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MODEL OF AN ENVIRONMENTAL COMMUNITY SUPPORT SYSTEM: THE LANDCARE MOVEMENT IN AUSTRALIA

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ABSTRACT: At the international level, it is recognised that environmental problems are best handled with the participation of all concerned citizens at the relevant level. However, the development of effective models for promoting citizen participation to solve environmental issues remains a work in process. With the goal of suggesting such a model, this study focuses on the system of Landcare in Australia, a nation-wide movement of community-based natural resource management that has been tackling Australian's serious environmental problems. Through analysing the outcomes of in-field research in Australia, this study describes three characteristic elements of the Landcare movement: establishing a system and a spirit of multi-party partnership throughout the nation; securing coordinators, who with flexibility to adjust to each locale, support local groups; and maintaining a holistic support system from governments who respect the autonomy of local groups. Through the discussion, this study shows the strengths of the three elements such as the diversity of the financial sources; and the challenges regarding the provision of financial and coordinating support to the communities. Also, it shows that there are activities that local groups and their networks within the movement have carried out that aim to overcome these challenges. This indicates that it is effective to establish a program which has a system and spirit of multi-party partnership, secures coordinators, and maintains a holistic support system from governments, for promoting citizen participation to deal with environmental issues.

Keywords: Landcare in Australia, Community-based Natural Resource Management, Voluntary Groups, Citizen Participation, Multi-party Partnership

1. INTRODUCTION

It is recognised that environmental problems are best handled with the participation of all concerned citizens at the relevant level [1]. However, the development of effective models for promoting citizen participation to solve environmental issues is still in its early stages. With the aim of suggesting such a community support system model, this study focuses on the system of the Landcare movement in Australia (here, referred to simply as Landcare).

Landcare is a nation-wide movement of community-based natural resource management born in the state of Victoria in 1986. It has been tackling Australia's serious environmental problems, which have resulted from extensive deforestation and from weed and pest animal infestations begun with European settlement in 1788.

Landcare promotes and supports voluntary groups which plan and carry out various activities in their local area with the purpose of improving the environment. This may include activities such as tree-planting, conservation workshops, demonstrations of sustainable farming, educational events for children and community festivals. The local voluntary groups are managed by the local

people themselves [2], [3]. Landcare's effectiveness has been evaluated by the government [4] and research shows that participating in Landcare leads to significantly higher levels of awareness and concern for a range of environmental and social problems among landholders [5]. In 2013, the number of local voluntary groups in the Landcare movement across Australia amounted to over 5,000 [6].

2. PURPOSE AND METHODOLOGY

The aim of this study is to suggest a community support system model that promotes citizen participation in solving environmental problems and to this end describes three main structural characteristics of Landcare. In order to achieve this aim, a model has been constructed by analysing the outcomes of in-field research carried out by the author in Australia, mainly in Victoria, with support from universities, other organisations and individuals from both Australia and Japan [7]-[10]. The in-field research in Australia was carried interviews out through with individuals, observation through participation documentation analysis, during the periods from 24 August to 6 September, 2012, and from 1 June, 2013 to 20 May, 2014.

3. RESEARCH OUTCOMES

Through analysing the outcomes of the author's in-field research, from the perspective of trying to identify the institutional structure, it was found that there are three main characteristic elements which comprise the structure of Landcare:

- Establishing a system and a spirit of multiparty partnership throughout the nation [7].
- Securing human resources who, with flexibility to adjust to each locale, act as coordinators supporting local groups [8], [10].
- Maintaining a holistic support system from governments who respect the autonomy of local groups [9].

3.1 Establishing a System and a Spirit of Multi-Party Partnership

The first characteristic element of Landcare is establishing a system and a spirit of multi-party partnership across the nation. In this section, I will summarise the findings of [7]. The basic unit of Landcare is the local voluntary group called a Landcare group, which is comprised of voluntary individuals, mainly landholders such as farmers.

There are six core related organisations which support and empower Landcare groups and one organisation which supports and connects overseas groups or activities to Landcare in Australia (See Table 1). This network of multi-party partnership works at four different levels; regional, state, national and international.

