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Learning to use RRA and PRA to improve the activities if two landcare groups in Australia

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· Introduction

This paper reports on the use of Rapid Rural Appraisal (RRA) in two Australian rural communities. Several processes and issues are described which relate to the application of RRA in a context other than the Third World by researchers and undergraduate agricultural students with no previous experience in the methodology. The discussion focuses on what we learnt about the process of RRA, how to get started with the methodology and its applicability in Australia. Also discussed are the institutional barriers to an RRA approach and the need to develop new extension approaches to complex land and social degradation problems.

How we got involved with RRA

Agricultural teaching staff at Charles Sturt University-Riverina (CSU-R) have been interested in alternative views of research and extension as a means of coping with complex problems in agriculture which are not adequately addressed by traditional approaches. Over ten years ago changes were made in some agricultural course structures by introducing a systems approach (Dunn, 1991a). At the same time we became aware of new approaches to agricultural development in the Third World. This was exemplified in the literature on Farming Systems Research and Extension (Hildebrand, 1988 and Jones and Wallace, 1986), Agroecosystem Analysis (Conway, 1986) and farmer-first (Chambers, 1990).

Much of this thinking seemed to be associated with a loss of confidence in the transfer of technological innovations from modern agricultural systems to traditional ones.

Diffusion and adoption theories were not adequately explaining change in the complex 'technology driven' agriculture of developed economies (Nitsch, 1982 and Roling, Jiggins and Carrigan, 1987). Fleigel and van Es (1983) were more succinct in their criticism saying that a diffusion-adoption approach could never adequately explain or enhance environmentally sensitive agricultural practice. They also suggested that the problems arising from technology adoption could not be usefully investigated by diffusion-adoption research methods.

This unrest with established extension perspectives together with the new teaching approach in agricultural systems and extension subjects led us to search for suitable methodologies that students could use in project work. The discovery of RRA in the overseas literature was fortuitous. Before this we had relied on Peter Checkland's soft systems methodology (SSM) (Checkland, 1981) which provided a very good thinking and writing up tool once data had been collected. However, it did not give students a good training in problem identification from the farmers' perspective nor did it provide a methodology for data collection (Dunn, 1991b).

Landcare

Landcare is a generic term used in Australia to represent a wide range of action by individuals, the community and government to repair and prevent land degradation. The ethos of Landcare is based on groups of people (farmers and towns people) who work together

Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London

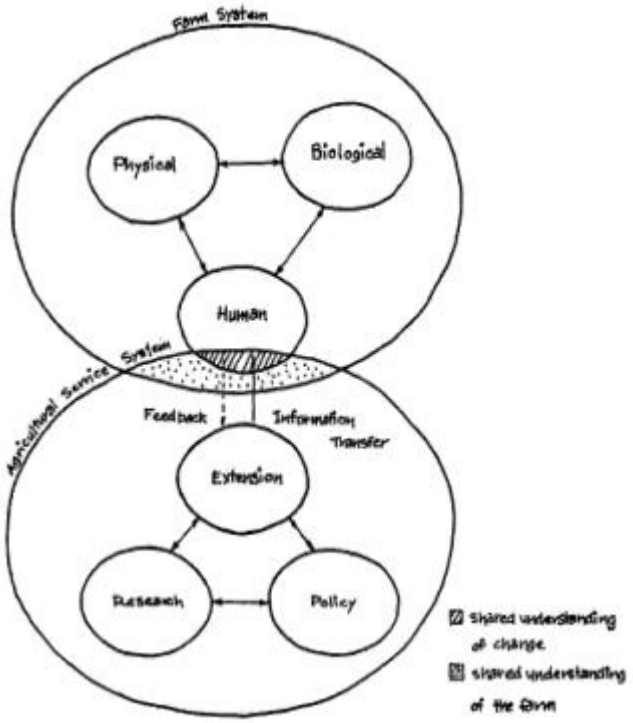
to care for the land in their local area (NSW Landcare Working Group, 1992). The movement arose out of discussions between the main conservation and farmers' union groups which resulted in the Australian government making a commitment to provide $A320 million over ten years to care for the land. In less than four years around 200 Landcare groups have been formed in NSW alone (Woodhill, 1992) and more than 900 in Australia (Campbell, 1991). Many of the groups have identified problems and successfully applied for funding to support their activities. In some cases funding has been used to support specialist Landcare coordinators who work for one or more groups. The movement has also been a great stimulus to government conservation authorities. Soil conservationists, extension and research staff now have an additional source of funding to address land degradation problems. After only four years substantial progress has been made in identifying Landcare problems and issues. This has mainly occurred via the sharing of knowledge between land owners, extension workers and the wider community.

