The Five Capitals Framework for Exploring the State of Friends’ Groups in Perth, Western Australia: Implications for Urban Environmental Stewardship

Subas Prasad Dhakal
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Abstract: Community groups have become a vital component of urban environmental stewardship initiatives in Australia. The contributions of these groups are imperative in cities like Perth where nearly two-thirds wetlands/bushland ecosystems have been lost in the past 150 years and the remnant ecosystems are continually under threat from the potential redevelopment. It is estimated that more than 400 community groups known as Friends’ Groups (FGs) are active in the Perth area. FGs are engaged in activities that range from managing urban nature reserves to the mounting of public campaigns against unsustainable development. However, the state of FGs in the Perth area remains virtually an unexplored subject matter. This paper responds to this gap and investigates the capabilities of FGs using the five capitals framework. Analysis of quantitative and qualitative data (survey of 50 FGs and 4 interviews) suggests that ad hoc financial assistance from government agencies alone is inadequate to secure the future of FGs. Based on the findings; this paper recommends a holistic support mechanism to strengthen FGs so that they can be better equipped in undertaking urban environmental stewardship initiatives in the future.

Keywords: Friends’ Group, Five Capitals Framework, Perth, Urban Environmental Stewardship

Introduction

THE NOTION OF ‘environmental stewardship’ means different things to different people. Several authors have pointed out that environmental stewardship as an idea is rooted in various religions (such as Buddhism, Christianity, Hinduism, Islam) that provide ethical motivations for not harming the environment (Beavis, 1994; Dwivedi, 1994; Berkes, 2001; Khalid, 2002). More generally, environmental stewardship recognises that community groups representing members of the local community are cognizant of the urban environmental challenges, and overcoming such challenges requires government agencies to work closely with the community groups in order to identify environmental concerns, set priorities, and implement sustainable development strategies (Gardner, 1993; Svendsen and Campbell, 2008). Urban environmental stewardship (UES) is therefore about community-based collective actions that aim to safeguard the well-being of the urban environment. Over the last two decades, sustainable development policies and funding mechanisms in Australia, such as the National Landcare Program (NLP) and the Natural Heritage Trust (NHT), and state level strategies in Western Australia, like the Bush Forever and Urban Nature have extensively relied on community groups in order to implement various UES initiatives.

It is estimated that there are at least 5,000 community groups of different types that are engaged in stewardship of the local environment in Australia, such as ‘catchment’, ‘care’
groups, ‘watch’ groups, ‘friends’ groups, and so on (Youl et al., 2006). Friends Groups (FGs) in particular are neighbourhood-based organisations that are primarily focused on being the custodians of urban environment (e.g., cleaning up rubbish, planting trees, and removing weeds). These organisations have become a vital component of UES which ranges from managing urban nature reserves to the mounting of public campaigns in order to curtail unsustainable development. Although the overall number of FGs across Australia is not well known, it is estimated that there are about 400 FGs active in the Perth area (O’Byrne, 2006). FGs are often established either directly through local community commitment to a particular environmental issue or as a result of encouragement from state agencies to provide more formal representative groups across catchments and neighbourhoods. The functioning of FGs is based on the notion and practices of volunteering where neighbours as well as local community members provide time and energy in order to care for, conserve, preserve, maintain and educate the community about the environment (Dhakal and Paulin, 2009).

The contributions of FGs are imperative in cities like Perth where nearly two-third wetlands/bushland ecosystems have been lost in the past 150 years and the remnant ecosystems are continually under threat from the potential redevelopment (Davis and Froend 1999; Stenhouse 2004; Dhakal, 2010). However, the state of FGs in and around Perth remains virtually unknown. This paper responds to this gap by reporting on one aspect of a 2008 survey of environmental groups undertaken to develop a broader understanding of the implications of the linkage between organisational social capital and information and communication technologies for strengthening local environmental stewardship in the Perth region of WA. The aim in this paper is to explore the state of FGs using the five capitals framework. Firstly, the paper introduces the five capitals framework and provides a rationale behind using the framework. Secondly, the method used in the study, and the results and discussion are presented. Finally, the paper concludes with the contention that FG’s contributions in UES in and around Perth is likely to falter without a holistic support mechanism to strengthen these organisations.