Table 1 Core related organisations in Landcare (including Landcare groups and Landcare networks which are systems of networking among the Landcare groups)

| Levels | Names of organisations |
|-------------------------|-----------------------------------------------|
| local | Landcare Groups Landcare Networks |
| local/regional regional | Catchment Management Authorities |
| state | Victorian Landcare Council |
| state | Farm Tree and Landcare Association |
| state | State Governments Landcare Australia Limited |
| national | Australian Federal Government |
| international | Australian Landcare International |

3.1.1 Core organisations at regional, state, national and international levels

Ten Catchment Management Authorities (CMAs) function as delivery agents at the regional level in the state of Victoria providing information and skilled staff members, allocating funds, and

facilitating collaboration between individuals, community groups, local organisations, governments, and others.

Three organisations function at state level. The Victorian Landcare Council (VLC) represents the interests of grassroots individuals and local groups to state and federal governments, government agencies, local governments and CMAs. It provides a voice for local Landcare groups with regard to the development of government policy which affects local natural resource management, and in this way assumes the role of partnership building between Landcare members and policy makers. Delegates from Landcare groups and networks, and the staff supporting them, make up the council. The Farm Tree and Landcare Association (FTLA) provides information. governance training and consultation to the groups and to individual members, and also since the 1990s has provided insurance packages to them in case of accident. Within the Victorian State Government Department of Environment and Primary Industries (DEPI) there is a team called the Victorian Landcare Team whose members work at regional or state level.

At the national level there are a further two organisations. Landcare Australia Limited (LAL) works to increase public awareness and develops sponsorship campaigns. It obtains corporate sponsorship funding for Landcare and similar local groups associated with it, and raises awareness of the program, brands and logos of Landcare across the nation. The Australian Federal Government invests in the 56 regional natural resource management bodies across the nation, including CMAs, to support farmers and land managers and encourage conservation in local communities. This is carried out primarily through Regional Landcare Facilitators (RLFs) whose roles will be described later

At the international level, Australian Landcare International (ALI) helps other countries or regions outside of Australia to learn from the Australian Landcare movement, and promotes cross-referencing and learning between different countries or regions.

3.1.2 Support from the organisations and coordinators

The seven identified core organisations and the people collectively called Landcare Coordinators or Landcare Facilitators (here, referred to simply as coordinators, as it is not necessary to distinguish their differing roles) support individuals, the Landcare groups and their activities in various ways by providing information, consultation, funds, volunteers, and know-how about how to access appropriate resources to care for the land.

For example, focusing on the state level, in

Victoria, each CMA encourages landholders, community groups, and governments to address natural resource management issues by providing information, allocating funds, and through communication with local people, communities, organisations and governments.

On the other hand, focusing on the national level, the National Landcare Programme (NLP) was launched, taking its lead from the state of Victoria, with the goal of achieving efficient, sustainable, and equitable management of natural resources throughout Australia. The 56 natural resource management bodies across the nation (including the CMAs) act as delivery agents at the regional level of the NLP. Each of them works with communities to identify regional/local issues to be dealt with and to set regional/local priorities for how funding is to be used. The coordinators who are based at the regional natural resource management bodies link individuals, community groups (including Landcare groups and networks), and funding organisations at the regional level.

3.2 Securing Coordinators to Support Local Groups

3.2.1 Positions and roles of coordinators

The second characteristic element of Landcare is securing coordinators who support local groups including Landcare groups and networks. In this section I will summarise the findings of [8] and [10]. There are six identified coordinator positions working at four different levels; local, regional, state and national (See Table 2).

Table 2 Identified coordinator positions

| Names of positions | Levels |
|-------------------------------------------------------------------------|----------------------|
| Local Landcare Facilitator (LLF) Landcare Project Officer (LPO) | local local |
| / Project Officer / Project Manager | |
| Regional Landcare Coordinator (RLC) Regional Landcare Facilitator (RLF) | regional regional |
| Victorian Landcare Team (VLT)* National Landcare Facilitator (NLF) | state national |

*Note: The VLT comprises the ten RLCs, two theme based state-wide coordinators and the members of the relevant unit in the State Government of Victoria Department of Environment and Primary Industries.

