat nomor pilihan
6.1.4. Bacakan pilihan, dan catat nomor pilihan
6.1.5. Bacakan pilihan, dan catat nomor pilihan
6.1.6. Bacakan pilihan, catat nomor pilihan, dan beri penjelasan singkat jika ada

No. 7.1 – Gunakan nama / istilah yang umum diketahui untuk salah satu program atau intervensi yang paling relevan di tempat. Lingkari jawaban dan catat komentar/penjelasan tambahan

7.1.1. Catat jawaban. Beri kode setelah wawancara. Untuk pengkodean:
1. Pendidikan
2. Kesehatan
3. Ekonomi (kredit, penghasilan, dll)
4. Sarana-prasarana
5. Sosial
6. Politik
7. Ekologi (lingkungan / SDA)
8. Agama
9. Adat
10. Lainnya

7.1.2. Bukan pertanyaan untuk responden, ditujukan untuk enumerator / peneliti:
Lingkari jawabannya – menurut informasi dari LSM, apakah jawaban 7.1.1. sesuai dengan keadaan?
No. 7.2 – Lingkari jawaban, dan beri penjelasan selanjutnya (untuk “Ya” dan “Tidak”).
- Jika responden menjawab “Ya”, setelah memberi penjelasan selanjutnya, maka responden lanjut ke pertanyaan nomor 7.3.
- Jika responden menjawab “Tidak”, setelah memberikan penjelasan lanjutan, responden lanjut ke pertanyaan nomor 7.4.

No. 7.3 – Lingkari jawabannya
No. 7.4 – Lingkari jawabannya. Jika responden menjawab nomor 3, maka catat dimana, misalnya di warung, dll
No. 7.5 – Catat jawabannya. Sebanyak tiga tokoh/pihak dapat di daftarkan jika relevan. Jika responden tidak jelas/mengerti pertanyaan, beri contoh dari daftar berikut dan tulis komentar tambahan jika ada. Untuk pengkodean
1. Tokoh adat
2. Tokoh agama
3. Tokoh masyarakat lainnya (catat yang mana: guru, pengusaha, dll)
4. Pegawai / anggota koperasi
5. Pegawai RT/RW
6. Pejabat / pegawai pemerintah di tingkat dusun
7. Pejabat / pegawai pemerintah di tingkat desa
8. Pejabat / pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9. Penyuluh departemen pemerintah
10. Fasilitator / anggota LSM
11. Teman / saudara / tetangga
12. Orang lain (sebutkan)

No. 7.6 – Catat jawabannya. Jika responden tidak jelas/mengerti dengan pertanyaan, beri beberapa contoh seperti daftar yang ada. Sebanyak 3 kode dapat diberikan jika relevan. Kode diberikan setelah wawancara. Untuk pengkodean:
1. Pendidikan
2. Kesehatan
3. Keuangan
4. Sarana-prasarana
5. Sosial
6. Politik
7. Ekologi (lingkungan/SDA)
8. Agama
9. Adat
10. Lainnya (sebutkan)

No. 7.7 – Lingkari jawabannya. Jika responden menjawab “Ya”, minta responden untuk jelaskan program yang mana.

No. 7.8 – Lingkari jawabannya, dan tulis penjelasan tambahan jika ada

No. 7.9 – Lingkari jawabannya, dan catat komentar tambahan jika ada.

No. 7.10 – Lingkari jawabannya, dan jika responden menjawab “Ya”, catat komentar tambahan jika ada.

No. 7.11 – Lingkari jawabannya, dan catat komentar tambahan jika ada.

No. 8.1 – Lingkari jawabannya. Jika responden menjawab “Ya” di pertanyaan ini tetapi jawaban ‘koperasi’ tidak termasuk dalam pertanyaan 2.1., kembali dan lengkapi pertanyaan 2.1. Jika responden menjawab “Ya”, catat komentar tambahan jika ada, dan lanjut ke pertanyaan No. 8.1.1

8.1.1 – Lingkari jawaban yang sesuai, dan tulis komentar tambahan jika ada.

No. 8.2 – Lingkari jawabannya, dan catat komentar tambahan jika ada.

No. 9.0 – Pertanyaan ini ditujukan untuk enumerator/peneliti terhadap keadaan wawancara:

9.1. Lingkari jawaban dan beri komentar

9.2. Lingkari jawaban dan beri komentar
APPENDIX 5
FOCUS GROUP DISCUSSIONS (FGDs)

Kelompok Masyarakat
Kelompok wanita (PKK, Arisan), Pria (Nelayan, petani, dll), Generasi Muda (Remaja Mesjid), Tim implementasi PNPM (Tim Penulis Usulan, Tim Pengelola Kegiatan, Tim Pemantau, Tim Pemeliharaan, Tim Verifikasi).

Metode:
1. Dalam diskusi di bagi dalam 4 kelompok yang akan membahas tema diskusi.
3. Di beberapa tema, table disediakan sebagai ilustrasi outcome yg diharapkan.

Tema 1: Institusi, Kelompok dan Jejaring
1.1. Prioritas di Masyarakat. Tujuannya untuk menggali persepsi masyarakat tentang problem yang mereka alami dan prioritasnya.
   a. Daftarkan masalah/problem yang di hadapi oleh masyarakat (isi di kolum #1).
      Setelah itu, urutkan problem problem tersebut di mulai dengan problem yang paling mendesak (isi di kolum #2).
   b. Daftarkan masalah problem yang di hadapi oleh masyarakat 5 – 10 tahun yang lalu (isi di kolum #3).

<table>
<thead>
<tr>
<th>Problems</th>
<th>Sekarang</th>
<th>5 – 10 thn di belakang</th>
<th>Tambahan komen</th>
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</tbody>
</table>

1.2. Kelompok Masyarakat: Keragaman, Partisipasi dan Tindakan Bersama
Daftar organisasi/kelompok formal dan informal yang mana mereka terlibat, tandai mana organisasi luar desa dan organisasi dalam desa:
a. Apakah keanggotaan setiap organisasi sebagian besar adalah kerabat/keanggotaan dipengaruhi oleh kekerabatan?

b. Apa yang memicu sehingga mereka berkelompok/berorganisasi? Atau factor apa yang mendukung kebersamaan dalam masyarakat?

c. Karakteristik atau nilai nilai apa yang paling dihargai/dijunjung tinggi antara anggota kelompok/jejaring (misalnya: kepercayaan, hubungan timbal balik, kebersamaan/kerjasama, kejujuran, saling menghargai)

<table>
<thead>
<tr>
<th>Organisasi/Kelompok</th>
<th>Kekerabatan (Ya/Tidak)</th>
<th>Pemicu kebersamaan (Daftar)</th>
<th>Karakteristik (Daftar)</th>
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**Tema 2: Sistem Pemerintahan**

a. Bagaimana hukum adat membatasi atau memfasilitasi /mendukung masyarakat untuk dilaksanakan melalui institusi umum

b. Bagaimana hukum formal membatasi atau memfasilitasi / mendukung kemampuan masyarakat untuk melaksanakan melalui institusi umum?

c. Mekanisme formal dan tidak formal seperti apa yang berlaku untuk individu/perorangan dan kelompok untuk dapat meminta pertanggung jawaban pemimpin local dan pemerintah?

d. Kelompok mana dalam masyarakat yang memiliki pengaruh besar terhadap institusi publik

e. Apa sumber pengaruh dari kelompok dimaksud (contoh; besar kelompok, kemampuan memobilisasi/menggerakkan para anggota, hubungan dengan para elit, pentingnya ekonomi)?

**Tema 3: PNPM & SDA**

a. Dengan diperkenalkannya KDP/PNPM apakah ada perubahan yang berarti dalam pengembangan masyarakat ? Jika iya perubahan apa saja, jika tidak ,mengapa?

b. Bagaimana keterkaitan /hubungan program tersebut dengan kebiasaan adat istiadat dalam isu serupa
c. Sejauh mana cara pendekatan partisipasi yang dikenalkan oleh PNPM dan program lainnya menguatkan keterlibatan perempuan dan masyarakat miskin dalam pengambilan keputusan dan manfaat program pengembangan/konservasi? Sebutkan secara rinci strategi yang terbukti efektif dan tidak efektif? Mengapa?

d. Pendekatan alternatif dan inovasi macam apa yang bisa dipergunakan untuk meningkatkan keterlibatan masyarakat tindakan bersama menuju tercapainya konservasi SDA dan pembangunan yang sama?

Tema 4: Resolusi Konflik (Penanganan Masalah/Konflik)

a. Konflik apa yang pernah terjadi dimasyarakat selama 5 samapi 10 tahun terakhir, atau yang baru baru terjadi?

b. Kapan pernah ada konflik yang berubah menjadi tindakan kekerasan/kekacauan?

c. Jenis mediasi apa yang telah dilakukan untuk membantu masyarakat menyelesaikan konflik, apakah ini berhasil? Mengapa? Berapa lama?

d. Bentuk/cara keadilan apa yang paling diterima oleh masyarakat?

e. Sangsi sosial apa yang diberikan pada yang melanggar norma tindakan bersama pada masyarakat
APPENDIX 6
SURVEY QUESTIONNAIRE IN BAHASA INDONESIA

Questionnaire code ________________________________ (1000)
[e.g. CWAo01: CW - penanya; A - huruf awal nama desa; a - huruf awal nama dusun; 01 - numor rumah tangga yang disurvei [01 – 40] di desa itu]

Nama Surveyor ________________________________ (1001)  Tanggal Survei ________________________________ (1002)

Desa ________________________________ (1003)  Dusun/Blok ________________________________ (1004)

PENJELASAN UNTUK RESPONDEN
1. Tujuan pelaksanaan survei dan manfaat yang diharapkan
2. Wawancara dilakukan paling lama 1.5 jam
3. Anda tidak perlu menjawab pertanyaan dimana anda merasa kurang enak untuk menyampaikannya
4. Seluruh informasi yang anda berikan dijamin kerahasiaannya
5. Anda dapat menghentikan wawancara apabila dianggap perlu
6. Anda dapat meminta klarifikasi/penjelasan terhadap pertanyaan
1.0 PROFIL RUMAH TANGGA

1.1 Anggota rumah tangga dewasa (diatas umur 15) dan anak yang bekerja

<table>
<thead>
<tr>
<th>No.</th>
<th>Nama</th>
<th>Umur</th>
<th>Jenis Kelamin</th>
<th>Suku bangsa</th>
<th>Kepala Keluarga (KK)</th>
<th>Termasuk dalam wawancara</th>
<th>Pendidikan terakhir yang selesai ***</th>
<th>Pekerjaan utama</th>
<th>Perkerjaan Sampingan</th>
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<td>6. Tidak tamat SD</td>
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| (1) | (12) | (22) | (32) | (42) | (52) | (62) | (72) | (82) |
| (2) | (13) | (23) | (33) | (43) | (53) | (63) | (73) | (83) |
| (3) | (14) | (24) | (34) | (44) | (54) | (64) | (74) | (84) |
| (4) | (15) | (25) | (35) | (45) | (55) | (65) | (75) | (85) |
| (5) | (16) | (26) | (36) | (46) | (56) | (66) | (76) | (86) |
| (6) | (17) | (27) | (37) | (47) | (57) | (67) | (77) | (87) |
| (7) | (18) | (28) | (38) | (48) | (58) | (68) | (78) | (88) |
| (8) | (19) | (29) | (39) | (49) | (59) | (69) | (79) | (89) |
| (9) | (20) | (30) | (40) | (50) | (60) | (70) | (80) | (90) |
| (10)| (21) | (31) | (41) | (51) | (61) | (71) | (81) | (91) |
Total anggota Rumah Tangga* (11)

Petunjuk; catatan koding:
* Jumlahkan anggota rumah tangga termasuk anak yang tidak terdaftar diatas.

***Daftarkan jenis sekolah menurut jawaban; Coding menurut derajat: 1 – SD; 2 – SMP; 3 – SMA 4 – Pasca sekolah secunder; 5 – tidak sekolah; 6 – tidak tamat SD.

