Appropriate Technology for Aboriginal Enterprise Development

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RADG has been developing appropriate health technology for use in remote communities in Australia. The greatest need for these technologies has been in Aboriginal communities. In developing appropriate technical artifacts, RADG has confronted two problems. Firstly we require good contact with remote communities for consultation and feedback. Secondly, part of making artifacts appropriate for under-developed countries or regions, is the need to include employment and self-determination as part of the benefits of a technology.

Introduction

RADG has developed various technologies appropriate for use in remote Australian communities. In some cases these have been tested already in Aboriginal communities. In particular, the Remote Area Hygiene Facility (RAHF) has met an immediate demand for ablution facilities. This unit has been built in Kalgoorlie and Newman fringe dweller camps, and in Halls Creek.

Through this process, RADG has developed some concept of appropriate methods of introducing technology to Aboriginal communites and gaining feedback to improve what is developed. In the long term we realise we need data on the effect on the health of the camps when these facilities are set up. This assists Aboriginal communities in deciding whether the ablution facility is worth investing in, and improves the chance of obtaining government funding for further unit construction.

The construction of the RAHF has been generally on-site, and involved Aboriginal labour. Those who wish to work on construction and who do not have the required skills are trained through the local TAFE, for example in welding and metal work. After they have built one or two units, the people generally understand the design and can continue to build more units for new camps or outstations which are set up in the area. Also, most importantly, if any item in the facility breaks down, there are people on hand in the community who can perform minor repairs rather than the people becoming frustrated with technology that never works.

Since these first constructions we have began developing changes to the design, as proposed by the communities. It is hoped that the pride

developed in building their own facilities will encourage the community to care for the equipment. In the long run the income generated from using skills from the community, and eventually setting up an Aboriginal construction company, will increase moves towards self-determination of the Aborignal people of Australia.

Existing Enterprises

Aboriginal people have been setting up their own enterprises at least since 1948 when Northern Development and Mining[1] was formed by the Western Desert Aboriginal people. This was part of a long fight for better conditions which became known as the Pindan movement and attracted support form as far south as Jigalong.

Many Lands Councils and Aboriginal Organisations are now funding and organising the setting up of enterprise schemes. Most are in the area of farming, horticulture, arts and crafts or tourism. Some are in skilled or semi-skilled trades such as glass work in Kalgoorlie and metal work at the Centre for Apprpriate Technology in Alice Springs.

All such enterprises also involve skills in management and accounting, which more and more Aboriginal people are training to do. Also the Aboriginal Enterprise Company has set up a computer accounting system for use in community stores. The program stock takes and assists in the management of the store. Information from each store is networked to the Perth office of the Aboriginal Enterprise Company where analysis can be done and advise given on future ordering for the store. Also this enterprise involves training. The store program has a tutorial so that new people can learn how to manage the store computer system while staying in their community.

Thus there are now a growing number of options for Aboriginal people to develop enterprises that give the opportunity for income to the community and training of Aboriginal people for a wide range of jobs.

Issues in Enterprise Development

Little information is available on the type of enterprises being developed by Aboriginal people in Australia. Jill Byrnes from the Rural Development Centre, University of New England (NSW) ran a national survey of Aboriginal enterprises in 1988/9. In studying enterprises she developed an outline of what issues were important to Aboriginal people when starting up enterprises.

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[1]. *How the West Was Lost* Don McLeod 1984.

The issues which Jill Byrnes studied for each enterprise structure were:
* the objectives of the owners in starting the business. The commercial or economic objective may be very much secondary to social or community objectives.
* the achievements of the enterprise and its progress judged according to these objectives.
* the type of funding support used to start the enterprise and run the business until it is independant.
* The differences found between government policy and action in relation to this funding support.
* the legal structure of the enterprise, such as whether it is a partnership, co-operative, company.
* decision making structure, which is particularily an issue if Aboriginals are not managing the enterprise.
* the employment of Aboriginal and non-Aboriginal people.

In relation to training and skills Jill Byrnes considered:
* strengths, skills and resources that were available to start the enterprise
* the skills needed to run enterprises
* skills being developed while the enterprise is running
* support for the enterprise in terms of finance, training or community support
* support required which is not available.[2]

Such studies are important as reference for starting any further enterprise, as it prevents the same mistakes being made again, and provides positive examples of successful enterprises. These case studies are a rare source of information on generating self-supporting enterprises or enterprise that provide social benefits to the community.

Overseas Examples

Aboriginal groups in the Americas have been struggling with a similar situation of cultural domination and economic oppression. Jill Byrnes also studied economic developments in indigenous communities in Canada. Also little material is available in Australia on Indigenous enterprises in the US, the situation on the Navaho Lands is exceptional, and provides an interesting example.

