Growing the Capital of Rural Australia

- The Task of Capacity Building

A report for the Rural Industries Research and Development Corporation

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Foreword

The pace of change in rural Australia seems likely to accelerate, and innovation is one of the primary characteristics of people who gain the greatest advantage from changing circumstances.

Capacity building in rural communities and industries is a way of fostering innovation. For effective capacity building to occur, there needs to be alignment between the goals and actions of those involved and the institutions—the complex of laws, customs, markets, norms and organisations—that support them.

The Cooperative Venture for Capacity Building for Innovation in Rural Industries was formed to provide, through a coordinated program, the R&D basis for ensuring an effective rural industries extension, learning and education system. Following its establishment in 2001, the Cooperative Venture commissioned a number of projects to develop understanding and set directions for key research areas determined by its business plan.

This current project was commissioned with a view to promoting and rethinking rural extension, learning and education through government, industry and community groups, so that they respond to new and changing environments and enhance rural learning and practice. It reflects Cooperative Venture members’ concerns about whether current arrangements for supporting rural people and communities are appropriate, given the complexity and dynamism of the operating environment. That the members came together under this banner is testimony to the commonality of concerns and the inherent difficulties. The Venture has embarked on a study of a field in transition—a field in which traditional ideas related to extension and adult education are giving way to new ones and where there is much uncertainty about the best way forward.

The Cooperative Venture group has as its members the Australian Government Department of Agriculture, Fisheries and Forestry; the Murray–Darling Basin Commission; and eight rural research and development corporations—the Grains Research and Development Corporation, the Dairy Research and Development Corporation (now Dairy Australia), the Sugar Research and Development Corporation, the Grape and Wine Research and Development Corporation, Land and Water Australia, Meat and Livestock Australia, Australian Wool Innovation, and the Rural Industries Research and Development Corporation.

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Simon Hearn
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The Reference Panel
The members of the Reference Panel provided critiques of specific chapters and the overall paper in a recent draft, ‘The Way Ahead’, and drew attention to additional matters, ideas and information that would benefit the work. The authors are indebted to the following panellists:

- Richard Bawden, currently Visiting Distinguished Professor at Michigan State University, in the United States, has had a long and distinguished career in rural education and development in Australia and many overseas countries. He was Dean of the Faculty of Rural Science at the University of New England before taking up the position of Dean of the School of Agriculture and Rural Development at the University of Western Sydney’s Hawkesbury campus.
- Alastair Crombie, of AD Crombie and Associates, enjoys national and international prominence for his work in adult education. For many years he was a key member of the staff group at the Centre for Continuing Education at the Australian National University. His recent consulting work includes major input into the work of the Grains Research and Development Corporation.
- John Childs is director of Bush Business Consulting in Queensland. He provides professional services in natural resource management and is coordinator of the Northern Australia Program conducted by Meat and Livestock Australia. He was a long-serving officer of the Queensland Department of Primary Industries and a
leader in reforming its approach to extension.

- Bob Dick has an adjunct appointment at Southern Cross University in New South Wales and was previously with Griffith and Queensland Universities. For the past three decades he has been helping people learn about community and organisational change. A change practitioner and facilitator, he is noted for his use of action research methods.

- Tony Dunn lectures and researches in extension and agricultural systems at Charles Sturt University, Wagga Wagga, and runs a mixed farm that has been in his family for four generations. He is active in promoting organisational linkages related to rural development in the Riverina region, and his research interest is qualitative social science and farmer participatory research.

- Cheryl Hardie is a manager in the Mildura and District Educational Council. She was previously with Sunraysia TAFE, where she was responsible for strategic planning. Cheryl was a long-serving member of the Murray–Darling Basin Commission’s Community Advisory Committee.

- Onko Kingma is the director of Capital Agriculture, a consultancy firm with special expertise in institutional aspects of rural development. He worked in the public sector for many years, with the Bureau of Agricultural Economics and then on policy related to rural adjustment and community development with the Department of Agriculture, Fisheries and Forestry.

- Malcolm Letts is general manager of the Innovative Rural Management Division of the Queensland Department of Primary Industries, where he plays a leading role in the formulation of policy advice related to capacity building.

- Sally Marsh is a research fellow with the Department of Agricultural and Resource Economics at the University of Sydney. She followed 15 years of practical farming experience in Western Australia with research on extension theory, practice and policy at the University of Western Australia and is currently working on an ACIAR-funded project on agricultural policy in Vietnam.

- Rod McDonald is principal of the Ithaca Group and a special advisor to the Australian National Training Authority. He has worked on how people learn and the challenge of life-long learning and has been Professor of Adult Education and director of the Research Centre for Vocational Education and Training at the University of Technology, Sydney.

- Nigel McGuckian is a partner in Rendell McGuckian in Bendigo, Victoria. He has spent the last 20 years working closely with rural people on business management, farming systems training and decision making.

- Mark Paine is Principal Research Fellow (Innovation and Change Management) with the University of Melbourne. He worked in extension and extension research in New Zealand before moving to Melbourne in 2000 and is now working on change management in the Australian dairy industry. He is involved in international extension networks and was active in the affairs of the Asian Pacific Extension Network.

- Heather Shaw works with the Victorian Department of Sustainability and Environment in Bendigo. She has played a prominent role in the formulation of policy and practice related to provision of rural extension services in Victoria and is also a member of the Executive Committee of APEN.

- John Taylor is director of Rangelands Australia and Professor of Rangeland Management at the University of Queensland’s Gatton campus. He has had a long-term interest in the sustainability of our rangelands, the success of its industries and the development of its people.

The Steering Committee
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- Tony Gleeson, Synapse Research and Consulting
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Executive Summary

In 2002 the Cooperative Venture for Capacity Building for Innovation in Rural Industries commissioned a set of three projects under the label ‘Capacity Building for Innovation in Rural Industries’. The Cooperative Venture’s aim is ‘to provide, through a coordinated program, the R&D basis to ensure an effective rural industries extension, learning and education system’.

This report deals with the third project, ‘Improving Institutional Support Arrangements for Rural Capacity Building’. It is a study in a field where traditional ideas related to extension and adult education are giving way to new ones and where there is uncertainty about the best way forward. The subject area is marked by complex and changing concepts and by terminology that needs resolution and clarification.

Research carried out

The research for the project was carried out in three phases:

- **Phase 1**, from January to July 2002, involved an exploration of the situation and the various aspects of the project. Three exploratory stakeholder workshops were held, in Sydney, Melbourne and Brisbane. The output was a discussion paper entitled *Rural Institutions, Organisations, Capacity Building and Learning: a rich picture*.

- **Phase 2**, from August 2002 to April 2003, involved a data analysis that led to definition of relevant themes, development of ‘what should be’ constructs related to them, and their comparison with ‘what is’ to identify needed improvements. The output was ‘The Way Ahead’, a draft project report distributed to the 14 members of the Reference Panel in March 2003.

- **In phase 3**, in May and June 2003, the research team responded to the comments and contributions of Reference Panel members and developed practical recommendations for action. This report presents those recommendations and is the culmination of the work done to date.

Structure of the report

Chapters 1 and 2 of the report discuss the project’s development and the methodology used. Chapter 3 provides an overview of the environment in which rural people and communities appear to be operating and an analysis of the implications of this for capacity building. Chapter 4 develops an argument that highlights the reciprocal nature of capacity building and institutional arrangements; five propositions are derived from consideration of the relationship between the situation described in Chapter 3 and the argument developed in Chapter 4.

Chapters 5 to 9 each take up one of the propositions and expand on its practical relevance. This leads into an outline of an ‘ideal situation’ as a basis for reviewing the current situation and identifying avenues for improvement and recommendations for achieving this.

Central concepts

Rural Australians will continue to live and work in a complex and dynamic operating environment in which one of the few certainties is constant change.

*Capacity building* is construed as externally or internally initiated processes designed to help individuals and groups associated with rural Australia to appreciate and manage their changing circumstances, with the objective of improving the stock of human, social, financial, physical and natural capital in an ethically defensible way. The stock of human and social capital is developed through learning, but learning is not the sole outcome of capacity building: all forms of capital can be enhanced.
People whose practices and access to capital are integral to improving the problematic situation should be involved—that is, stakeholders in the relevant communities of practice, who, in turn, form a new community of practice for the purpose of capacity building. In this context, defining some communities of practice as providers and others as users is counterproductive: all are co-learners in the new communities of practice they form.

Capacity building requires that action be taken. Anything that encourages or inhibits the taking of action, or influences what is done and how, is significant.

Institutional arrangements and mind-sets are primary determinants of behaviour. Institutional arrangements are defined as the complex of laws, customs, markets, norms and associated organisations that channel our energy towards social goals and the ways we relate to others. Mind-sets reflect underlying values and beliefs and interact with institutional arrangements to influence behaviour. Capacity building has a reciprocal relationship with institutional arrangements and mind-sets, whereby changes in one can lead to changes in the others.

Extension, education and capacity building
Extension and education programs are commonly equated with capacity building, but the concept of capacity building developed in this report calls this into question. It subsumes the concepts of extension and education. Some implications follow:

- Extension and education programs per se are unlikely to stimulate action if they fail to complement existing action intentions.
- Action is more likely to be stimulated by expectations within a person’s communities of practice than by external ones—for example, for a farmer, those within his or her communities of practice, which are likely to differ from those a commercial or government agent belongs to.
- Programs based on a provider–user perspective are inherently unequal in terms of power relations and are likely to distort mutual perceptions and expectations. ‘Providers’ are best seen as providing access to the resources needed to improve a problematic situation.
- The initial goals of action taking to improve a problematic situation will vary among stakeholders—for example, an increase in financial capital for commercial agents, physical and financial capital for farmers, social capital for community groups, and human capital for educators.
- Participation in capacity building is likely to be stimulated by incentives tailored to meet the initial goals of different stakeholders—for example, a tax incentive or access to infrastructure funds for those seeking an increase in physical or financial capital.
- Participation with other stakeholders in a joint effort to resolve a problematic situation provides a context for generating shared increases in the stock of human, social, financial, physical and natural capital.
- Leadership is the key to the initiation of joint efforts to resolve problematic situations and may come from within any one or more of the stakeholder groups.
- Facilitative leadership is essential for building and maintaining a pattern of reflective practice among stakeholders in a joint effort to resolve a problematic situation and learn from the experience—about the situation, about how to handle it and similar ones, and about themselves.
Propositions arising and conclusions reached

**Proposition 1.** Effective capacity building maintains a focus on outcomes as improvements in the stock of capital sought by stakeholders. It strives for consistency between the outcomes sought and the nature, design and conduct of interventions.

**Conclusions**
Within a capacity-building program, the scope and purpose of an individual’s learning projects are not preordained by the educator or the educational training organisation. Programs based on a learning paradigm will use two complementary sets of methods to support capacity building: one set relates to *learning facilitation*, the other to *learning support*. Monitoring and evaluation should focus on the achievement of desired socio-economic and environmental outcomes (improvements in the stock of capital) and the emergence of the patterns of behaviour considered to be the stepping-stones to doing so.

Evaluation based on a provider–user perspective is too often dominated by questions of accountability and a concern with inputs and participant satisfaction.

Critiques of rural extension consistently highlight the continuing dominance of the technology transfer model in institutional arrangements related to RD&E.

Many existing extension/education programs are potential complements to capacity building—given an overarching agreement on what constitutes capacity building and the use of a monitoring and evaluation system that stimulates it.

**Proposition 2.** Effective capacity building defines and engages the relevant communities of practice. In doing so, it encompasses a diversity of interests and world views and avoids the losses associated with marginalisation of potentially significant people.

**Conclusions**
The basic requirements for successful capacity building by communities of practice are leadership, diversity and resources.

There is institutional support for developing rural leadership potential, but it tends to focus on the development of executive rather than facilitative leadership. Facilitative leadership is more likely to be a product of effective capacity-building programs themselves than of conventional ‘leadership programs’.

Rural Australia is rapidly diversifying, with a consequent increase in the available range of knowledge, skills, attitudes and world views.

With the probable exception of long-term projects, substantial resources are potentially available to support capacity building. Effective deployment of those resources is, however, inhibited by lack of appreciation of the nature of capacity building and misalignment of resources with needs.

**Proposition 3.** Effective capacity building creates a common agenda and a willingness to collaborate among the members of the relevant communities of practice.

**Conclusions**
Research highlights the importance of involving participants in establishing project goals and design, involving a wide cross-section of the community, aligning institutional factors from outside the region with the aspirations and capabilities of individuals and institutions within it, giving freedom to project leaders, and ensuring that the duration of funding is sufficient to enable the project to proceed to its conclusion.
The following are preliminary criteria to guide the design, conduct, monitoring and evaluation of capacity-building initiatives:

- diverse and relevant communities of practice collaborating to create a shared agenda
- a systemic approach to situation improvement—that is, interrelated strategies that encompass all aspects of capital improvement
- stated assumptions that reflect a collaborative learning paradigm
- scope for continuous improvement being offered by consistency among desired outcomes, methodology, and the monitoring and evaluation strategy
- provision for and access to the full range of resources needed for success
- improvements in the stock of physical, financial, natural, social and human capital generated through participation in situation-improving activities and related learning activities.

Programs that meet these criteria are becoming more common but are still the exception rather than the rule. Among the institutional reasons for this are structures and processes outside the region that are incompatible with holistic community-led processes at the regional level and state and federal government arrangements that are not aligned to capture and strengthen the benefits of improved capacity at the regional level.

**Proposition 4.** Effective capacity building depends on political and institutional commitment to the goal of capacity-building programs and the alignment with it of strategically important organisations.

### Conclusions

Capacity building, as defined in this report, is not sustainable without the alignment of institutional arrangements to support it. There is a growing appreciation of this at the political level, within the complex of strategically important organisations, and at the community level.

The alignment nexus depends to a large extent on the establishment at the regional level of coordinating and regulatory mechanisms that enable the formation of a partnership between community-based organisations and communities of practice on one hand and those within the complex of strategically important organisations on the other. Effective action by the partnership requires a reallocation of resources and authority away from the centre to the regions.

The needed realignment is inhibited by institutional inertia in strategically important organisations, where closed organisational boundaries and a command-and-control management style based on a compartmentalised world view are perceived as holding sway.

Support for leadership and expertise critical of the status quo will play a large part in achieving the alignments needed for capacity building.

**Proposition 5.** Continuous enhancement of capacity building depends on the availability of skilled practitioners, on their reflective practice, and on research into all its aspects.

### Conclusions

The underpinnings of new fields of practice are provided through centres of research and education, usually in universities. At present there are a few small centres and a few widely dispersed researchers, and there is little support from funders and the universities themselves.

The development of most capacity builders is probably going to occur mainly through adult education and as needs emerge. A variety of avenues offer potential as providers and facilitators, including adult and community education, TAFE, universities, and professional bodies such as the Australasia Pacific Extension Network and the Action Learning, Action Research and Process Management Association. This potential is under-exploited, and support does not always last for the duration of need.
Reflective practice is little embraced or encouraged. Its use depends on modelling by educational institutions, self-discipline on the part of capacity builders, and encouragement from funding and employing organisations.

There is a substantial body of research questions about aspects of capacity building. The Cooperative Venture offers potential to develop a research agenda and fund a network of researchers for the purpose of resolving those questions.
Recommendations

**Proposition 1.** Effective capacity building maintains a focus on outcomes as improvements in the stock of capital sought by stakeholders. It strives for consistency between the outcomes sought and the nature, design and conduct of interventions.

There is a growing appreciation of the shortcomings of extension and adult education programs based on a teaching paradigm and of monitoring and evaluation based on the achievement of preordained targets for accountability purposes. Bridging the gap between this approach and a capacity-building one will result in substantial marginal returns.

The following is recommended:

- A debate should be initiated within and between strategically important organisations (see Chapter 8) to arrive at an agreed capacity-building rationale based on the propositions developed in this report. The debate should focus on the need to subsume the terms extension, education and communication within the wider concept of capacity building, as developed in this report.
- The debate should be complemented by a communication campaign to develop awareness of the matters at issue and interest in participating in the debate.
- The evaluation and monitoring strategies used by Cooperative Venture members should be reviewed in order to ascertain the strategies' effectiveness in facilitating and supporting the emergence of capacity building.

The Cooperative Venture is the logical candidate to initiate the debate, mount the communication campaign, and commission the review as a follow-up to this project.