1.2 Aset Lahan produktif yang digunakan dan/atau dimiliki oleh anggota keluarga ini

<table>
<thead>
<tr>
<th>Jenis peruntukan lahan</th>
<th>Jenis hak</th>
<th>Jumlah luas lahan (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. tempat tinggal/pekarangan</td>
<td>1. hak milik dengan surat tanah [sertifikat tanah dari BPN]</td>
<td>(92)</td>
</tr>
<tr>
<td>2. sawah</td>
<td>2. hak milik tanpa sertifikat BPN (petunjuk tuliskan jenis surat kailu ada*)</td>
<td>(93)</td>
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<td>3. ladang</td>
<td>3. sewa</td>
<td>(94)</td>
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<tr>
<td>4. kebun</td>
<td>4. menumpang [soja]</td>
<td>(95)</td>
</tr>
<tr>
<td>5. Peternakan hewan</td>
<td>5. bagi hasil</td>
<td>(96)</td>
</tr>
<tr>
<td>6. budidaya ikan (kolam/tambak)</td>
<td>6. hak komunal (adat atau lainnya)</td>
<td>(97)</td>
</tr>
<tr>
<td>7. Pengambilan kayu</td>
<td>7. yang lain (petunjuk: tuliskan jawaban)</td>
<td>(98)</td>
</tr>
<tr>
<td>8. Pengambilan produk non-kayu</td>
<td>* surat pajak, surat jual-beli (notaris/camat), surat ganti rugi, tidak ada surat</td>
<td>(99)</td>
</tr>
<tr>
<td>9. yang lain- (petunjuk: tuliskan jawaban)</td>
<td></td>
<td>(100)</td>
</tr>
<tr>
<td>10. Lahan tidur</td>
<td></td>
<td>(101)</td>
</tr>
</tbody>
</table>

i. (92) | (97) | (102) |
ii. (93) | (98) | (103) |
iii. (94) | (99) | (104) |
iv. (95) | (100) | (105) |
v. (96) | (101) | (106) |

1.3 Apakah anggota rumah tangga ini memiliki bisnis / perusahaan kecil / warung / toko / pabrik / aset berharga lain di desa ini (107)

1: Ya  Jika Ya, Catat jenis aset:______________________________________________________________
2: Tidak
1.4 Apakah ada keluarga yang pernah/masih menjadi anggota rumah tangga ini yang memiliki aset berharga [misalnya rumah/perusahaan] diluar desa (108)

1: Ya  
2: Tidak  

Jika Ya, Catat jenis aset: __________________________

1.5 Apakah ada keluarga yang pernah/masih menjadi anggota rumah tangga ini yang belajar atau bekerja diluar desa/negeri? (109)

1: Ya  
2: Tidak  

<table>
<thead>
<tr>
<th>Nama</th>
<th>Jenis Kelamin</th>
<th>Umur</th>
<th>Lama tinggal / kerja diluar desa (jumlah tahun)</th>
<th>Lokasi di luar desa/negri</th>
<th>Tujuan belajar / kerja</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>(110)</td>
<td>(115)</td>
<td>(120)</td>
<td>(125)</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>(111)</td>
<td>(116)</td>
<td>(121)</td>
<td>(126)</td>
<td>(130)</td>
</tr>
<tr>
<td>iii.</td>
<td>(112)</td>
<td>(117)</td>
<td>(122)</td>
<td>(127)</td>
<td>(131)</td>
</tr>
<tr>
<td>iv.</td>
<td>(113)</td>
<td>(118)</td>
<td>(123)</td>
<td>(128)</td>
<td>(132)</td>
</tr>
<tr>
<td>v.</td>
<td>(114)</td>
<td>(119)</td>
<td>(124)</td>
<td>(129)</td>
<td>(133)</td>
</tr>
</tbody>
</table>
1.6 Antara daftar fasilitas berikut, yang mana ada didalam rumah tangga ini?

(*Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada*)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Listrik dan sumbernya</td>
<td>1: Tidak ada</td>
<td>2: PLN*</td>
<td>3: Listrik desa*</td>
<td>4:</td>
</tr>
<tr>
<td></td>
<td>Generator di rumah</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5: Tenaga surya</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii: Air minum dan sumbernya</td>
<td>1: Tidak ada</td>
<td>2: PAM*</td>
<td>3: Ledeng kampung</td>
<td>4: Sumur</td>
</tr>
<tr>
<td></td>
<td>5. Mata Air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6: Lain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Kamar mandi</td>
<td>1: Tidak ada kamar mandi atau WC</td>
<td>2: Kamar mandi dan WC</td>
<td>3: Kamar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mandi saja</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4: WC saja</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>iv: Telpon atau HP</td>
<td>1: Tidak</td>
<td>2: Ya</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(143)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>v: Komputer</td>
<td>1: Tidak</td>
<td>2: Ya</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(144)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi: Televisi</td>
<td>1: Tidak</td>
<td>2: Ya</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(145)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* PLN (Perusahaan Listrik Negara); PAM (Perusahaan Air Minum); Listrik desa (menggunakan generator dari Bangdes, tenaga air / microhydro).

1.7 Apakah ada pusaka atau barang tradisional/adat di rumah tangga yang berharga (misalnya: Kain ikat, kerbau, babi, guci, keris, lontar, dll menurut adat/kebudayaan lokal) (146)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Ya</td>
<td>2: Tidak</td>
</tr>
</tbody>
</table>

Tolong menunjukan makna/ kepentingan barang ini dalam kelompok masyarakat yang lebih luas atau kelompok kekerabatan luas

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________

____________________________________________________________________________________
1.8 Mobilitas

<table>
<thead>
<tr>
<th>Jenis Kendaraan yang dimiliki</th>
<th>Jumlah</th>
<th>Penggunaan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Sepeda</td>
<td>(147)</td>
<td>1: Untuk pendapatan</td>
</tr>
<tr>
<td>2: Sepeda motor</td>
<td>(148)</td>
<td>2: Untuk keperluan pribadi</td>
</tr>
<tr>
<td>3: Mobil</td>
<td>(149)</td>
<td>3: Untuk keperluan menjalankan tugas</td>
</tr>
<tr>
<td>4: Truk</td>
<td>(150)</td>
<td>4: 1 + 2, atau 1 + 3, atau 2 + 3</td>
</tr>
<tr>
<td>5: Travel/colt/bus</td>
<td>(151)</td>
<td>5: Ketiga-tiganya</td>
</tr>
<tr>
<td>6: Kuda</td>
<td>(152)</td>
<td>0: NA</td>
</tr>
<tr>
<td>7: Dokar/bendi</td>
<td>(153)</td>
<td></td>
</tr>
<tr>
<td>8: Becak</td>
<td>(154)</td>
<td></td>
</tr>
<tr>
<td>Kapal/perahu bermotor</td>
<td>(155)</td>
<td></td>
</tr>
<tr>
<td>10: Perahu tanpa motor</td>
<td>(156)</td>
<td></td>
</tr>
<tr>
<td>11: Lainnya (sebutkan)</td>
<td>(157)</td>
<td></td>
</tr>
<tr>
<td>12: Tidak punya</td>
<td>(158)</td>
<td></td>
</tr>
</tbody>
</table>

[Petunjuk: Mengisi jawaban dan kasih code setelah interview]

1.9 Menurut tanggapan anda, bagaimana keadaan ekonomi warga di desa ini yang kurang mampu dalam 10 tahun belakangan ini (sejak awal Era Reformasi) (165)

1: Meningkat  
2:Masih tetap seperti dulu  
3: Menurun

Catatan: _______________________________________________________________________

1.10.1 Apakah anggota rumah tangga ini pernah mengalami kesulitan membayar kebutuhan sehari-hari selama satu tahun terakhir? (166)

1. Ya  
2. Tidak
1.10.2 Menjelaskan kesulitan seperti apa (Petunjuk: Tulis komentar tambahan atau penjelasan kalau ada)

Kesulitan 1 – (167) ______________________________________________________________
Kesulitan 2 – (168) ______________________________________________________________
Kesulitan 3 – (169) ______________________________________________________________


1.11 Berapa jumlah rata-rata pendapatan per bulan di rumah tangga ini dari segala sumber:

_____________________________________________________________(170)

[Petunjuk: baca ketiga pilihan pertama]
1. Dibawah 1,000,000 (satu juta) rupiah p/ bulan 2. Antara 1,000,000 dan 5,000,000 rupiah p/ bulan 3. Diatas 5,000,000 (lima juta lebih) p/ bulan
4. Tidak tahu
5. Segan disebut
### 2.0 JARINGAN DAN TINDAKAN BERSAMA

2.1 Didalam rumah tangga ini, apakah ada yang bergabung/menjadi anggota dari kelompok/ organisasi/ perkumpulan/ persatuan/ gerakan/ koperasi di desa atau diluar desa ini?

<table>
<thead>
<tr>
<th>Nama Organisasi</th>
<th>Di luar desa?</th>
<th>Tipe/Jenis organisasi **</th>
<th>Pemimpin organisasi?</th>
<th>Bagaimana tingkat partisipasi anda atau anggota rumah tangga ini dalam pengambilan keputusan?</th>
<th>Kalau aktif, berapa kali anggota rumah tangga menghadiri pertemuan atau kegiatan dalam jangka waktu 6 bulan?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(200) A</td>
<td>(204)</td>
<td>(208 - 212)</td>
<td>(228)</td>
<td>(232)</td>
<td>(236)</td>
</tr>
<tr>
<td>(201) B</td>
<td>(205)</td>
<td>(213 - 217)</td>
<td>(229)</td>
<td>(233)</td>
<td>(237)</td>
</tr>
<tr>
<td>(202) C</td>
<td>(206)</td>
<td>(218 - 222)</td>
<td>(230)</td>
<td>(234)</td>
<td>(238)</td>
</tr>
<tr>
<td>(203) D</td>
<td>(207)</td>
<td>(223 - 227)</td>
<td>(231)</td>
<td>(235)</td>
<td>(239)</td>
</tr>
<tr>
<td>(1010) E</td>
<td>(1013)</td>
<td>(1016 -1020)</td>
<td>(1031)</td>
<td>(1034)</td>
<td>(1037)</td>
</tr>
<tr>
<td>(1011) F</td>
<td>(1014)</td>
<td>(1021 - 1025)</td>
<td>(1032)</td>
<td>(1035)</td>
<td>(1038)</td>
</tr>
<tr>
<td>(1012) G</td>
<td>(1015)</td>
<td>(1026 - 1030)</td>
<td>(1033)</td>
<td>(1036)</td>
<td>(1039)</td>
</tr>
</tbody>
</table>

**Petunjuk:** Tipe/Jenis Organisasi: daftarkan lebih dari satu kalau relevan. Tuliskan jawabannya saja; kode akan diberikan setelah wawancara. Jika perlu, cobalah berikan beberapa organisasi yang bergerak di bidang pengelolaan lingkungan dan/atau sumber daya alam sekitar.
| 1: Kelompok tani/nelayan (pengelola SDA) | 2: Koperasi | 3: Kelompok pengelola air/sampah
| 4: Kelompok/golongan politik | 5: Kelompok wanita | 6: Kelompok pengelola SDA
| 7: Komisi/panitia kesehatan | 8: Organisasi adat | 9: LSM
| 10: Kelompok agama | 11: Asosiasi budaya | 12: Kelompok kaum muda
| 13: Kelompok kredit (seperti arisan) | 14: Kelompok/panitia khusus desa/kelurahan | 15: Tim olahraga
| 16: Persatuan pegawai/buruh | 17: Organisasi kemasyarakatan | 18: Organisasi pemerintahan
| 19: Organisasi lain |

2.2

2.2.1 Diantara organizasi atau kelompok tersebut, tolong sebutkan dua organisasi yang dianggap paling penting (paling diutamakan) menurut anda?

2.2.2 Hal-hal apa yang paling penting dihadapi oleh kelompok/organisasi/asosiasi tersebut selama satu tahun terakhir ini?

