

AUSTRALIA POST APPROVED PP 34763700014

### From the Chair

#### Terry Makin

The new committee of management of APEN is working well and will help to further progress our network, APEN. It is taking time to set up the working groups and for people to begin to work together but I believe these groups have the potential to make a significant impact for APEN and its effectiveness. It is through these groups that we can add our expertise, knowledge and energy to progress those issues that we as members think are important. Please pass on ideas, comments, information that will help to improve our profession and network to either the convenors, or through Rosemary at the Secretariat.

With several elections taking place in Australia recently, the rate of change in extension will continue unabated. This rate of change means that it is imperative that we, as professionals, continue to improve our skills and knowledge. We need to learn to adapt and understand change if we are to assist and facilitate the learning of the people we work with, enabling them to adjust more easily to a rapidly changing and more complex environment.

Programs and directions coming out of DPI, Canberra, are becoming more directed towards an integrated approach to environmental, community, and regional development. It is the "think global, act local" approach. This approach aligns with what APEN is about and we will be communicating with DPIE to ensure that they are aware of our network's value in this area.

Finally, as I reflect at the end of my 10 year term as a Director on the Dairy Industry's R & D Corporation, it is very apparent that the D in R & D is now

much more valued as being the key to industry development and profitability. There is also growing awareness that we cannot just concern ourselves with productivity, but that we must take account of all of the parts of the system if we are to have social and sustainable environmentally communities and industries. More and more agencies are initiating programs that are collaborative and participative in nature to give clients ownership and programs that are relevant to their needs. This means that we need people with the skills and knowledge to initiate and facilitate the process of the development of these programs. We also need ways to share our experience and knowledge with each other to save continually reinventing the wheel. This is a key purpose for APEN.

**EXTENSION NETWORK (INC)** 

## 

APEN Proudly Sponsored by AgVic & QDPI

### **Editor's Desk**

#### Dale Williams

Dear members, ExtensionNet is in a stage of transition, particularly in terms of its production. We now have a range of themes to pursue during 1996. We have sufficient material for several E/N's. We have a production schedule and someone to keep us to its timing. We also have a number of issues being explored, particularly those relating to the emerging constituency of APEN and the role and shape of E/N in response to that.

February-March issue on This participatory extension methods of extension is late and we apologise for that. We have sufficient material for the April-May issue on 'Extension for Sustainable Rural Communities' to come out next month. The Riverina Chapter are putting together a regional perspective for June-July that includes diverse and interesting articles that cross The Augusta variety of themes. September issue will concentrate on 'Intellectual Frameworks for Extension'. I anticipate 'Power, Participation and Extension' will be October-November's theme and will explore extension issues related to gender, ethnicity, culture, etc. We invite submissions for this important Contact me if you have an issue. inquiry.

We want E/N to be inclusive, rather than exclusive. E/N, in some manner, will include all material sent to us to date. However, this may become problematic in the future and we alert readers to that emerging difficulty. We have current cost restrictions on E/N's size.

We are looking at alternatives to enable more lengthy, critically reflective articles. This may take the form of a



sponsored insert or an enlarged E/N supported by new sponsorship.

Please let us know if you know a sponsor who could help.

E/N has been shaped by its history of people in agricultural extension, tertiary education and landcare who provided much of the early impetus behind APEN's inception. Yet its future can be shaped to capture the early vision of a more diverse membership around the facilitation of social change. At this stage the context is rural, in terms of the sustainable and integrated development of rural people, communities and environments in the Australasia-Pacific So E/N wishes to embrace a widening constituency. Perhaps this could include increasing membership among farmers; primary and public healthcare workers; individual, group, community and regional forms of enterprise management; counselling and consultancy; community learning, support and action groups; etc. The planned themes for ExtensionNet over the next couple of years will carefully explore being more inclusive of such people, given our connectedness and all we have to offer each other's learning. Please see editorial matters as ones for dialogue. The Editorial Committee values your feedback and suggestions.