**Proposition 2.** Effective capacity building defines and engages the relevant communities of practice. In doing so, it encompasses a diversity of interests and world views and avoids the losses associated with marginalisation of potentially significant people.

Chapter 6 examines the proposition that capacity building depends on engagement of the relevant community of practice, which includes everyone who has a stake in the outcome, as well as others with relevant expertise and different perspectives. The preconditions for establishment of effective communities of practice are access to facilitative leadership; to diverse mind-sets, knowledge, skills and attitudes; and to other resources. Although these preconditions often appear to be adequate, there are conspicuous deficiencies.

To improve this situation, the following is recommended:

- Current leadership programs should be reviewed to assess whether their curricula are consistent with the aim of developing facilitative leadership and how they might be more closely connected with the experience and activities of people in their real world, in the places in which they live.
- Expansion of diversity should be encouraged by:
  - ensuring full access for rural people to all layers of education
  - opening more public funding for rural support activities to private suppliers
  - promoting the involvement of women, young people, Indigenous Australians and people of culturally and linguistically diverse background
  - ensuring universal access to telecommunications of a quality that permits efficient e-networking and web access
  - promoting the use of e-networks and the web through, for example, sponsoring discussion groups, establishing common websites and compiling relevant databases
  - promoting capacity building within frameworks that require a holistic approach—for example, value chains, natural resource management systems, and community development
  - monitoring and building awareness of the effects of commercial restrictions on the sharing of information.
• Capacity-building programs should be designed holistically, to ensure access to the full range of resources required for effectiveness.

**Proposition 3. Effective capacity building creates a common agenda and a willingness to collaborate among the members of the relevant communities of practice.**

A sense of shared ownership of potential capacity-building programs by the relevant communities of practice is a prerequisite for the communities’ active participation in those programs. This is enhanced by institutional arrangements that facilitate alignment of communities and organisations within a region with relevant ones from outside it. Research that provides decision-making information to enable this is a sound investment. Ownership and participation will increase if the program is perceived as meeting the criteria for what constitutes a capacity-building program.

To achieve this, the following is recommended:

• The Cooperative Venture should commission a project to develop a set of criteria for assessing capacity-building initiatives. The project should have as an outcome the use (by Venture members and other relevant stakeholders) of the criteria to guide the design, conduct, monitoring and evaluation of capacity-building initiatives. A preliminary set of criteria is proposed, as follows:
  – diverse and relevant communities of practice collaborating in creating a shared agenda
  – a systemic approach to situation improvement—that is, interrelated strategies that encompass all aspects of capital improvement
  – stated assumptions that reflect a collaborative learning paradigm
  – scope for continuous improvement being offered by consistency between desired outcomes, methodology, and the monitoring and evaluation strategy
  – provision for and access to the full range of resources needed for success
  – improvements in the stock of physical, financial, natural, social and human capital generated through participation in situation-improving activities and related learning activities.

An element of the proposed project should be the review and identification of projects and programs that apparently meet these criteria or did so but have since been disbanded. The aim here is to identify more precisely the conditions that help or hinder the initiatives’ emergence and sustainability.

• Funders of programs with capacity-building potential should ensure there is a sufficient allocation to enable the initiators to identify and engage the relevant communities of practice in the design process. This should include research that provides decision-making information on what might make people want to become involved.

**Proposition 4. Effective capacity building depends on political and institutional commitment to the goal of capacity-building programs and the alignment with it of strategically important organisations.**

Capacity building, as defined in this report, is not sustainable without alignment of institutional arrangements to support it. There is growing appreciation of this at the political level, within the complex of strategically important organisations, and at the community level. The needed realignment is inhibited by institutional inertia, where closed organisational boundaries and a command-and-control approach based on a non-systemic, compartmentalised world view continue to hold sway.

To support the necessary alignment, the following is recommended:

• The Cooperative Venture should highlight within its mission its role in identifying needed changes in institutional arrangements to facilitate rural capacity building. It should place a high priority on research whose outcome is realignment of coordinating and regulatory mechanisms to enable partnerships between community-based organisations and communities of practice on one hand and those at the centre on the other.

• The Cooperative Venture should use its influence within the complex of strategically important organisations at the centre to advocate the necessary reallocation of resources and authority away from the centre to the regions.
Monitoring and evaluation of programs with capacity-building potential should serve to highlight institutional constraints and opportunities to further the programs’ effectiveness and should focus energy on action to either remove or strengthen the programs (see also the recommendations related to Proposition 3).

In its advocacy of capacity building, the Cooperative Venture should highlight the need for staff development programs within and between relevant organisations to be designed and conducted as capacity-building programs whose outcomes are:
- improvements in human and social capital within the organisation, based on action to reposition the organisation in such a way as to increase the effectiveness of its contribution to rural capacity building
- identification of opportunities and constraints related to needed institutional alignment
- advocacy of and, where feasible, action to achieve needed alignments within and between organisations.

**Proposition 5.** Continuous enhancement of capacity building depends on the availability of skilled practitioners, on their reflective practice, and on research into all its aspects.

It is recommended that the supply of reflective practitioners and researchers and the conduct of research into capacity building be enhanced through the following measures:

- A cooperative research centre kind of arrangement of researchers and educators, including several university centres for research and education, should be established and funded to provide research and education focused on capacity building. This entity should be charged with responsibility for:
  - being responsive to the needs of communities of practice
  - refining a research agenda incorporating the research questions listed in Box 9.2 and conducting research initially on that agenda
  - providing undergraduate, postgraduate and adult education programs
  - stimulating the widest possible dialogue among practitioners, researchers and relevant organisations. This should be done through the development of a credible, well-recognised and easily accessed website, plus a print journal for publication of papers, ideas and debate, and through facilitating regular workshops and conferences.

- The Australasia Pacific Extension Network, as an organisation of people engaged in the profession of capacity building and being committed to regularly informing and facilitating debate on practice, should receive sponsorship.

- A cooperative relationship between the proposed cooperative research centre and the Australasia Pacific Extension Network, in which the Network would provide forums and workshops on emergent issues and facilitate ongoing debate, should be encouraged.

- The potential for using adult and community education and TAFE as sources of capacity-building support programs should be explored.
1. Introduction

In 2002, following on from four previously commissioned studies (Fulton et al. 2002a, 2002b, 2002c, 2002d), the Cooperative Venture for Capacity Building for Innovation in Rural Industries commissioned a set of three projects under the label ‘Capacity Building for Innovation in Rural Industries’. The Cooperative Venture has as its members the Australian Government Department of Agriculture, Fisheries and Forestry; the Murray–Darling Basin Commission; and eight rural research and development corporations—the Grains Research and Development Corporation, the Dairy Research and Development Corporation (now Dairy Australia), the Sugar Research and Development Corporation, the Grape and Wine Research and Development Corporation, Land and Water Australia, Meat and Livestock Australia, Australian Wool Innovation, and the Rural Industries Research and Development Corporation. The Venture’s aim is ‘to provide, through a coordinated program, the R&D basis to ensure an effective rural industries extension, learning and education system’.

The three projects commissioned in 2002 were:

- Project A: ‘A National Extension/Education Review—what works and why?’
- Project B: ‘Fostering Involvement in Rural Industry and Government Extension’
- Project C: ‘Improving Institutional Support Arrangements for Rural Capacity Building’.

This report deals with the third project. It was intended to respond to objective 3 of the Cooperative Venture’s business plan—‘Promote and rethink rural extension/education through government, industry, and community groups so they respond to new and changing environments and enhance rural learning and practice’. The business plan envisaged the project’s tasks as:

- Develop a set of specific strategies to respond to social, economic and technological changes that are likely to impact on the learning environment over the next 10–20 years and their implications for interest groups, industry and government.
- Map current and possible institutions and organizations involved in learning and change including development of identified strategies and options for and the development of inter-organisational agricultural development services.

In the subsequent terms of reference, however, the Cooperative Venture interpreted the project objective as focusing on 

… improved management, administrative and communication arrangements that support rural extension/education provision. The project aims to promote and rethink rural extension/education arrangements of government, industry and community groups so that they respond to new and changing environments and promote enhanced learning and practice.

The various Cooperative Venture documents clearly reveal members’ concerns about whether current arrangements for supporting rural people and communities are appropriate, given the complexity and dynamism of the operating environment. That the Cooperative Venture members came together under this banner is testimony to the commonality of concerns and the inherent difficulties. The Venture embarked on a study of a field in transition—a field in which traditional ideas related to extension and adult education are giving way to new ones and where there is much uncertainty about the best way forward. The subject area is marked by complex and changing concepts and by terminology that needs resolution and clarification.
1.1 The terms of reference

Under these circumstances, the terms of reference for the project changed to become the following:

1. Through a review of social, economic, political and technological trends that are likely to have an impact on a future learning environment, summarize these trends and discuss how they will impact on rural learning in the next 10–20 years.

2. Related to TOR 1, identify the current institutional arrangements supporting and constraining rural capacity building and learning, and possible improvements.

3. Related to TOR 2, engage key stakeholders in dialogue about improved institutional arrangements to support rural capacity building and learning—including inter-organisational structures, inter-relationships, roles, responsibilities, and possible barriers for change in institutional arrangements and the desirability and feasibility of those changes.

4. Report the findings for ongoing debate among stakeholders.

1.2 The underlying argument

This report argues for institutional reform that enables continuous improvement across the spectrum of human, social, natural, financial and physical capital in rural Australia. This is seen as the ultimate outcome sought by the Cooperative Venture.

The report is propositional in nature: it is a response to a field of enquiry characterised by a ‘mess’ of unresolved questions and ideas. This is reflected in a body of literature that is broad in scope but pays scant attention to some important questions. Anecdotal exemplars and deduction are also used to develop the case put forward in the report. A comment by a member of the Reference Panel established for the project reflects the nature of the task:

Institutional analysis, because it is concerned with beliefs, values, etc, by definition, requires a discursive approach in which ‘the story being told’ is the key to convey the subtleties of the underlying institutions. There is no one correct conclusion. Which institutions need to be changed is coloured by judgment and beliefs about what is appropriate or failing. (Kingma 2000)

The argument presented in the report emerged from successive iterations of enquiry, reflection and debate. It is summarised in the following paragraphs and pursued in detail in the rest of the report.

In Chapter 4 capacity building is defined as ‘externally or internally initiated processes designed to help individuals and groups associated with rural Australia to appreciate and manage their changing circumstances, with the objective of improving the stock of human, social, financial, physical and natural capital in an ethically defensible way’. In other words, through interventions of various types, individuals, organisations and communities are empowered to act and to enhance their businesses, industries, natural environment and living communities by doing so.

Capacity building goes beyond the acquisition of new knowledge, skills and attitudes (human capital), and the building of better relationships (social capital): it means the people whose attributes and relationships are improved use the existing stock of physical, financial and natural capital to improve their situation and the overall stock of capital.

Communities of practice are the building blocks of capacity building. They include not only those who are often referred to as ‘users’ but also those who are usually seen as ‘providers’. All are participants in and beneficiaries of capacity building, which requires that action be taken. Anything that encourages or inhibits the taking of action, or influences what is done and how, is significant. Institutional arrangements fall into this category, as do mind-sets and the values and beliefs underpinning them.

Continuous improvement in the alignment within and between capacity-building initiatives, institutional arrangements and mind-sets is the key to ongoing improvement in the stock of human, social, financial, physical and natural capital.
The argument is further developed through a consideration of five related propositions:

1. Effective capacity building maintains a focus on outcomes as improvements in the stock of capital sought by stakeholders. It strives for consistency between the outcomes sought and the nature, design and conduct of interventions.
2. Effective capacity building defines and engages the relevant communities of practice. In doing so, it encompasses a diversity of interests and world views and avoids the losses associated with marginalisation of potentially significant people.
3. Effective capacity building creates a common agenda and a willingness to collaborate among the members of the relevant communities of practice.
4. Effective capacity building depends on political and institutional commitment to the goal of capacity-building programs and the alignment with it of strategically important organisations.
5. Continuous enhancement of capacity building depends on the availability of skilled practitioners, on their reflective practice, and on research into all its aspects.

1.3 The structure of the report

This introductory chapter is followed by an outline of the project methodology in Chapter 2. Chapter 3 provides an overview of the environment in which rural people and communities appear to be operating and an analysis of the implications of this for capacity building.

Chapter 4 presents a conceptual framework that affirms the centrality of learning but argues that, alone, learning is insufficient for capacity building. Who should be involved in capacity building is raised as a critical question, as is the nature of the relationships between these participants. Communities of practice are nominated as the focus of capacity building; the notion of ‘providers’ and ‘users’ is rejected. The chapter then examines the reciprocity of capacity building with the institutional arrangements and the mind-sets that mediate it. The five propositions just described are derived from consideration of the relationship between the situation described in Chapter 3 and the argument developed in Chapter 4.

Chapters 5 to 9 each take up one of the propositions. The conceptual framework presented in Chapter 4 is expanded and its practical relevance explored in the background section related to each proposition. This leads into an outline of an ‘ideal situation’ as a basis for reviewing the current circumstances and identifying avenues for improvement and recommendations for achieving this.
2. Methodology

The project methodology is based on ‘soft systems’ methodology (Checkland 1991). It uses a sequential and iterative process of:

1. exploration of the situation and issues encompassed by the project, including discourse about and clarification of the meaning of core concepts such as ‘learning’, ‘capacity building’ and ‘institutional arrangements’
2. collaborative analysis of the data and emergent insights to arrive at agreement on and definition of relevant themes
3. development of conceptual constructs related to each of the themes
4. comparison of the conceptual constructs with the existing situation to identify needed improvements
5. development of practical strategies for making the needed improvements.

The research for the project was carried out in three phases:

- Phase 1, from January to July 2002, was mainly concerned with methodological step 1. It involved all four of the Rural Enablers team—Macadam, Drinan, Inall and McKenzie—and specialist input from Professor Ray Ison, from the Open University in the United Kingdom, relating to ‘institutional arrangements’. It included a briefing with the Steering Committee; three exploratory stakeholder workshops, in Sydney, Melbourne and Brisbane; desktop scans of organisations involved in support of rural learning; interviews with relevant experts; an ongoing literature search; two team meetings to review and reflect on activities; and a progress meeting with the Steering Committee and the principals of the two other Cooperative Venture projects. The output was a discussion paper entitled *Rural Institutions, Organisations, Capacity Building and Learning: a rich picture*.

- Phase 2, from August 2002 to April 2003, was concerned with methodological steps 2, 3 and 4. It involved a series of meetings of the research team, continuing liaison with the Steering Committee’s Chair and projects manager, a presentation to the Steering Committee, and desktop work on development and use of the conceptual constructs. The initial output was a draft paper, ‘The Way Ahead’, in January 2003; this was revised in the light of feedback from the Steering Committee and further desktop research and then distributed members of the Reference Panel in March 2003.

- In phase 3, in May and June 2003, the research team held a series of meetings to respond to the comments and contributions of Reference Panel members and to develop practical strategies as the basis of recommendations for action—that is, methodological step 5. This report presents those recommendations and is the culmination of the work done to date.
3. The Operating Environment for Rural Australia

3.1 Trends

Agricultural extension in Australia began in the 19th century in the form of government-provided services and reached its zenith in the mid-20th century, when a pervasive belief in science and technology as instruments of economic progress gave extension its defining purpose—technology transfer. Increasing production was seen as synonymous with profitability, and scientific farming was expected to increase production. Government research officers were employed to discover better ways of producing agricultural commodities. Extension officers, a quite separate group, had responsibility for promoting research results in the belief that the results would be adopted by farmers, to their benefit.

As middlemen, extension officers were expected to keep in touch with research findings, assess their potential value and, as appropriate, promote them. The nature of their research connections was idiosyncratic, perhaps relying on word of mouth or reading, conferences and seminars, or personal links with researchers. Some departmental managers aided this process by fostering close and continuing links between research and extension, depending on personal qualities and relationships. Among their main methods of transferring new technologies were one-on-one farm visits, field days, and articles in specialist journals and the local media. Their performance was judged by quantitative criteria such as the number of farm visits, publications and radio interviews, but not adoption rates.

Although there were stand-out innovators in research, extension and the research–extension relationship, this generalisation reflected the situation at mid-century. In the 1960s, however, the world began an accelerating transition from the simplicity and confidence of the post-war period towards increasing complexity, sophistication and rate of change. Concerns emerged, for instance, that human activities were causing long-term damage to natural resources and that the pursuit of increased production without reducing the unit cost of production was a ‘will-o’-the-wisp’ endeavour. Science and technology, once unquestioned, were admired for putting humanity into outer space but also suspected of causing much harm. Society’s belief systems and institutions were challenged by events as varied as the Vietnam War, easy access to drugs, the sexual revolution, and church reform.