<table>
<thead>
<tr>
<th>2.2.1 Jenis Kelompok/Organisasi/Asosiasi/Perkumpulan</th>
<th>2.2.2 Isu/hal terpenting*</th>
</tr>
</thead>
<tbody>
<tr>
<td>i: (240)</td>
<td>(242 - 244)</td>
</tr>
<tr>
<td>ii: (241)</td>
<td>(245 - 247)</td>
</tr>
</tbody>
</table>

*Petunjuk: Tuliskan jawabannya saja; kode akan diberikan setelah wawancara; Catatan koding: sebanyak tiga kode dapat diberikan untuk setiap isu/hal terpenting kalau relevan) Codes:

2.3
2.3.1 Bagaimana proses menentukan kegiatan dan mengambil keputusan dalam kelompok/organisasi tersebut?
2.3.2 Apakah puas dengan proses pengambilan keputusan tersebut?
2.3.3 Bagaimana cara pemilihan ketua/pemimpin dalam kelompok/organisasi tersebut?
2.3.4 Berapa kali kelompok/organisasi tersebut mengadakan pertemuan dalam jangka waktu 6 bulan?

<table>
<thead>
<tr>
<th>Kelompok/Organisasi/Perkumpulan</th>
<th>2.3.1 Proses menentukan kegiatan dan pengambilan keputusan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1: Ditentukan dari pihak luar</td>
</tr>
<tr>
<td></td>
<td>2: Pemimpin memutuskan, lalu memberitahukan ke anggota</td>
</tr>
<tr>
<td></td>
<td>3: Dewan eksekutif/pelaksana memutuskan, lalu memberitahukan ke anggota</td>
</tr>
<tr>
<td></td>
<td>4: Pemimpin memutuskan setelah konsultasi dengan anggota</td>
</tr>
<tr>
<td></td>
<td>5: Musyawarah antara anggota kelompok dan memutuskan bersama</td>
</tr>
<tr>
<td></td>
<td>6: Lainnya (sebutkan)</td>
</tr>
<tr>
<td></td>
<td>2.3.2 Pendapat terhadap proses:</td>
</tr>
<tr>
<td></td>
<td>1: Sangat puas</td>
</tr>
<tr>
<td></td>
<td>2: agak /cukup puas</td>
</tr>
<tr>
<td></td>
<td>3: Kurang puas</td>
</tr>
<tr>
<td></td>
<td>4: tidak berpendapat</td>
</tr>
<tr>
<td></td>
<td>2.3.3 Pemilihan ketua/pemimpin</td>
</tr>
<tr>
<td></td>
<td>1: Dipilih oleh pihak luar</td>
</tr>
<tr>
<td></td>
<td>2: Penggantinya dipilih oleh pemimpin sebelumnya</td>
</tr>
<tr>
<td></td>
<td>3: Dipilih oleh anggota kelompok tertentu [Catatan: catat yang mana]</td>
</tr>
<tr>
<td></td>
<td>4: Dipilih oleh semua anggota</td>
</tr>
<tr>
<td></td>
<td>5: Kurang tahu</td>
</tr>
<tr>
<td></td>
<td>2.3.4 Berapa kali kelompok /organisasi ini mengadakan kegiatan dalam jangka waktu 6 bulan?</td>
</tr>
</tbody>
</table>

i: (248) (250) (252) (254)

ii: (249) (251) (253) (255)
2.4

2.4.1 Pihak mana yang bertanggung jawab dalam hal pengelolaan keuangan kelompok tersebut?

2.4.2 Dan bagaimana sistem pengontrolannya?

2.4.3 Apakah puas dengan sistim pengawasan/pengontrol tersebut?

<table>
<thead>
<tr>
<th>2.4.1 Pihak yang bertanggung jawab dalam pengelolaan keuangan kelompok:*</th>
<th>2.4.2 Sistem pengontrolan/pengawasan keuangan kelompok:</th>
<th>2.4.3 Pendapat terhadap Sistem pengontrol:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Unit Pengelola Keuangan</td>
<td>1: Pihak dari dalam organisasi / internal (misalnya: anggota kelompok)</td>
<td>1: Sangat puas</td>
</tr>
<tr>
<td>2: Bendahara</td>
<td>2: Pihak dari luar organisasi / external (misalnya: pemerintah, auditor, LSM terkait)</td>
<td>2: Agak/cukup puas</td>
</tr>
<tr>
<td>3: Tim pelaksana kegiatan/pengurus</td>
<td>3: Kedua-duanya (internal dan external)</td>
<td>3: Kurang puas</td>
</tr>
<tr>
<td>4: Lainnya (sebutkan)</td>
<td>4: Tidak tahu</td>
<td>4: Tidak berpendapat</td>
</tr>
<tr>
<td>5: Tidak tahu</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

i. (256 - 257) | (260) | (262) |

ii.(258 - 259) | (261) | (263) |

* Catatan: daftarkan dua pihak kalau relevan

2.5 Andaikata didalam rumah tangga ini menghadapi masalah yang mendesak (misalnya gagal panen, sakit, kebutuhan pokok dll), kepada siapa kira-kira dapat mohon bantuan berupa dana yang dibutuhkan?

[catat jawaban]

(264) ________________________________________________

(265) ________________________________________________

(266) ________________________________________________

[Petunjuk: Tulis jawaban dan komentar / penjelasan kalau ada dan daftarkan lebih dari satu kalau relevan; kode akan diberikan setelah wawancara.]

Codes:
1: Keluarga luar rumah tangga
2: Tetangga
3: Teman
4: Pejabat desa
5: Tokoh adat
6: Tokoh agama (imam/pendeta)
7: Majikan/bos
8: punggawa/patron
9: tengkulak / bakul pengijon/toke
10: bank
11: penggadai
12: koperasi
13: tokoh politik
14: preman
15. Warung/Kios
16. Lainnya (sebutkan) ____________
2.6 Apakah anggota rumah tangga pernah melakukan kerjasama dengan warga desa diluar rumah tangga secara gotong royong sehari-hari selama satu tahun terakhir ini? (267)

1: Ya  
2: Tidak

[Kalau ya], Sebutkan kegiatan urut dari yang terpenting:

i. ________________________________________________________________________________ (301)

ii. ______________________________________________________________________________ (302)

iii. _______________________________________________________________________________ (303)

[Petunjuk: catat jawabannya. Catatan koding: Setelah interview beri kode secara kategori fungsional]
2.7 (i) Sebutkan tiga kegiatan terpenting diluar rumah tangga yang dijalankan untuk kepentingan masyarakat desa selama satu tahun belakangan ini (ii) Jenis kegiatan* (iii) Digerakkan oleh pihak yang amana? (iv) Apakah partisipasi rumah tangga ini dalam kegiatan-kegiatan tersebut dilakukan secara sukarela atau merupakan suatu kewajiban?

<table>
<thead>
<tr>
<th>2.7.1 Nama kegiatan</th>
<th>2.7.2 Jenis kegiatan *</th>
<th>2.7.3 Digerakkan oleh pihak yang aman: **</th>
<th>2.7.4 Partisipasi ***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kategori fungsional:</td>
<td>1: Pendidikan</td>
<td>1: Pemerintah desa</td>
<td>1. Sukarela</td>
</tr>
<tr>
<td></td>
<td>2: Kesehatan</td>
<td>2. Dinas diatas desa</td>
<td>2. Wajib</td>
</tr>
<tr>
<td></td>
<td>3: Penghidupan/Keuangan</td>
<td>3: Organisasi berbasis masyarakat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4: Sumber-prasarana</td>
<td>4: Tokoh desa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5: Sosial ****</td>
<td>5: Tokoh Agama</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6: Politik</td>
<td>6: Tokoh Adat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7: Ekologi (lingkungan/SDA/konservasi)</td>
<td>7: LSM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8: Agama</td>
<td>8: Lainnya (sebutkan)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9: Adat</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10: Lainnya (sebutkan)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Kegiatan i (268) | (271 - 273) | (280 - 282) | (289) |
| Kegiatan ii (269) | (274 - 276) | (283 - 285) | (290) |
| Kegiatan iii (270) | (277 - 279) | (286 - 288) | (291) |

*Catatan koding: peneliti akan memberikan kode setelah interview. Tanyakan "jenis kegiatan" hanya jika tujuan jawaban sebelumnya 2.7.1 tidak jelas. Sebanyak tiga kode dapat diberikan untuk satu kegiatan
** Catat jawaban atau pakai kode kalau mudah, sebanyak tiga kode dapat diberikan untuk satu kegiatan
*** Mengisi Kode
**** Coding 'Social' dalam hal ini meliputi kegiatan bersama yang tidak melibatkan kelembagaan formal
2.8 Menurut anda, kegiatan-kegiatan seperti apa perlu dilakukan untuk kepentingan masyarakat desa dimasa depan?


Kegiatan i (292 - 294)____________________________________________________

Kegiatan ii (295 - 297)____________________________________________________

Kegiatan iii (298 - 300)__________________________________________________

3.0 PEMERINTAHAN DAN HAL PENTING/MASALAH DESA

3.1 Menurut anda/anggota rumah tangga ini, apa persoalan (tantangan) yang paling besar dan kesempatan (peluang) utama yang dihadapi masyarakat di desa ini sekarang? Sesuai urutan terpenting

**Petunjuk:** catat jawabannya. **Catatan Koding:** Setelah interview beri kode secara kategori fungsional. Sebanyak tiga kode dapat diberikan untuk setiap tantangan/kesempatan)


1. (304 - 306) ______________________________________________________

2. (307 - 309) ______________________________________________________

3. (310 – 312) ______________________________________________________
3.2 Bagaimana caranya anda mendapat informasi mengenai persoalan (tantangan) dan kesempatan (peluang) tersebut dari dan kepada masyarakat?

(Petunjuk: Jika jawaban tidak jelas, coba berikan beberapa contoh seperti daftar berikut. Kemudian, lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada. Kalau sumber informasi lebih dari satu, bisa linkari sebanyak 3 terutama)

1: Pertemuan formal (sebutkan kelompok/organisasi yang mana)
2: Diskusi informal melalui masyarakat (sebutkan jadul)
3: Pengumuman untuk publik (sebutkan sumber)
4: Surat kabar
5: Radio
6: TV
7: Lainnya (sebutkan)

1. (313)____________________________________________________________________________________
2. (314)____________________________________________________________________________________
3. (315)____________________________________________________________________________________

3.3 Menurut anda /anggota rumah tangga ini, pihak mana yg paling cocok untuk mengurus hal/isu tantangan yang besar tersebut?

(316)____________________________________________________________________________________
(317)____________________________________________________________________________________
(318)____________________________________________________________________________________

(catatan: Jika jawaban tidak jelas, coba berikan beberapa contoh dari daftar berikut dan tulis komentar tambahan kalau ada; Sebanyak tiga pihak dapat ditulis kalau relevan; Kalau informan sanggup, mohon contoh)

Coding sbb:
1: Tokoh adat
yang mana: guru, pengusaha dgl
4: Pegawai / anggota koperasi
7: Badan pemerintahan di tingkat desa
10: Fasilitator / anggota LSM
12: Orang lain (sebutkan)
2: Tokoh agama
5: Pegawai RT/RW
8: Badan pemerintah di tingkat kecamatan/kabupaten/propins
11: Teman/saudara/tentangga
13: Masyarakat semua/umum
3: Tokoh masyarakat yang lain (catat
14: Urus sendiri/pribadi
6: Pejabat/pegawai pemerintah di tingkat dusun
9: Penyuluh departemen pemerintah
12: Orang lain (sebutkan)
3.4 Apakah ada anggota Rumah Tangga ini yang terlibat langsung dalam pembicaraan resmi tentang tantangan atau peluang/kesempatan yang terpenting ini? (319)

1: Ya 2: Tidak

[sebutkan cara dilibatkan]______________________________________________________________

3.5 Kalau tidak terlibat langsung, apakah anggota rumah tangga pernah menyampaikan pendapat/usul terhadap masalah ini lewat perwakilan? (320)

1. Kepada pemimpin atau wakil organisasi tingkat desa/dusun  [sebutkan pihak yang mana/siapa] __________________________
2. Dengan cara lain [sebutkan] ____________________________________________________________
3. Tidak

[catatan]______________________________________________________________________________

3.6 Apakah masyarakat umumnya puas terhadap cara pengambilan keputusan tentang perencanaan dan aturan di desa ini? (321)

[Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan kalau ada]


[catatan]______________________________________________________________________________

3.7 Apakah masyarakat umumnya puas dengan upaya pembangunan di desa ini? (322)

[catatan: Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan kalau ada]


[catatan]______________________________________________________________________________
3.8 Apakah pengelolaan anggaran/aset desa cukup terbuka [transparan]? (323)

