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APPROPRIATE TECHNOLOGY DISPLAY CENTRE

by

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INTRODUCTION

The concept of Appropriate Technology was first synthesized by the British economist E.F. Schumacher. He had picked up his insights from self sufficient village development model suggested by Mahatma Gandhi of India. Appropriate technology is "a technology tailored to fit the psychosocial and biophysical context prevailing in particular location and period, (Willoughby 1990) to appropriate technology will have any one or several of the following characteristics (Jequier and Bhane, 1983):

- * low investment cost per work place
- * low capital investment per unit output,
- * organisational simplicity
- * high adaptability to particular social or cultural environment
- * sparing use of natural resources
- * low cost of final product
- * high potential for employment

As environmental awareness has increase in the latter part of 1980's appropriate technology is expected to include the following also:

- * based on renewable energy
- * produces minimum waste
- * consumes minimum energy
- * by products should not produce any environmental pollution and
- * encourages a sustainable life style

Appropriate Technology was assumed to be more suitable for developing countries where high technology was not suitable. But due to environmental constraints, appropriate technology has now world wide importance and application.

The proposed Appropriate Technology Display Centre aims to encourage the people of Western Australia to practise the options available in the area of Appropriate Technology.

BACKGROUND

The Remote Area Developments Group (RADG) at Murdoch University was established in 1985 to investigate the problems of small communities in remote areas. Research relevant to these areas has been neglected in the past although the prevalence of ill health, environmental deterioration and lack of appropriate technology suggest there are significant needs. It is widely acknowledged that many people in remote areas, particularly

Aboriginal people do not enjoy the same standards of living and health care as do people living in the cities. The quality of community health and life have their relationships to water supply and sanitation. RADG identified the areas of research to be taken up (Mathew 1988) and began their work by focussing on appropriate technology for water supply and sanitation in remote Aboriginal communities.

The Remote Area Hygiene Facility (RAHF) with pour-flush toilet, shower, laundry, hand washing machine (CAT), chipheater (CAT), solar hot water system and evapotranspiration system for wastewater disposal was designed and constructed as a display unit in a display area established to promote the technology developed by RADG. The display unit was inaugurated in conjunction with a seminar in 1989. Later on it was felt that the land area was not sufficient to display all the technologies developed by RADG.

In 1989 the National Health and Medical Research Council offered a Public Health Travel Fellowship to Kuruvilla Mathew to visit appropriate technology centres in many parts of the world and he visited USA, Canada, Netherlands, India and England. The necessities of establishing an appropriate technology display centre was recommended in the report of the visit submitted to NHMRC (Mathew 1989). In 1990 Damian Randle of the Appropriate Technology Centre in Wales visited Western Australia and conducted a seminar about the purpose and function of the centre he is in charge of in Wales. Members of RADG visited the Centre for Appropriate Technology in Alice Springs and the display area which provided added enthusiasm.

RADG has taken up the idea seriously and submitted a request to the Institute for Environmental Science for the establishment of an Appropriate Technology Display Centre. The Institute for Environmental Science has launched a research appeal including this as one of the projects with an estimated cost of establishment of \$200,000. Subsequently a submission with a schematic plan was given to the university to allot a hectare of land for the establishment of the centre.

APPROPRIATE TECHNOLOGY PARKS IN AUSTRALIA

The Centre for Appropriate Technology in Alice Springs has a display area (Walker 1982) and a similar centre is now being established as part of the Remote Area Technology Centre in Pundulmurra College in South Hedland, with the assistance and collaboration of RADG.

According to the study conducted by Cartes and Newman (1991) there are twenty Science and technology parks in Australia developed in association with universities. The Western Australian Technology park near Curtin

University is the only established one in Western Australia and deals with high technology. No other university has established an appropriate technology park.

CREATECH

Don Harrison and his wife Shauna Harrison have suggested the name Centre for Renewable Energy and Appropriate technology (CREATECH) for the display centre.

CREATECH will have the following functions:

- * To provide RADG with an area where their research projects can be developed, tested and displayed
- * To promote RADG projects and products to industry, research organisations, government departments and funding agencies
- * To promote the role and importance of implementing renewable energy options and appropriate technology in general
- * To have an on site office and seminar and display facility where developers, planners, funding agencies, researchers and university people can co-operate and work together for the promoting of appropriate technology.
- * To provide a place where community groups, schools and environmental groups can visit, learn and develop better understanding of appropriate technology
- * To form an appropriate technology reference centre for dissemination of information on appropriate technologies available in Australia and elsewhere.

To achieve the above functions, the display area will be divided into subsections for different displays.

CREATECH DISPLAY DETAILS

To meet the aims and functions of CREATECH the following display will be organised:

- * All the technology developed by RADG will be displayed at the centre. This will include the Remote Area Hygiene Facility, solar desalination unit, wind powered desalination unit, solar lighting facility and pour flush for the toilet. Along with this there will be display boards explaining the work of RADG such as the revegetation of communities, enterprise development projects, and remote area communications.
- * The technologies developed at the Centre for Appropriate Technology in Alice Springs and Remote Area Technology Centre, Pundulmurra College at South Hedland will also be displayed at the Centre.

* There will be separate areas for appropriate technologies on solar energy, wind energy, water supply, waste disposal and other technologies

* A solar house will be constructed to be used as an office and seminar area. The construction of the house will take into consideration the construction techniques and solar principles so that the building will not only house facilities but itself will be also a display.

* Another separate building may be also constructed for display purpose alone. This will house technologies developed outside the university.

* An information dissemination centre with a computer data base of appropriate technology activities from around the world also will be established.

MANAGEMENT

The Centre will be administered by RADG with the appointment of a manager/caretaker. The land belongs to the University. The establishment cost is expected to be funded by the appeal of the Institute for Environmental Science. RADG will seek advice from Murdoch University Energy Research Institute (MUERI) and the Institute of Science and Technology Policy (ISTP) and the Property Office of the University.

The maintenance of CREATECH is expected to be met from grants from government, RADG research funds, rent collected from industries who present displays and from fees collected from the community for use of the Centre,

The location of CREATECH will be on the south side of the proposed science park. All the necessary services are available at the site.

CONCLUSION

The vision of RADG to establish an Appropriate Technology park is a unique attempt in Australia. It may take a few years to establish it completely. The role of the park in promoting appropriate technology will be significant. This will take the form of research and development in appropriate technology as well as training of graduates and undergraduate students. The efforts will help disseminate ideas on a more environmentally acceptable and sustainable life style.

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