# FORUM REPORTS on their way to attendees...

#### Theme -

# Participatory Extension Methods

#### Elwin Turnbull

As extension agents whether it be as an educator, in commerce or government service or in community development, a key point is that we are working within a human systems framework to achieve our ends. Sir Geoffrey Vickers the author of "Human Systems are Different" forcefully argues that the key attribute of successful human endeavours is the discourse that is created between the participants. Other authors use different terms to describe the dynamics of discussion and interaction between people which lead to the dual goals of personal learning and community competency for action The articles included in this edition shed light on the means of facilitating individual and group learning through participatory extension methods.

In the first article Graeme Gibson has described the technique of Study Circles as a way of promoting individual and community understanding of issues. His article describes the kits which are available gratis from the AAACE. Groups are the context for all social

For sale to other members at \$12.50, non-members \$15 (incl postage).

INTERNATIONAL COURSE IN RURAL EXTENSION WAGENINGEN 10 JUNE TO 20 JULY 1996

Information: Next ExtensionNet, Secretariat, Peter Van Beek or

Ir Bert Huizinga, Wageningen Fax:0015 31 317 41 85 52 E-mail IAC@IAC.AGGO.NL

discourse and in the second E/N article from John McKinlay (a "groupie" from way back) we can see some hard data about the key variables in successful task groups. The traditional approach to land management policy has been very legalistic and top down. The story from Glen Gale of experiences in South Australia shows clearly that participative approaches are a valid alternative. In his case study they have led to ongoing catchment management activities in the Mount Lofty ranges. In third world situations participatory methods are well under way. Hickey has described an experience in Cambodia of positive actions coming from participative extension methods in a truly desperate situation. In this case activities are "hands demonstration and cooperative projects no chance of criticism of "talk fests" in this development project. contribution by Ann is a list of evaluation references which can help us all in designing ways of validly assessing our efforts.

## Study Circles for Adult Learning - Without a Teacher or a Text Book

#### Graeme Gibson and Meg Bishop

The Australian Association for Adult and Community Education (AAACE) and the Murray-Darling Basin Commission have joined forces to produce a series of study circles on natural resource issues. The first of these on the issues of Blue-Green Algae was released in late 1995. The second on the issue of Dryland Salinity is expected to be available from July 1996. The kits are intended to be appropriate throughout Australia - they are not limited to the Murray-Darling Basin - and they are not limited in appeal to rural groups. Capturing the interest of urban groups has in fact been a major focus of these study circles.

#### What is a Study Circle

A typical study circle is a group of 5 - 15 people, who meet three to six times to discuss and learn about an issue of concern to them. Discussions last around two hours and are facilitated by a group leader whose role is to assist in lively but focussed discussion. The leader is not expected to be a teacher or subject expert. The group may meet at someone's home, a community meeting room or some other convenient place.



#### What is the Kit?

The study circle kit is not prescriptive. It is not a text or a curriculum, but a set of stimulus and resource material to frame and support group discussion. Issues within the subject are divided into manageable portions and participants are provided with written resource material. Video, audio and graphic support material may also be included. Participants are encouraged to collect additional local material.

#### How does it work?

The study circle kit can be thought of as a tourist map which takes people on a journey. Along the way there are lots of interesting and challenging things to explore, or places to visit. But if the group had been there before, or feels something will not be of interest, they can continue on. Often the group will back-track to re-visit an issue.

The essence of the study circle is free discussion and exploration in a democratic atmosphere where all views are valid. Participants will bring a good deal of their own knowledge, opinions and attitudes. Study circles and small group discussions have long been recognised as an effective method of learning. They are particularly useful for dealing with difficult social and political issues and strengthening the skills necessary for community participation.

The study circle approach does not aim for experts, but informed decision makers who are able to take effective and constructive action. Groups meet on their own turf, their own terms and in non-threatening peer related settings.