1. Terbuka berpendapat
2. Agak/cukup terbuka
3. Tidak terbuka
4. Tidak berpendapat

[catatan] ____________________________________________________________________________

3.9 Apakah anda (atau anggota rumah tangga yang lain) **menghadiri** pertemuan Musrenbang / Musyawarah desa selama 1 tahun belakangan ini? (324)

(Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan kalau ada)

1. Ya
2. Tidak

[catatan] ____________________________________________________________________________

3.10 Apakah hasil pertemuan Musrenbang / Musyawarah desa belakangan ini berguna bagi kepentingan masyarakat umum? (325)

(Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada)

1. Sangat berguna
2. Agak/cukup berguna
3. Kurang berguna
4. Tidak berpendapat

[catatan] ____________________________________________________________________________

3.11 Apakah BPD berperan penting di desa ini? (326)

(Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada)

1. Sangat penting
2. Agak/cukup penting
3. Kurang penting
4. Tidak berpendapat

[catatan] ____________________________________________________________________________
3.12 Apakah anda dan/atau anggota rumah tangga anda pernah menghadiri pertemuan resmi yang dilakukan DILUAR desa selama 1 tahun terakhir ini? (327)

[Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada]

1: Ya [catatan] ____________________________________________________________

2: Tidak [catatan] _______________________________________________________

3.13 Apakah pernah terjadi konflik/sengketa yang menonjol di desa ini selama satu tahun terakhir?

[Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada] (328)

1: Ya [Petunjuk: kalau Ya, catat jenis konflik/sengketa] __________________________

2: Tidak _________________________________________________________________

3.14 Tokoh/pihak/institusi mana yang mengelolah/ menyelesaikan konflik/sengketa tersebut?

(329 - 331)

Setelah interview code sbb: 1: Aparat desa dinas (kepala desa dll) 2: Tokoh adat 3: Tokoh agama 4: Polisi / aparat keamanan
5: Aparat pemerintah diluar desa 6: Peradilan 7: Lain 0: NA

[Catatan: Catat jawaban dan penjelasan atau contoh (nama orang/organisasi; sebanyak tiga kode dapat diberikan kalau relevan)
4.0 PNPM

4.1 Apakah anda/anggota rumah tangga ini pernah mendengar informasi mengenai Program Nasional Pemberdayaan Masyarakat (PNPM) (400)

[Petunjuk: Jika istilah PNPM kurang dipahami atau tidak dimengerti oleh responden, coba berikan gambaran program seperti apa yang dimaksud dengan PNPM, yang sesuai dengan kegiatan PNPM di desa itu.
- Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada]

1: Ya
2: Tidak
3: Barangkali/tidak tahu pasti

[catat jawaban]


4.2.1 Apa usulan yang diajukkan oleh desa ini dalam bentuk proposal kegiatan dalam rangka program PNPM? (401 - 403)

[catat jawaban (misalnya, dari jalur apa)]

[Catatan untuk koding saja: Lingkari berdasarkan kategori fungsional untuk jawaban tersebut; sebanyak tiga kode dapat diberikan kalau relevan]

1: Pendidikan
2: Kesehatan
3: Penghidupan/Keuangan
4: Sarana-prasarana
5: Sosial
6: Politik
7: Ekologi (lingkungan/SDA/ konservasi)
8: Agama
9: Adat
10: Lainnya (sebutkan)

4.2.2 [Catatan untuk koding saja, bukan pertanyaan untuk responden: untuk peneliti saja: Lingkari berdasarkan informasi dari desa/kecamatan mengenai program PNPM yang sebenarnya diajukkan: (404)

1: Benar
2: Salah
3: Tidak tahu tentang usulan kegiatan

4.3 Apakah Anda atau anggota rumah tangga ini puas dengan penerapan program PNPM di desa ini? (405)

1: Sangat puas
2: Agak/cukup puas
3: Tidak puas
4: Belum berpendapat
4.4 Apakah anda atau anggota rumah tangga ini pernah ikut dalam proyek yang di laksanakan oleh program PNPM? (406)

1: Ya
2: Belum
3. Tidak tahu pasti (lanjut ke pertanyaan no. 4.6)

[jelaskan ]

4.5 Jika Ya, dalam tahap apa rumah tangga ini terlibat dalam proyek tersebut? (407)

1: Sosialisasi
2: Perencanaan
3: Pelaksanaan
4: Evaluasi
5: Pengawasan
6: Dua tahap saja
7: Tiga tahap saja
8: Empat tahap saja
9: Lima tahap (semuanya)
0: NA

[jelaskan ]

4.6 Menurut anda/anggota rumah tangga ini, mana cara yang paling penting dalam pembahasan proposal dari beberapa yang terdaftar dibawah ini? (408)

1: Pertemuan formal di desa
2: Pertemuan formal di dusun
3: Pembicaraan informal / tidak resmi di

[Petunjuk: Catat dimana – ump: warung, di rumah tangga sendiri, atau di rumah tetangga dll]

0: NA

4.7 Siapa/ pihak mana sumber informasi terpenting mengenai PNPM?

(409) 

(410) 

(411) 

(412)
(Petunjuk: sebanyak tiga tokoh/pihak dapat didaftarkan kalau relevan; Jika jawaban tidak jelas, coba berikan beberapa contoh dari daftar berikut dan tulis komentar tambahan kalau ada; Kalau informan sanggup, mohon contoh)

**Coding sbb:**

<table>
<thead>
<tr>
<th>No</th>
<th>Kategori</th>
<th>Sub-kategori</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tokoh adat</td>
<td>Masyarakat yang lain</td>
</tr>
<tr>
<td>2</td>
<td>Tokoh agama</td>
<td>Tokoh/masyarakat yang lain</td>
</tr>
<tr>
<td>3</td>
<td>Tokoh adat</td>
<td>Pegawai/anggota koperasi</td>
</tr>
<tr>
<td>4</td>
<td>Pegawai/anggota koperasi</td>
<td>Tokoh/masyarakat yang lain</td>
</tr>
<tr>
<td>5</td>
<td>Pejabat/pegawai pemerintah di tingkat dusun</td>
<td>Pejabat/pegawai pemerintah di tingkat dusun</td>
</tr>
<tr>
<td>6</td>
<td>Pejabat/pegawai pemerintah di tingkat desa</td>
<td>Pejabat/pegawai pemerintah di tingkat desa</td>
</tr>
<tr>
<td>7</td>
<td>Pejabat/pegawai pemerintah di tingkat kecamatan/propinsi</td>
<td>Pejabat/pegawai pemerintah di tingkat kecamatan/propinsi</td>
</tr>
<tr>
<td>8</td>
<td>Pejabat/pegawai pemerintah di tingkat desa</td>
<td>Pejabat/pegawai pemerintah di tingkat desa</td>
</tr>
<tr>
<td>9</td>
<td>Penyuluh departemen pemerintah</td>
<td>Penyuluh departemen pemerintah</td>
</tr>
<tr>
<td>10</td>
<td>Fasilitator PNPM di tingkat desa</td>
<td>Fasilitator PNPM di tingkat desa</td>
</tr>
<tr>
<td>11</td>
<td>Fasilitator PNPM di tingkat kecamatan</td>
<td>Fasilitator PNPM di tingkat kecamatan</td>
</tr>
<tr>
<td>12</td>
<td>Fasilitator PNPM di tingkat kabupaten</td>
<td>Fasilitator PNPM di tingkat kabupaten</td>
</tr>
<tr>
<td>13</td>
<td>Anggota LSM</td>
<td>Anggota LSM</td>
</tr>
<tr>
<td>14</td>
<td>Teman/saudara/tetangga</td>
<td>Teman/saudara/tetangga</td>
</tr>
<tr>
<td>15</td>
<td>Orang lain</td>
<td>Orang lain</td>
</tr>
<tr>
<td>16</td>
<td>Pengurus/panitia PNPM di desa</td>
<td>Pengurus/panitia PNPM di desa</td>
</tr>
</tbody>
</table>

4.8 Seandainya mendapat program PNPM kedepan, kegiatan seperti apa yang Anda usulkan? **(412-414)**

(Petunjuk: Jika jawaban tidak jelas, coba berikan beberapa contoh seperti daftar berikut; Sebanyak tiga kode dapat diberikan kalau relevan)

(catat jawaban)                                                                

<table>
<thead>
<tr>
<th>No</th>
<th>Kategori</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pendidikan</td>
</tr>
<tr>
<td>2</td>
<td>Kesehatan</td>
</tr>
<tr>
<td>3</td>
<td>Penghidupan/Keuangan</td>
</tr>
<tr>
<td>4</td>
<td>Sarana-prasarana</td>
</tr>
<tr>
<td>5</td>
<td>Sosial</td>
</tr>
<tr>
<td>6</td>
<td>Politik</td>
</tr>
<tr>
<td>7</td>
<td>Ekologi (lingkungan/SDA)</td>
</tr>
<tr>
<td>8</td>
<td>Agama</td>
</tr>
<tr>
<td>9</td>
<td>Adat</td>
</tr>
<tr>
<td>11</td>
<td>Lainnya</td>
</tr>
</tbody>
</table>
5.0 SUMBER DAYA ALAM - SIKAP TERHADAP LINGKUNGAN DAN KONSERVASI ALAM

5.1
5.1.1 Menurut anda tantangan atau masalah apa yang menjadi paling penting berkaitan dengan lingkungan hidup dan sumber daya alam yang dihadapi di wilayah sekitar desa ini?

1. **(500 - 502)**

2. **(503 - 505)**

3. **(506 - 508)**

*Petunjuk: Catat jawaban. Setelah interview cantumkan kode kategori fungsional yang berikut; sebanyak tiga kode dapat diberikan untuk setiap tantangan/masalah kalau relevan*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22. Keberlanjutan</td>
<td>23. Kekeringan</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24. Hama</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.1.2 Pihak yang mana mengurus tantangan/masalah yang paling penting itu sekarang?

[catat jawaban]

1. (509) ____________________________________________

2. (510) ____________________________________________

(Petunjuk: Jika jawaban tidak jelas, coba berikan beberapa contoh dari daftar berikut dan tulis keterangan tambahan kalau ada; Kalau informan sanggup, mohon contoh; sebanyak tiga pihak dapat diberikan kalau relevan)

3. (511) ____________________________________________

(Coding sbb: 1: Tokoh adat 2: Tokoh agama 3: Tokoh masyarakat lain (catat yng mana: guru, pengusaha dll)
4: Pegawai / anggota koperasi 5: Pegawai RT/RW 6: Pejabat/pegawai pemerintah di tingkat dusun
7: Badan pemerintahan di tingkat desa 8: Badan pemerintah di tingkat kecamatan/kabupaten/propins
9: Penyuah departemen pemerintah 10: Fasilitator / anggota LSM 11: Teman/saudara/tentangga
12: Orang lain (sebutkan) 13: Masyarakat semua/umum 14: Urus sendiri/pribadi)

5.2 Apakah ada wilayah [sumber daya] alam lokal penting yang seharusnya dilindungi (dijaga) oleh lembaga adat/pemerintah/organisasi lainnya? (512)

1: Ya (Jika Ya, lanjut ke 5.2.1. sampai 5.2.5.)
2: Tidak (Jika Tidak, lanjut ke pertanyaan 5.3.)