The Five Capitals Framework

The basic premise behind the five capitals framework (FCF) is that the negative externalities of free-market, e.g. environmental degradation cannot be addressed without comprehending some of the insights of capitalism (Porritt, 2006). In this context, it is necessary to first understand what capital means. Lin (2001) defines capital as ‘an investment of resources with expected returns in the marketplace’ (p. 3). There are at least five forms of capital identified in the relevant literature, namely; financial, human, natural, physical and social. Financial capital refers to money or wealth that facilitates productivity. Human capital refers to people’s health, knowledge and skills that are either inherited or acquired through education or training. Natural capital encompasses a spectrum of natural assets (e.g. land, water, organisms) in the natural environment that provide environmental benefits through ecosystem services (e.g. forests, wetlands) services such as clean air and fresh water. Physical capital refers to material infrastructure and manmade equipments such as highways and computers. Finally, social capital refers to the social relationships that enable individuals and groups to act collectively (Roseland, 2000; Goodwin, 2003; Moore et al., 2006; Voora and Venema, 2008). The FCF make use of these different forms of capital as an analytical tool to explore the subject of interest (Figure 1).
The rationale behind using FCF was first proposed by Bebington (1999) in the context of designing, implementing and evaluating resources or assets based sustainable livelihood strategies by international development agencies. The FCF is now widely used in exploring community capabilities to address local as well as global environmental challenges (Reddy et al., 2004; Sayer et al., 2007; Nelson et al., 2007, Brown et al., 2010) under the assumption that five forms of capital serve as proxy indicators of community capabilities. This paper also sees the value in using the FCF to examine the state of the FGs in and around Perth. The underlying proposition is that information about overall strength and weakness of FGs, and not just their contributions in UES can provide valuable policy insights to help secure the future of these organisations. Based on the FCF, following indicators (Table 1) of various forms of capital have been indentified in order to assess the capabilities of the FGs.

Table 1: Indicators of the Friends Groups’ Capabilities

<table>
<thead>
<tr>
<th>Capitals</th>
<th>Capabilities</th>
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<tbody>
<tr>
<td>Natural</td>
<td>Accomplish environmental objectives, e.g. protection, restoration, and management of urban nature</td>
</tr>
<tr>
<td>Physical</td>
<td>Adopt and utilise information &amp; communication technologies (ICTs), e.g. Internet access, using email and hosting websites</td>
</tr>
<tr>
<td>Human</td>
<td>Attract and retain volunteers, e.g. volunteer and members affiliation</td>
</tr>
<tr>
<td>Social</td>
<td>Maintain relationships with relevant stakeholders, e.g. affiliation with networks, peak bodies, partnership arrangement</td>
</tr>
<tr>
<td>Financial</td>
<td>Raise adequate funds to support activities, e.g. sources of funding, funding applications, Incorporation cost</td>
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Method

Study Area and Survey

Of the six natural resources management (NRM) regions in WA, the Perth area is situated within the Perth region. The region is spread over an area of 770,000 hectares and incorporates 33 local councils as well as the Perth metropolitan area, the capital city, with a population of approximately 1.5 million (SCC, 2004). A conservation directory maintained by Swan Catchment Council¹ included a list of 72 FGs and their contact details and the survey questionnaire was distributed amongst all FGs (via post) between June and August 2008. Any one leader (chair, vice chair, or secretary and so on) of each of the FG was requested to participate in the survey. Response to the survey was encouraging. A total of 50 (69.44%) usable responses were received. The survey responses (mainly closed-ended) were enhanced by additional comments provided by the respondents on the back of the survey form. Moreover, four face-to-face interviews were also conducted with 4 group leaders between the periods of January and October 2009 in order to enrich survey responses. Interviewees were selected from the survey respondents willing to be contacted further. In order to protect the privacy of the respondents, relevant comments and interview excerpts have been cited using designation of the respondents, and the ID assigned to FGs.