The momentum for change has proved unstoppable and reaches into every area of human activity, including agriculture. The farming, research and extension models of the 1950s have long since ceased to be adequate, as have ideas that rural Australia is solely about agriculture. The search for better ways has proved challenging. Macadam (1997) offers a more detailed history of this progress.

The purpose of this study is not to look back or even to find out why things are not done better. It is to contemplate the future at a ‘macro’ scale and then to consider its meaning for ways in which rural people might be helped to deal with change. In this chapter the future, as seen by participants in this study and by various commentators, is described and assessed for its implications as to how rural Australia can adapt successfully. Expected developments in the next 10 to 20 years are considered using the comprehensive INSPECT mnemonic—Intellectual, Natural, Social, Political, Economic, Cultural and Technological factors.
3.1.1 Intellectual movements

The nature of knowledge

Post-modernist thinking has generated the view that knowledge is conditional—that is, subjective, not objective. It is constructed by individuals from their experience of the world, filtered through their unique world view. This chapter, for instance, is an amalgam of the views of many, yet each of those involved will have synthesised a particular view that relates the various issues to their own particular circumstances and weights them accordingly. In the process they will have injected other factors of consequence for them. In practical terms, this means the exercise of imagining and creating the future is ultimately an individual one, and this chapter can be no more than a collection of likely macro concepts.

Constructivist notions are having a profound impact on education and approaches to learning. Because individuals construct knowledge through their unique lens on the world, it is not possible to transfer knowledge to anyone: information can be put at their disposal, but how this emerges as knowledge is unique to them. Consequently, people cannot be taught, but they can be helped to learn. The role of the teacher is thus not to attempt to transfer knowledge; rather, it is to help learners engage with ideas and information and make sense of them. This thinking—discussed, for example, by Laurillard (1992)—is underpinning much adult education practice.

Learning and continuous improvement

Learning is also increasingly recognised as the most fundamental agent of innovation, management and continuous improvement. By observing and reflecting on action, people learn to do things better, which is the basis of good management and quality assurance. This utilitarian understanding, in policy-making arenas, appears to overshadow the other, more idealistic, notion of learning—that learning is the means by which the whole person is enabled to grow into fullness, intellectually, physically, aesthetically, ethically and spiritually.

Systems or holistic thinking

There is growing appreciation of the need to see things as wholes, at least as much as through their constituent parts. Much of value is seen in concepts such as complex adaptive systems and self-organising systems (Waldrop 1992) and human activity systems (Checkland 1991). The environmental movement, in particular, has reminded us that all things are interconnected and that the interrelationships are at least as important as the parts. While Western thought has been schooled to reductionist ways of looking at the world, systems or holistic thinking is being applied to varying degrees in, for instance, health promotion, environmental management and business management.

Rural mythology

Another stream of thought is evident in the brave but unremarked challenging of Australian rural mythology by Gleeson and Piper (2002). At its roots, this belief system holds that rural Australia is about agriculture, farms are about agriculture, and agriculture is of critical importance to Australian socio-economic life. Gleeson and Piper demonstrate that agriculture’s contribution to the economy is substantially overrated and stagnant. This view is yet to have much impact, but hard-headed thinkers and commentators will progressively take it up and policies will change. Puncturing the mythology will allow rural Australia to be seen in its true diversity, accompanied by acceptance that farming, as just one of its activities, is carried on for many purposes apart from the profit seeking that governments appear to see as its fundamental aim.

In parallel, there is an emerging debate about whether and why rural Australia is important to the vast majority who live in the coastal metropolises (see, for example, Synapse Research and Consulting 2000). This offers a chance to see rural Australia anew and provide a firm basis for government policies and initiatives in a future where it is less and less supportable to justify funding rural Australia on the basis of the contribution of agriculture. Beliefs and values are at the root of this conversation, as is the emergence of an Australian spirituality (see, for example, Tacey 2000, 2003) and deepening recognition of our connection with the land. These promise to shift the balance of
appreciation towards a view of rural Australia as satisfying the many and varied needs of all Australians.

**The uniqueness of Australia’s environment**

Flannery (1994) challenged us to see the Australian environment anew and to cast aside lingering and pervasive notions of it being even remotely similar to that of northern Europe or America. He pointed, for example, to the nutrient poverty of Australia’s soils and seas, the extraordinarily rich biodiversity, and the extreme climatic variability. He argued that uniquely Australian ways of managing such a different environment must be found and that this has implications at every level, from crop planting to lending policies. His challenge is being taken up, supported as it is by growing evidence of past failure of environmental policies and management and the experience of those who are learning through doing things differently.

### 3.1.2 The natural environment

**Land and water degradation**

Land degradation through erosion, dryland salinity and loss of biodiversity is prominent in the media and is receiving attention from governments. Water degradation and competition between the many users of water have also gained national attention and are often claimed as the primary concern for the foreseeable future. Governments are under pressure from the general community to curb exploitative excesses of farmers and others, who are slowly realising that their approaches to natural resource management must change.

**Environmental management systems and accreditation**

The spread of Landcare and Rivercare, holistic thinking and planning by irrigation companies in the Riverina, and the development of environmental management systems such as the Australian Landcare Management System (Synapse Research and Consulting 2002) are evidence that a long process of learning for sustainable natural resource management is under way. This will be accelerated by evidence of continuing environmental damage. Governments are imposing, and will eventually police, regulation where self-regulation fails. Rural managers will introduce environmental management systems, seek accreditation by buyers (to avoid consumer boycotts) as responsible natural resource managers, and expect periodic auditing. Better practice will result in the redesign of farming systems—to use less water, for example.

For environmental problems such as salinity and biodiversity, Ridley (2003) maintains that decision making and potential treatment should occur at the farm and catchment, landscape or regional scales. Gaining community acceptance and engagement in and ownership of possible solutions requires special effort: as Ridley says, ‘This takes time and patience and has an uncertain outcome—hardly the stuff that delights managers and output/outcomes oriented funders’. She sounds a warning note that environmental management systems alone, good science alone, the use of farmer groups alone, and financial incentives or policy change in isolation are unlikely to produce better environmental outcomes.

**Market-based approaches to environmental management**

Market-based approaches are expected to form a substantial component of environmental management in the future. Proposals for trading in carbon, salinity and biodiversity credits are advancing, although there is a lack of clarity about how the systems might be implemented. It is also likely that the community will accept that on-farm works for environmental improvement—apart from expected good management—can provide benefits for the general community and the farm; this will lead to a willingness to share the costs through, for example, payments for alienation and stewardship of conservation areas.
Climate variability and change

Growing recognition of the historic variability of the Australian climate is forcing self-reliance on farmers, so they are factoring drought into their range of difficulties to be expected and managed without assistance. Moreover, climate change now appears certain. The effects on rural Australia remain speculative, but wise managers will expect greater extremes of weather. As with drought, more sophisticated risk-management approaches are likely to emerge to accompany existing ones such as the Commonwealth’s Farm Management Bonds.

3.1.3 Social developments

Participatory communities

Rural Australia is a picture of many dead and dying towns and villages, some large and thriving towns and cities, and a few smaller ones that appear to be surviving against the odds. Given the relentless decline in farmers’ terms of trade, and the persistence of mind-sets that hold that rural Australia is agriculture, this trend will continue until the existing diversity and wider potential of rural Australia is accepted and encouraged. Evidence for change lies in the surviving and thriving communities that have taken their future into their own hands and have identified and used their natural advantages. These are a sign that community decay can be avoided given local leadership, wide participation, resources and community will and capacity for change, but it remains likely that these will be the exceptions.

Resilience

Impressions of countryside decay may be partly illusory, at least in the case of farmers. Well over half of Australia’s farms receive an off-farm income of some sort (Garnaut & Lewis 1997), which bestows greater resilience. Rural people might be better served by thriving large towns than by struggling small ones, even if they must travel further. Larger towns offer more varied and better services and thus greater potential for employment and a satisfying lifestyle for young people who would otherwise migrate to the metropolises. Universal access to the internet will give immediate, travel-free access to services and facilities unimaginable to previous generations. It will also offer people easy, instant access to their personal networks of dispersed family, friends and professional supporters and other ways of being involved in decision making for their communities.

The bimodal distribution of farms

Thriving towns support growing populations of hobby or lifestyle farmers, creating a bimodal distribution of farms—small ones on which the owners do not rely for a living and large ones that generate a living wage. This phenomenon is widespread in the Western world and, because it satisfies a broad range of purposes, will continue. Small farms are as integral as large ones to the rural environment as a whole.

Changing business and labour arrangements

While the family farm remains the overwhelmingly dominant farm business structure in Australia, there is a growing number of corporate farms and farms that depend on specialised itinerant and contract labour. The implications of this for rural communities are not known for Australia (Tonts & Black 2001), but overseas experience suggests both positive and negative outcomes. For example, local towns will suffer if farmers do not buy locally; on the other hand, the arrival of corporate money and expertise can provide a substantial economic and social fillip for a town.

Attitudes to labour are significant determinants of enterprise and community success. Many employers regard staff as a cost, rather than an investment, and complain that it is hard to find labour. That view appears to be changing along with recognition that people can be attracted into rural areas if they see reasonable financial rewards, decent personal treatment, and reasonable security. If this trend is real, it will help with attracting labour and young people, although it is likely to be offset by increasing farm mechanisation and automation.
Attitudes to learning

Learning is increasingly accepted as the means of change and, in general, rural Australia’s access to learning facilities is limited only by residents’ interest and willingness to devote the time. The proportion of rural people completing higher levels of formal education has been rising steadily, and rates of participation in non-formal programs and activities can be very high (see, for example, Bamberry et al. 1997). Greater participant involvement in deciding topics and learning methods and recognition of the importance of learning to innovation and success suggest that this trend will continue. Public funding might decline, however, in line with the perceived distribution of the benefits of learning.

The influence of Indigenous Australians

Since the granting of land rights to Aborigines in the mid-1970s, a considerable area of Australia’s land mass has come under Indigenous control and other areas are being shared under the concept of Native Title. If rural regions are to be managed holistically, management of these lands must be factored into the management of regions, and the influence of traditional Indigenous ways of managing the land might begin to affect European thinking and hasten the arrival of appropriately Australian land management systems.

Health

The health and safety of rural residents—most notably males, Indigenous Australians, and children—regularly attracts attention from the media and government. To date, farms have avoided many of the regulatory constraints imposed by occupational health and safety legislation, but this seems set to change. Concern about rural suicide, especially among young people, is leading to the development of approaches designed to combat the problem. Similarly, concerns about child safety and the delayed treatment of male ill-health have inspired initiatives to reverse these problems. Taken together, serious attempts to improve the health of rural people will force changes in attitudes and the ways things are done.

The distribution of health services will remain problematic for rural Australians. Distance, rising costs and unattractive conditions of employment for health professionals conspire against the provision of health services that are on a par with those available in large urban centres. To some extent, however, this problem might be alleviated by inventive uses of the internet.

3.1.4 Political considerations

Globalisation

Globalisation of the Australian economy will recede only if the dominant economies revert to isolationism as a result of widespread electoral disenchchantment or if catastrophic world events, such as escalating terrorism, necessitate a retreat. Friedman (1999) presents a compelling argument for globalisation’s continuance but points out that its benefits do not come without costs. The major political parties in Australia and the Western world appear strongly convinced by the argument but have so far proved fairly unimaginative in dealing with the negatives and can easily be persuaded to retain or return to restrictive trading practices.

Vulnerability to major powers and economies

As a relatively minor power and economy, Australia is vulnerable to pressure from major economies such as the United States, the European Union, Japan and China and from multinationals such as banks, pharmaceutical manufacturers and media corporations. The nature and timing of such pressure are unpredictable, but the effects will probably not be favourable for Australia. They are likely to result in, for example, diversion of government expenditure away from other national areas of need or policy changes that restrict competition from Australian enterprises. Diversion of funds can also occur as a result of factors such as illegal immigration and war and in response to emergencies and basic needs among Australia’s neighbours in the Asia–Pacific region.
Australia is also too small to have much influence in international trade forums. The nation’s exports are heavily weighted to primary products and tertiary products such as tourism, so the fortunes of rural Australia remain at the whim of the United States, the European Union and Japan in particular. The advent of the World Trade Organization appears unlikely to shift the balance significantly in Australia’s favour, and the benefits proposed from current moves towards a free-trade agreement with the United States are being treated sceptically by farmer organisations.

Rural electoral power

Rural Australia’s disproportionate electoral power will decline as urban views about how rural Australia should be managed come to dominate. This will erode myths such as farmers being the best stewards of natural resources—not that any other sector can lay a better claim—and lead to a loss of patience with farmers’ calls for economic assistance when suffering market collapse or drought. The increasing prevalence of ‘user pays’ for services previously provided free by government is another manifestation of the decline in rural influence, as are periodic moves to reduce the taxpayer contribution to rural RD&E. The high cost of development and maintenance of rural infrastructure creates a disincentive for government investment unless there are demonstrable benefits to a large proportion of non-rural as well as rural Australians. Market regulation, too, has become unpalatable to governments and is steadily being withdrawn, so that farmers are exposed to the full force of the market, with potential for both devastating and revitalising effects.

Government’s withdrawal from ‘the bush’ is, however, highly unlikely. In some areas, such as the environment, it will probably become far more interventionist, as demonstrated in the current squabbles over native vegetation and water allocations. These problems have attracted the attention of urban and rural environmentalists, and the evidence of mismanagement is so compelling that governments cannot but act. On one hand, they are legislating to prevent further damage; on the other, they are providing incentives and instruments for prevention and amelioration through programs such as Landcare. Less obviously, governments responded to ‘Hansonism’ with an array of social programs designed to reduce disaffection in rural communities.

Devolution of decision making

There is a growing realisation in communities that their future lies in their own hands. They are less prepared to have governments dictate how they will proceed, and there are ever more calls for governments to devolve greater control over decision making and expenditure to communities (see, for example, Yu 2000). Governments will probably yield to the logic of these calls—but only to the extent that they do not lose too much power. Capacity-building initiatives will accelerate the demand for devolved decision making. Autonomous, competent, lively and progressive communities benefiting the whole nation are the likely outcomes of intelligent management of this movement.

Population growth and distribution

Zero or negative population growth is a reality in Australia and many OECD countries; Japan provides an example of its effect when combined with highly restrictive immigration policies. The economic and social implications of the consequent ageing of the population leave governments with no alternative but to seek growth through child-rearing incentives or increased immigration. The lack of political will to introduce incentives to an apparently indifferent population of child-bearing age leaves increased immigration (largely from poorer economies) as the only way ahead, although that could be largely self-defeating if it results in even more crowded cities. The population debate will be as much about distribution of immigrants throughout Australia as it will be about numbers, origins and implications. A more ethnically diverse rural Australia might offer the benefits of greater social and economic diversity and be an instrument of rural renewal—for example, by providing medical services in rural areas avoided by Australian-born doctors.
3.1.5 Economic trends

The export orientation of agriculture

Zero or negative domestic population growth means that agriculture will remain export oriented in an expanding world food market and highly vulnerable to the policies of trading partners. Contrary to popular belief, relative to others Australia’s success as a food exporter has been declining for some time (Heilbron & Larkin 1995, cited in Gleeson & Piper 2002), suggesting, among other possibilities, that other exporters’ capacity for increases and/or more efficient production substantially exceeds Australia’s. Nevertheless, Australian agriculture will continue to rely on exports, with success being dependent largely on sophisticated and innovative marketing.

Quality assurance and whole-of-supply-chain management

A crucial element in marketing is, increasingly, being able to certify that products are safe, meet agreed quality criteria, and have been produced within a recognised environmental management plan. Under such a system producers are accredited according to these standards and occasionally audited. Many are contracted to supply large processors with defined quantities and qualities of product, and the processors will dictate every aspect of the management and supply of many of the inputs. In this situation farmers are reduced to labourers, albeit with significant capital investment.

Declining terms of trade

The terms of trade for agricultural products will continue to decline as an inevitable consequence of continuing technological innovation. This will be exacerbated, for instance, by the high cost of compliance with environmental and occupational health and safety legislation and high insurance costs stemming from an increasingly litigious society. Costs are also always at the mercy of ‘unpredictables’ such as oil pricing and exchange rate variations, and taxation treatment might be less advantageous in the future.