5.2.1 Daftarkan sumber daya alam dalam table di bawah
5.2.2 Jenis sumbennya? [Petunjuk: Tulis atau masukkan kode]
5.2.3 Yangmana otoritas/pihak yang paling berwenang? [Petunjuk: Masukkan kode: sebutkan daftar kalau perlu]
5.2.4 Menurut pendapat anda, apakah SDA ini (taman laut, hutan lindung, dll) terancam habis oleh karena kegiatan pengelolaan/ pemanfaatan yang terjadi? [Petunjuk: Masukkan kode]
5.2.5 Menurut anda, mungkingkah sumber daya alam tersebut (hutan, batas air, laut, pantai, bakau, terumbu karang, dll) habis atau tidak dapat dimanfaatkan lagi seandainya hal tersebut terwujud/terjadi, kira-kira kapankah itu terjadi? [Petunjuk: Masukkan kode]

<table>
<thead>
<tr>
<th>5.2.1 Sumber Daya Alam</th>
<th>5.2.2 Sumbernya</th>
<th>5.2.3 Otoritas/pihak berwenang</th>
<th>5.2.4 Terancam habis?</th>
<th>5.2.5 Kalau akan habis, kapan?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Sumber perairan</td>
<td>Jalur hijau</td>
<td>5. Organisasi/kelompok lain (jelaskan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Jalur hijau</td>
<td>Daerah aliran sungai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Daerah aliran sungai</td>
<td>Laut/danau</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Laut/danau</td>
<td>Lainnya</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Lainnya</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3 Apakah ada warga desa ini yang mengalami konflik atau kerugian karena pelaksanaan peraturan perlindungan SDA tersebut? (528)

1: Ya [catat siapa dan kerugian]________________________________________________________________________
2: Tidak
3: Tidak tahu

5.4 Apakah ada anggota rumah tangga ini yang terlibat dalam pembahasan mengenai penetapan aturan perlindungan SDA tersebut? (529)

1: Ya [catat siapa da peranannya]_______________________________________________________________________
2: Tidak
3: Tidak tahu
5.5 Apakah anda mendukung penetapan perlindungan SDA (hutan, laut, dll) tersebut? (530)
1: Sangat Menentang       2: Menentang       3: Mendukung atau tidak, tergantung isunya
4: Cukup mendukung       5: Sangat Mendukung

5.6 Jika mendukung, apakah anda/anggota rumah tangga ini pernah membantu pengelolaan dan pengawasan sumber daya alam tersebut? (531)

1. Ya   [Petunjuk: catat siapa dan cara kegiatan/ bantuan] ____________________________________________
2. Tidak   [Petunjuk: jika tidak mendukung, bagaimana sikap terharap penggunaan wilayah/SDA itu?]

______________________________________________________________
6.0 PEMANFAATAN Sumber Daya Alam Lindung

6.1 Apakah anggota masyarakat desa ini melakukan kegiatan-kegiatan (misalnya yang menyangkut penghidupan) di dekat atau di dalam kawasan lindung tersebut? (kalau ada)?

1: Ya  2: Tidak  3: Tidak Relevan

Kalau ya, jelaskan:

<table>
<thead>
<tr>
<th>6.1.1 Jenis SDA</th>
<th>6.1.2 Lokasi kawasan lindung</th>
<th>6.1.3 Kegiatan **</th>
<th>6.1.4 Jenis perlindungan-ara</th>
<th>6.1.5 Pergunaan</th>
<th>6.1.6 Pernah mengalami konflik dengan pihak yang berwenang?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Hutan bakau</td>
<td>602</td>
<td>(608)</td>
<td>(614)</td>
<td>(620)</td>
<td>(626)</td>
</tr>
<tr>
<td>3. Laut/danau</td>
<td>603</td>
<td>(609)</td>
<td>(615)</td>
<td>(621)</td>
<td>(627)</td>
</tr>
<tr>
<td>4. Pantai</td>
<td>604</td>
<td>(610)</td>
<td>(616)</td>
<td>(622)</td>
<td>(628)</td>
</tr>
<tr>
<td>5. Sumber perairan</td>
<td>605</td>
<td>(611)</td>
<td>(617)</td>
<td>(623)</td>
<td>(629)</td>
</tr>
<tr>
<td>6. Jalur hijau</td>
<td>606</td>
<td>(612)</td>
<td>(618)</td>
<td>(624)</td>
<td>(630)</td>
</tr>
</tbody>
</table>

[Petunjuk: mengisi tabel dibawah dengan tulis jawaban atau masukkan kode langsung]
7.0 ENVIRONMENTAL PROGRAM INTERVENTION - ACCESS / WWF / TNC / GREEN KDP/OTHER LSM*

7.1 Apakah anda/anggota rumah tangga ini pernah mendengar informasi mengenai program ACCESS/WWF/LSM? (700)

(Petunjuk: *gunakan nama/istilah yang umum dikenal untuk salah satu program atau intervensi terhadap lingkungan hidup yang paling relevan di tempat *)

1: Ya  
2: Tidak (Jika jawabannya 'tidak', lanjut ke pertanyaan nomor 7.2)

(Petunjuk: Lingkari dan catat komentar/penjelasan)

7.1.1 Menurut informasi yang anda terima, apa jenis program atau kegiatan Organisasi tersebut? (701 - 703)

(Petunjuk: catat jawaban)

[Catatan untuk koding saja: Lingkari/ masukkan jenis/tipe proposal menurut kategori fungsional berikut ; sebanyak tiga kode dapat diberikan kalau relevan]

1: Pendidikan  
2: Kesehatan  
3: Penghidupan/keuangan [kredit/penghasilan dll]  
4: Sarana-prasarana  
5: Sosial  
6: Politik  
7: Ekologi (lingkungan/SDA/konservasi)  
8: Agama  
9: Adat  
10: Lainnya

7.1.2 [Catatan untuk koding saja, bukan pertanyaan untuk responden: untuk peneliti saja] Lingkari/ masukkan menurut informasi dari LSM, apakah jawaban 7.1.1. sesuai dengan keadaan (704)

1: Benar  
2: Salah  
3: Tidak tau/yakin tentang kegiatan

7.2 Apakah anda/anggota rumah tangga ini pernah ikut dalam program yang dikerjakan oleh program ACCESS/ WWF/ TNC/ WALHI/ LSM lain? (705)

1: Ya  
   (Sebutkan nama LSMnya kalau bisa____________________________________________________________)

2: Tidak  
   (Lanjut ke pertanyaan nomor 7.6)
7.3 Dalam tahap apa rumah tangga ini terlibat dalam program itu? (706)

1: Sosialisasi  2: Perencanaan  3: Pelaksanaan  4: Pengawasan
5: Evaluasi
6: Dua tahap saja  7: Tiga tahap saja  8: Empat tahap saja  9: Lima tahap (semuanya)
0: NA

7.4 Menurut anda proses mana yang terpenting dalam pembahasan proposal kegiatan proyek tersebut? (707)

1: Pertemuan formal di desa
2: Pertemuan formal di dusun
3: Pembicaraan informal di ____________ (catat dimana – misalnya warung, di rumah tangga ini atau tetangga)

7.5 Pihak mana yang merupakan sumber informasi mengenai program [ACCESS/WWF/LSM/Lain] yang terpenting?

(708)

(709)

(710)

[sebanyak tiga tokoh/pihak dapat didaftarkan kalau relevan; Jika jawaban tidak jelas, coba berikan beberapa contoh dari daftar berikut dan tulis komentar tambahan kalau ada; Kalau informan sanggup, mohon contoh]

Coding sbb:
1: Tokoh adat
2: Tokoh agama
3: Tokoh masyarakat yang lain (catat yang mana; guru, pengusaha dll)
4: Pegawai / anggota koperasi
5: Pegawai RT/RW
6: Pejabat/pegawai pemerintah di tingkat dusun
7: Pejabat/pegawai pemerintah di tingkat desa
8: Pejabat/pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9: Penyuluh departemen pemerintah
10: Fasilitator / anggota LSM
11: Teman/saudara/tentangga
12: Orang lain (sebutkan)
13: Masyarakat semua/umum
14: Urus sendiri/pribadi
7.6 Jika anda/anggota rumah tangga ini dapat menyarankan proposal baru kepada ACCESS/WWF/LSM untuk masa depan, menurut anda proyek atau kegiatan seperti apa yang paling berguna untuk masyarakat desa ini? (711-713)

(Petunjuk: Jika jawaban tidak jelas, coba berikan beberapa contoh seperti daftar berikut; Sebanyak tiga kode dapat diberikan kalau relevan)

[catat jawaban]______________________________________________________________

1: Pendidikan  2: Kesehatan  3: Penghidupan/Keuangan  4: Sarana-prasarana
6: Politik  5: Sosial  7: Ekologi (lingkungan/SDA)  8: Agama
10: Lainnya

7.7 Apakah anda (atau anggota rumah tangga) pernah menghadiri pertemuan resmi untuk membagi program ACCESS/WWF/LSM tersebut? (714)

1: Ya  [jelaskan program yang mana] _________________________________________________
2: Tidak

7.8 Apakah anda puas dengan pertemuan itu sebagai sarana untuk menyampaikan aspirasi masyarakat desa? (715)

1: Sangat puas  2: Agak/cukup puas  3: Tidak puas  4: Tidak berpendapat
0: NA

[jelaskan ]_______________________________________________________________

7.9 Apakah peranan/program yang pernah dilaksanakan ACCESS/WWF/TNC/WALHI/LSM lain di desa ini bermanfaat?

(Petunjuk: Lingkari jawabannya, dan catat komentar tambahan jika ada)

1: Sangat bermanfaat  2: Agak/cukup bermanfaat
3: Kadang bermanfaat, kadang tidak bermanfaat, tergantung programnya
4: Tidak bermanfaat  5: Tidak berpendapat

[jelaskan ]_______________________________________________________________
7.10 Apakah anda atau anggota rumah tangga ini pernah membicarakan soal program ACCESS/WWF/LSM secara tidak resmi seperti di warung, rumah tetangga, dll. 

(Petunjuk: Lingkari jawabannya, dan catat komentar tambahan atau penjelasan jika ada)

1. Ya
2. Tidak

[jelaskan] ________________________________________________________________________________________________________________________________________________________________

7.11 Apakah anda atau anggota rumah tangga ini puas dengan penerapan program ACCESS/WWF/LSM di desa ini? 

(catatan: Lingkari jawaban yang sesuai, dan tulis komentar tambahan atau penjelasan jika ada)

1. Sangat puas  
2. Agak/cukup puas  
3. Kadang puas, kadang tidak, tergantung programnya
4. Tidak puas
5. Tidak berpendapat

[jelaskan] ________________________________________________________________________________________________________________________________________________________________
8.0 COOPERATIVE INVOLVEMENT

8.1 Apakah anda atau anggota rumah tangga ini pernah ikut menjadi anggota koperasi? (800)

1. Ya [Petunjuk: Jelaskan nama dan tujuan koperasi itu]

2. Tidak Jika jawabannya ‘tidak’, lanjut ke pertanyaan nomor 8.2.)

8.1.1 Kalau ya : Apakah anda masih menjadi anggota koperasi? Jelaskan mengapa. (801)

1: Ya 2: Tidak 0: NA

[Penjelasan alasanya]

[Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada]

[Petunjuk: kalau responden menjawab ‘ya’ di sini tapi jawaban ‘koperasi’ tidak termasuk dalam pertanyaan 2.1, kembali dan mengisi disitu.)

8.2. Apakah anda bersedia diwawancarai lagi di masa depan berkaitan dengan penelitian ini? (802)

1: Ya 2: Tidak 3: Barangkali
9.0  **PETUNJUK:  Komentar penanya terharap keadaan interview**

9.1 Sikap responden terhadap interview (900)

1. Sangat responsif/ramah
2. Cukup responsif
3. Segan / terganggu

Komentar: _____________________________________________________________

9.2 Kesan penanya terhadap keadaan sosio-ekonomi rumah tangga dan keadaan relatif dibandingkan keadaan desa keseluruhan (901)

[Petunjuk: lingkari dan kasih komentar tentang keadaan rumah tangga ini]

1. Pra-sejahtera
2. Sejahtera
3. Sejahtera plus

Komentar: _____________________________________________________________
APPENDIX 7
SURVEY QUESTIONNAIRE IN CIA CIA (LOCAL DIALECT)

Questionnaire code: __ __ __ __

Penjelasan untuk Responden
1. Menjelaskan tujuan survey
2. Wawancara akan berlangsung selama 2 sampai 3 jam
3. Data dan sesuatu yang bersifat rahasia akan kami simpan dan jaga kerahasiannya
4. Apabila dalam proses wawancara responden merasa tidak dapat melanjutkan karena sesuatu dan lain hal, responden dapat membuat janji diwaktu lain atau batal sama sekali.