#### Who uses them?

People who participate typically come from 2 areas:

- those who meet under some other umbrella, such as Landcare or catchment groups, work, social or church groups and;
- those who regularly do an adult education course, maybe landscape gardening last term, a foreign language next year.

#### But are they effective?

Feedback and evaluation from groups who have completed study circles shows this to be a satisfying way of learning. Outcomes from groups who have used the Blue - green Algae kit include the following:

- Participants have been able to intensively question their individual day to day actions and make some changes, including
  the detergents they use and waste down the drain.
- Groups (from both urban and rural areas) have sought further information from authorities. This has led to a sense of empowerment among participants who have felt confident to ask knowledgeable and sometimes probing questions.
- Urban groups have made contact with rural groups or individuals who are more directly affected by the Blue-green Algae. These (urban) groups had not previously been in contact with the rural groups.
- Participants have been able to share their new understanding of the issue with other groups and individuals in a variety
  of settings. This includes presentations at meetings and discussion with friends and workmates.
- Groups have successfully "localised" the kit by obtaining local resource material, inviting local guest speakers and going
  on local field trips.

The study circle kits are endorsed and fully supported by the International Council for Adult Education. They are available for group use free of charge, although an evaluation form should be completed and returned. For more information or to register a group and receive a study circle kit contact — AAACE, PO Box 308, Jamison Centre, ACT 2614. Fax 06 251 7935 Phone 06 251 7933.

## Effectiveness of Task Groups

#### John McKinlay, Agriculture Victoria, Bendigo

Phone: (054) 30 4444 (W) e-mail:

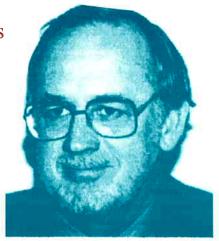
mckinlayj@goldy.agvic.gov.au

Three years ago I completed a research project looking at the factors influencing the effectiveness of task groups. This project was part of the requirements for the Degree of Master of Business at La Trobe University.

The conclusions are relevant to groups in general as well as task groups, so should be of interest to APEN members.

#### Method and Results

A questionnaire with a list of 75 statements which could be used to describe a task group was sent to the members of 26 groups. Members were





asked how accurate each statement was in describing their task group, for example:

"I enjoy the interaction at our meetings."

"Our aims are clear."

"We are allowed freedom and independence in doing our task."

Respondents rated the accuracy of each statement on a five-point scale, from inaccurate to accurate.

The statements were drawn up to cover the characteristics of structure (eg size of group, group knowledge) and behaviour (eg task leadership, openness of communication) which the literature describes as influencing the success of task groups.

A total of 177 questionnaires were returned, a 95% response rate.

Factor analysis was used to identify threads which existed in the data, the first factor being a cluster of statements which was labelled 'Group Synergy". From the cluster of statements "Group Synergy" seems to be the level of generated group togetherness and commitment. "Group Synergy" seems to develop as part of the group process and can cause a group to produce a result better than the sum of the individuals acting separately.

Another factor identified from factor analysis was labelled "Specialist Satisfaction". Apart from the two factors mentioned, the factor analysis characteristics were similar to those derived from the literature.

Correlations between "Group Synergy" and other group characteristics are shown in Table 1. The strongest correlation is with "Socio-Emotional Leadership". Other relatively strong correlations are with:

Task Leadership Specialist Satisfaction Positive Approach Productive Meetings TABLE 1: Correlations between "Group Synergy" and other characteristics

# CHARACTERISTIC CORRELATION WITH GROUP SYNERGY

#### Group Structure:

Worth of Task	0.48
Goal Clarity	0.55
Task Control	0.34
Group Knowledge	0.55

#### Group Behaviour:

Task Leadership	0.59
Socio-Emotional Leadership	0.72
Specialist Satisfaction	0.58
Harmony	0.49
Positive Approach	0.59
Productive Meetings	0.60

All correlations are significant at the 0.01 level. Strengths of correlations are: 0.60 - 0.80 Strong 0.40 - 0.60 Moderate

0.20 - 0.40 Weak

Both "Task Leadership" and "Socio-Emotional Leadership" were higher in groups of between 6 and 10 members, rather than smaller or larger groups. Both "Task Control" and "Specialist Satisfaction" were lower in the larger groups. Male group members reported significantly higher level of "Group Synergy" and "Socio-Emotional Leadership" than female group members.