Catastrophes

Catastrophic events can cut off export markets, as has happened in the past. Rejection of entire shipments of product as a result of chemical or disease contamination must be expected, even when quality assurance programs are good. It is also unwise not to factor in the likelihood of a major exotic disease outbreak, war and terrorist attack.

Environmental income

On the positive side, emergence of a market for environmental credits offers farmers opportunities for diversification and new income streams. Once trading in carbon, salinity and biodiversity credits is established, farmers will be able to set aside land for these income-generating environmental purposes, as well as avoid carbon penalties and gain efficiency dividends by more efficiently managing existing enterprises.

Enlargement of commercial farms

The overall effect of change will be to continue the inexorable drive of agriculture into the hands of fewer, larger businesses, even though the vast majority will continue to be family-owned. The same volume of product is likely to continue, but with fewer people employed and those who are being specialists. The immediate consequences for rural communities are unlikely to be positive but will probably eventually stimulate the emergence of new enterprises, many of which will be non-agricultural, and will diversify many rural communities in many ways.
New rural activities

Agricultural decline will be offset to some extent by the emergence of new rural activities. Tourism is the obvious example of a strengthening rural industry, and the need for better environmental management will generate new activities and enterprises. Value-adding of rural commodities, although often proposed as having potential in rural communities, seems largely destined by economic forces to be located in metropolitan and large regional centres and overseas. Smaller centres with value-adding ambitions will rely on niche markets and ones that capture synergies through combining production, processing and tourism, as occurs in the wine industry.

Information flows

Enlarged farms and diverse rural enterprises require good information flows for the good management, operation and innovation that generate success. Farmers hitherto have been treated to an abundance of competent, free information services to assist productivity growth, but government provision of these is drying up in favour of information services directed to environmental and social need. Productivity-related advice is deservedly becoming a for-profit service. However, one widely expected unfortunate consequence of National Competition Policy and market deregulation is that information that might bring advantage to an enterprise will be locked away from competitors. Anecdotal evidence suggests that the information sharing that has been traditional in rural Australia is already reducing and, while this might initially benefit the holders of the information, the long-term effects could well be detrimental to them and everyone else. A strong RD&E capacity will be essential for enterprises and industries if they are to withstand an information drought.

3.1.6 Cultural developments

Cultural diversity

Inexpensive overseas travel, instant global communications and post–White Australia Policy immigration have created a cosmopolitan nation. The resulting awareness and knowledge of other cultures, societies and economies has led to tolerance (and sometimes xenophobia), appreciation of the way others live and work, identification of business opportunities, and expansion of the ways Australian see themselves. Enjoyment of different cuisines, the obvious example, has opened the way for new agricultural products, domestic and export markets, and ways of presenting and enjoying food. This growing diversity—ethnic, aesthetic, sport and business—is the raw material for ongoing innovation and opportunity.

Learning and the Information Age

Australians are better educated and more aware of the need for continuous learning than ever before. There is widespread recognition of the Information Age and of the perils of failure to keep up with the rapidly expanding knowledge base. Much is said about the danger that an information elite will emerge and that their exclusive access to information and communication technologies will confer great rewards that will be denied to the information-poor. This is a crucial concern, but it is almost certainly unnecessarily bleak. The fact that close to 100 per cent of Australian households use the telephone, radio and television and a rapidly increasing number have computers and internet access suggests that the availability of information technology will not be limiting, especially as the technology steadily becomes cheaper, better performing and more friendly. Of greater concern is whether those sections of society that have not taken advantage of the availability of mass higher education will lack the confidence and ability to use the new opportunities of the Information Age.

Leadership

Allied with learning is a growing understanding of the importance and nature of leadership. No longer seen as only the province of the few at the top, leadership is promoted through a continuous stream of courses, experiences and awards. It is generally accepted as an integral part of all forms of development.
Environmental concern

The Age of Environmental Concern has also arrived. The culture of Australia has been markedly changed by the evidence of past and continuing environmental damage. Concern is no longer restricted to the ‘greenies’: it is widespread at all levels of society and is often the ground for an extraordinary level of activity; for instance, Clean Up Australia Day, Bushcare and Rivercare attract large numbers of urban and rural people to perform physical work for the environment.

The influence of Indigenous Australians

The Indigenous thread in the fabric of Australian culture is rapidly extending. Aboriginal and Torres Strait Islander peoples are making their mark on Australia more obviously than at any time since European settlement—and in many spheres. This is despite continuing tensions between them and non-Indigenous Australians and despite appalling social, health and economic differences, which will continue to motivate the quest for improvement. A question of great interest for rural Australia is whether the remaining Indigenous knowledge of the bush and its management is sufficient to contribute to the development of better ways of managing the Australian environment and whether non-Indigenous Australians will give it a chance.

Religious affiliation and spirituality

The extent to which declining religious affiliation is affecting Australian culture is open to debate. In rural communities especially, it may be removing a cornerstone of community because the glue that bound people together in belief and celebration of the significant events of life is being lost. On the other hand, the breakdown of old religious boundaries has removed an obstacle to the emergence of sharing communities. But the decline of the churches should not be seen as a decline of spirituality (Tacey 2000, 2003), nor should it be seen as leading to a loss of humanitarian services that were once the province of the churches: these are now shared with a broad range of organisations, and service to others remains a widely held Australian ethic.

3.1.7 Technological change

The inexorable flow of new technologies

The inexorable and rapid emergence of new technologies has become a defining feature of the post–World War 2 period. We are surrounded by the evidence, and there is no reason to expect significant slowing in the near future. Integration of new technologies, however, proceeds at a slower pace because of a failure to anticipate the unwanted ripples throughout the system, and the less-than-expected performance initially, that the introduction of a new technology into any system inevitably creates.

Information and communication technologies

New information and communication technologies have had the most pervasive, revolutionary effects of the suite of emerging, world-changing technologies. Because they can link anyone anywhere at any time, they are the foundations of the era of globalisation, just as steamships were for an earlier era. Because they can collect, analyse, manipulate and present data very quickly, they underpin many activities that would otherwise be impossible or tediously slow—weather forecasting, reading genetic codes, business analysis, jet transport, information seeking, and so on. Their pervasiveness is such that few areas of activity do not rely on them, in many cases to the point of absolute dependence. Extending their availability to all Australians is now a recognised imperative for Australian governments and has crucial significance for the bush.
Biotechnology

Biotechnology embraces a wide range of activities that relate to or depend on some aspect of biology. The oldest biotechnologies based on fermentation form one end of a spectrum extending to gene transfer, cloning and protein manipulation at the other. The more recent biotechnologies have so far had their biggest impact challenging our mind-sets and sparking intense debate about their safety and morality. Despite this, they are already having an impact in areas such as animal and plant breeding, disease diagnosis and infertility, and they will probably come to be as accepted as any technology, with its usual balance of benefits and costs.

Traceability and remote sensing

Biotechnology is also affecting the traceability of materials and ancestry and will play a major role in quality assurance, quarantine and breeding, where near-perfect accuracy is essential. Traceability is also facilitated by satellite technology enabling constant surveillance of land use and abuse, cropping patterns, deforestation, and the like. Satellites coupled with global positioning system readers and relatively simple computers allow precision farming that offers productivity and ecological benefits. Satellite technology coupled with high-speed, high-capacity computers is rapidly improving the accuracy of weather forecasting, transforming decision making in everything from cropping to arrangements for sporting events.

Robotics, nanotechnology, and so on

New technologies such as robotics and nanotechnology are yet to have a significant impact on agriculture in Australia. So far, robotics have had limited application, although at least one robotic dairy is now operational. This technology is likely to extend to many other areas of repetitive work, with significant implications for rural investment and employment. Nanotechnology, on the other hand, has barely progressed beyond conception and its effects are as yet unknown.

3.2 The implications of expected developments

Movements of thought, action and circumstance are changing the way we see ourselves, our country and the world. They point to the need for significant shifts in the things we do, the way we think about them and do them, and the institutional arrangements underpinning them. Failure to acknowledge and encourage these shifts will limit our success in dealing with the multitude of influences on rural life, as illustrated by the following examples:

- Reconceptualising the Australian environment is of prime importance. Effective environmental management depends on it.
- Accepting the declining role of agriculture in the economy will enable a focus on alternative ways of earning a living while residing in rural areas.
- Understanding that learning is the basis of personal, organisational and community improvement will embed that learning in the flow of daily life.
- Embracing holism will enable the management of enterprises and communities as complex, adaptive systems and the integration into them of beneficial new technologies.
- Questioning the role and place of rural Australia can stimulate the emergence of new and deeper links with the land and deeper understanding of us as individuals and as a nation.

The future environment for rural people is complex and subject to constant and rapid change. Paradoxically, though, it also offers a high level of certainty. Change is certain, as are realities such as drought and the unsustainability of many natural resource management practices. Fundamental trends are well established, yet the unexpected will occur from time to time. Given good risk management, acceptance of these and other certainties enhances success. The alternative—a focus on uncertainty—can paralyse or constrain.

Rural people and communities face the reality that, to a large extent, their futures are of their own making. Governments will support them in ways consistent with broad policy objectives relating to
the environment, social wellbeing and economic progress—apart from occasional anomalies reflecting particular electoral circumstances—but they will not prop up enterprises, industries and communities that lose their life spirit. Governments are attracted to success and prefer to avoid failure. If people and communities accept that the future is in their own hands they will gain a clear focus on building their human, social, natural, physical and financial capital.

The effectiveness of rural capacity building, then, will ultimately be assessed in terms of the extent to which individuals, organisations and communities are empowered to anticipate and manage change—that is, to become truly holistic, complex, adaptive systems. This task entails building the following in rural Australians:

- awareness of themselves, what motivates them, their strengths and weaknesses, and how they learn
- understanding of their physical environment, its capabilities and fragilities
- acceptance of the legitimacy of the opinions and desires of non-rural Australians
- awareness of the wider world and the swirls and eddies that might catch them up and carry them to disaster or success
- the ability to respond appropriately to signals of change
- expectation of the unexpected and ways of managing risk
- creativity, confidence and the desire to innovate
- confidence to locate, capture, assess and integrate information
- skills for using new technologies
- relationships with others in the various communities in which they need to operate
- pervasive monitoring and reflection as guides to continuous improvement.

If people are to have the capacity to do this, those who facilitate rural capacity building must recognise the necessary outcomes of their work. A full understanding of the people they work with, and their needs, is a further requirement for designing relevant ways of achieving this outcome. Given the complexity of the operating environment, change will be facilitated by encouraging diversity in all dimensions. And, because they are subject to the same ever-changing operating environment, change agents themselves must focus on building their own capacity to do their job and stimulate research to better understand and improve the process of capacity building. But, first and last, none of these things will be achieved without influential people and organisations leading change at the most basic level—mind-sets—and using these new mind-sets as the foundation of new institutional arrangements.
4. The interactive nature of capacity building and institutional arrangements

This chapter is divided into five main sections. The first focuses on capacity building and the second on institutional arrangements. Then follows a discussion of the interactive nature of these two elements and the implications for extension and education. The chapter ends with a summary, conclusions and recommendations.

4.1 Capacity building

4.1.1 What is capacity building?

The need to argue a definition of capacity building is the starting point for this chapter. The need is evident in the literature on the subject. Ryan and Rudland (2002), for example, maintain that, ‘For all of the rhetoric that is bandied about in federal, state and community development arenas, it is unclear what is meant by “capacity”. Nor is it clear how you “build” it, demonstrate it and measure it’. This uncertainty is echoed in the international arena: ‘Capacity development is for the most part an amorphous concept. It is still unclear what capacity looks like, what its components are, how it develops and what outsiders can do to encourage its development’ (European Centre for Development Policy Management 2003).

After reviewing some case studies, Land (2000) notes that ‘… thinking on capacity and capacity building remains fluid, yet fertile, influenced by different intellectual traditions, contexts, vantage points and experiences. Clearly there is no single right answer’. He reminds us, ‘… where concepts lack precision, and meanings are implicit rather than explicit, there is a risk of creating misunderstanding as well as of raising different expectations among stakeholders’.

Mindful of Land’s admonition, the authors carried out a review of concepts and terminology in recent usage; the results are presented in Appendix A. Emerging from the review is the notion that capacity building refers to ‘intervention, consequent enhancement of human and social capital, plus increased motivation or commitment to act or empowerment to act independently and the expectation of an outcome in the form of an improvement of some kind’.

‘What constitutes an improvement?’ then becomes a key question. The situation reviewed in Chapter 3 suggests a common interest in improving business profitability and sustainability, industry profitability and sustainability, the ecological health of catchments, the wellbeing of people and the wellbeing of their communities—all in the context of a turbulent and complex environment.

This suggests that the expected outcome of capacity building can be construed as an improvement in the stock of capital. This extends beyond human capital (the attributes of individuals) and social capital (the quality of their relationships) to include physical (infrastructure), financial and natural capital. All are involved to a greater or lesser extent in the interventions people make to remedy problematic situations and all are involved to a greater or lesser extent in the improvements sought.

Different categories of capital can substitute for others: if we lack the knowledge we need we can use financial capital to buy it; if natural capital in the form of soil fertility is deficient we can use financial capital to buy fertiliser; if community relationships are poor we can build a community centre (physical capital) to stimulate interaction. This notion of substitution of forms of capital emphasises the importance of an ethical dimension. There is, for example, a groundswell of concern about the way exploitation of the natural environment has been translated into financial capital.

When people act to remedy a situation they are not thinking in abstractions like ‘improvements in the stock of capital’, but this is nevertheless a useful way of conceptualising the outcomes of capacity
building. It highlights the developmental nature of capacity building: increases in the stock of capital are the basis for further increases. It also highlights the systemic nature of capacity building and the fallacies inherent in excessive reliance on using and building any one category of capital. It points up, for example, the limitations of education programs as a way of effecting improvements in complex problematic situations and thereby the stock of capital.

Thomson and Pepperdine (2003) capture an essential aspect of capacity building—‘it aims to do more than build a stock of static capital: use of that capital is clearly intended’. An illustrative implication is that unless an education program focusing on a particular stock of knowledge incorporates use of the knowledge to improve a ‘real-world’ problematic situation (that is, an improvement in the stock of capital) it is not a capacity-building program.

Conversely, a situation-improving initiative is a capacity-building one only if it is conceptualised as such. Only when problem solving or situation improving is conceptualised as capacity building can it be managed, monitored and evaluated as such.

**Definition.** Capacity building is construed as externally or internally initiated processes designed to help individuals and groups associated with rural Australia to appreciate and manage their changing circumstances, with the objective of improving the stock of human, social, financial, physical and natural capital in an ethically defensible way.

### 4.1.2 Where does capacity building occur and who does it involve?

Given the definition of capacity building just offered, it follows that a capacity-building strategy must address the questions of who should be involved and for what purpose. Given, too, that the definition that emerged from the review summarised in Appendix A incorporates the notion of ‘enhancement of human and social capital and empowerment to act independently’, Kingma’s (2000) review of related empirical research is highly relevant. On the basis of his review, he contends that we should focus on the following:

- reorienting policy strategies towards community capacity building
- determining how a new form of enabling leadership can be fostered
- facilitating the growth and development of learning communities that are flexible and responsive to changes in community values, changing labour market requirements and environmental stewardship.

Kingma maintains that this focus is the key to building human and social capital and highlights the connections between social cohesion, civic and economic wellbeing, and the social processes that contribute to such beneficial outcomes. Central to this are processes of consultation, communication and decision making that are participatory and inclusive.¹ Kingma sees these processes and activities set in a regional context. Engaging a broad cross-section of the community allows for the forging and reinforcing of reciprocal trust, while resolving conflict in a way that builds rather than depletes social capital and trust. These activities create a learning community that is agile in its responsiveness to change and can respond to the emerging need for, for example, new skills for new industries.

**The terms rural, region and community**

The notion of a regional focus for capacity building brings into question the meaning of the terms rural, region and community.

The authors contend that the term rural encompasses the people and activities that affect the welfare of rural regions—a ‘value chain’ or a health initiative, for example. These processes extend beyond rural as a place. A region is also usually construed as a place, but the activities at stake and the people

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¹ The authors contend that this focus is also the key to improving the stock of physical, natural and financial capital in an ethically defensible way.
involved will often be drawn from beyond it, too. The marketing of agricultural outputs and inputs is a case in point, as is the impact of funding decisions made by city-based staff of rural research and development corporations.