Improving landcare

Despite the success of Landcare, certain aspects of the movement are not well understood and people working in it are often dissatisfied with the results of their efforts. For example where Landcare management committees are successful in attracting government grants for demonstration work, often the members are unimpressed especially where this appears to be the main aim of the exercise. In other cases members are critical of money spent on human resources like co-ordinators and extension workers. They would prefer money to be spent in more tangible ways, like tree planting and earth works (Woodhill, 1992). Some extension workers also have problems working with the people. They lack confidence and direction in group processes and are often uncomfortable in a facilitator role compared to an advisory role. On the one hand they feel that local people should solve local problems, but because many of the locals have no meeting or organiser skills extension workers often feel pressured into taking these roles, thus the locals never really 'own' their problems. Some Landcare committees appear to have lost touch with their members and in some cases 'group think' may have taken over (Chamala and Mortiss, 1990).

One way of understanding the complex problems in Landcare extension is to use a systems approach. In course work at CSU-R our thinking and analysis of change in agriculture is based on the ideas and methodologies of Spedding (1988) and Checkland (1981) and is depicted in Figure 1.

Figure 1. The changing farm system and the extension process



The assumptions embodied in Figure 1 are first, that farms behave as if they were a system comprising three interacting components. Second, change from outside the farm can only have effect via communication and shared understanding between people in the systems. Applying these principles to Landcare the following propositions are posed. First, progress in Landcare to date has relied largely on a shared understanding of the physical and biological components of the degradation problem. Second, improvements to agriculture and the environment can only occur through the human component of the system. Third, to enhance the process of change more knowledge is needed on the

Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London

social structure and communication processes within rural communities.

· Using RRA to define landcare problems

In August 1991 agricultural students and staff of CSU-R and local extension workers attended a two day seminar and workshop on Rapid Rural Appraisal conducted by Dr. Ray Ison who shared his experience and understanding of this methodology (Ampt and Ison, 1989a). As a result it was decided to do RRAs in two local Landcare areas. The first involved a group of final year agriculture students who were studying a systems/extension subject. We called this the 'student RRA'. The second team comprised a group of extension and university staff, the study being referred to as the 'staff PRA'. The student RRA was conducted with a smaller sample, all interviews were done in one day and a narrower set of objectives was used. The staff PRA was conducted over three and a half days with a larger sample and it covered a wider range of issues. As it culminated in a community meeting we decided that it was a Participatory Rural Appraisal (PRA). Key features of the two studies are summarised in Tables 1 and 2.

Table 1. Key features of the data collection phases of the RRA and PRA conducted with two landcare groups at Wagga Wagga, 1991

Features	Staff PRA	Student RRA
Number of families interviewed	18	35
Interview method	Semi-structured interview (SSI)	Semi-structured interview (SSI)
Selection of team members	Interest in RRA and landcare	Final year systems/extension students
Number of teams	5	7
Interview venue	Farm house	Farm house
Interview teams	One interviewer and one scribe	Two interviewers and one scribe
Survey duration	2 ½ days	1 day
Method development and training time	8 x ½ day sessions	3 x ½ days sessions
Selection of interviewees	Key informants, geographic transect Kyeamba landcare area Maximum diversity based on land type, location, farm size	Key informant Distance of farm house from public road – student teams walked in from a us drop-off Downside landcare area
Research objectives	To identify issues of importance to local people and to help them take action to improve the situation To help landcare develop long term strategies	To find out about issues influencing landholder livelihoods and how this influenced their involvement in landcare
Focus of research interest	Past, present and future perspectives on : physical, economic and social aspects of life in the Kyeamba Valley	Landholder perceptions of area history, physical and economic problems, and the relevance of landcare in the Downside district
Interview process	To find out what people do not what they think	To find out what people do not what they think

Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London

Table 2. Key features of data analysis and feedback to participants I the RRA and PRA conducted with two landcare groups at Wagga Wagga, 1991