#### **Conclusions**

#### 1. General

The literature about the way groups work emphasises the importance of two separate aspects:

- The time spent on the task; and
- The time spent on the socioemotional needs of the group.

Both are said to be important if groups are to be effective.

The study showed high correlations between "Group Synergy" and both "Task Leadership" and "Socio-Emotional Leadership", with "Socio-Emotional Leadership" being the most highly correlated. Thus the study confirms the literature view of the

importance of these two aspects. There were also correlations between "Group Synergy" and other structural and behavioural characteristics of groups.

The results suggest that the key to having an effective group is to concentrate on the development of synergy within the group. When this has been done the group itself is likely to complete the task at a high level of performance.

#### 2. For Managers

- a) There is much more to having an effective task group than identifying an area of work and assigning a number of staff who happen to be free.
- b) The members of the group need to be selected so that between them they have the collective knowledge for the task, and members capable of providing both socio-emotional and task leadership.
- c) The goals of the group need to be clear to the members, and the task needs to be seen as worthwhile. However, groups are likely to develop more synergy where they have some control over the task.
- d) The literature suggests that having a deadline is also important. Midway between group formation and the deadline is suggested as an ideal time for managers to give groups some feedback on their progress, and provide them with the opportunity to clarify goals and seek extra resources which may be needed to complete the task.

Organisational development by the provision of training in individual differences and motivation, and in group processes and leadership, is needed to provide the behavioural skills for both members and leaders of task groups. Effective leadership of task groups could be a useful selection criterion for promotion to leadership positions.

#### 3. For Group Leaders.

a) If you are appointed as the leader of



- a task group, it may well be worth clarifying the goals of the group before the first meeting, and considering alternative members to add needed skills or knowledge.
- b) Most people have a strength in only one of either socio-emotional or task leadership, and leaders should identify their own strength. They can then help the functioning of their group by encouraging other member/s to take the complementary leadership role.
- c) "Group Synergy" be can encouraged by showing and encouraging a positive approach and by structuring meetings so that they are productive. Promoting harmony (but without suppressing helpful conflict) and specialist satisfaction by encouraging alternative viewpoints and assigning specific sub-tasks should also help.

#### 4. For Group Members

- a) Members need to be aware that both task and socio-emotional needs
- are important to the effective functioning of a group. An agreed leader is desirable for effective functioning of a group, so push for this if one has not been appointed.
- b) Groups can benefit from discussing alternative approaches to their tasks before getting started, and from devices such as agendas, records of meetings, reviews of progress, delegation of sub-tasks, and target completion dates.

#### Reference

McKinlay, J.M. (1991) Effectiveness of task groups. M.Bus. Thesis. Bendigo: University of Latrobe.

### The Art of Public Listening

#### Glenn Gale, Senior Soils Officer Introduction

The Mount Lofty Ranges (MLR) region is of vital importance in terms of South Australia's agricultural production and the provision of economical and safe water supplies for metropolitan Adelaide. The water supply catchments are predominantly cleared and agriculture is the principal land use. Other land uses are hobby farm, urban, industrial and residential developments.

Land use and water quality in the MLR has been the focus of much debate for over twenty years. There has been considerable government intervention to plan and regulate activities in the watersheds through legislation, development plans and management reviews. However, water quality has not improved and an atmosphere of distrust and conflict between government agencies and the community developed.