The central issue is the one taken up by Kingma (2000): the relevant community has to become a learning community that is adept at responding to change, and this means drawing into its deliberations people who live outside the region but whose activities affect it. Their capacity to contribute to the welfare of the people of the region may be critical. For capacity-building purposes they should be ‘swept in’. Their welfare is also enhanced to the extent that the region prospers. They are stakeholders and potential actors and beneficiaries.

**Boundary setting**

In systems terminology, the question is where to place the boundary of a rural capacity-building system. Midgley (1995) makes the point that the boundary of a human activity system is a mental construct that defines who will be included. He goes on to discuss the ethical dimensions of the boundary-setting decision. Who makes it and on what grounds?

Given that the intent of capacity building is to use existing capital to effect an improvement in the required stock of capital, it follows that those whose practices and access to capital are integral to improving the outcome of the problematic situation should be involved. The boundary depends on the situation to be improved. Wenger’s (2000) concept of communities of practice—of dentistry, farming, professional cricket or applied agronomic research, for example—is useful here. The relevant communities of practice should be involved. Box 4.1 explains the concept of communities of practice and their significance.

For rural capacity building, as defined, the concept of a learning system whose subsystems are the relevant communities of practice is a more appropriate one than the concept of a regional community.

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2 An underlying assumption here is that a system is a mental construct, not a physical reality. Defining a human activity system involves stating its purpose, actors, beneficiaries, owners, the world view underpinning it, and the constraints acting on it.
Box 4.1 Communities of practice, social learning systems and capacity building

Some extracts from a paper by Wenger (2000) help explain the concept of communities of practice:

Since the beginning of history human beings have formed communities that share cultural practices reflecting their collective learning; from a tribe around a cave fire, to a medieval guild, to a group of nurses in a ward, to a street gang, to a community of engineers interested in brake design … [They] are the basic building blocks of a social learning system because they are the social ‘containers’ of the competences that make up the system … [They] cannot be romanticised. They are born of learning, but they can learn not to learn. They are the cradles of the human spirit, but they can also be its cages.

The boundaries of organizational units are usually more fluid [than those of organisations]. That these boundaries are often unspoken does not make them less significant. Sit for lunch by a group of high-energy particle physicists and you know about boundary, not because they intend to exclude you but because you cannot figure out what they are talking about. Shared practice by its very nature creates boundaries.

Communities of practice depend on internal leadership.

Viewing capacity building as a learning system highlights the significance of communities of practice and their boundaries and that of the boundary of the wider learning system:

Boundaries are important to learning systems for two reasons. They connect communities and they offer learning opportunities in their own right. These learning opportunities are different to the ones offered by communities … Boundaries [of the learning systems whose sub-systems are communities of practice] are sources of new opportunities as well as potential difficulties … Communities of practice can steward a critical competence, but they can also become hostage to their history, insular, defensive, closed in, and oriented to their own focus … Boundaries [of communities] can create divisions and be a source of separation and misunderstanding. Yet, they can also be areas of unusual learning, places where perspectives meet and new possibilities arise … Think of a specialization like psychoneuroimmunology; its very name reflects its birth at the intersection of multiple practices.

Communities of practice as the building blocks of learning organisations and communities

Viewing capacity building as the work of a social learning system whose subsystems are communities of practice highlights the importance of a generative tension within the system. According to Wenger (2002), achieving this requires the following:

- something to interact about—some intersection of interest, some activity
- open engagement with real differences—between and within communities of practice—as well as common ground
- commitment to suspend judgment in order to see the competence of another community of practice—in its terms
- ways to bridge the distance and lack of connection between different communities of practice and facilitate interaction between them.

Within organisations and the wider community, the members of various communities of practice contribute their competence by participating in cross-functional projects and teams that combine their knowledge and practice to get something done. This simultaneous participation in a community of practice and a project team creates learning loops that combine application to improve the project situation with capability development in the participants. The learning and innovation accruing from the project are disseminated through the members of the home communities of practice. This new knowledge can then be expanded in new projects involving other communities of practice. An organisation that encourages and supports cross-functional projects of this nature merits the learning organisation descriptor, and a community that does likewise merits the learning community descriptor.
Kaplinsky’s (1999) definition of a *value chain* highlights an instance of how what constitutes the relevant communities of practice depends on the circumstances. In the case of a commercial (and potential capacity-building) initiative, it is ‘the full range of activities which are required to bring a product or service from conception, through the intermediary processes of production, delivery to final consumers and then disposal after use’.

The question of who makes the boundary-setting decision brings the issue of governance—the distribution and exercise of power—into the frame. It also highlights the significance of leadership. A current example featured in the media is the future of the Australian wine industry. In addressing this, will the boundary include small family concerns as well as large corporations? Should it? Who will take the lead and what effect will this have on the outcome? What capital will be improved (or depleted) as a result of subsequent capacity-building initiatives, and who will benefit (or suffer)?

The issue of communities of practice and their participation in capacity building is explored in greater depth in Chapter 6.

### 4.1.3 What does capacity building involve?

The definition adopted for *capacity building* postulates that capacity building occurs when relevant communities of practice use their stock of human and social capital and their access to financial, physical and natural capital to improve problematic situations and effect improvements in the stock of capital in the process.

The stock of human and social capital is developed through learning. It is central to the capacity-building process, as are the related factors of developing personal autonomy and interdependence and facilitative leadership. The meaning attached to these terms is pursued in this section.

**Learning**

Studies on learning emphasise the apparently disordered way in which adults learn. Their learning projects are not timetabled in an orderly manner, and there is an emphasis on informal learning and the role of a wide range of enquiry processes and sources of information. The work of Tough (1971) and Salmon and Underwood (1980) revealed an underlying pattern in the learners’ use of these processes and resources and the logic of their sequence. Although long recognised, this is still largely ignored in educational practice.

Educational programs continue to be criticised because they do not coincide with this natural order. There has instead been a ‘one size fits all’ approach, an apparent lack of relevance to potential participants, and rigidity in terms of what is offered, its form and timing (Anon n.d.). This situation has stimulated a number of related educational responses, including self-directed learning (Knowles 1975), experiential learning (Kolb 1984), problem-based learning (Boud & Feletti 1991) and action learning (Zuber-Skerritt 1991).

These responses constitute variations on the theme of integrating educational methodology with the natural learning process and addressing institutional constraints inhibiting this. They are central to a consideration of capacity building. The theme is well developed in Kolb’s model of experiential learning. His basic proposition, as developed by Bawden (1989), is that learning is an iterative process of ‘finding out’ about problematic situations we are experiencing (awareness, exploration and analysis), ‘making sense’ of the data generated in terms of what can be done to improve the situation (discernment and design), and ‘taking action’ to effect an improvement in the situation (implementation, monitoring and evaluation).

Translating development as a learner into the context of building capacity to manage change takes learning beyond simply learning how to perform the tasks that result in technical competence. Effective learners also know how to learn (Schon 1990) and how to critically evaluate the assumptions (theirs and others’) underpinning what is learned and how it is learned (Brookfield 1987). They will be competent in dealing with practical tasks, will know how to generalise from past experience to improve problematic situations not previously encountered, and will be able to discern
and critique strategic assumptions they and relevant others make. The literature on learning and cognitive development identifies three levels of learning related to these characteristics and suggests the conditions that enable their acquisition (Kitchener 1983; Salner 1986):

- learning how to do something—the capacity to practise something; for example, to manage a business more efficiently
- learning how to learn—the capacity to observe and reflect on the process of learning and to generalise this to other situations; for example, to recognise one’s own ways of learning, its advantages and disadvantages, and ways of learning more effectively
- learning how to critically evaluate the basic assumptions underpinning what is learned and how it is learned—the capacity to discern and critique strategic assumptions (of oneself and others); for example, to appreciate how one’s own basic beliefs and world view influence one’s decisions and actions, as well as what lies behind the words and actions of others, and be able to critically assess their continuing relevance.

Each of these categories of learning can be construed as a cycle of experiential learning—that is, finding out, making sense, taking action. Learning that develops the capacity to manage complex uncertainty incorporates all three categories. Ison et al.’s (2000) description of it as ‘triple-loop learning’ is based on Bawden’s (1995) distinction between learning, meta-learning and epistemic learning.

**Personal autonomy and interdependence**

Hand in hand with development as a learner is development of personal autonomy and interdependence. This is the basis of effective capacity-building relationships—that is, of social capital. Development of this nature is characterised by movement from dependence on others (for what is learned and how) to interdependence. Interdependence means taking responsibility for one’s own learning. This is also a hallmark of independence, but interdependence adds another dimension: it is characterised by a willingness to engage in critical discourse that draws on the knowledge and wisdom of others.

The movement from dependence to interdependence is often accompanied by phases of counter-dependence and counter-independence. The former is characterised by ‘rebellion’ against the people and institutional arrangements the learner is depending on and the latter by hostility to those who then offer freedom to learn, even if it is accompanied by their support. Parents who have raised teenage children will probably identify with these phases.

Observation suggests people often become ‘stuck’ in stages that fall short of interdependence. Once again, there is a substantial body of literature on the conditions that enable movement from dependence to interdependence (Tuckman 1965; Reid 1965; Boud 1981); it is often linked to the literature on cognitive development and the concept of levels of learning (Salner 1986). The role of learning in capacity building is taken up in greater depth in Chapter 5.

**Facilitative leadership**

Leadership for capacity building is facilitative rather than instructive and enables others to develop as interdependent learners. It is also an outcome of capacity building. It helps people on farms and in rural organisations and communities, for example, to understand the interconnected and dynamic nature of the issues they are facing; their farm, organisation or community; the environmental forces acting on it; and the processes of learning and development. It enables them to ‘see’ their situation through this prism and challenges and supports them to take action to improve it.
4.1.4 Who builds capacity?

Who is responsible for and competent at building capacity? If capacity building is about interdependent learners operating as self-improving systems, it follows that all members of the relevant communities of practice are potentially responsible for and competent at building capacity. A major implication of this is that defining some as providers (of capacity-building services) and others as users (of the services) is counter-productive. All are co-learners in the process, albeit bringing different attributes and motivated by different forces. The implications for the interplay of institutional arrangements and capacity building, and the reform of both, are discussed later in this chapter.

The conventional answer to the question of who builds capacity is probably the ‘educators and extension workers’, who are seen as having institutionally bestowed rights to the title and thereby the competence to practice. A more appropriate answer, however, is that competence is better defined by personal qualities and social context rather than an institutionally defined role. The term ‘facilitative leader’ or ‘capacity builder’ captures this better than, say, extension worker, teacher or educator and extends the role to anyone (and potentially everyone) in the relevant communities of practice.

Those normally designated as capacity builders might or might not have the necessary qualities, while community members or commercial agents might. Expectations based on institutionally defined roles are, however, a powerful shaper of behaviour. They determine, for example, perceptions of who is eligible to participate in professional development programs aimed at upgrading facilitative leadership skills—extension officer, yes; farmer with tertiary qualifications, probably; farmer without qualifications, unlikely.

Nevertheless, educational and RD&E organisations have institutionally defined obligations to play a leadership role in capacity building and are resourced accordingly. What is at stake is whether the institutional arrangements that exist promote this for all who need it.

4.2 Institutional arrangements

Capacity building, as defined, necessitates the use of existing capital to improve a problematic situation and effect an improvement in the stock of capital; that is, it requires the taking of action. Anything that encourages or inhibits action taking, or influences what is done and how, is significant. Institutional arrangements fall into this category, as do mind-sets and the values underpinning them. They are primary determinants of behaviour (practice).

George Kelly was an eminent psychologist and the founder of personal construct theory (Bannister & Fransella 1971). His fundamental premise is that people act on expectations of the consequences of their actions and the significance of those consequences for them as individuals. In his view, we are constantly hypothesising about the link between what we do and the consequences, and we act accordingly. The result is infinite variety in the way individuals behave. There are, however, predictable patterns within this diversity. The predictability reflects the institutional arrangements individuals are embedded in and their perception of what is expected of them. It is also a reflection of their world view and the beliefs and values that underpin it. The latter have a profound effect on what we observe and the judgments we subsequently make about what we observe.

**Definition.** For the purposes of this project, **institutional arrangements** refers to the complex of laws, customs, markets, norms and associated organisations that channel our energy towards social goals and the way we relate to others (after Gleeson & Piper 2002).

The definition of **institutional arrangements** is based on the assumption that what is practised within a culture is regulated by its institutional arrangements and by the mind-sets of the players. The arrangements are taken to be gazetted laws and regulations, commonly accepted but not legally
binding rules and guidelines, and organisations established by the culture. Institutional arrangements are based on customs and traditions and moderated by prevailing belief systems and values.

Hall et al. (2000) highlight the practical significance of institutional arrangements in their description of institutional learning: ‘At its simplest, the concept recognises that innovations emerge from systems of actors. These systems are embedded in an institutional context which shapes how individual actors behave and how they interact with other elements of the system’.

Dovers (1999) has explored the importance of institutional arrangements in influencing natural resource management. His paper ‘frames the policy and institutional problem as one of achieving arrangements whereby purposeful, persistent approaches can be sustained in the longer term, with the information-richness, flexibility and capability to learn and adapt’.

4.2.1 Beliefs, values, world views and mind-sets

The interplay between mind-sets and institutional arrangements is exemplified in situations where, for example, we have gun laws that are flouted by macho people who see themselves as outside the laws’ ambit and we have environmental laws that are flouted by people who see themselves similarly. The terms world view, mind-set, perspective, and values and beliefs tend to be used almost interchangeably. The authors have taken the following position:

Beliefs and values are reflected in world views that mediate discourse about what should be done, why and how. Mind-sets are strongly influenced by world views but incorporate a more immediate predisposition to respond to a situation that incorporates other factors—for example, a person’s emotional state.

Burrell and Morgan (1979) argued that world views are grounded in sets of beliefs (see Box 4.2 for an explanation of the relationship between beliefs and world views) about:

- the nature of reality—for example, whether the world is flat or round
- the nature of knowledge and the relationship between knowledge and truth—for example, whether only objective knowledge can be ‘true’ or whether myth, legend and spirituality play a part
- human nature and the values humans hold—for example, whether an action is morally right or wrong or whether it depends on the context
- how the preceding assumptions are put into practices that reflect them.
Box 4.2  Beliefs, values and world views
Bawden (1995) develops a matrix to illustrate the significance of world views. It incorporates two categories of belief, the first relating to our beliefs about the nature of the world (our ontology) and the second to our beliefs about how we came to know that (our epistemology). He asks the reader to imagine two polar opposite positions for each:

- for ontology—holism and reductionism, where holism represents the belief that whole entities are different from the sum of their parts and reductionism represents the belief that whole entities are the sum of their parts and can be studied by reducing the whole to its component parts
- for epistemology—objectivism and relativism, where objectivism represents the belief that all knowledge can be referred to some unchanging truth standard and relativism denies this position and argues that claims about truth can only be relative to some stated position or context.

Bringing these two dimensions together allows development of a matrix that represents four very different world views. Each is presented as framing how we look at the world and, subsequently, what we do in it and to it.

<table>
<thead>
<tr>
<th>HOLISM</th>
<th>REDUCTIONISM</th>
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<tbody>
<tr>
<td>holocentric</td>
<td>ecocentric</td>
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<tr>
<td>RELATIVISM</td>
<td>OBJECTIVISM</td>
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<tr>
<td>egocentric</td>
<td>technocentric</td>
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Seeing the world through the technocentric pane reveals a world that is objectively knowable through the study and measurement of its parts. Bawden suggests this world view is probably the dominant one in Western organisations. It is the assumed position underlying conventional scientific method.

Those who view the world through the ecocentric window see it and the organisations and communities in it organised into systems that can be analysed, designed and simulated. They believe the whole is different from the sum of its parts. This is the assumed position of those who contend the natural world consists of ecosystems that can be managed as such.

The view through the holocentric pane represents the position that systems do not exist of themselves but that we can look at situations ‘as though they were systems’ and it is useful to do so. Those who hold that humans are a dominant influence in the natural world and how they see it and act in it should be the focus of attention are assumed to hold this perspective. Within the systems movement, the ecocentric window is consistent with the ‘hard systems’ school of thought and the holocentric with the ‘soft systems’ one.