Features	Staff PRA	Student RRA
Data assembly	Team members debrief each other after each interview Data organised into lists according to research objectives	Student teams debriefed by a staff member Data organised into lists according to research objectives
Data analysis	Categorising information into themes which were mirrored back to the community using their words Diagrams drawn to express what the people were saying Data analysed by interviewers in 1 day and presented to a community meeting the day after the last interview	Data entered on butchers paper and shared amongst interviewers and staff Themes developed and diagrams drawn to express a picture of what people were saying Class discussion of RRA and insights from the research experience
Feedback and reporting	Community workshop/meeting Written report to al people in the landcare area	Written report to interviewees On going work with the landcare group by a student project team
Outcomes	Learning about community issues Community commitment to action Initiatives taken on by local extension workers, farmers and landcare coordinator	Students experience real world problems Community awareness of student and university interest in their issues Continuing work with the landcare group by staff and students

Table 3. Goals for a possible PRA expressed from three perspectives during a team formation meeting

Personal goals	Team goals	Goals for local people
Learn about RRA	Develop a rich picture of landcare area	Improve lifestyle
Gain extension insight	Work together	Encourage ownership of problems
Gain insights into local communities	Understand perceptions of other team members	Improve group function and processes of landcare
Isolate issues using RRA		
Develop skills in group work and extension	Interaction of ideas	Give the community a focus
Work with rural people	Communicate with landholders	Improve confidence, self esteem and management
Promote the landcare ethic	Help people decide future action	

Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London

Establishing team goals and objectives

The successful implementation of the PRA and RRA work (summarised in Tables 1 and 2) was driven by team commitment which grew out of clear, mutually agreed goals. In the staff PRA these goals were established early in the team-building meetings and were fashioned around the following aspirations:

- what we hoped to achieve as individuals;
- what we hoped to achieve as a team, and,
- what we hoped to achieve for the community.

Table 3 summarises the results of team building workshops out of which we developed clear goals and team cohesion.

Our team was motivated by **a feeling that PRA was a process we were interested in and we wanted the farmers and their families to help us test the usefulness of the methodology.** Furthermore we felt that the methodology would enable landholders to express their perceptions of rural issues and become involved in deciding what action should be taken. Our guiding principles were written during the team building process and although they were not expressed explicitly in the final protocol they did help us consolidate a collective research philosophy. Key features expressed were:

- the necessity for joint problem identification by the PRA team and farmers;
- the importance of farmers' knowledge and expertise in the research process;
- the desire for shared understanding and insights by the PRA team as an interdisciplinary learning process, and,
- the need to identify major problems on which joint future action could be taken by the community and extension workers.

Team-building and field work

The team-building and goal-setting process enabled us to learn about the key features and advantages of RRA methodology. These were outlined by Ampt and Ison (1989b) and our acceptance of them consolidated our confidence in the process, *viz:*

- going for insights rather than numbers;
- learning with the community;
- looking for opportunities to improve the local situation;
- concentrating on diversity of local knowledge and team member perceptions; and,
- avoiding 'development tourism'.

Successful team-building and goal-setting were the key processes which enabled us to do an PRA. The catalysts which got us started were Ray Ison's experience and enthusiasm and the fortuitous gathering of a diverse group of extension workers who were inspired by the possibilities. As it turned out we decided to work together for our mutual learning and to help a community improve agriculture and protect the environment.

Once goals and the sample criteria had been decided on, the serious work was roughly divided into logistics and interviewing skills. The former included asking permission of the Landcare group to work in their area, selecting a sample, writing letters, making phone calls and hall hire. These tasks were delegated to individuals, but interviewing skill required full team attendance at a series of training sessions. We set up role plays and small groups to develop skills in active listening and semi-structured interviewing. Most of us had to put aside existing communication styles which was especially difficult for the extension and education people. We also had to learn how to keep respondents telling us what they **did** rather than what they **thought**. This was an important part of the interviewing process because it gave us an insight into what people had achieved in the past and what future action they may take.

All interviews started with an explanation of the aims of the study, confidentiality, the interviewing and recording process, and what we planned to do with the data (Webber, 1991a). The interview structure was simple and covered a time scale as well as broad subject areas around which we anticipated most issues would arise. Questions began by asking respondents about what they were doing on their farms **now**. Then questions about the families' farming history in the area gave respondents an opportunity to express

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their achievements and problems they had encountered **in the past**. Finally people were asked **about the future**. This left the difficult issues until last. Here we steered the interview across three topics around which most problems could be expressed. These formed the basis of our data collection and analysis, *viz:*

- physical (land type) problems;
- biological (farming production type) problems; and,
- social change (people type) problems.