A different approach based on education, cooperation and involvement of land-holders was needed. This approach underpinned the NLP project Community involvement in integrated catchment management in the MLRI, which began in 1992. The aim of this project is to foster the development and implementation of community based catchment plans in three

sub-catchments of the MLR. This involves working closely with the community in selected catchments so that land management problems and are identified and understood, and the solutions developed and implemented, by land-holders.

This paper discusses the process used and the results to date and highlights the need for effective public listening. Its aim is not to present any new or radical ideas but to stimulate discussion of our experiences with the group approach to extension.

## Methodology The art of public listening

An understanding of the concerns, interests and attitudes of land-holders in the catchments was essential. The first step then was to listen to the land-holders.

The aim was to personally contact half of the 70 to 80 properties in each catchment. Details of all land-holders in the catchments were obtained from local government. Land holders were telephoned and a meeting to discuss the project arranged. Meetings were usually at the kitchen table, but some were in the paddock, and they were not conducted as a formal survey. The

emphasis of the meeting was to listen to the land-holder and draw out their interests and concerns regarding land management in its broadest sense, with as little leading as possible. Notes were usually made after leaving the property, rather than during the meeting.

## Group support and catchment committees

The second step was to get group support for a community based catchment project and to establish a catchment committee to manage it. An informal public meeting was held to achieve this; they were held on a Friday night and began with a barbecue, they were held in the catchment at an open venue, all land-holders and their families were invited, and they were chaired by a land-holder from the catchment with a few opening words by the Chairman of the District Council.

During the meeting the aim of the project was explained and discussed so everyone had the same picture. A show of support for the project was then called for. The land management concerns expressed during the property visits were presented and other issues added. After discussion an attempt was made to prioritise the issues. Volunteers were then called for to form



a catchment committee to manage the project and oversee the development of a catchment plan.

## Results Public listening

The perceived hostile community sentiment towards the government did not exist and the reaction by land-holders to the project was almost always positive. However, some land-holders were not happy with the way decisions had been made regarding the MLR. They felt they had not been involved in the process and resented the concept of being told what to do by the government for the benefit of metropolitan Adelaide.

The perceived community hostility was largely a product of the media, and statements by individuals representing community, special interest and industry groups. The lesson here is to use the widest possible number of sources to assess community attitudes, not just the noisiest ones. People appreciated the opportunity to have someone from 'the government' come and listen to their concerns and interests regarding land management - they appreciated being involved.

The concept of the catchment approach to land and water management was seen as common sense by most people. The inter-relationship between properties was well recognised - they already work together to manage issues that cross property boundaries such as weeds, vermin, fires and native vegetation. People expressed concern about a comprehensive range of land management issues, particularly native vegetation, weeds and pastures.

## Group support and catchment committees

The public meetings were well attended, with between 70 and 100 land-holders at each. Group support for the catchment projects was obtained and catchment committees were formed. To put the issues raised into priority a vote was taken. Each person was given five votes to cast, with a over dozen issues to chose from. The process was very successful in identifying the top four or five issues.

Soil erosion in the catchments is one of the most important issues from a water quality and land management perspective. However, it was usually

given a low priority. This was not seen as a problem as the importance of this issues will grow as the groups work through the process of understanding the problems, the causes and the solutions. Forming the catchment committees at a public meeting may be the fairest method but it is subject to some pitfalls. For example, the composition of the committee depends on who is at the meeting. Potentially valuable members may be excluded and people with an axe to grind may be included. The catchment groups have met every month or so since their formation. In that time they have conducted a range of field days and seminars, and have established demonstrations, as part of a planned work program. The task ahead is to work with the catchment committees and the other land-holders in each catchment to transform their concerns about the land into improved management methods.

(This project is now part of the major program Collaborative Catchment management in the Mount Lofty Ranges, funded through the Healthy Catchment Program, an initiative of the Federal Government.)