With the egocentric view, the central focus is the observer, and what he or she knows is judged relative to a context chosen by them; that is, ‘If I believe something to be true, who are you to question me?’ Bawden calls this the ‘mystic’ paradigm.
Institutional arrangements are both stable and dynamic. Dynamism is reflected in the richness and complexity of the way beliefs are incorporated in the world views that dominate political discourse and decisions. Stability is apparent in time lags associated with translating changes in prevailing world views into institutional arrangements—the phenomenon of institutional inertia. Pusey (2003) accelerated use of the term ‘economic rationalism’ with his analysis of the impact of neo-liberal economics on Australian government policy and practice. His most recent research indicates that the majority of ‘middle Australians’ are dissatisfied with the outcome. Does this presage a shift in prevailing mind-sets and ultimately in institutional arrangements and practice? Figure 4.1 shows illustrates the interplay between mind-sets, institutional arrangements and behaviour; illustrative examples are presented in Box 4.3.

Figure 4.1 The relationship between mind-sets, institutional arrangements and behaviour

Triple-loop learning, as described, has as its third loop epistemic learning—that is, learning to appreciate how our basic beliefs and world views influence our decisions and actions, as well as what lies behind the words and actions of others, and being able to critically assess their ongoing relevance. Until learners progress to this level they are captives of what Hugh Mackay refers to as the ‘cage of prejudice’ (see Box 4.4).
Attitudes, behaviour and institutional arrangements

Reflecting on the introduction of random breath testing brings into focus the commonly held belief that attitude change is the key to behaviour change. It might be the other way round, however, with institutional arrangements and political decisions playing a critical role.

Before the introduction of random breath testing and in the absence of the political will to introduce it, the strategy to counter drink-driving was centred on persuasive communication campaigns. They failed and the incidence of drink-driving and road fatalities continued to rise. The prevailing attitude, particularly among young males—the principal offenders—was one of bravado.

Drink-drivers did not expect to be involved in an accident or to be apprehended by police. They behaved accordingly and had an attitude that supported this. The latter was reinforced by peer support and social norms. When the political decision to introduce random breath testing was taken a publicity campaign created the expectation that the testing would be so frequent and pervasive that apprehension was a near certainty. The effect was a dramatic change in behaviour. This led in a relatively short time to an equally dramatic change in social attitudes and norms. Whereas previously an offender might have been regarded with amused tolerance, the new view was that he was a fool.

Recent media reports highlight a perceived need to concentrate police resources in rural areas to counter the rising incidence of road fatalities there.

4.2.2 Communities of practice

Wenger’s (2000) concept of communities of practice (discussed earlier in this chapter) is an institutional arrangement of particular relevance, given his observation that such communities define what constitutes competence for the people who belong to them and hence what is expected of them. Competence here means understanding the community of practice well enough to contribute to it, engaging with it in establishing norms and mutual relationships, and having access to its communal resources and using them appropriately. Wenger includes language, routines, sensibilities, artifacts, tools, stories and styles as communal resources.

A community of practice is innately conservative but is constantly challenged because its members are also members of other communities, with their own expectations and belief systems. The tension between these is a stimulus for intra-community change, as well as for the emergence of new communities of practice. Examples of this abound in the disciplines and professions, where new variants within them, and new hybrids across them, are always emerging.

4.2.3 The need for variety

Ashby’s (1956) ‘law of requisite variety’ proposes that the variety within a system be commensurate with the variety of challenges the system has to respond to. Effective rural capacity building will usually necessitate interaction between private, public and community sector organisations and an array of communities of practice, and it will be diminished by insularity (the ‘silo’ syndrome). Capacity building challenges insularity and can generate resistance from people who see themselves as benefiting from the current arrangements and who are unable or unwilling to see their limitations. Capacity building for catchment improvement will generate different outcomes depending on whether or not ‘greens’ are included; capacity building for industry development will generate different outcomes according to whether or not ‘ethnics’ or international marketers or consumers are involved. This is pursued in greater depth in Chapters 6 and 7.

4.2.4 The interplay of institutional arrangements and capacity building

Institutional arrangements can foster dependence on authority figures and institutions. But they can also stimulate the development of interdependent, critical learners and facilitative leaders. When conditions of dependence prevail there is little challenge to power relations within the institutional arrangements, and institutional inertia means the arrangements are slow to change, even when there is a pressing need for change.
When institutional arrangements are instrumental in building capacity the people who benefit are empowered to challenge shortcomings they then see in the arrangements. How people in the organisations so challenged respond largely depends on their own development as learners and how this is reflected in the strategy and operations of the organisation—particularly its openness to alternative views and ways of doing things. Facilitative leadership plays a key role here.

The implication of this reciprocity is that the organisations that fund capacity-building services are as much a target for capacity building as are the rural communities they see as their client base. The authors are familiar with a situation where the Dairy Research and Development Corporation’s regional R&D program was instrumental in developing the capacity of dairy farmers in the Murray–Goulburn region, to the point where the farmers staged a persistent and well-argued case for greater autonomy in the management and expenditure of research funds. The Corporation’s initial response was resistance, but the challenge stimulated a debate that led to a change in procedures and devolution of authority, which fuelled further capacity development and further challenges.

The reciprocal nature of institutional arrangements and capacity building is illustrated by media reports on the debate about the wellbeing of Indigenous Australians on Cape York. Noel Pearson and his colleagues contend that existing arrangements have generated dependence and incapacity and are maintained by a coalition consisting of a welfare lobby that argues that the people are incapable of managing and the local Indigenous population, which sees welfare as its means of survival. Breaking out of this and developing new and effective institutional arrangements will be a capacity-building exercise of monumental proportions. It is going to cause heartache and pain, but Pearson and others say not breaking out will be worse. Peter Yu, another prominent Indigenous activist, presents a similar argument (Yu 2000).

4.3 Extension, education and capacity building

Although extension and education programs are commonly equated with capacity building, the definition of capacity building in this chapter calls this into question. Mackay’s (1994) overview of the communication process (see Box 4.4) provides a framework for pursuing this further. Some of the implications are:

- Extension and education programs per se are likely to stimulate action only if they complement existing action intentions.
- Action is more likely to be stimulated by expectations within a person’s communities of practice than by external ones—for example, for a farmer, expectations within his or her communities of practice, which are likely to differ from those a commercial or government agent belongs to.
- Programs based on a provider–user perspective are inherently unequal in terms of power relations and are likely to distort mutual perceptions and expectations.
- The initial goals of action taking to improve a problematic situation will vary among stakeholders—for example, an increase in financial capital for commercial agents, physical and financial capital for farmers, social capital for community groups, and human capital for educators.
- Participation in capacity building is likely to be stimulated by incentives tailored to meet the initial goals of different stakeholders—for example, a tax incentive or access to infrastructure funds for those seeking an increase in physical or financial capital.
- Participation with other stakeholders in a joint effort to improve a problematic situation provides a context for generating shared increases in the stock of human, social, financial, physical and natural capital.
- Leadership is the key to initiation of joint efforts to improve problematic situations and may come from within any one or more of the stakeholder groups.
- Facilitative leadership is essential for building and maintaining a pattern of reflective practice among stakeholders in a joint effort to improve a problematic situation.
- ‘Providers’ are best seen as providing access to the resources needed to improve a problematic situation.
Box 4.4 Communication and behaviour

A model of the communication process presented by psychologist Hugh Mackay (1994) is based on a description of barriers to effective communication. Effective communication is assumed to have occurred when persons A and B reach common ground on an issue at stake, and this is apparent in the flow of feedback between them. If the initial purpose of the communication is taken into account, however, the model extends to the action taken in response to the communication.

Extension and public education programs are conducted with a view to persuading the target audience to behave in a certain way—to adopt a particular farming practice or to give up smoking, for example. Let us assume then that person A (an extension and education operative) has initiated the communication with the intention getting B to behave in the desired way, the goal of the program. If this happens, A will be meeting expectations generated within his institutional context—for example, those of his employing agency.

According to the model, the barriers to communication between A and B are:

- translation—A’s ability to translate a complex ‘mess’ of internalised emotions and knowledge into a communicable message
- the medium—the ideal is intimate face-to-face contact that allows maximum feedback and interaction. The medium otherwise constrains communication in terms of its relative remoteness (telephone is less remote than radio) and its compatibility with the message (TV for emotions, print for facts).
- the ‘cage of prejudice’—B is prejudiced, meaning set to prejudge on the basis of her world view, values, and so on, and will accept or avoid messages and/or selectively interpret them.

A can address these barriers in two ways: by finding out as much as possible about B’s predisposition and designing a message or program and its delivery accordingly; and by seeking constant feedback and adapting the message or program in response.

If we assume that A and B do manage to communicate effectively the next question is, Does B go on to behave in the way A expects? This is unlikely unless what A expects is consistent with the complex of real-world factors impinging on what B does—for example, the expectations of her family, peers or employer and their demands on her time; her financial situation; her access to resources; and so on.

A can work to make the message or program more effective by finding out as much as possible, not only about B’s predisposition to accept the message or program but also about the real-world context B is embedded in. If A does this, he is likely to find that B has a ‘message’ for him and would like him to behave in a way that meets her expectations—that is, that communication is a two-way street—or, worse, is not interested in him or his message.

If the real-world situation of B is markedly different from that of A—for example, if B is set in the institutional context of a farming community and A is in a government agency—it may be a case of ‘ne’er the twain shall meet’, unless a new set of arrangements that accommodates the needs of both can be established.
4.4 Summary, conclusions and recommendations

4.4.1 Summary

- Capacity building occurs when relevant communities of practice use their stock of human and social capital and their access to financial, physical and natural capital to improve a problematic situation and effect an improvement in the stock of capital in the process.
- Those whose practices and access to capital are integral to improving the problematic situation should be involved—that is, the relevant communities of practice.
- The stock of human and social capital is developed through learning.
- Defining some communities of practice as providers and others as users is counterproductive. All are co-learners.
- Capacity building requires the taking of action. Anything that encourages or inhibits action taking, or influences what is done and how, is significant.
- Institutional arrangements, mind-sets and the values and beliefs that underpin them are primary determinants of behaviour.
- Institutional arrangements within a culture are taken to be gazetted laws and regulations, commonly accepted but not legally binding rules and guidelines, and organisations established by the culture. The arrangements are based on customs and traditions and are mediated by the belief systems and values apparent in world views.
- When institutional arrangements are instrumental in building capacity the people who benefit are empowered to challenge shortcomings they then see in the institutional arrangements.

4.4.2 Conclusions and recommendations

Capacity building is a relatively new concept whose terminology is clouded with confusion. There is, however, sufficient in common in most definitions to lead to a view that it offers a sound approach to supporting rural Australia in managing the effects of change. The definition struck in this chapter lays down the conditions under which initiatives might be considered as capacity building and that might be used as a focus for the necessary debate. Individual and social learning are evident as essential, but not the sole, gains through capacity building. The effectiveness of that learning and capacity building has been shown to be dependent on the depth to which participants are challenged in the process. Capacity building is also seen as interdependent with the mind-sets and institutional arrangements regulating it.

The potential in these understandings will be realised if measures such as the following are taken:
- Relevant organisations and people could be challenged to ponder the likely operating environment for rural Australians and consider its implications for the ways in which they might be supported.
- A widespread dialogue about capacity building and related mind-sets and institutional arrangements could be initiated among all interested and relevant people and organisations, using this study as a basis.
- Organisations and people could be encouraged to identify and reflect on the mind-sets and institutional arrangements that impinge on their work with rural communities, and how they might be modified to promote better capacity building.

Given this background and the situation described in Chapter 3, there are five propositions that serve to guide the review of a preferred future situation regarding capacity building and related institutional arrangements, the current situation, and the action needed to bridge the gap. Each of Chapters 5 to 9 takes up one of the propositions, which are as follows:

1. Effective capacity building maintains a focus on outcomes as improvements in the stock of capital sought by stakeholders. It strives for consistency between the outcomes sought and the nature, design and conduct of interventions.
2. Effective capacity building defines and engages the relevant communities of practice. In doing so, it encompasses a diversity of interests and world views, and avoids the losses associated with marginalisation of potentially significant people.
3. Effective capacity building creates a common agenda and a willingness to collaborate among the members of the relevant communities of practice.

4. Effective capacity building depends on political and institutional commitment to the goal of capacity-building programs and the alignment with it of strategically important organisations.

5. Continuous enhancement of capacity building depends on the availability of skilled practitioners, on their reflective practice, and on research into all its aspects.
5. Maintaining a focus on outcomes

**Proposition.** Effective capacity building maintains a focus on outcomes as improvements in the stock of capital sought by stakeholders. It strives for consistency between the outcomes sought and the nature, design and conduct of interventions.

The definition of *capacity building* developed in Chapter 4 postulates that capacity building occurs when relevant communities of practice use their stock of human and social capital and their access to financial, physical and natural capital to improve a situation and effect an improvement in the stock of capital by doing so. The proposition pursued in this chapter is based on the premise that, to be classified as capacity building, an intervention must meet these criteria and be conceptualised as such. It is the latter that enables ‘real-world’ situation improving to be managed, monitored and evaluated as a capacity-building venture.

The chapter begins with a background discussion of the nature and level of human and social capital available and needed for rural capacity building and of the central role of monitoring and evaluation in facilitating continuous, reciprocal improvement in capacity building and institutional arrangements. This leads to an outline of the characteristics of an ‘ideal situation’ and a discussion of the existing situation compared with the ideal.

**5.1 Background**

This chapter pursues the proposition that, once conceptualised as such, a capacity-building intervention is enhanced by continuous striving for consistency between the outcomes sought and the nature, design and conduct of interventions. It does so by focusing initially on the relationship between the nature of the problematic situations confronting rural Australians and the stock of human and social capital required to redress them. This is based on the premise that capacity-building programs are associated with the need to build human capital and that starting here provides the opportunity to broaden this perception to meet the capacity-building criteria. Doing so highlights the need to maintain a focus on capacity-building outcomes in the wider sense and to seek:

- a common appreciation of the desired capacity-building outcomes and underlying assumptions about the needed capacity among relevant stakeholders
- consistency between anticipated outcomes and program methodologies
- monitoring and evaluation that results in individual and organisational learning and continuous improvement in institutional arrangements.

**5.1.1 Building on human capital**

It is argued in Chapter 4 that the capacity of rural people to manage change is built when they develop as interdependent learners, willing and able to provide effective leadership in confronting emerging challenges. A recent project sponsored by Rangelands Australia (Taylor 2003) provides supporting evidence and spells out the desired outcomes of human capacity–building initiatives and the rationale for them.

Taylor engaged stakeholders in a definition of the human and social capacity required to ensure the sustainability of Australia’s rangelands, the success of the industries based there and the development of the people involved. The work focuses on gaps in capacity among land managers and those expected to support them—advisers, extension officers, land-care facilitators, trainers, researchers, and so on. Perceptions of the adequacy of the information base for building capacity were also explored. For land managers, Taylor summarised the results as follows:

- **Personal qualities for success.** The findings suggest that the capacity of many producers to engage effectively in cross-sectoral debates, to negotiate an agreed future for the rangelands and to work in partnership with stakeholders will be limited by deficiencies in personal qualities, especially ‘open-mindedness’, ‘sensitivity to other values and cultures’ and ‘communication
skills’. The capacity of both groups to learn, either formally or informally, would also be limited by these deficiencies.

- Areas of knowledge for enterprise and community success. The findings acknowledge the ability of most producers to manage a livestock-focused enterprise but highlight important deficiencies in systems, social and business skills, and biophysical understanding. These deficiencies will limit producers’ ability to be proactive about emerging market opportunities and potential threats and to make the most of their natural and human resources and collaborative or partnership opportunities. Although the knowledge gaps identified relate primarily to enterprise success, they also emphasise the need for a greater external focus (that is, catchment and regional concerns, understanding other stakeholders and forces driving change) and areas for personal development (that is, self-awareness, communication and interpersonal skills).

Taylor’s work highlights a ‘Catch 22’ situation: the personal qualities of producers are likely to inhibit their participation in capacity-building initiatives, while participation in those initiatives is the key to enterprise and community success.

5.1.2 Monitoring and evaluation for continuous improvement

Bennett’s Hierarchy is a commonly used program-evaluation framework (Van den Ban & Hawkins 1996). It is presented in summary form in Table 5.1.