Giving the data back to the community

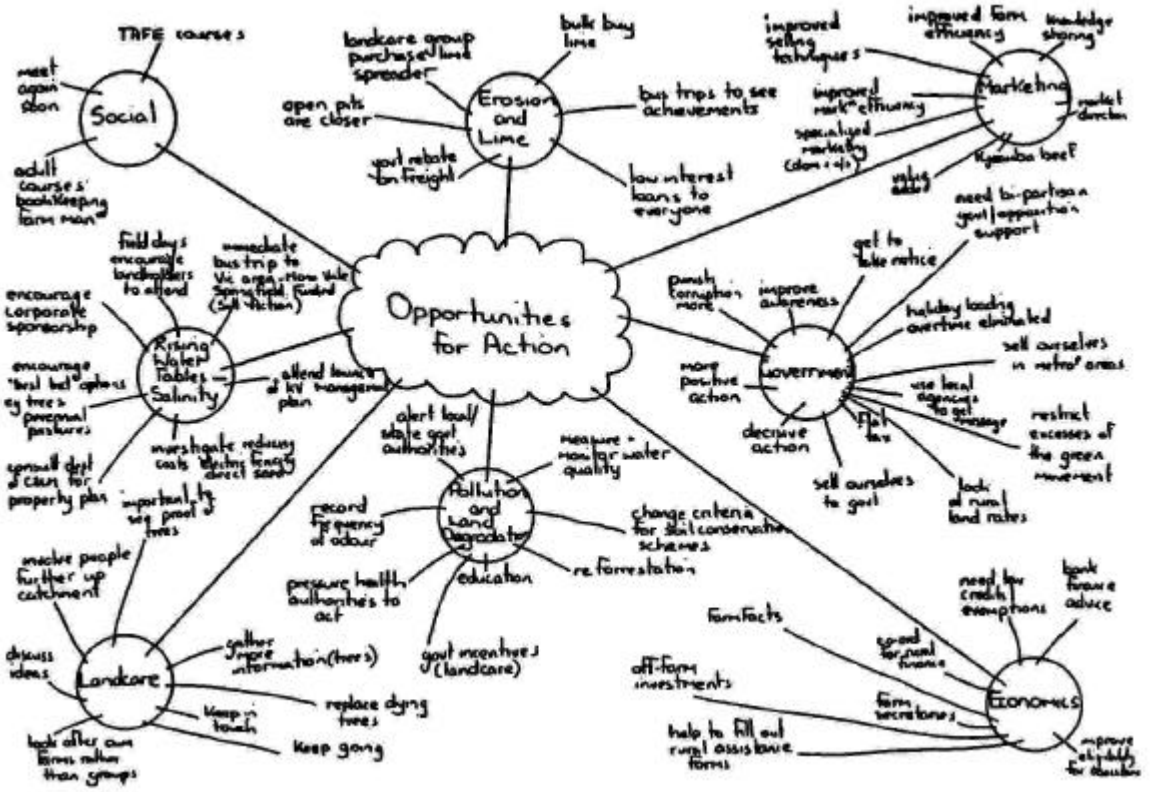
Analysis of the PRA data was done in one day to meet our commitment to the community meeting which was held in the evening of the day after the last interviews. We did this to give immediate feedback and because it meant that all the team could be involved in data analysis and contribute to the meeting. Lynn Webber showed us how to focus the data into themes and issues which were loosely arranged around our three interview topics. The process involved transposing and coding of data under the topic headings (physical, biological, social) and then identifying key themes around which the people expressed concern or interest (Webber and Ison, 1991). Under each theme there were many related and interlinking issues which were presented as diagrams of 'clouds', 'stalks' and 'circles' (see Fig.2).

Community participation was excellent with 72 people (out of a potential 110) attending the night meeting to find out what we had learnt. The information was presented by posters and short talks. Then the gathering was broken into small groups to explore issues and concerns that were important to them. The issues from these discussions were further focused into a new set of topic areas to which people gravitated for specialised workshop analysis. Here each group was asked to explore their issues, identify opportunities for action and commit themselves to improving the situation. The groups then presented their work to a plenary session. Seven groups presented their analysis and commitments and the meeting concluded over informal discussion and cups of tea.

Reports were written for the communities involved in the PRA and RRA. The aim was to show them what we had learnt in the hope that it would be useful. A small survey page was attached to each report to encourage feedback (McMillan and Dunn, 1991 and Kingham and Smith, 1991). At this stage the teams have concluded their formal work in the Landcare areas but individual members have continued to help in ongoing action.

Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London

Figure 2. Future opportunities for action: perceptions of farm families at a PRA meeting, Wagga Wagga, 1991



What we achieved

RRA provides a new approach for the investigation of complex agricultural problems which threaten the viability of rural environments and societies. Staff and students at CSU-R combined forces with extension workers to assist two Landcare groups come to a better understanding of the issues of concern and how these could be addressed.

RRA and PRA methodologies were adapted to Australian conditions which meant that we had to recruit and mould a team, learn about and adapt the methodology, gain the support of landholders and analyse the data. Then we had to give it back to the community with the hope that they would use it to improve their agricultural and social environment. What was achieved? Certainly we understand RRA and PRA principles and feel that we successfully implemented these in our studies. We now have the confidence to form a team and implement the methodologies to address land and people problems. Various aspects of our work and its relationship to the literature on RRA and PRA are worth mentioning because they help to validate the methodologies under Australian conditions. In particular 'reversal learning' described by Chambers, (1992) was part of our experience. The issues of concern to landholder families were clearly expressed and were reflected in the data, its discussion at the community meeting and in the report to landholders (McMillan and Dunn, 1991). We learnt that landholders were aware of land degradation and ways to alleviate it, however, they also told us about their concern for the traditions of the land and the lack of hope for the future - especially in regard to their children.

The Landcare movement has enabled the community to understand, own and take responsibility to act on land degradation problems but whether it can help rebuild social networks is questionable. Already there are signs of frustration between the Landcare management committees and the less active members. The RRA and PRA teams aimed to help people discover how they could evolve a long term strategy for Landcare which would overcome these human problems. At the

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public meeting where the data was discussed several small groups were formed around areas of interest which included a pledge to meet again and take action (Webber and Ison, 1991). On paper this looks good but like the evaluation of any extension process, progress is difficult to measure. However, the team intends to meet again (one year after the event) to evaluate the experience and to see what else can be done.

Outcomes of the RRA and PRA undoubtedly provided learning for our team - a process that Chambers (1992) describes as 'extractive' because information is taken out of the area. In our studies I must admit that this was the most tangible outcome. However, we have been careful to share our insights via reports to the communities (McMillan and Dunn, 1991 and Kingham and Smith, 1991) in a conference paper (Dunn and McMillan, 1991) and in the unpublished paper by Webber and Ison (1991).

RRA's future in Australia

There have apparently been quite a number of RRA's done in Australia (Ison, 1992) but so far I have only seen limited documentation: Ampt and Ison, (1989a) and Woodhill (1992). The New South Wales Department of Conservation and Land Management has expressed interest in the approach. However, it is possible that this is a honeymoon effect especially if established research and bureaucratic institutions do not fully accept that RRA can complement existing research paradigms. Whyte and Boynton (1983) observe that participatory R and D systems face political and bureaucratic barriers, and Chambers (1992) warns us that a fad on RRA could lead to its misuse. Some people expect RRA to provide answers to old extension problems such a slow adoption. However, the same people have not shown interest in new extension paradigms like 'farmer-first' and participatory approaches which are closely allied with RRA. Similarly, traditional discipline based researchers are sceptical about working with 'untrained' people like farmers. Furthermore, many natural scientists abhor lack of hard data and discipline oriented social scientists dislike the lack of tight theoretical and methodological approaches. Despite these obstacles I believe that RRA and PRA have a place in Australian extension, teaching and research, provided institutional barriers and traditions can be overcome.

Our experience shows that RRA can be successfully implemented provided the following points are noted. First, a committed team of six or eight people is selected. This is a manageable number which can attend intensive meetings and training sessions. Second, team moulding and training is run by someone with group skills and RRA experience. Third, it is essential to develop team goals and a protocol for the data collection. Fourth, skills in the analysis of qualitative data must be developed. Finally, if a PRA is planned someone must have the expertise to run a small group community meeting that enables data sharing and learning to occur.

In conclusion, the Australian rural context is different to that in the Third World and the problems faced by farming communities are complex. However, RRA principles and methodologies are transferable particularly because they include an appreciation of the knowledge and expertise of farming people. Also implicit in RRA is a recognition that understanding and improvement of complex agricultural and environmental problems must include the people of the land and their insights. Without this approach land degradation cannot be fully appreciated and scientific research will not be fully effective.

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Source: RRA Notes (1993), Issue 18, pp.21–32, IIED London