Local Landcare Facilitators (LLFs) and Landcare Project Officers/Project Officers/Project Managers (LPOs) who work at the local level help the Landcare groups or networks to concentrate on the on-ground work by assisting them with administration and other duties. Regional Landcare Coordinators (RLCs) and Regional Landcare Facilitators (RLFs) who work at the regional level support Landcare networks or groups and similar associated groups by providing them with relevant information regarding upcoming events, funding, forums, training for capacity building and allocating funding from the governments in the form of grants.

The members of the Victorian Landcare Team (VLT) who work at the regional and state levels manage the state-wide program of Landcare through allocating funds and by providing information where needed. They hold forums in each region, publish newsletters, and manage a website where people can access information related to Landcare in Victoria.

The National Landcare Facilitator (NLF) who works at the national level plays an advisory role with a special focus on sustainable production in the primary industry sector and the engagement and participation of community groups in natural resource management programs. This role links Landcare in the six Australian states and two territories through communicating with RLFs based in 56 natural resource management bodies across Australia.

In short, at each level, coordinators have promoted the building of a network of partnership among the various stakeholders. Through the four levels of coordination, Landcare as a whole has a structure that enables individuals and groups who need information, volunteers, funding, and knowhow to access these resources.

3.2.2 Motivating local groups to have coordinators and provide training programs

An initiative called the Victorian Local Landcare Facilitators Initiative motivates local groups to have coordinators. In this initiative, the roles and responsibilities of each Local Landcare Facilitator (LLF) are defined in a way that is adapted to the circumstances and needs of the particular area, by each local group which hosts the person who works as a LLF. Thus, this contributes to the empowerment of the local people. The initiative (known as the Victorian Landcare Facilitator Program since 2015) supports Landcare groups and networks in Victoria by providing funds to 60 new LLFs, who are paid part-time facilitators, based on the recognition that "recruiting from within the local community means the facilitators will have a good understanding of the local area and issues and will be able to work more closely with their local groups" [11]. Funding can be used to cover the salary and operating costs of the new position.

It has become apparent that various skills such as "computer skills, sponsorship marketing, mapping and monitoring, project management, publicity and community education" are required of coordinators or facilitators [12]. A one day training program entitled "Secrets to Successful Groups" which is held locally provides coordinators or facilitators with the opportunity to learn about the governance of groups or networks. The training is provided by the Farm Tree and Landcare Association (FTLA) with support from the Regional Landcare Facilitator in that area. The program covers topics such as "Effective Decision-Making", "Legal Duties of Committee Members" and "Volunteer Recruitment", and includes lectures by a staff member of the FTLA, a lawyer, and a specialist in community engagement and facilitation [13]. Through attending this program, participants acquire the basic knowledge needed for managing a group or a network, such as decision-making, risk management, and how to get more people involved.

3.3 Maintaining a Holistic Support System from Governments

The third characteristic element of Landcare is maintaining a holistic support system from state and federal governments. In this section I will summarise the findings of [9]. There are four types of government support (See Fig. 1).



Figure 1 Four types of government support

3.3.1 Providing support through information

The Victorian state government provides information related to Landcare through managing a website called the Victorian Landcare Gateway where people "can find news from Landcare groups and networks, including up-coming volunteer activities and events, resources and toolkits for groups, information on grants and projects, as well as group and network contacts" [14] and through a magazine called "Victorian Landcare and Catchment Management".

At the national level, Landcare Australia Limited (LAL) provides information on its website including a National Landcare Directory where people can find out about specific Landcare groups or networks across the nation.

3.3.2 Providing support through financial assistance

In the state of Victoria, the state government provides funding in the form of Victorian Landcare Grants which are for "on-ground works that deliver on local, regional and State priorities, capacity building activities for land stewardship and on-ground change, projects that promote innovation through experimental trials and pilot programs, start-up funding and maintenance grants to ensure a strong Landcare base across the State, and opportunities to promote Landcare and increase membership and volunteer members" [14].