Results and Discussion

On average, responding FGs were formed 11.3 years earlier. The establishment of these groups seems to have concurred with the Federal Government’s funding mechanism, the NHT set up in the mid nineties in order to support local environmental initiatives. More than two-thirds (68%) of the responding leaders were female and most of the respondents (40%) were aged between 61 and 70 years of age. The national data on volunteering captured by Australian Bureau of Statistics (ABS) suggests that slightly more women (2.7%) than men (2.2%) are involved in environment and animal welfare² organisations (ABS, 2007). While the ABS data does not specifically address the leadership in FGs, the survey results do mirror the national trend that more women are involved as environmental volunteers.

¹ The list was publicly available from the Swan Catchment Council (SCC) website (Retrieved October 10, 2007 from http://www.swancouncil.org.au). SCC is now known as the Perth Region NRM and the current website of the Perth region NRM no longer provides the list of community organisations.

² The Australian Bureau of Statistics (ABS) categorises “environmental/animal welfare” organisations as those ‘promoting, and providing services in, environmental conservation, pollution control and prevention, environmental education and health and animal protection’ (ABS, 2007).
Table 2: Educational Qualifications by Gender

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Male (%)</th>
<th>Female (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary School</td>
<td>5 (10%)</td>
<td>8 (16%)</td>
<td>13 (26%)</td>
</tr>
<tr>
<td>TAFE/Trade/Apprenticeship</td>
<td>7 (14%)</td>
<td>11 (22%)</td>
<td>18 (36%)</td>
</tr>
<tr>
<td>Bachelors</td>
<td>1 (2%)</td>
<td>6 (12%)</td>
<td>7 (14%)</td>
</tr>
<tr>
<td>Post graduate</td>
<td>3 (6%)</td>
<td>9 (18%)</td>
<td>12 (24%)</td>
</tr>
<tr>
<td>Total</td>
<td>16 (32%)</td>
<td>34 (68%)</td>
<td>50 (100%)</td>
</tr>
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More than one-third (36%) of the respondents possessed a postgraduate qualification. As Table 2 indicates, a higher percentage of women had a bachelor and a postgraduate level qualification compared to men, whereas a higher percentage of men had a secondary school and trade level qualification compared to women. These findings are also consistent with the national trend on environmental volunteering; that is, more women (46.1%) with at least a bachelor level of education are involved as volunteers compared to men (43.1%) with a similar educational qualification (ABS, 2007). The overwhelming majority (90%) of respondents spent up to 10 hours/week on group-related activities and 74% of the respondents were also involved in other groups, either as leaders, members or volunteers. This trend of involvement in multiple groups is quite high when compared to the national trend which indicates only about 25% of volunteers are involved in two or more groups (ABS, 2007).

Capabilities of FGs

Utilising the FCF, the survey collected opinions of the respondents relating to strengths and weakness of FG’s capabilities in five of the following areas; a) accomplish its environmental objectives, b) adopt and utilise information & communication technologies (ICTs), c) attract and retain members/volunteers, d) maintain relationships with relevant stakeholders, and e) raise adequate funds to support its activities. The opinions were rated on a Likert scale and coded as: weak (-1), neither weak nor strong (0), and strong (1). The mean of the Likert scale responses (Figure 2) indicates that FGs in general are struggling to adopt and utilise ICTs and acquire human and financial resources. Each of the capabilities is discussed in details below.
Accomplishing Environmental Objectives (Natural Capital)

Two-thirds (66%) of the respondents indicated FGs’ capabilities to accomplish its environmental objectives as strong (mean=0.6). FGs were mainly involved in: protection and/or restoration of ecosystems (84%), conservation and/or preservation of biodiversity (76%), and environmental education/awareness (74%). Open-ended responses indicated that some FGs were also involved in activities like planting trees, conducting flora/fauna surveys, controlling exotic species, and minimising bush-fire risks. Some FGs have been successful in achieving their objectives by working in harmony with the local government in order to restore the urban wetlands. For instance, a coordinator of a FG (#24) commented that:

We work in conjunction with the City of Bayswater. As volunteers, we have turned a disused clay pit of the late 1800s into a beautiful lake and surrounding parkland. The birdlife is great at times; black swans and pelicans, also various breeds of ducks and other species visit this lake throughout the year.