Interviewer’s name : 
Nama Desa : 
Nomor Rumah : 
Nama Responden : 
Tanggal : 
Nama Dusun : 
Hubungan dengan KK :
1.0 PROFIL RUMAH TANGGA

1.1 Anggota rumatanga dumewasano (umuru iwawo ompulu lima taku) mai ungkaka kumarajaano

<table>
<thead>
<tr>
<th>No. Ngea</th>
<th>Umuru</th>
<th>Jenis Kelamin</th>
<th>Suku bangsa</th>
<th>Kepala Keluarga (KK)</th>
<th>Termasuk dalam wawancara</th>
<th>Pendidikan terakhir</th>
<th>Karajaa utama</th>
<th>Karajaa Sampingan</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
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<td>(41)</td>
<td>(51)</td>
<td>(61)</td>
<td>(71)</td>
<td>(81)</td>
<td>(91)</td>
</tr>
</tbody>
</table>

Total anggota
1.2 Wuta kadie nipakeno kaluargaia’ana

<table>
<thead>
<tr>
<th>Jenis wuta cipakeno</th>
<th>Jenis bara nikohakuaso</th>
<th>Kato’owano/kalumuasino wuta kadie.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ka’ana horata’a</td>
<td>1. hak milik</td>
<td>[ha]</td>
</tr>
<tr>
<td>2. Hamotano bae</td>
<td>2. sewa</td>
<td></td>
</tr>
<tr>
<td>3. Ladang</td>
<td>3. podawu hasele</td>
<td></td>
</tr>
<tr>
<td>4. Hamotano</td>
<td>4. hakuno kanto’arua (adati atau aga’ano)</td>
<td></td>
</tr>
<tr>
<td>5. Piara bembe, manu, sapi</td>
<td>5. yang lain [petunjuk: tuliskan jawaban]</td>
<td></td>
</tr>
<tr>
<td>6. Piara isa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. pi’ala sau</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. pi’ala bara ciano sau</td>
<td></td>
<td></td>
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<tr>
<td>9. yang lain- (petunjuk: tuliskan jawaban)</td>
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</tbody>
</table>

i. (92) (97) (102)
ii. (93) (98) (103)
iii. (94) (99) (104)
iv. (95) (100) (105)
v. (96) (101) (106)

1.3 Apaka anggota kaluarga ia ‘ana noko’usaha/usaha kokodi/waru/toko/pabriki/nokobara koharagaano aga’ano i desa ia ‘ana.(107)
1: Umbe
2: Cia

(Catatan)_______________________________________________________________
1.4 Apaka dane’e alea minamo jumarino anggota kaluarga atau dane'epo jumarino anggota kaluarga 'ia ana ko bara koharagaano? (108)
1: Umbe  2: Cia

[Daftar aset]______________________________________________________________

1.5 Apaka dane’e alea minamo jumarino atau dane'epo jumarino anggota kaluarga 'ia 'ana sumikolano atau kumarajaano ia daerah aga’ano? (109)
1: Umbe  2: Cia

<table>
<thead>
<tr>
<th>Ngea</th>
<th>Umuru</th>
<th>Kolengono nohora/nokarajaia daera aga’ano (pia taku)</th>
<th>Lokasi i daera aga'ano i lura desa/kampo</th>
<th>Tujuanasi kolaa'a/karajaa'a</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. (110)</td>
<td>(115)</td>
<td>(120)</td>
<td>(125)</td>
<td>(130)</td>
</tr>
<tr>
<td>ii. (111)</td>
<td>(116)</td>
<td>(121)</td>
<td>(126)</td>
<td>(131)</td>
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<tr>
<td>iii. (112)</td>
<td>(117)</td>
<td>(122)</td>
<td>(127)</td>
<td>(132)</td>
</tr>
<tr>
<td>iv.(113)</td>
<td>(118)</td>
<td>(123)</td>
<td>(128)</td>
<td>(133)</td>
</tr>
<tr>
<td>v.(114)</td>
<td>(119)</td>
<td>(124)</td>
<td>(129)</td>
<td>(134)</td>
</tr>
</tbody>
</table>
1.6 Impa’a antarano daftarano perlengkapa ‘ia ‘ana, dumane’eno i ka’ana’ ia ana?

<table>
<thead>
<tr>
<th></th>
<th>Listrii mai sumbereno</th>
<th>1: Cia dane’e</th>
<th>2: PLN*</th>
<th>3: Listrik desa*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Generator ika’ ana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Tenaga surya</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(135)

<table>
<thead>
<tr>
<th></th>
<th>Air minum dan sumbernya</th>
<th>1: Cia dane’e</th>
<th>2: PAM*</th>
<th>3: Ledeno kampo</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Moko</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

(136)

<table>
<thead>
<tr>
<th></th>
<th>Kamar mandi</th>
<th>1: Cia</th>
<th>2: Dane’e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

(137)

<table>
<thead>
<tr>
<th></th>
<th>Telepoo atau HP</th>
<th>1: Cia</th>
<th>2: Dane’e</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

(138)

<table>
<thead>
<tr>
<th></th>
<th>Komputerere</th>
<th>1: Cia</th>
<th>2: Dane’e</th>
</tr>
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<tbody>
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</tbody>
</table>

(139)

* PLN (Perusahaan Listrik Negara); PAM (Perusahaan Air Minum); Listrik desa (menggunakan generator dari Bangdes, tenaga air / microhydro).

1.7 Apaka dane’e pusaka atau bara molengo/ barano pi’adatia koharagaano i ka’ana ia ana? (mbilamo: kain ikat, korobou, gusi, kapiso pusaka, lontara, dll menurut kebudayaan i kampo)  

(140)

1: Umbe  
2: Cia  

Soba kapo’ombasami mo’anano/ kepentingano bara ia ana i lalono masyarakat nto’aru

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
1.8 Mobilitas

<table>
<thead>
<tr>
<th>Kendaraan</th>
<th>Jumlah</th>
<th>Kaguna’ano:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sepeda</td>
<td>141</td>
<td>1. ngaso pandapata (mancaria)</td>
</tr>
<tr>
<td>Motoro</td>
<td>142</td>
<td>2. ngaso kapantinga pribadi</td>
</tr>
<tr>
<td>Oto</td>
<td>143</td>
<td>3. dorua’e</td>
</tr>
<tr>
<td>Truk</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>Bus</td>
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<tr>
<td>Dokara/bendi</td>
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<td></td>
</tr>
<tr>
<td>Beca</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>Kapal/perahu bermotor</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Bangka</td>
<td>149</td>
<td></td>
</tr>
</tbody>
</table>

1.9 Menurutimiu, pa’impa’a ke’ada’ano mia ciano mampuno i desa ia ana ilalono ompulu takuliku ana (mina’aso awaluno Reformasi) (156)

1. Notamba nomaningka 2. Dane’epo mbilamo ‘ipiamo 3. Tamba nosampu

Komentar: ____________________________

1.10.1 Apaka minamo anggota kaluarga ia ana nopitabu kasulita ilalono kabiayai kabutuha holeo rondono i takuliku ana? (157)
1. Umbe 2. Cia

Kesulitan 1 – (158)

Kesulitan 2 – (159)

Kesulitan 3 – (160)


1.11 Popia jumlah rata-ratano pendapatano ruma tangga ‘ia ana i lalono a wula mina aso sawute sumbere?

1. iwaruno a juta rupia a wula 2. antara a juta mai lima hacu riwu awula
3. iwawono lima juta (nolabi 5 juta) a wula 4. cia nacikoniaso 5. mongare nangumeae
2.0 JARINGA MAI KARJAA, S ASA-ASA

2.1 I lalono ruma tangga 'ia ana, nodane’e ba mijarino anggota kalompo/organisasi/perkumpulan/persatua/gerakan/koperasi i desa 'ia ana atau i luara dea 'ia ana?

<table>
<thead>
<tr>
<th>Ngea Organisasi</th>
<th>Iluarano desa?</th>
<th>Tipeno/Jenisino organisasi **</th>
<th>Pemimpin organisasi?</th>
<th>Paimpa'a partisipasimu atau anggota keluarga aga'ano i lalono ala'ana keputusa?</th>
<th>Ane ka'aktifu, pia mbulea anggota rumatngga kabundo i pororompua atau kegiata i lalono waktu nomo wula?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ngea Organisasi</td>
<td>Iluarano desa?</td>
<td>Tipeno/Jenisino organisasi **</td>
<td>Pemimpin organisasi?</td>
<td>Paimpa'a partisipasimu atau anggota keluarga aga'ano i lalono ala'ana keputusa?</td>
<td>Ane ka'aktifu, pia mbulea anggota rumatngga kabundo i pororompua atau kegiata i lalono waktu nomo wula?</td>
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<tr>
<td>Ngea Organisasi</td>
<td>Iluarano desa?</td>
<td>Tipeno/Jenisino organisasi **</td>
<td>Pemimpin organisasi?</td>
<td>Paimpa'a partisipasimu atau anggota keluarga aga'ano i lalono ala'ana keputusa?</td>
<td>Ane ka'aktifu, pia mbulea anggota rumatngga kabundo i pororompua atau kegiata i lalono waktu nomo wula?</td>
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</tbody>
</table>

1: Kelompok tani/nelayan (pengelola SDA]  2: Koperasi  3: Asosiasi/kelompok usaha  
4: Kelompok/golongan politik  5: Kelompok wanita  6: Kelompok pengelola air/sampah  
7: Komisi/panitia kesehatan  8: Organisasi adat  9: LSM  
10: Kelompok agama  11: Asosiasi budaya  12: Kelompok kaum muda  
13: Kelompok kredit (seperti arisan)  14: Kelompok/panitia khusus desa/kelurahan  
15: Tim olahraga  16: Organisasi lain
2.2
2.2.1 Diantara I ‘antarano organisasi atau kalombo ia haleo, impa’a menurut isimi pentingino kadua?
2.2.2 Hal-hal impa’a pentingino ngaso nihadapino masyarakat/organisasi/asosiasi haleo ar i taku-taku ‘ia ana?

<table>
<thead>
<tr>
<th>2.2.1 Kalombo/organisasi/asosiasi/perkumpulan</th>
<th>2.2.2 Isu/hal pentingino hake *</th>
</tr>
</thead>
<tbody>
<tr>
<td>i: (240)</td>
<td>(242)</td>
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<td>(243)</td>
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<td>(244)</td>
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<td>ii: (241)</td>
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<td>(247)</td>
</tr>
</tbody>
</table>

2.3

<table>
<thead>
<tr>
<th>Kelompok/Organisasi/Perkumpulan</th>
<th>2.3.1 Proses ala’ano keputusan</th>
<th>2.3.2 Pendapat terharap proses</th>
<th>2.3.3 Pemilihan ketua/pemimpin</th>
<th>2.3.4 Pia mbulea Klombo/orani sasi iana nokoparorom pu i lalono waktu nomo wula?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1: Notentue pihak i luara</td>
<td>1: Puasi hake)</td>
<td>1: Nopilie pihak luara</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2: Notentue katua, mo’oli</td>
<td>2: Puasi uka</td>
<td>2: Kagantino nopolie katua</td>
<td></td>
</tr>
<tr>
<td></td>
<td>nopo’ombasomo anggota</td>
<td>3: Ciawala puasi</td>
<td>katua mangulu</td>
<td></td>
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<td></td>
<td>3: Notentue pelaksana, mo’oli</td>
<td>4. Ciamanee pendapat</td>
<td>3: Nopilie anggota kalompo tertentu</td>
<td>[Catatan: catat yang mana]</td>
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<td></td>
<td>nopo’ombasomo anggota</td>
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<td>4: anggota m’oli nohoja’e</td>
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<td>4: Nopilie sawuta’e anggota</td>
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<td></td>
<td>mai anggota, keputusan</td>
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<td></td>
<td>notentuemo katua</td>
<td></td>
<td>5. Ciawala nakomonie</td>
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<td>5: Musyawara atau hoja asa-asa</td>
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<td></td>
<td>antara anggota kalompo, mo’oli</td>
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<td></td>
<td>kaputusa notentuemo asa-asake</td>
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<td></td>
<td>6: Lainnya (sebutkan)aga’ano</td>
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<td></td>
<td>(kangea’e)</td>
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<tbody>
<tr>
<td>i:</td>
<td>(248)</td>
<td>(250)</td>
<td>(252)</td>
<td>(254)</td>
</tr>
<tr>
<td>ii:</td>
<td>(249)</td>
<td>(251)</td>
<td>(253)</td>
<td>(255)</td>
</tr>
</tbody>
</table>
### 2.4.1 Pihak bertanggung jawab dalam pengelolaan keuangan kelompok:

Pihak ngaso tumanggujawapuno kumelolano doe kanto’aruana atau kalompo
1: Unit Pengelola Keuangan (UPK)
2: Bendahara
3: Tim pelaksana kegiatan
4: Lainnya (sebutkan)aga’ano kangea’e
5: Cia kumonie

### 2.4.2 Sistem kontroloano atau pengawasano ka’uanga/doeno kalompo

1: Pihak i lalo organisasi (contono: anggota kalompo)
2: Pihak dari luar organisasi / external (contono: pamarintah, auditor, LSM)
3: Dorua’e (pihak i lalo mai i luara)

<table>
<thead>
<tr>
<th>2.4.3 Pendapat terhadap Sistem pengontrol:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Puasi hake</td>
</tr>
<tr>
<td>2: Puasi uka</td>
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<tr>
<td>3: Ciawala puasi</td>
</tr>
<tr>
<td>4: Cia mane’e pendapat</td>
</tr>
</tbody>
</table>

1. (256-257)  (260)  (262)
2. (258-259)  (261)  (263)

*Catata: daftar e dorua pihak anepodanda

### 2.5 Ane i rumah tangga ‘ia ana nohadapi masalah to’owa (mbilamo nogagala panen, kesehata noterganggu atau kopanaki, dll), ka’impa kira-kira kasawa bantuan dana?