## Farmer Led Recovery for Cambodia ??

#### Ann Hickey, Leeton.



Devastated by recent civil wars, a peaceful agricultural revival may prove the turning point for the Kingdom of Cambodia. Food security is now at the top of the nation's agenda in a country that only produces 85% of its staple food - rice. In response, a number of agricultural aid projects are being established within the Cambodian

Ministry of Agriculture, Forestry and Fisheries, including the National IPM project.

#### **School With No Walls**

Farmer training in staple food production is the major emphasis of this project. Unlike many programs, the objective is not solely to achieve "technology transfer" but **rather to assist farmers** to become more self-reliant and empowered through improved **decision making, analytical and** communication skills. The existing ministry extension program works together with the project, however it simply doesn't currently have the resources to service a large number of farmers.

In Cambodia:

- \* 60% of farmers are illiterate
- \* women form 75% of the rural workforce
- \* the average farm size is 1.0ha. using low input subsistence agricultural systems.
- \* 80% of the population is involved in agriculture

Farmer Field Schools, or Schools Without Walls, were developed to suit local farmers, are field based and conducted

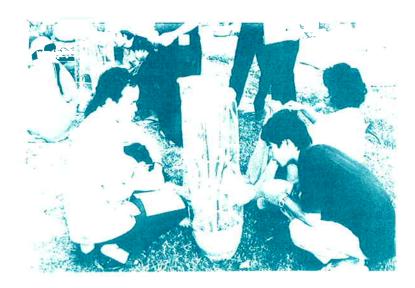
over one rice season. The traditional "talk and chalk"

teaching techniques were replaced with non-formal education methodologies. The course consisted of learning experiences designed for participants to

"discover" agronomic principles. Insect Zoo's were made from potted rice plants covered in plastic hoods. These allowed farmers to observe first hand the war games that pests and their predators play. Agro Ecosystem Analysis (AESA) activities were used help farmers grow economically with minimal impact on the environment. On a weekly basis, farmers monitor the crop/ water/ nutrient/ pest/ weed interactions and discuss management implications in small groups. With the probability of high input, intensive agricultural practises gaining favour in the future, such an exercise assists farmers to deal with more complex situations. Field Research and Field Days are conducted by farmers during the course. This allows farmers to test technologies and develop research and extension skills for home use. Local recommendations were developed to replace blanket recommendations. **Community Rat Control Programs** showed that farming is not limited to the individual but works at the collective level. Farmer Clubs were formed after training was completed. Activities included the use of objective crop monitoring techniques on a weekly basis after which farmers met to discuss management decisions.

International Network The project concept was developed by the Food and Agriculture Organisation(FAO) and is proving successful throughout Asia and Africa. Project representatives from around the world workshop regularly to

- \* farmer clubs form into networks and through organisations can attract assistance for technical, resource and policy development.
- \* it has been documented that farmer training is best performed by farmers



Insect zoos enable farmers to observe insect life cycles

share technology and training / extension developments and to support each other in their endeavours.

**Future Vision** Future developments that are planned, include:

themselves. Farmer-to-farmer extension / training has potential in a country where government systems have limited sources.

## Evaluation of participative extension projects

#### Ann Hickey, Leeton

As a follow up to the Evaluation theme of the APEN conference I've listed below some references that I have found useful and may be interesting to other APEN members. I've collected them during my travels in development work and hence are unsure if they are available locally, except where I've mentioned so.

\* Partners in Evaluation -Evaluating Development and Community Programmes with Participants. Marie-Theresa Fever stein 1986. pub. MacMillan Education LTD. ISBN 0-333-42261-9.