Table 5.1 Bennett’s Hierarchy: a framework for program monitoring and evaluation

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Socio-economic and environmental consequences for society and for target group</td>
</tr>
<tr>
<td>6</td>
<td>Behavioural change in target group</td>
</tr>
<tr>
<td>5</td>
<td>Changes in target group’s knowledge, skills, attitudes, motivation and norms</td>
</tr>
<tr>
<td>4</td>
<td>Participant opinions about program activities</td>
</tr>
<tr>
<td>3</td>
<td>Target group participation in program activities</td>
</tr>
<tr>
<td>2</td>
<td>Opportunities offered to target group by the program</td>
</tr>
<tr>
<td>1</td>
<td>Resources used to mount the program</td>
</tr>
</tbody>
</table>

Evidence of the program’s impact becomes stronger as the hierarchy is ascended. It is not until level 5 is reached that monitoring goes beyond a concern with inputs and participants’ satisfaction. The measures at level 5 are considered to be stepping-stones to adoption of the desirable patterns of behaviour that constitute level 6. These in turn are seen as key ingredients in achieving socially defined socio-economic and environmental outcomes.

Capacity-building outcomes are represented by levels 5 and 6 (human and social capital) and 7 (physical, financial and natural capital). Extension and education programs too often focus on lower levels and are based on a provider–user perspective. In contrast, a focus on levels 6 and 7 offers scope for the empowerment of stakeholders such that they are able to challenge institutional arrangements. It is the key to reciprocal and continuous improvement in the linkage between capacity building and institutional arrangements. This does not, however, preclude complementary monitoring and evaluation related to lower levels.

Evaluation and accountability

Monitoring and evaluation related to these lower levels in the hierarchy are a legitimate preoccupation for accountability purposes and an important ingredient in assessing efficiency and effectiveness. Marsh and Pannell (2000) point to the ‘transaction costs’ associated with them, however, and one of these is their potential to distract stakeholders from the higher level capacity-building goals.

The hierarchy in Table 5.1 highlights time-lag and cause-and-effect factors. As it is ascended, the time lag between when an input occurs and an output is gained lengthens and the difficulty of attributing outcomes to any particular input increases.
Fourth-generation evaluation

The principles of ‘fourth-generation evaluation’, as outlined by Guba and Lincoln (1989), make sense in this context. They rest on three assumptions:

- Any action is the resolution of a large number of mutual and simultaneous ‘shapers’, each of which is itself being shaped by all the other shapers. It is not valid to talk about the ‘effect’ or ‘impact’ of a capacity-building project because it is only one of the shapers at work.

- ‘Change’ is best seen as a non-linear process involving the introduction of new information and increased sophistication in its use on the part of the people involved. The implication here is that development of the capacity of people in the situation to make critically informed decisions is the prime purpose of an effective monitoring and evaluation system.

- Evaluators are best seen as facilitators of a negotiation process that culminates in consensus on better informed and sophisticated perspectives among stakeholders. They are subjective partners.

5.2 An ideal situation: ‘what should be’

5.2.1 Outcomes and underlying assumptions

Capacity-building programs should stimulate, encourage and help people to become involved in learning projects they see as relevant to improving their own situations. The programs should also enable reflection on the learning experience, with a view to achieving ‘triple-loop learning’—that is, learning how to do something (single loop), learning how to learn (double loop), and learning how to critically evaluate the basic assumptions underpinning what is learned and how it is learned (triple loop).

Ison et al. (2000) maintain that triple-loop learning opens enquiry into underlying ‘whys’ and that double-loop learning encourages learning for increasing effectiveness. Triple-loop learning permits insight into the nature of a paradigm, not merely an assessment of it. Bawden (1989) uses the terms ‘learning’, ‘meta-learning’ and ‘epistemic learning’ to represent the three levels and states: ‘epistemic learning is how we learn about the nature of our paradigms, while meta-learning is how we learn to put them into practice’.

Paradigms

This view of the nature and purpose of capacity-building programs is based on a learning paradigm. A learning paradigm places potential learners in the central role and stimulates them to develop and pursue their own interests by choosing, designing, conducting and evaluating their own learning projects. It promotes a collaborative learning environment that enables co-learners to reflect on the experience of their projects and share their insights. It assumes that this will result in interdependent rather than dependent relationships, an appreciation of how to learn, and the ability to critique assumptions and information. It also assumes that, as a consequence of this experience, people will become effective self-directed learners.

The alternative is a teaching paradigm, in which the teacher decides what the outcomes of learning should be and directs the content (syllabus) and teaching activities. There is an underlying assumption that this will result in preordained changes in knowledge, skills and/or attitudes among the learners.

5.2.2 Methodological consistency

With a capacity-building program based on a learning paradigm, the scope and purpose of an individual’s learning projects are not predetermined by the educator or the education and training organisation. The educator is a facilitator rather than a teacher, and program design revolves around creating an environment where learners are encouraged to pursue their own interests and to critically reflect on the experience of doing so.
There is, however, a need to externally validate whether and how well the projects are meeting the objectives of the learner and contributing to the wider capacity-building requirement. There is also an expectation that the learning projects will usually be situation improving in nature—that is, action oriented—and this will often require and benefit from collaboration with relevant stakeholders.

**Methods**

Programs based on a learning paradigm will use two complementary sets of methods to support capacity building. One set relates to learning facilitation, the other to learning support:

- Learning facilitation stimulates engagement in the learning and capacity-building process; decisions about what is to be learned and the design, conduct and assessment by the learner of their learning project(s); external validation of the learning outcomes; and reflection by the learner on the experience of the project(s) in terms of what was learnt, how it was learnt, and the implications for further learning.

- Learning support provides access to the learning materials, sources of information and activities the learner needs to pursue their project(s). This requires production of content packages and/or access to information on specific subject matter, and/or provision of training activities on specific skills. The packages and training activities must be readily accessible to the learner when their relevance becomes apparent to him or her.

5.2.3 Monitoring, evaluation and institutional learning

An appropriate monitoring and evaluation strategy will nominate the following:

- a set of performance indicators related to the capacity-building outcomes, the suitability of design of programs to achieve the outcomes, and provision of facilitation and ready access to relevant content packages and training activities

- the data to be collected, in a form suitable for evaluation of outcomes and methods that leads to external validation and internal improvement

- the activities in which the data will be used.

Improvement will be an iterative process in which the underlying conceptual framework (the theory) will guide implementation (the practice), and reflection on the experience of implementation will lead to refinements in the conceptual framework, and so on. The process is a capacity-building one. The necessary accountability element of evaluation should be incorporated in this iterative process but should not dominate it. Guba and Lincoln (1989) provide appropriate guidelines in their discussion of fourth-generation evaluation as follows:

- Phase 1. Identify stakeholders and elicit claims and concerns they may wish to introduce.
- Phase 2. Introduce the claims and the concerns raised to other stakeholder groups for refutation, comment, agreement, or whatever action they might choose to take.
- Phase 3. Use unresolved claims or concerns to structure information collection by the evaluators—for example, information needed to test a claim or indicate the extent to which a concern is justified or to support or refute each side of an argument.
- Phase 4. Guide negotiation among stakeholders toward consensus on disputed items.
- Phase 5. Use unresolved items as the core of the next cycle of evaluation in a formative evaluation and of the next evaluation in a summative one.
5.3 The reality: ‘what is’
This section compares the ‘ideal situation’ just described with the ‘existing situation’ as a way of identifying potential improvements.

5.3.1 Outcomes and assumptions

Shifting paradigms
There is currently no agreed capacity-building strategy and rationale apparent in the institutional arrangements that apply to rural Australia. This reflects the dynamic nature of the situation. A number of authors—for example, Drinan (1992), Macadam (1997) and Bawden (1995)—use Kuhn’s (1970) concept of paradigm shifts3 to suggest that dominant mind-sets profoundly affect the way we see agriculture, for example, and consequently the institutional arrangements in which it is immersed, and that emerging mind-sets tend to subsume rather than replace existing ones.

These commentators discuss the dominance throughout the 1940 to 1970 period of a production mind-set, the genesis of a productivity mind-set that came to dominate during the 1980s, and the current salience of a sustainability mind-set. They relate them to a parallel shift concerning extension—that is, unease with the notion of extension as technology transfer and emergence of capacity building as a more appropriate concept. Given institutional arrangements’ slowness to change, the implication is that the development of new arrangements lags behind the emergence of new mind-sets.

The current capacity-building situation reflects this often conflicting mix of mind-sets and related institutional arrangements. The sustainability mind-set is apparent in the rhetoric of agricultural organisations, increasingly so in legislation and community expectations, but less so in the practical reality, where a productivity mind-set (with a production undertone) still dominates.

During the preliminary stages of this project, the authors used the concept of shifts in paradigms to conduct a historical review: the resulting matrix is presented as Appendix B.

The continuing relevance of the technology transfer model
This conflicted situation is reflected in reviews of rural extension. Critiques of rural extension (Russell et al. 1989; Roling 1989; Campbell & Junor 1992; Pretty & Chambers 1993; McKinlay 1996; Barr & Cary 2000) consistently highlight the continuing dominance of the technology transfer model in institutional arrangements related to RD&E. They point to the RD&E community’s preoccupation with communicating the results of specified research, based on the underlying assumption that its subsequent adoption constitutes the desired outcome. Farmer organisations, conscious of the RD&D levies paid by their members, opt for the same goal. The policies and procedures of research and development corporations reflect this consensus and continue to emphasise communication as the means of effecting technology transfer and achieving commodity productivity gains.

Emergence of a capacity-building perspective
There is, however, an emerging emphasis on a broader capacity-building perspective, apparent, for example, in the Cooperative Venture that sponsored this project and in projects such as Dairy Research and Development Corporation’s Farm Program. The latter incorporates a search for ‘better understanding of how farmers learn and make decisions, a systems approach, developing and rolling out targeted learning packages’.

3 Kuhn illustrates how edifices are erected around particular paradigms, how challenge generates resistance, and how eventual paradigm shift accompanies substantial change. He suggests a paradigm shift ‘inaugurated by a growing sense … that a given paradigm has ceased to function adequately in the exploration of an aspect of nature to which that paradigm had previously led the way’.
The emerging notion of capacity building embraces a much wider range of players, and they constitute a challenge to existing arrangements. The Australian Government is becoming more involved in rural learning and capacity building through programs such as Skilling Farmers for the Future. The earlier Property Management Planning program recognised that the desired outcomes are largely relevant to most primary producers and that most farmers manage a business that requires capability in core farm business–management skills, environmental management and production in a mix of enterprises. It also allowed for the multi-purpose nature of farming and the widely different goals held by different producers; that is, they are not all seeking profit maximisation.

The Property Management Planning program was a counter to the common tendency of governments to respond to issues as economic, social or environmental and to initiate programs accordingly. Their stated need to account for expenditure of public funds prompts them to specify program outputs that coincide with government policy related to the particular issue. These are often incompatible with the diverse and interrelated goals and aspirations of industry and community groups with an interest in the situation. Compartmentalised programs inhibit the emergence of capacity building.

**Shortcomings of capacity-building programs**

The focus of FarmBis falls short of capacity building, as defined in Chapter 4, when it does not overtly incorporate action to redress a problematic situation and improve the stock of capital. When Property Management Planning is linked to incentives to implement farm plans, it meets the criteria.

5.3.2 Methodological consistency

In their analysis of extension (a complementary Cooperative Venture project focusing on the question of what works and why), Coutts et al. (2002) distinguish between the following models:

- **the group facilitation/empowerment model**, which focuses on increasing the capacity of participants in planning and decision making and in seeking to meet their own education and training needs based on their particular situations

- **the programmed learning model**, which delivers specified training (in terms of content) based on an industry needs analysis or demand. It can be delivered in an adult learning approach

- **the technological development model**, which is about working with individuals and groups to develop specific technologies, management practices or decision-support systems that will then be available to the rest of the industry.

The group facilitation/empowerment model meets the capacity-building criteria. The other models are potentially complementary (see Chapter 7). The programmed learning model could fit the need for readily accessible learning support for people encouraged to pursue their own learning projects through the group facilitation/empowerment model. The technological development model has particular potential as the basis for development of participants as interdependent learners, willing and able to provide effective leadership in addressing emerging challenges. In the absence of an agreed capacity-building strategy and rationale, however, the potential complementarity is lost.

5.3.3 Monitoring, evaluation and institutional learning

The absence of an agreed capacity-building strategy and rationale precludes a monitoring and evaluation system that stimulates relevant institutional learning.

There are, for example, in each of the research and development corporations monitoring arrangements related to the programs and projects being funded, and the form of the arrangements reflects assumptions about the purpose of the particular program or project, as illustrated in the three models developed by Coutts et al. (2002). Their overriding accountability focus will tend to inhibit a creative capacity-building orientation when the emphasis is on a specific outcome sought by a corporation, rather than the wider outcomes (that is, improvements across forms of capital) sought by various stakeholders. The relevance of the latter becomes increasingly apparent at the higher levels of the hierarchy presented in Table 5.1. Inhibition would occur if the corporation restricted access to
resources because the capacity-building initiative at stake was dealing with matters outside its particular domain.

The Cooperative Venture is an initiative that provides the scope for a coherent cross-corporation rural capacity-building strategy focused on improvements in the stock of capital sought by a range of stakeholders. Monitoring and evaluation to facilitate this would be a feature of the strategy.

5.4 Summary, conclusions and recommendations

5.4.1 Summary

• To be classified as capacity building, an intervention must meet the criteria specified in the definition of capacity building, as developed in Chapter 4, and be conceptualised as such.
• Capacity-building programs should stimulate, encourage and help people to become involved in learning projects they see as relevant to improving their own situations.
• Within a capacity-building program based on a learning paradigm, the scope and purpose of an individual’s learning projects are not predetermined by the educator or the education organisation.
• Programs based on a learning paradigm will use two complementary sets of methods to support capacity building: one set relates to learning facilitation, the other to learning support.
• Monitoring and evaluation should focus on achievement of sought-after socio-economic and environmental outcomes (improvements in the stocks of capital sought by stakeholders) and the emergence of the patterns of behaviour considered to be the stepping-stones to achieving those outcomes.
• Evaluation based on a provider–user perspective is too often dominated by questions of accountability and a concern with inputs and participant satisfaction.
• Critiques of rural extension consistently highlight the continuing dominance of the technology transfer model in institutional arrangements related to RD&E.
• A capacity-building perspective will be accelerated by incorporating the intention to act to improve problematic situations, by institutional arrangements that stimulate this, and by appropriate monitoring and evaluation strategies and criteria.
• Existing programs are potential complements to capacity building given an overarching agreement on what constitutes capacity building and use of a monitoring and evaluation system that stimulates it.

5.4.2 Conclusions and recommendations

There is a growing appreciation of the shortcomings of extension and adult education programs based on a teaching paradigm and of monitoring and evaluation based on the achievement of preordained targets for accountability purposes. Bridging the gap between this approach and a capacity-building one will result in substantial marginal returns.

The following is recommended:

• A debate should be initiated within and between strategically important organisations (see Chapter 8) to arrive at an agreed capacity-building rationale based on the propositions developed in this report. The debate should focus on the need to subsume the terms extension, education and communication within the wider concept of capacity building, as developed in this report.
• The debate should be complemented by a communication campaign to develop awareness of the matters at issue and interest in participating in the debate.
• The evaluation and monitoring strategies used by Cooperative Venture members should be reviewed in order to ascertain the strategies’ effectiveness in facilitating and supporting the emergence of capacity building.

The Cooperative Venture is the logical candidate to initiate the debate, mount the communication campaign, and commission the review as a follow-up to this project.
6. Engaging relevant communities of practice

**Proposition.** Effective capacity building defines and engages the relevant communities of practice. In doing so, it encompasses a diversity of interests and world views and avoids the losses associated with marginalisation of potentially significant people.

In Chapter 4 it is argued that a capacity-building strategy must take into account the purposes of the particular capacity-building exercise and who should be involved. It should engage all who have an interest in an improvement—all who have the potential to form the relevant community of practice. Just who these participants should be is noted as potentially problematic, raising ethical questions as well as ones of effectiveness and efficiency.

This chapter further examines the notion of communities of practice and argues that leadership and diversity are crucial requirements if the communities are to be effective.

6.1 Background

6.1.1 Relevant communities of practice

Capacity building occurs in communities brought together by a common concern. They may be as small as a family farm business or as large as a regional development organisation or catchment body, and they can incorporate people who are directly concerned (the primary stakeholders), people with relevant expertise, and perhaps others with different perspectives. Capacity building is initiated by people and organisations that need something from others and so seek to engage them in a process (see Box 6.1).