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2. *Enterprises in Aboriginal Australia: Fifty Case Studies* by Jill Byrnes. Rural Development Centre 1989. pp 2-3

Canadian Aboriginal Enterprises

The Canadian Aboriginal Economic Development Strategy (CAEDS) was introduced by the government in September 1989. The strategy focuses on long term planning and co-ordination between relevant government departments, Aboriginal business and community leaders, provincial (state) governments and the Canadian business community in general. It is federally co-ordinated by the Canadian government.

This strategy resulted from a review of the opportunites and constraints on economic development for Aboriginal people, which are:
* shortage of capital and credit
* lack of education and access to training
* lack of employment experience
* ignorance of government assistance program
* racist stereotypes of Aboriginal people by banks, employers etc.
* complex legal regulations that are designed for urban enterprises and are unnecessary in remote settings3.

The strategy attempts to reverse these situations. It also incorporates a research and advocacy system to provide continuously updated data to the public, governments and Aboriginal organisations about the performance and progress of enterprises. Also it is a means of spreading innovative ideas and information on new business opportunities, business services and support networks.

It is hoped that this process may prevent the problem that exists in Australia where data on the performance of Aboriginal businesses is not generally available and myths and uncertainties breed.

The Canadian Aboriginal Economic Development Strategy is based on the premise that *"Only when Aboriginal people play a significant role in decision-making on program operations are Aboriginal concerns and sensitivities taken into account"* (Government of Canada, 1989, 15).

This is in contrast to the Australian Government policy which is concerned with enabling Aboriginal people *"to achieve broad equity with other Australians in terms of employment and economic status"* (Australian Government 1987, Policy P1, 3). Bruce Walker[4] has pointed

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3. *Aboriginal Economic Independence: A Report on some Canadian Initiatives* by Jill Byrnes The Rural Development Centre University New England 1990.
4. Bruce Walker "Integrated Development Planning" in B. Foran and B. Walke (eds) *Science and Technology for Aboriginal Development,* CSIRO and Centre for Appropriate Technology, Melbourne 1986.

out that equity *"is at variance with the concept of Aboriginal self-determination, unless Aboriginal people choose to adopt a totally western European lifestyle, or vise versa"*

Also an appropriate program of training has been developed in Canada through Native learning centres. Computer programs are used to enable students to have access to all areas of knowledge in their local area, without moving to a large urban centre. Also learning can be at the student's own rate.

Some work has been done in Australia in teaching literacy and numeracy to people from a culture that is very different to the western Eurpoean culture that devised these skills. Often the concepts assumed in these subjects are foreign to the Aboriginal way of understanding. Any strong training program that is developed in Australia for involving Aboriginal people in semi-technical or technical jobs, will have to consider the ideas developed by such studies.

Navaho Nation

The Navaho people have secure land tenure of a large area covering part of Arizona, New Mexico and Utah. This area began as a small area ceded by the US government as a result of the treaty signed with the Navaho people after the US civil war. Since then more land has been purchased by the Navaho people.

On this land many enterprises are run, often in partnership with non-Aboriginal firms outside the Navaho nation. One area in which the people work is in electronics. Most of this work is apparently component insertion on electronics boards and is done for the defence department. The Navaho involvement in defence electronics began during the second world war when Navaho translators were used in sending code as the Japanese could not decode messages in a language structure which they were not familiar with.

Thus some of the Navaho community have maintained some contact with the technology and ideas of computing, electronics and coding. Also the non-Aboriginal community has gained some advantages from the Navajo world view. The example of a technically skilled employment for the Aboriginal people of the US provides encouragement for development of enterprises that enable Australian Aboriginal technical skills and understanding to develop, but hopefully create an alternative perspective to technology to the dominant western European concepts.

Development of Aboriginal Enterprises

If RADG is going to assist the development of Aboriginal enterprises in Australia, some sort of process of assessing the appropriateness of such a process is important. There are various aspects of the enterprise, developed from Jill Byrnes' research, which must be considered:

* cultural aspect - the effect of the enterprise on the culture of the community and the surrounding environment.
* technical aspect - the level of technical skills that can be achieved by the people in the short and the long term and the technical skills that are relevant to their life.
* economic aspect - funds which are required, the market that exists for the product of the enterprise and hence the products to be made. For instance the product may be sold all over Australia and the community mainly benefit from funds, or the main output of the enterprise may be in social benefits to the community.
* organisational aspect - the enterprise can be under community control, or just part of the community, and the people must be represented in some way.
* training aspect - the previous experience that exists with technology and what sort of technology. Theories of cross-cultural education can be used to assist in training.
* interface - the enterprise will relate in various ways to the non-Aboriginal community and some amount of non-Aboriginal skills will be required.

By considering these aspects a framework will develop for ensuring to some extent that the enterprise which evolves is appropriate and of use to the community.

Conclusion

RADG is extending its technology research to look at enterprise development. It is felt that such a focus is important as part of developing appropriate technology artifacts for remote communities. Also it will require development of a fuller understanding of what is appropriate for Aboriginal people in Australia.