- \* Participating Monitoring and Evaluation Handbook for Training Field Workers. Regional Office for Asia and the Pacific (RAPA), Food and Agriculture Organisation. 1990. (For copies: Alexandra Stephens, Regional Sociologist & Women in Development Officer, FAD Regional Office for Asia and Pacific, 39 Phra Atit Road, Bangkok, 10200 Thailand)
- \* Participatory Rapid Appraisal For Community Development -A Training Manual Based on Experiences in the Middle East and North Africa. Joachim Theis & Heather Grady. 1991. Save the Children Fund. International Institute for Environment and Development. (Copies: 11ED, 3 Endsleigh St., London. WC/HODD U.K).

- \* Tool kits in Assessment, Monitoring Review and Evaluation. Louisa Gosling with Mike Edwards. 1993. Save the Children Fund.
- \* Demystifying Evaluation. Training Program Staff in Assessment of Community-Based Programs through a Field Operational Seminar. Noreen Clark and James McCaffery. 1979. World Education, 210 Lincoln Street, Boston, MA 02111 ISBN 0-914262-11-4.
- \*Training on Monitoring and Evaluation. 1991 Management Advancement Systems Assoc. Inc. 3rd Floor, House of Architects, 2 Matulungin Street, Diliman, Quezon City. 1104..



- \* <u>Data Collection Handbook-CARE</u> <u>Tools for Evaluation.</u> 1991 CARE Technical Assistance Group, 660 First Ave. New York. 10016.
- \* Training Program Evaluation.
  Training Centre, The International Rice
  Research Institute, Los Banas, Laguna,
  Phillippines.
- \* Project Identification, Design and Appraisal A Manual for NGO Laurie Zivets. Australian Council for over seas Aid, (For copies: The Appraisal and Evaluation Unit, ACFOA, PO Box 1562, Canberra 2601.)
- I have some further Project Management references with good Evaluation chapters if these are of use. World Vision have an excellent mail order service which may have a number

of the above references available. It would be very interesting to hear from members what approaches they have to evaluation currently, through the magazine. I hope the references are of use, Ann Hickey.

#### **APEN NEWS**

The Western Victorian Chapter will hold a seminar on

'Extension Futures' in Bendigo 3.00pm to 8.00pm on Thursday 13 June. The seminar will include invited speakers and small group discussion and will help people plan positively for their professional future.

More details in next newsletter, or from Matthew McCarthy, 054 30 4444, mccarthym@goldy.agvic.gov.au.
John McKinlay, Ag Victoria, Bendigo 054 30 4444

#### European Journal of Agricultural Education and Extension.

Received recently by Bob Macadam at UWS Hawkesbury was a letter from Robert van Haarlem, editor of this new Journal. Robert is seeking contributions and suscribers and draws attention to the possibility of submitting a paper based on internal reports worthy of a wider audience.

Robert's address is PO Box 194, 6700AE Wageningen, the Netherlands. E-mail is Rob.van Haarlem@ALG.OOB.WAU.NL, FAX IS 31 8370 84449 and telephone is 31 8370 84018

## STEERING GROUP

## COMMITTEE OF MANAGEMENT

Terry Makin (Inaugural President) 36 Earnon Drive, VIEW BANK 3084 Phone/Fax:(03) 9459 4063

Peter Davies (Vice President)
Dept. Land & Water Conservation
PO Box 205, DENILIQUIN 2710
Ph:(058) 812 122 Fax:(058) 815 102

Jane Fisher (Secretary)
Dept. Primary Ind. & Fisheries
PO Box 303, DEVONPORT 7310
Ph:(004) 217 649 Fax:(004) 245 142

Warren Straw (Treasurer) Agriculture Victoria, VIAS, 475 Mickleham Road, ATTWOOD 3049 Ph.(03) 9217 4360 Fax:(03) 9217 4299

Dale Williams (Editor) Uni Western Sydney-Hawkesbury Bourke Street, RICHMOND 2753 Ph:(045) 701 392 Fax:(045) 885 538 John Bourne (Committee) CRC for Soil and Land Management PMB 2, GLEN OSMOND 5064 Ph:(08) 303 8675 Fax:(08) 303 8699