[catat jawaban]

(264)________________________________________
<table>
<thead>
<tr>
<th>Kode</th>
<th>Deskripsi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kaluarga luar rumah tangga</td>
</tr>
<tr>
<td>2</td>
<td>Tetangga</td>
</tr>
<tr>
<td>3</td>
<td>Sabaŋka</td>
</tr>
<tr>
<td>4</td>
<td>Pejabat desa</td>
</tr>
<tr>
<td>5</td>
<td>Tokoh adat</td>
</tr>
<tr>
<td>6</td>
<td>Tokoh agama (imam/pendeta)</td>
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<td>7</td>
<td>Majikan/bos</td>
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<td>8</td>
<td>Punggawa/patron</td>
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<td>9</td>
<td>Tengkulak/bakul pengijon</td>
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<td>10</td>
<td>Bank</td>
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<td>Penggadai</td>
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<td>12</td>
<td>Koperasi</td>
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<td>13</td>
<td>Tokoh politik</td>
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<td>14</td>
<td>Gelandangan</td>
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<td>15</td>
<td>Lainnya (sebutkan)</td>
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</tbody>
</table>

2.6 Apaka anggota rumah tangga minamo nokerjasama nokagotongroyong mai warga atau mia aga’ano i desa ‘ia ana ngaso nakami? (267)

1: Umbee
2: Cia

[i. Sebutkan kagiata urut’e mina yang terpenting:]

[ii. ]

[iii. ]
2.7 (i) Soba kangea'e totolu kagiata pentingino hake i luara rumah tangga biasano kapadane'e ngaso kapantinga masyarakat to'aru i taku nitalaku 'ia ana (ii) jenisino kagiata (iii) pihak impa'a madane'e'atu gumerakie? (iv) apaka partsipasi ruma tangga 'ia ana i lalo kagiata-kagiata 'ia leo?

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<tr>
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<tbody>
<tr>
<td>Kegiatan i</td>
<td>(268)</td>
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<tr>
<td>Kegiatan ii</td>
<td>(269)</td>
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<tr>
<td>Kegiatan iii</td>
<td>(270)</td>
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<td>(279)</td>
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</tr>
</tbody>
</table>

2.8 Menurut isimiu, kegiatan-kegiatan para'a kira-kira parluu tamigau ngaso kepentinga masyarakat to'aru nabita na'ipua?

Kagiata i

(292) __________________________________________________________________________
(293) __________________________________________________________________________
(294) __________________________________________________________________________

Kagiata ii

(295) __________________________________________________________________________
(296) __________________________________________________________________________
(297) __________________________________________________________________________

Kagiata iii

(298) __________________________________________________________________________
(299) __________________________________________________________________________
(300) __________________________________________________________________________
(301) __________________________________________________________________________

2.9 I lalono po’a’alea’a mai masyarakat aga’ano i desa ‘ia ana, apaka keluarga ‘ia ana nopitabu kadawu bara atau kama’a atau aga’ano mina i sarimbanua atau keluarga aga’ano i desa ‘ia ana i wula nitaliku ana? (302)
1: Umbe 2: Cia

*jelaskan* __________________________________________________________________________

2.10 I lalono po’a’alea’a mai masyarakat aga’ano i desa ‘ia ana, apaka keluarga ‘ia ana nopikadwu bara atau kama’a atau aga’ano ngaso sarimbanua atau keluarga aga’ano i desa ‘ia ana i wula nitaliku ana?(303)
1: Umbe 2: Cia

[Jelaskan] __________________________________________________________________________
3.0 PAMARINTAHAN DAN HAL PENTING/MASALA DESA

3.1 Menurut isimi atau anggota rumatanga ʻia ana, tantanga toʻowa paraʻa nihadapino masyarakat, mai peluang atau kasampata paraʻa ngaso niharapu i desa ʻia ana sakarana?


1. (304) ____________________________

2. (307) ____________________________

3. (310) ____________________________

3.2 Pa'impá'a carano informasi utama mengenai tantanga haleo ʻari sokaprosesie atau sokamo'ombaso masyarakat?

1: Pertemuan formal [sebutkan lewat kelompok/organisasi yang mana]

2: Diskusi informal melalui masyarakat [sebutkan jalur]
3: Pengumuman untuk publik  [sebutkan sumber]
4: Sura kabara
5: Radio
6: TV
7: Lainnya  [sebutkan]  ________________________________

1. (313)__________________________________________________
2. (314)__________________________________________________
3. (315)__________________________________________________

3.3 Menurut isimiu atau anggota rumatangga miu, pihak impa’e cumocono hake ngaso murusano isu atau tantanga to’owa ‘ia ana?
(316)_____________________________________________________
(317)_____________________________________________________
(318)_____________________________________________________

Pengkodean sbb:
1: Tokoh adat
2: Tokoh agama
3: Tokoh masyarakat yang lain (catat yang mana: guru, pengusaha dll)
4: Pegawai / anggota koperasi
5: Pegawai RT/RW
6: Pejabat/pegawai pemerintah di tingkat dusun
7: Pejabat/pegawai pemerintah di tingkat desa
8: Pejabat/pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9: Penyuluh departemen pemerintah
10: Fasilitator / anggota LSM
11: Teman/saudara/tentangga
12: Orang lain (sebutkan)
3.4 Apaka dane’e anggota rumatangga ‘ia ana humokolono langso hoja’anu hal pentingi ‘ia leo? *(319)*

1: Umbee  
*[sebutkan cara dilibatkan]*  
2: Cia  
*[sebutkan cara dilibatkan]*

3.5 Ane cia cukahumokolo langsung, apaka anggota rumatangga ‘ia ana minamo nodawu pendapa atau usulu ngaso masala ‘ia leo ari lewati wakili? *(320)*

1. Kepada pemimpin atau wakil organizasi tingkat desa/dusun  
*[sebutkan pihak yang mana/siapa]*  
2. Dengan cara lain  
*[sebutkan]*  
3. Cia

3.6 Apaka masyarakat to’aru nopuasi mai cara ala’ano kaputusa mengenai perencana’a mai atura i desa ‘ia ana? *(321)*

1. Puasi  
2. Puasi uka  
3. Kurang puas  
4. tidak berpendapat

*[catatan]*

3.7 Apaka masyarakat to’aru nopuasi mai usaha pembanguna i desa ‘ia ana? *(322)*

1. Puasi  
2. Puasi  
3. Kurang puasi  
4. Cia dane’e pandapat

*[catatan]*

3.8 Para’e pengelolano anggaran Apakah pengelolaan anggaran/aset kampo nojelasi pali mei cibuka [transparan]? *(323)*

1: Puasi  
2. Puasi uka  
3. Kurang’e puasi  
4: Cia dane’e pandapat

*[catatan]*
3.9 Apaka isimiu atau anggota rumatangga aga’ano kahadirie rapa’a Musrenbang desa i lalono ataku nitaliku ana? (324)
1: Umbe [catata] __________________________________________________________
2: Cia [catata] __________________________________________________________

3.10 Apaka hasilino pororompua Musrenbangdes sakara ‘ia ana nokoguna ngaso kepentingano masyarakat to’aru? (325)

[catata] __________________________________________________________

3.11 Apaka BPD dane’e peranino i desa ‘ia ana? (326)
[catata] __________________________________________________________

3.12 Apaka isimiu mai anggota rumatangga miu minamo kahadiri pororompua resmii dumane’eno i luara desa i lalono a taku nitaliku ana? (327)
1: Umbe [catata] __________________________________________________________
2: Cia [catata] __________________________________________________________

3.13 Apaka minamo noterjadi konflik atau pogegera’a i desa ‘ia ana selama a takuno ari?
[Petunjuk: Lingkari jawaban yang sesuai, dan tulis komentar tambahan kalau ada] (328)
1: Umbee  

[Petunjuk: Ane umbee,buri’e jenis pogegera’a ]  

2: Cia  

3.14 le ‘eno tokoh/pihak/institusi mana yang mia  paselesa konflik/sengketa tersebut?  

(329)  

(330)  

(331)  

Setelah interview code sbb:  
1: Aparat desa dinas (kepala desa dll)  
2: Tokoh adat  
3: Tokoh agama  
4: Polisi/aparat keamanan  
5: Aparat pemerintah diluar desa  
6: Peradilan  
7: Lain  

Catatan: Catat jawaban dan penjelasan atau contoh [nama orang/organisasi; sebanyak tiga kode dapat diberikan kalau relevan]
4 PNPM

4.1 Apaka isimu atau anggota rumatanga 'ia ana minamo kapindongo informasi mengenai Program Nasional Pemberdayaan Masyarakat PNPM(400)

1: Umbee  
2: Cia  
3: Aipomo/cia akumonie pasti

[buri’e jawabano] __________________________________________________________________________

4.2.1 Apaka usulano desa ’ia ana notulisie i proposal kagiata mengenai program PNPM?

(401) __________________________________________________________________________________

(402) __________________________________________________________________________________

(403) __________________________________________________________________________________

koding saja: Lingkari berdasarkan kategory fungsional untuk jawaban tersebut; sebanyak tiga kode dapat diberikan kalau relevan

1: Pendidikan  
2: Kesehatan  
3: Keuangan  
4: Sarana-prasarana  
5: Sosial  
6: Politik  
7: Ekologi (lingkungan/SDA)  
8: Agama  
9: Adat 10: Lainnya (sebutkan)

4.2.2 [Catatan untuk koding saja, bukan pertanyaan untuk responden: untuk peneliti saja: Lingkari berdasarkan informasi dari desa/kecamatan mengenai program PNPM yang sebenarnya diajukan: (404)

1: Banara  
2: Nosala  
3: Cia komunie tentang usulan kagiata

4.3 Apaka isimu atau anggota rumatanga ‘ia ana kapuasi mai penerapano program PNPM desa ’ia ana? (405)

1: Puasi hake  
2: Puasi uka  
3: Kurang puas  
3: Cia dane’e pandapa

[jelasie] __________________________________________________________________________________
4.4 Apaka isimiu atau anggota rumatanga 'ia ana minamo nohokolo proyek i lalono program PNPM? (406)

1: Umbe 
2: Cia 
3: Cia kumonie pasti 

[jelasie] 

[Ane 'umbee']

4.5 I tahap para'a, rumatanga 'ia ana no'ikuti proyek ia leo? (407)

1: Sosialisasi 
2: Perencanaan 
3: Pelaksanaan 
4: Evaluasi 
5: Pengawasan 

[jelaskan] 

4.6 Impa'a pentingino hake i lalono pembahasa proposal ? (408)

1: Pororompua resmi i desa 
2: Pororompua resmii i dusun 
3: Hoja-hoja biasa ciano resmiino i [warung, di rumah tangga sendiri, atau di rumah tetangga dll]

4.7 Inde'eno atau pihak impa'a pentingino hake jumarino sumbereno informasi mengenai PNPM?

(409)

(410)

(411)
Coding sbb:
1: Tokoh adat       2: Tokoh agama       3: Tokoh masyarakat yang lain (catat yang mana: guru, pengusaha dll)       4: Pegawai / anggota koperasi       5: Pegawai RT/RW
6: Pejabat/pegawai pemerintah di tingkat dusun       7: Pejabat/pegawai pemerintah di tingkat desa       8: Pejabat/pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi
9: Penyuluh departemen pemerintah       10: Fasilitator / anggota LSM
11: Teman/saudara/tentangga       12: Orang lain (sebutkan)

4.8 Anemai isimiu atau anggota rumatangga 'ia ana mijari sukamigau proposal baru nga'aso PNPM nabita na'ipua, kira-kira proyek para'a kogunano hake nga'aso masyarakat desa 'ia ana? (412-414)

(412) ____________________________________________________________
(413) ____________________________________________________________
(414) ____________________________________________________________

Kode
7: Ekologi (lingkungan/SDA)       8: Agama       9: Adat       10: Lainnya
5.0 SUMBER DAYA ALAM - SIKAP TERHADAP LINGKUNGAN DAN KONSERVASI ALAM

5.1
5.1.1 Menurut isimiu kapalei atau masala para’a pentingino hake nihadapi i daera sekitar desa ‘ia ana, dane’e hubungano mai lingungkunga mai sumber daya alam?