In addition, few of the responding FGs have been able to build partnership with government agencies after the initial rocky start. For instance, another FG (#58) was established in 1992 in order to campaign against the proposed destruction of the Brixton Street Wetlands for housing development. This wetland is spread over 30 hectares and is of outstanding botanical significance. It is home to more than 300 species of plants which is equivalent to more than 20% of Perth’s flora in only 0.005% of the area (Phillimore, 2003). During the interview, the convenor recalled that the persistent activism against the ‘unsustainable development’ plan ultimately persuaded government bodies to recognise the importance of one of the remaining significant wetlands in Perth. Consequently, the wetland is now enlisted into the Directory of Important Wetlands in Australia, and is one of the Bush Forever sites in the Perth area. In recent years, this FG has been working closely with the Department of Envir-
onment and Conservation in minimizing the bushfire risk, erecting the fence, collecting and planting seedlings, removing rubbish, and controlling weeds. On contrary, some FGs seemed to have accomplished their objectives, and are engaged in environmental stewardship activities as per the need. For instance, a ‘volunteer organiser’ of a FG (# 53) commented that:

We are a typical local community group, formed from neighbours who care about our small reserve. It was infested with Watsonia (now largely cleared) + [sic] we have replanted certain areas. But our efforts are ad hoc and subject to time constraints. The bush is in reasonable condition now + [sic] our group would be more active and engage with other community groups more often in the event of a perceived threat e.g. fire, vandalism, clearing. At the moment we are more like vigilant custodians of the bushland than active environmental workers.

These different accounts described above demonstrate the diverse nature of FG’s contributions in order to safeguard natural capital in Perth.

**Adopt and Utilise ICTs (Physical Capital)**

More than one-third (36%) of the respondents indicated FGs’ capabilities to adopt and utilise ICTs as weak (mean= -0.14). This sentiment is validated by the fact that 16% of responding FGs neither had access to the Internet nor used email. For instance, a coordinator of a FG (# 48) wrote on the back of the survey form that:

Most of our work/time is hands-on, which doesn’t leave much time for admin. An advantage of telephone over email, [is that] you actually know whether your message has been received.

It is also likely that there is little perceived need for FGs to have access to ICTs. For instance, a coordinator of a FG (# 13) commented that:

Ours is a small volunteer group looking after a small reserve in the City of Armadale. We receive some help [regarding ICTs] from CoA [City of Armadale] but our need for ICTs is very limited.

Only 14% of responding FGs reported hosting websites. The trend of website uptake amongst FGs was discouraging; especially when compared to the 2002 national survey conducted by Centre for Community Networking Research which indicated over 61% of community groups were already hosting websites (Denison, 2003). Nonetheless, the findings are consistent with the 2002 working article published by Centre for Community Organisations and Management which reiterated one of the common speculations about ICTs use in community groups; that is, smaller groups (in terms of size and resources) were less likely to adopt websites (Stewart-Weeks and Barraket, 2002). The lack of enthusiasm towards email and low uptake of websites suggests an element of resistance towards ICTs perhaps due to the lack of skills or know-how. Not surprisingly, 68% of responding FGs identified the lack of capability to utilise and benefit from ICTs as a main barrier. Furthermore, cost associated with ICTs was also a barrier for some FGs. For instance, a convenor of a FG (# 45) commented that:
[Benefits of ICTs] depend on community group’s ability to afford broadband as it is getting hopeless to access websites on a dial-up.

The feedback of the convenor is similar to the account of a coordinator of another FG (# 8) who reported that some group members could not afford faster broadband access to the Internet and had trouble downloading larger environmental reports because of a slow dial-up connection.

These findings are consistent with the observations of Kirschenbaum and Kunamneni (2001) and Katz and Rice (2002) that community groups in general have weaker capabilities to utilise ICTs as a tool to advance their missions. Although it might be the case that not every FG has the need to rely on email or host website, as ICTs become increasingly ubiquitous, FGs that are either unable to or unwilling to adopt ICTs are likely to be disadvantaged further.