Jo Millar (Committee) Charles Sturt University PO Box 789, ALBURY 2640 Ph:(060) 519 893 Fax:(060) 519 897

#### CONTACTS FOR CHAPTERS

SE QUEENSLAND CHAPTER Lanssa Wilson CRC for Tropical Pest M'ment University of Queensland, ST LUCIA 4072 Ph.(07) 3365 1860 Fax:(07) 3365 1855

CENTRAL/WESTERN NSW CHAPTER Ian Simpson NSW Agriculture Locked Bag 21, ORANGE 2800 Ph:(063) 913 748 Fax:(063) 913 208

NORTHERN NSW CHAPTER Anne Currey Wollongbar Agricultural Institute Bruxner Highway, WOLLONGBAR 2477 Ph:(066) 261 352 Fax:(066) 281 744

MURRAY RIVERINA CHAPTER John Lacy NSW Agriculture PO Box 108, FINLEY 2713 Ph:(058) 831 644 Fax:(058) 831 570 NORTH CENTRAL VICTORIA CHAPTER John McKinlay Bendigo Agricultural Centre PO Box 2500, BENDIGO 3554 Ph:(054) 304 444 Fax:(054) 484 982

MELBOURNE CHAPTER David Beckingsale Agriculture Victoria PO Box 500, EAST MELBOURNE 3072 Ph:(03) 9651 7033 Fax:(03) 9651 7216

GIPPSLAND CHAPTER Maria Rose Agriculture Victoria 117 Johnson Street, MAFFRA 3860 Ph:(051) 471 533 Fax:(051) 473 078

NORTHERN TERRITORY CHAPTER Debbie Van Rangelrooy Dept Primary Industry & Fisheries GPO Box 990, DARWIN 0801 Ph:(089) 892 211 Fax:(089) 892 049

SOUTH AUSTRALIA CHAPTER John Bourne CRC Soil and Land Management PMB 2, GLEN OSMOND 5064 Ph:(08) 303 8675 Fax:(08) 303 8699

TASMANIA CHAPTER Jane Fisher Dept of Primary Industries and Fisheries PO Box 303, DEVONPORT 7310 Ph:(004) 217 617 Fax:(004) 245 142 WESTERN AUSTRALIA CHAPTER Peter Nash Dryland Research Institute PO Box 432, MERREDIN 6415 Ph:(090) 411 555 Fax:(090) 411 138

ACT CHAPTER Ross Andrews

Grains Research & Development Corp.
PO Box E6, QUEEN VICTORIA
TERRACE 2600 Ph:(06) 272 5525
Fax:(06) 271 6430

NEW ZEALAND CHAPTER Alan McRae and Dick Kuyper Farm Management Department Massey University PALMERSTON NORTH NEW ZEALAND Ph. 64 6 356 9099 Fax: 64 6 350 5680

PAPUA NEW GUINEA CHAPTER Tim Kepui Department of Agriculture and Livestock PO Box 417, KONEDOBU NCD PAPUA NEW GUINEA 0120 Ph: (675) 212 271 Fax: (675) 211 387

SOLOMON ISLANDS CHAPTER David Palapu Solomon Islands Broadcasting Corporation PO Box 654, HONIARA SOLOMON ISLANDS Solomon Islands 23159

SECRETARIAT

Rosemary Currie PO Box 1239, WODONGA 3689 Ph:(060) 245 349 Fax:(060) 561 967

Opinions expressed in ExtensionNet are not necessarily those of the Australasia Pacific Extension Network (Inc) unless otherwise stated.

EDITOR: Dale Williams & Elwin Turnbull, UWS - Hawkesbury, Richmond NSW 2753 LAYOUT: Rosemary Currie, APEN Secretariat, PO Box 1239, Wodonga VIC 3689 PRINTING: Robyn & Greg Barlow, Snap Printing, Stanley Street, Wodonga VIC 3690