1. (500) __________________________________________________________
   (501) __________________________________________________________
   (502) __________________________________________________________

2. (503) __________________________________________________________
   (504) __________________________________________________________
   (505) __________________________________________________________

3. (506) __________________________________________________________
   (507) __________________________________________________________
   (508) __________________________________________________________

Kategori koding:

5.1.2 Pihak impa’e murusino masala ia ancu?

1. (509) __________________________________________________________
2. (510)____________________________________________________________________________

3. (511)____________________________________________________________________________

**Coding sbb:**
5.2 Apaka dane'e wuta atau sumber daya alam i daerah 'ia ana pentingino tabeaso najumaga'e masyarakat adat atau pamarinta atau organisasi aga'ano? (512)

1: Umbe

2: Cia

<table>
<thead>
<tr>
<th>5.2.1 Sumber Daya Alam</th>
<th>5.2.2 Sumberno</th>
<th>5.2.3 Otoritas/pihak berwenang</th>
<th>5.2.4 Terancam habisi?</th>
<th>5.2.5 ane nahabisimo, naipi’a?</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. pante</td>
<td></td>
<td>8. Cia akumonie</td>
<td>4. cia akumonie</td>
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<tr>
<td>16. Sumber perairan</td>
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<tr>
<td>17. Jalur hijau</td>
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<td>18. Daerah aliran sungai</td>
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<td>19. Batasi e’e (watershed)</td>
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1. (513) (516) (519) (522) (525)

2. (514) (517) (520) (523) (526)

3. (515) (518) (521) (524) (527)

5.3 Apaka dane'e antara warga desa 'ia ana nokakonflik/nokapogera-gera atau nokamarugi gara-garan peraturan perlindungano SDA haleo? (528)

1: Umbe [buri’ie’eno mei karugiano]
2: Cia
3: cia akumonie

5.4 Apaka dane’e anggota rumatangga ‘ia ana terlibatno i lalono pembahasa mengenai penetapan atura perlindunga SDA ‘ia ana?(529)
1: Umbe  [ie’eno meiperanannya] _____________________________________________
2: Cia
3: cia akumonie

5.5 Apaka isimiu kadukue penetapan perlindunga SDA (hutan, tai, dll) haleo? (530)
1: dukue hake    2: Dukue uka aide-ide    3.Cia sokadumukue, mai cia uka sukatatangie
4: Tantangie
5: Tantangie hake

5.6 Ane kadukue, apaka isimiu atau anggota rumatangga aga’ano minamo kabantu pengelola’ano mai pengawasiano sumber daya alam haleo? (531)

1. Umbe  [Petunjuk: buri’e ie’eno mei carano kegiata/ kahamba] _____________________________________________
2. Cia    [Petunjuk: jika tidak mendukung, bagaimana sikap terharap pergunaan areal/SDA itu?] _____________________________________________
# 6.0 Pemanfaatan Sumber Daya Alam Lindung

6.1 Apakah masyarakat desa 'ia ana nomincuru atau sering kapadane'e kegiatan-kegiatan i lepeno atau i lalono daerah cilindungi haleo? \(\textbf{600}\)

| 1: Umbe | 2: Cia | 3: Tidak Relevan |

\[\text{ane umbee, jelasi'e:}\]

<table>
<thead>
<tr>
<th>6.1.1 Jenis SDA</th>
<th>6.1.2 Lokasi kawasan lindung</th>
<th>6.1.3 Kegiatan **</th>
<th>6.1.4 Jenis perlindung -an</th>
<th>6.1.5 Pergunaan Kapeke'e nga'aso</th>
<th>6.1.6 Minamo kakomasala mai pihak kowenangano?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hutan</td>
<td>6.1.2 Lokasi kawasan lindung</td>
<td>1: Kapimbulna tanama</td>
<td>1: adat</td>
<td>1: kabutuha rmatangga</td>
<td>1: Cia nakumonie/kang ea'e</td>
</tr>
<tr>
<td>2. Hutan bakau</td>
<td></td>
<td>2: Piara binata kokodi (manu dll)</td>
<td>2: pemerinta h</td>
<td>2: ka'asoe 3: Doruae</td>
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<tr>
<td>3. Tai/danau</td>
<td></td>
<td>3: Piara binata to'owa (sapi, dll)</td>
<td>3: dorua'e</td>
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<tr>
<td>4. Pante</td>
<td></td>
<td>4: Piara isa</td>
<td>4: aga'no</td>
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<tr>
<td>5. Sumber perairan</td>
<td></td>
<td>5: Pitambu/kakumpulu tanama ciano sau (tanama ngaso kombi, buah2, kalapa sawit, dll)</td>
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<tr>
<td>7. Daera lumewatie kumele</td>
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<td>7: Berburu</td>
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<tr>
<td>8. Penambangan</td>
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<td>8: Penambangan</td>
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### 7.0 ENVIRONMENTAL PROGRAM INTERVENTION - ACCESS / WWF / TNC / GREEN KDP/OTHER LSM

#### 7.1 Apaka isimiu atau anggota rumatanga 'ia ana minamo kahoja-hoja'aso masalah programuno ACCESS/WWF/LSM i waru ka, i rumatangga ka, atau ka'mpa'a hake i tampa ciano rumesmiino? (700)

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[Petunjuk: Lingkari dan catat komentar/penjelasan]  

7.1.1 Menurut informasi yang anda terima, bagaimanakah program atau kegiatan Organisasi tersebut? (701)

[702]  

[703]  

[Petunjuk: buri’e jawabano]  

**Koding:**  
1: Pendidikan 2: Kesehatan 3: Ekonomi (kredit/penghasilan dll]  
4: Sarana-prasarana 5: Sosial  
6: Politik 7: Ekologi (lingkungan/SDA) 8: Agama 9: Adat 10: Lainnya
7.1.2 [Catatan untuk koding saja: Lingkari/ masukkan menurut informasi dari LSM, apakah jawaban 7.1.1 sesuai dengan keadaan] (704)
1: Banara  2: Nosalah  3: Tidak tau/yakin tentang kegiatan LSM

7.2 Apaka isimi atau anggota rumatangga 'ia ana minamo kapindongo informasi atau kabara mengenai program ACCESS/WWF/LSM? (705)

1: Umbee ______________________________________
2: Cia ______________________________________

7.3 [Ane 7.2 umbe'] I tahap atau i bagia para'e rumatangga 'ia ana noterlibat i lalono proyek 'ia leo? (706)

1: Sosialisasi  2: Perencanaan  3: Pelaksanaan  4: Pengawasan  5: Evaluasi

7.4 Menuru isimi proses impa’a pentingino hake i lalono pembahasa proposal kegiatan haleo? (707)

1: Pororompua resmii i desa
2: Pororompua resmii i dusun
3: Hoja-hoja biasa i.... ___________________________ [Petunjuk: catat dimana – misalnya warung, di rumah tangga ini atau tetangga]

7.5 Pihak impa’e mijarino sumber informasi mengenai program [ACCESS/WWF/LSM/ Lain]? (708)_________________________________________________________

(709)_________________________________________________________
Coding sbb:
1: Tokoh adat  
2: Tokoh agama  
3: Tokoh masyarakat yang lain (catat yang mana: guru, pengusaha dll)  
4: Pegawai / anggota koperasi  
5: Pegawai RT/RW  
6: Pejabat/pegawai pemerintah di tingkat dusun  
7: Pejabat/pegawai pemerintah di tingkat desa  
8: Pejabat/pegawai pemerintah di tingkat kecamatan/kabupaten/propinsi  
9: Penyuluh departemen pemerintah  
10: Fasilitator / anggota LSM  
11: Teman/saudara/tentangga  
12: Orang lain (sebutkan)

7.6 Ane isimi atau anggota rumatangga ‘ia ana mijari sukasigau proposal baru i ACCESS/WWF/LSM ngaso masa depan, mnurut isimi proyek atau kagiata para’a kogunano hake nga’aso masyarakat i desa ‘ia ana?

Kode:
1: Pendidikan  
2: Kesehatan  
3: Keuangan  
4: Sarana-prasarana  
5: Sosial  
6: Politik  
7: Ekologi (lingkungan/SDA)  
8: Agama  
9: Adat  
10: Lainnya

7.7 Apaka isimi (atau anggota rumatangga minamo kabundo i pororoempua/per temua resmii ngaso kabahasi program? (714)
1: Umbe  [jelaskan yang mana]  

[710]  

[711]  

[712]  

[713]  

[714]
2: Cia

7.8 Apaka isimi ku kapuasi mai pertemu ‘ia haleo ngaso sokamarato aspirasino masyarakat desa?

(715)
1: Puasi hake  2: Agak/cukup puas  3: Kurang puas  3: Cia dane’e pandapa

[jelasie] ____________________________________________________________

7.9 Apaka kadane’eno atau peranano program ACCESS/WWF/LSM ‘i desa ‘ia ana nokoguna?(716)

[Petunjuk: Lingkari jawabannya, dan catat komentar tambahan jika ada]

1: Nokomanfaat pali  2: Agak/cukup bermanfaat  3: Kurang bermanfaat  3: Cia dane’e pandapa

[jelasie] ____________________________________________________________

7.10 Apaka isimi ku atau anggota rumatanga ‘ia ana minamo kahoja-hoja’asos masalah programuno ACCESS/WWF/LSM i waru ka, i rumatangga ka, atau ka’mpa’a hake i tampa ciano rumesmiino? (717)

1. Umbe  2. Cia

[jelasie] ____________________________________________________________

7.11 Apaka isimi ku atau anggota rumatangga ‘ia ana kapuasi mai penerapano program ACCESS/WWF/LSM i desa ‘ia ana? (718)

1: Puasi hake  2: Puasi uka  3: Cia wala kapuasi  3: Cia mane’e pendapa

[jelasie] ____________________________________________________________
8.0 COOPERATIVE INVOLVEMENT/JARINGAN DAN TINDAKAN BERSAMA

8.1 Apaka isimiu atau angota rumatangga ‘ia ana minamo kapijari anggota koperasi? (800)

1. Umbe  Jelaskan nama dan tujuan koperasi itu] __________________________________________________________
2. Cia

8.1.1 Ane ka'umbe: apaka isimiu dane'epo kajari anggota koperasi? Kajelasie mo'apa dane'epo kajari anggota?

(801)
1: Umbe
2: Cia

[Penjelasan alasano]____________________________________________________________________________________________

8.2. Apaka isimiu dane'epo nojari atau kamampo'e anea wawancara simiu ‘uka nabita na'ipua mengenai penilitian ‘ia ana? (802)

1: Umbe
2: Cia
3: Barangkali
9.0 **PETUNJUK: Komentar penanya terharap keadaan interview**

9.1 Sikapuno mia niawancara I matano pewawancara *(900)*

1. Sangat responsif/ramah  
2. Cukup responsif  
3. Segan / terganggu

*Komentar: __________________________*

9.2 Kesnino mia tumanya mengenai keadaan sosio-ekonomi rumatangga mai keadaan realatif nobandingasie mai keada'ano desa sawuta'e *(901)*

1. pra-seajhetera  
2. Seajhetera  
3. Sejahtera plus

*Komentar ________________________________*
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