At the national level, the federal government provides funding through the National Landcare Program and also provides the possibility of tax deductions for landowners incurring capital expenditure for their property improvements.

3.3.3 Providing support through skilled staff

In Victoria, the state government invests in Regional Landcare Coordinators (RLCs), one based in each region in Victoria, and also, the federal government invests in Regional Landcare Facilitators (RLFs), one based in each of 56 regional natural resource management bodies across the nation. These skilled staff provide technical support.

3.3.4 Providing support through motivation

The state government of Victoria provides the Victorian Landcare Awards (VLA) and the federal government provides State & Territory Landcare Awards (STLA) and National Landcare Awards (NLA). The STLA (including the VLA) are held "to acknowledge the success and achievements of community Landcarers, groups, networks, and organisations who have been working to protect and restore our environment". The winners of some categories will go on to represent their state or territory at the NLA [15].

4. DISCUSSION

Landcare has an established system for supporting communities, and there are a variety of strengths and also some challenges in this system. In this section I will point out both the strengths and challenges, and then, strategies for overcoming the challenges.

4.1 Strengths of Landcare

4.1.1 Offering opportunities for various stakeholders to contribute to their local environment

The structure of multi-party partnership in Landcare provides opportunities for companies, schools, and individuals to contribute to improving or regenerating their own local environment. For example, Landcare has been regarded as a valuable activity for companies wishing to invest in the environmental sector. Furthermore, Landcare provides opportunities for in-field education about the local environment for local school children, and it also provides opportunities for elderly persons to connect with the community through Landcare groups enabling them to sustain social connectedness through working with others for their local environment.

4.1.2 Protecting and enhancing local knowledge about the natural environment and culture

Securing coordinators who support local groups in Landcare protects and enhances local knowledge regarding the natural environment and culture which has been passed amongst individuals and from one generation to the next within each local community. As shown in the previous sections in this paper, the initiative called the Victorian Local Landcare Facilitators Initiative (known as the Victorian Landcare Facilitator Program since 2015) and the training program organised by the Farm Tree and Landcare Association support local Landcare groups and networks to employ and improve the skills of coordinators who are familiar with the local environment and communities. Such initiatives and programs improve the management of the local groups and expand the range of their activities while protecting and enhancing the local knowledge in local communities.

4.1.3 Improving cost efficiency for governments

Through promoting Landcare, the efficiency of solving environmental problems and managing natural resources from a government perspective is improved. It is more cost effective for governments to support and promote maintenance of the local environment by local groups at the local level, than to carry out the same activities using public expenditure [16].

4.1.4 Encouraging sustainable management and development of the local groups and networks

Continuous economic support towards local Landcare groups and their activities is ensured based on the diversity of the financial sources such as state and federal governments and Landcare Australia Limited (LAL) who provide or allocate grants to local groups and their activities. Because Landcare groups are basically self-funding, they won't immediately cease to function even if some of the financial support from governments or others is withdrawn. Due to the diversity of the financial sources in Landcare which result from its multi-party partnership structure its economic base is strong.

The holistic support from state and federal governments promotes the sustainable management of local groups and networks by strengthening the economic, informational, technical and motivational bases of Landcare. Examples of government support include providing grants which promote and support establishment of new groups and networks, publishing magazines, managing websites, and funding coordinators who provide information or advice related to natural resource management ranging from know-how regarding conservation to group management. This supports management sustainable group and the development of strategies.

4.2 Challenges of Landcare

4.2.1 Aging of local group members and limited number of younger participants

The aging of local group members and conversely the limited number of younger participants is an ongoing challenge. Government staff and the staff members of CMAs have been trying to encourage and to support Landcare groups to get more people involved [17]. For example, the use of social media has been encouraged as a means of contacting and promoting communication with other people outside the group who may be interested in its activities [17].