**Attract and Retain Members/Volunteers (Human Capital)**

More than one-half (56%) of the respondents indicated FGs’ capabilities to attract and retain members and volunteers as weak (mean= -0.48). Human capital capability of FGs was the weakest of the five capabilities. 52% of responding FGs had less than 10 members and 48% of FGs had less than 10 volunteers. The national trend in Australia indicates that there was a slight increase in the percentage of environmental volunteers from 1.1% in 2000 to 1.2% in 2006 (ABS, 2007). However, the general feeling across responding FGs was that volunteering has declined. For instance, a convenor of a FG (# 58) commented that:

Losing older volunteers to age, disease and death; have trouble getting younger volunteers who are prepared to work for nothing; hard to get people to commit to be at the wetlands every work morning.

This statement from a convenor raises two possibilities. First, it might be the case that the call for environmental volunteering from FGs is not reaching the younger age-groups. Second, as the ABS (2007) data suggests that younger age-groups are generally less interested in environmental volunteering. In addition, some of the FGs also felt that volunteers in general were not valued by government agencies. For instance, a chairperson of a FG (# 43) said in an interview:

Our volunteers provide enormous benefits to the local community ... they [the local government] save a huge amount of money from our work ... also the community benefits immensely as well ... because volunteers do a beautiful job ... not just planting trees but also in making sure they survive. However, local council is not very supportive.

These findings are consistent with the observations of Safstrom and O’Byrne (2001) who suggest that the voluntary contributions of community groups are generally under-appreciated.

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3 The national trend indicates that the overall percentage of Australians volunteering has actually increased from 31.8% in 2000 to 35.1% in 2006 (ABS, 2007).
4 The ABS (2007) indicates people aged between 35–44 make up 43% of the total volunteers (p. 4). Of the 43%, only 1.6% of people aged 35-49 are involved in environmental/animal welfare organisations versus 38.6% in sports/physical recreation organisations (p. 47).
by the state agencies. Clearly, when volunteers feel that they are the ones looking after the bushland/wetlands that the government authority has neglected but get little appreciation for their efforts in return, the business of recruiting and retaining volunteers obviously becomes difficult.

**Raise Adequate Funds to Support Group Activities (Financial Capital)**

Only one-fifth (20%) of the respondents indicated FGs’ capabilities to raise funds to support group activities as strong (mean = -0.24). Governmental (70%) and non-governmental (64%) grants were the top two sources of funding. The following interview excerpt provides an additional insight to the challenges faced by FGs in acquiring financial resources. A chairperson of a FG (# 43) said:

> The administrative burden associated with their [local council’s] funding applications is the main concern. We had to provide detailed maps and photographs in the proposal ... [so] it became too complicated ... another problem was the breakdown of finances ... so onerous ... now we don’t bother ... so we do it ourselves.

In this context, a comment from a president of a FG (# 18) is also worth noting:

> The business of recruiting volunteers and finding money is a hard one. We produce a newsletter at the beginning of the year (600 copies) + place in all mailboxes in the area. We sometimes succeed in financial support but not in active volunteering. We have a core group of volunteers who come along for a couple of hours a month and the committee (6 people) make up half the number of volunteers on that day. Without the much needed volunteers and money to cover basic expenses we are not sure how long we can last.

The other factor associated with the hardship in acquiring financial capital amongst FGs in the Perth area was having an Incorporated Status. Only 28% of responding FGs were incorporated. Some of the advantages of incorporation are that individual members limit their exposure to personal legal liability, bank accounts can be opened in the name of the group, and a group can directly apply for government grants as well as hold property. Yet, a coordinator of a FG (# 8) stated in an interview:

> Having an Incorporated status makes us eligible for more funding options … [but] the cost of being incorporated and conditions attached to it, having an annual general meeting every year, auditing and other administrative work, are beyond the means [of our group] at the moment. Instead, we have an affiliation with a local umbrella group and any funds or the cheques get processed through them.

This statement suggests that one-off application fee for incorporation (currently about $126), and conditions attached with maintaining an incorporated status may have prevented some of the responding FGs from being incorporated. Nonetheless, these accounts are also consistent with the observations of Curtis et al. (2002) and Carr (2002) that community groups engaged in environmental stewardship initiatives across Australia generally operate in challenging circumstances where the availability of financial resources is uncertain.
**Maintain Relationships with Relevant Stakeholders (Social Capital)**