4.2.2 Excessive workload of coordinators

The Victorian Local Landcare Facilitators Initiative (known as the Victorian Landcare Facilitator Program since 2015) stipulates that the role of coordinators is to help local groups become self-sustainable and also, that day to day administrative work for group management and activities are not the coordinator's role. However, their workload remains huge, especially regarding paper work related to reports and fundraising. This makes it difficult for coordinators who are employed part-time to sustain their role due to limited work time and salary [18]. Also, some presidents of Landcare groups have said that they hesitate to employ coordinators because they realise that the workload might be too heavy for a part-time worker to deal with [19].

4.2.3 Increased difficulty for local groups and networks to employ coordinators

The budget allocated by governments to Landcare has declined due to changes in the economic situation and changes in government policy [16]. The decline of the budget does not immediately affect the local Landcare groups and their activities because they are basically self-funding. However, ultimately it affects the local

activities which are supported by government grants and it also affects the employment of coordinators who are employed through funding from governments.

Even though in Victoria the Victorian Landcare Facilitator Program aims to promote having Local Landcare Facilitators in local groups and networks, it is becoming increasingly difficult for local groups and networks to employ such people. With regard to this, Curtis and Sample (2010) point out that the Landcare groups and networks rely heavily on the work of coordinators in communicating with co-operators including governments. They also point out that most of the coordinators who are employed by Landcare groups and networks are funded through grants from governments [20]. Thus the decline in the budget provided by the governments to Landcare affects the employment of coordinators.

4.2.4 Increasing tendency to depend on government support

It is recognised that there is an increased tendency to depend on government support, and at the same time to switch off the priority in government policy on natural management from the local perspective to wider perspectives such as regional, state, or national. It has also been pointed out that group management and the development of activities has been slowed down by such tendencies [21]. At meetings of the Victorian Landcare Council (VLC), the tendency to switch off the priority in government policy on natural resource management from the local perspective to a wider perspective was one of the topics of discussion among the members of the VLC [22].

4.3 Addressing the Challenges

4.3.1 Strategies to encourage the recruitment of new members

One strategy that has been used by local Landcare groups and networks to address the aging of members and lack of younger participants has been to include more recreational activities rather than purely conservation or agricultural activities in their local programs such as at tree planting events or other in-field events [7].

With regard to the recruitment of new members, especially younger people, by local groups, this is still in process, but the current members have been implementing plans to promote the activities of local Landcare groups in order to encourage others to join to compensate for the shortage of participants [7].

4.3.2 Promoting communication among stakeholders regarding ideas for improvement

The Victorian Landcare Council (VLC) holds regular meetings and discussions at which members of the council from across Victoria share information about the situation in their particular region and make suggestions for the overall improvement of Landcare in each region. This is carried out through communication with the staff members of CMAs and with members of other local groups.

5. CONCLUSION

From the perspective of institutional structure, this study has described three main characteristic elements which comprise the structure of Landcare in Australia. It has been put forward as a model for a community support system which promotes the establishment of local voluntary groups which plan and implement activities for improving their local environment. The three characteristic elements are: establishing a system and a spirit of multi-party partnership throughout the nation; securing human resources who have the flexibility to adjust to each locale and function as coordinators supporting local groups; and maintaining a holistic support system from governments who respect the autonomy of local groups.

With regard to the three characteristic elements, this study has described the strengths of Landcare: offering opportunities for various stakeholders to contribute to their environment; protecting and enhancing the local knowledge about natural environment and culture; improving governments; efficiency for encouraging sustainable management; and development of the local groups and networks. At the same time, it showed that there are challenges: aging of the members of local groups and limited number of younger participants; the excessive amount of work for coordinators; the increasing difficulty for local groups and networks to employ coordinators; and an increasing tendency to depend on government support.

Also discussed are the activities of the Victorian Landcare Council, which represents local community groups, and works to enhance communication between grass-roots community groups and governments or other authorities with the intention of overcoming the challenges.

Overall the challenges facing Landcare have been addressed by the local groups themselves or through their networks. However, the challenge of recruiting and retaining coordinators remains. Because the coordinators play an essential role in Landcare, it is necessary to find a way to address this challenge. Future research may be needed on this topic in an attempt to identify priorities and

possible solutions.

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