More than half (56%) of the respondents indicated FGs’ capabilities to maintain relationships with relevant stakeholders as strong (mean = 0.34). 44% and 50% of responding FGs were affiliated with peak/umbrella bodies and local/regional environmental networks respectively. Many of the FGs seem to have benefited from affiliations with peak bodies. For instance, a coordinator of FG (# 82) stated that affiliation with the peak body, the Swan Catchment Urban Landcare Programme (under the Swan Catchment Council, now known as the Perth region NRM) has been quite helpful for technical matters such as preparing the management plan of the reserve. Similarly, some FGs considered affiliations with the networks being extremely fruitful. For instance, a coordinator of a FG (# 58) in an interview said:

> Our affiliation with the South East Regional Centre for Urban Landcare (SERCUL) goes back several years. We cannot always keep track of the events ... you know ... when and where the funding opportunities are ... things like that ... and people there [SERCUL] are always helpful in letting us know [about the funding]. They are good bunch of people ... they always support us with [organising] various community awareness activities. This year we have invited the frog doctor to give a talk at the Kenwick community centre with their support ... hopefully we will also be able to raise funds on that day.

More than two-third (72%) FGs were also engaged in partnership arrangements, of which the majority (36%) of partnerships were with governments agencies. The partnerships have been a key to overcome financial and human resources for some FGs. For instance, a coordinator of a FG (# 82) talked about partnership arrangements with the catchment group and the local fire brigade. He stated that the catchment group generally assisted in finding grants as well as in putting together funding applications for joint projects. Similarly, the fire brigade volunteers were particularly handy when a large number of helpers were needed (on a few occasions) for planting trees or cleaning up the nature reserve.

These accounts exemplify the significance of group capability to utilise inter-group relationships in order for FGs to acquire human, financial and physical resources. The findings are also consistent with a view of that ability to harness relationships with bridging organisations, such as peak bodies and networks is crucial for the continued existence of community groups (Brown, 1991; Edwards and Foley, 2004).

**Concluding Remarks**

This paper has explored the state of 50 FGs operating in the Perth area of WA using the five capitals framework. It found that most leaders were aged between 41-70 years of age and more female leaders responded to the survey than their male counterparts. FGs in general had strong capability to accomplish environmental objectives despite indicating weaker capability in terms of acquiring adequate human and financial capital as well as adopting and utilising ICTs. Most FGs relied on financial support from government agencies (either in the form of grants or the assistance from local government). While affiliations with the networks and partnership arrangements helped some FGs to acquire funding, volunteers, and host websites, FGs in the Perth area struggled with human, financial and physical capital.
The findings suggest that ad hoc financial assistance from government agencies alone is inadequate to secure the future of FGs. A recent policy shift towards the regional-scale (versus local) environmental approach has substantially reduced the availability of funding opportunities and other support for locally operating FGs in recent years (Paulin, 2007). Like Gooch and Warburton (2009) suggest, it is obviously hard to maintain enthusiasm and motivation of volunteer-dependent community groups without the availability of adequate financial resources. The fact that government agencies are the primary source of financial support as well as the main partners of FGs reflects on mutual interests of government agencies and community groups in urban environmental problems. However, these are also the issues which government agencies have been either unable or unwilling to tackle (or are even the cause themselves) on their own, thereby persuading community members to take action. While this paper focuses on FGs in the Perth area, the need to build capabilities of FGs so that they are better equipped to address urban environmental stewardship is equally germane for similar community organisations across Australia. Assessment of the state of FGs in the Perth area suggests that these groups have a significant role in undertaking UES initiatives, not exclusively but in harmony with government agencies despite minimal institutionalised support. It is therefore imperative for government agencies to look beyond the ad hoc financial support and formulate a holistic support mechanism that enables FGs to build and maintain social capital in order to strengthen group capabilities.

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Subas has been affiliated with Murdoch University’s Institute for Sustainability and Technology Policy (ISTP) since 2006. His PhD (completed in 2010 from Murdoch) explored the implications of nexus between social capital and ICT towards strengthening urban environmental stewardship in Perth. Subas completed his bachelor level studies (Wildlife Conservation and Management) from Missouri Western State University, USA and masters level studies (Environmental and Natural Resources Management) from Mahidol University, Thailand. His research interests/professional experiences/publications have been in the areas of community based environmental management, environmental education, environmental economics, social capital, and ICTs.
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