<table>
<thead>
<tr>
<th>Box 6.1 Some potential capacity-building situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following are examples of potential capacity-building situations:</td>
</tr>
<tr>
<td>- A member of a rural family business is concerned that, although she is in her late 30s, her parents have never discussed their business and related plans for when they retire. She initiates action by persuading her parents that the matter should be dealt with now and arranges meetings with their accountants, solicitors and others so they can collaborate on preparing a succession and retirement plan. In this case, domestic leadership facilitated a process in which external agents worked with the family to learn how to implement satisfactory solutions for both generations.</td>
</tr>
<tr>
<td>- A farming district has a weed problem that cannot be solved by individuals acting alone. A local farmer initiates action by stimulating interest among the locals and identifies external human and other resources that can help them take action for improvement. Here, local leadership initiated action and sought resource inputs from external agents, and all worked together to learn how to take action to reduce the weed problem.</td>
</tr>
<tr>
<td>- A government agency charged with reducing dryland salinity in a catchment cannot implement the necessary land management practices itself. It initiates action by motivating people at all levels who are involved in managing the land and provides a variety of support measures, so that all work together to learn how to take action to reduce salinity. Here, the process was initiated by an agency that enlisted involvement and provision of services from many others and provided additional support measures.</td>
</tr>
<tr>
<td>- A medical practitioner in a rural region is disturbed by the unusually high incidence of occupational disease among farm workers. She initiates action by seeking assistance from government agencies and educators to determine how the problem might be tackled, and how the farm workers and input suppliers might be attracted to becoming involved in a process designed to alleviate the problem. Here, local leadership external to the sufferers facilitated a process in which all parties associated with the problem were brought together to learn how to promote better occupational health.</td>
</tr>
<tr>
<td>- A food processor anticipates growing consumer concern about food safety. It recognises that the potential for creation of unsafe products exists at all stages of the value chain and that everyone, without exception, must learn how to guarantee safe management at their stage in the chain. It</td>
</tr>
</tbody>
</table>
initiates action by seeking advice from communication experts about how to generate commitment to action, as well as assistance from technical experts. It builds commitment along the chain and facilitates the development of a quality assurance program. Here, one stage of the value chain initiated action and facilitated a process that involved all in learning how they could guarantee the safety of the product when the consumer buys it.

The examples in Box 6.1 show that it is not always helpful to talk about capacity building in terms of specific agents providing services and others using or benefiting from them. In fact, if the process is truly capacity building all are providers and all benefit in some way. The people involved form a new community of practice around a common concern and a coalescing of purpose and values.

The concept of communities of practice is a significant change from the conventional perspectives of extension. The conventional perspectives see public and private agencies as having a responsibility to provide advisory services to target groups of users. At its extreme, each side sees the other as separate, one providing information and ideas while gaining no more than a salary or fee and the other gaining information and ideas while providing little. Each is learning something from the other, but the depth of their learning is limited by the extent to which they build meaningful and trusting relationships around the precipitating concern and their commitment to improving it. When they see themselves and each other as members of a community of practice, they can appreciate and build on their interdependence for mutual benefit.

The critical point about these communities of practice is that they consist of people who are interested in learning how to take action on the precipitating concern. Because that concern constantly varies, the range of relevant people also varies, so that new communities of practice emerge and old ones die. In the family farm business, for example, the community of practice will be constituted differently depending on whether the matter of concern is family succession or a five-year plan for farm development. A regional development organisation as a community of practice will vary its membership as its understanding of its circumstance evolves and may even generate a number of subsidiary communities of practice addressing different concerns.

### 6.1.2 Boundary setting

The foregoing discussion is based on the logic that all people with a stake in an issue should be involved in action to remedy it. But this is not as simple as it might first appear. In Chapter 4 Midgley (1995) is quoted as drawing attention to the ethical implications of where to place the boundary around a human activity system such as a community of practice. There are also implications for effectiveness and efficiency, the study of which is being institutionalised in the emerging ‘discipline’ of institutional economics.

Ethical questions arise, for example, when people are deliberately excluded because they might advocate positions opposed to that taken by the initiators of the intervention. More seriously, they might be excluded because people in powerful positions wish them to be disadvantaged by the outcomes of the process or, at least, be kept in a subordinate position.

Effectiveness is a way of stating the extent to which the objectives of an exercise are met. The effectiveness of a capacity-building process is determined by a raft of factors, one of which is membership. If, for instance, relevant expertise is excluded, the range of possible achievement is limited. Box 6.2 highlights the importance of harnessing relevant knowledge and expertise.
Box 6.2 The need to harness relevant knowledge and expertise

Ridley (2003) quotes Brown’s (2003) contention that five constructions of knowledge are important in making decisions about sustainability issues:

- **individual knowledge**—personal lived experience, lifestyle choices, learning style and personality
- **local knowledge**—shared lived experience of individuals, families, businesses and communities
- **specialist or professional knowledge**—mono-, multi- and trans-disciplinary knowledge
- **strategic or organisational knowledge**—administration, governance systems and legislation
- **holistic knowledge**—the essence or core of the matter, a vision for the future and a common purpose.

Ridley also cites a national study of Landcare decision making that found that farmers, researchers and government agents did not need shared values to work together. They did, however, need a shared goal and a common interpretation of the core of complex and ambiguous issues such as sustainability (Brown 1995).

‘Efficiency’ refers to the relationship between benefits gained and the effort needed to gain them. Marsh and Pannell (2000) note the rise in transaction costs associated with increasing the number and variety of people involved in an intervention. A successful community of practice depends on its members achieving some consensus around purposes and values, and accommodation of diverse views and large numbers takes time. At some point the effectiveness gains are balanced by the costs, and efficiency is reduced. In the worst case, lack of progress in achieving consensus can lead to community breakdown.

6.1.3 Boundaries, diversity and innovation

Wenger (2000) notes, ‘Communities of practice can steward a critical competence, but they can also become hostage to their history, insular, defensive, closed in, and oriented to their own focus’. The effectiveness of communities of practice is measured by the reach or stretch of their objectives and the extent to which those objectives are achieved.

Ashby’s (1965) Law of Requisite Variety paraphrases the most fundamental of biological truths: limited variation within and of species in a rapidly changing environment limits adaptability and ensures ultimate extinction. The latest *State of the Regions Report* includes a creativity index that incorporates cultural, ethnic and lifestyle diversity (Australian Local Government Association 2002). Capacity building is about adaptive response to change. Adaptation is necessarily innovative, in the sense that it incorporates something that is new to a community of practice, although perhaps not to others already using it. The community will, however, be relegated to permanent ‘follower’ status if it fails to encourage the creation of original ideas.

Creative innovation is widely held to be the engine of economic growth (see, for example, Marceau et al. 1997) and is just as important in the social and environmental domains. Incorporating the views, experiences and reflections (particularly those from ‘left field’) of different people and organisations is a prerequisite, as illustrated in the Perkins et al. (2001) study on the search for innovative farming systems.

Wenger (2000) maintains, ‘Without the learning energy of those who take initiative, the community becomes stagnant. Without strong relationships of belonging, it is torn apart. And without the ability to reflect, it becomes hostage to its own history’. Table 6.1 shows the factors that impinge on this.
### Table 6.1 Community dimensions of communities of practice

<table>
<thead>
<tr>
<th>Factor</th>
<th>Enterprise—level of learning energy</th>
<th>Mutuality—depth of social capital</th>
<th>Repertoire—degree of self-awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement—doing things together</td>
<td>What are the opportunities to negotiate a joint enquiry and important questions? Do members identify gaps in their knowledge and work together to address them?</td>
<td>What events and interactions bind the community and develop trust? Does this result in an ability to raise troubling questions during discussions?</td>
<td>To what extent have shared experience, language, artifacts, histories and methods accumulated over time and with what potential for further interactions and new meanings?</td>
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<tr>
<td>Imagination—constructing an image of ourselves and of the world in order to orient ourselves, reflect on our situation, and explore possibilities</td>
<td>What visions of potential are guiding thought leaders, inspiring participation, defining a learning agenda? What picture of the world serves as a context for such visions?</td>
<td>What do people know about each other and about the meaning that participation in the community has in their lives?</td>
<td>Are there self-representations that would allow the community to see itself in new ways? Is there a language to talk about the community in a reflective mode?</td>
</tr>
<tr>
<td>Alignment—making sure our local activities are sufficiently aligned with other processes to be effective</td>
<td>Have members articulated a shared purpose? How widely do they subscribe to it? How accountable do they feel to it? And how distributed is leadership?</td>
<td>What definitions of roles, norms, codes of behaviour, shared principles and negotiated commitments and expectations hold the community together?</td>
<td>What traditions, methods, standards, routines and frameworks define the practice? Who upholds them? To what extent are they codified? How are they transmitted to new generations?</td>
</tr>
</tbody>
</table>


### 6.2 The reality: ‘what is’

#### 6.2.1 Leadership

Leadership, or lack of it, is perceived as a pressing concern in rural Australia. The quality of debate, inordinately long tenures of individuals as heads of organisations, and excessive territoriality, for instance, raise questions about the availability and quality of leadership. Universities are criticised for failing to develop the leadership potential of graduates, and the few females, young people, Indigenous Australians and people of culturally and linguistically diverse background in senior positions in rural organisations suggests, among other things, a failure of leadership.

There is, however, a large range of leadership development programs available to people in rural Australia, many of them being supported by organisations such as the research and development corporations. Current examples are the Australian Rural Leadership Program, Nuffield Farming Scholarships, Women in Dairying, the Marcus Oldham Rural Leadership Program, and Vincent Fairfax Scholarships. A review of the Australian Rural Leadership Program (Allen et al. 1997), for example, highlighted the Program’s effectiveness while commenting on the need for its further development and support for other such initiatives at the regional level. Anecdotal evidence suggests, though, that these programs tend to focus on the development of executive rather than facilitative leadership—that is, on development of ‘the leader’. Facilitative leadership is more likely to be a product of effective capacity-building programs themselves, as exemplified in the Dairy Research and Development Corporation’s regional programs, for instance.

#### 6.2.2 Diversity

Rural Australia is diversifying rapidly. The growth of larger towns generates a widening range of business, health, cultural, travel, recreational and sporting services, better gender and age balances, and sometimes greater ethnic diversity. Even where the population is more dispersed the interests of people are broader because farms are more diverse, more income is earned off-farm, and farm families are better educated and more cosmopolitan in their outlook.
The expanding diversity of agriculture and farms is being accompanied by growth in the diversity of extension arrangements (Marsh & Pannell 2000; Macadam et al. 2002). In their study of the rice industry, Macadam and colleagues pointed to the complexity, variety and contradictions they observed. The people they interviewed often defined extension as the service offered by the department of agriculture, while nominating merchandisers’ field staff as their most commonly used source of information. Pressed further, they identified up to 24 different groups providing information, advice, counselling or other similar support for their farms.

There also appears to be growing recognition of the need to capture diversity. The dairy industry’s regional R&D programs have shown remarkable agility in attracting the attention of funders interested in broader regional matters such as employment and natural resource management. In the Riverina region of New South Wales, the Murrumbidgee, Coleambally and Murray Irrigation Companies’ initial understanding of their brief was to manage water resources, but they soon moved to a broad regional focus with a view to ensuring long-term economic, social and ecological sustainability. The Birchip, Southern and Central West (NSW) Farming Systems Groups are taking a holistic approach to regional and catchment research and extension, with initial funding support from the Grains Research and Development Corporation. There are similar developments with catchment management boards in most states.

There are, however, significant obstacles to progress, among them segmentation of government services and policies relating to the contestability of public funds.

State departments of agriculture have traditionally segmented their extension services into specific industry groups, and funding support from most research and development corporations has been treated similarly. This continues to be the case, despite the emergence of non-specific, holistic programs such as Property Management Planning and Holistic Resource Management and considerable cross-industry collaboration in RD&E. Some states also perpetuate an exclusive focus on agriculture by maintaining agricultural colleges, which can isolate students from other disciplines and mind-sets.

Funding arrangements that support collaborative activity act as a catalyst for forming new relationships and networks based on realistic assessments of mutual advantage. Yet these remain substantially restrictive. The public sector dominated the provision of extension services until recently, and still has a competitive advantage in contesting the allocation of long-term funding, the bulk of which is allocated internally. It also has the advantage of being seen as the ‘natural provider’ by many, and it has substantial administrative and intellectual back-up for preparation of submissions and project design. Additionally, it is usually able to find fall-back funds to maintain staff when short-term contracts end.

In contrast, non-government, community and private sector providers are at a significant disadvantage. They tend not to have the administrative resources to persist in relentless competition for projects and lack the range (although not the depth) of intellectual capacity and experience to match publicly funded agencies. They also suffer from being relatively unknown or being seen as newcomers with world views and approaches that do not fit traditional models. Short-term funding severely disadvantages them by inhibiting the build-up of professional capacity.

Synapse Research and Consulting (1997) concluded that the rural RD&E market was:

- conducted almost exclusively within public sector institutional and cultural settings and hence lacking in diversity
- dominated in direction and strategy terms by research and development corporations operating as monopolistic purchasers of RD&E services within their legislated charters and on behalf of the industries they represent
- generally not open to private sector RD&E providers and fragile because of its heavy dependency on public sector policies and institutional capabilities.
Synapse recommended ‘the gradual and widespread introduction of contestability whereby public sector RD&E purchasers utilise a broad range and mix of public and private sector RD&E providers’. Marsh and Pannell (2000) note, however, the potential for new problems to arise as public RD&E funds are diverted to the private sector. The problems lie in the possibility that private sector researchers might be less willing to share information. This is already evident among merchandisers and processors, who are often unwilling to share information with others for reasons of commercial benefit. But the private sector could eventually find that indiscriminate confidentiality is self-defeating. As Wenger (2000) notes, ‘… your most threatening competitor may be your best partner when it comes to learning together. If you hoard your knowledge in a social learning system, you quickly appear as taking more than you give, and you will be progressively excluded from the most significant exchanges’.

6.2.3 Resources

Lack of resources with which to undertake capacity building can be a major obstacle. Recent and current programs, such as FarmBis, have markedly increased participation in education programs, although the extent to which they are relevant to people’s precise needs has come into question. Even when these programs are demonstrably appropriate to needs, action stemming from them can be impeded by lack of financial or other resources. Longer term projects such as environmental remediation are particularly vulnerable: people are often not adequately supported, fatigue sets in, sponsors withdraw, and projects fail.

There is, however, a remarkable array of resources potentially available to support capacity building. They include a vast range of learning programs, huge information resources in print and electronic forms, legislative backing, and matching grants and tax breaks for physical works. More effective deployment of the resources is inhibited by lack of an appreciation of the nature of capacity building and by lack of a pattern of institutional arrangements that allows for effective alignment of resources with needs.

6.3 Summary, conclusions and recommendations

6.3.1 Summary

• The concept of communities of practice is a useful way of appreciating the mutual benefits and co-learning available to participants in capacity building.
• Communities of practice are formed around particular matters of concern.
• Communities of practice require participation by all who are directly concerned, relevant experts, and others who will stretch the thinking of the group.
• Determining the actual membership of communities of practice requires attention to ethics, effectiveness and efficiency.
• Communities of practice are ultimately about adapting to changed circumstances, and this requires innovation.
• Innovation is aided by access to and inclusion of diverse mind-sets, knowledge, skills and attitudes.
• The basic needs for successful capacity building by communities of practice are leadership, diversity and resources.
• There is institutional support for developing rural leadership potential, but it tends to focus on the development of executive rather than facilitative leadership.
• Facilitative leadership is more likely to be a product of effective capacity-building programs themselves.
• Rural Australia is rapidly diversifying, thus enlarging the available range of knowledge, skills, attitudes and world views.
• With the probable exception of long-term projects, substantial resources are potentially available to support capacity building.
Lack of appreciation of the nature of capacity building and a pattern of institutional arrangements that provides effective alignment of resources with needs will inhibit the effective use of such resources.

### 6.3.2 Conclusions and recommendations

This chapter examines the proposition that capacity building depends on engagement of the relevant community of practice, which includes everyone who has a stake in the outcome, as well as others with relevant expertise and different perspectives. The preconditions for establishment of effective communities of practice are access to facilitative leadership; to diverse mind-sets, knowledge, skills and attitudes; and to other resources. Although these preconditions often appear to be met, there are conspicuous deficiencies.

To improve this situation, the following is recommended:

- **Current leadership programs should be reviewed to assess whether their curricula are consistent with the aim of developing facilitative leadership and how they might be more closely connected with the experience and activities of people in the real world, in the places in which they live.**

- **Expansion of diversity should be encouraged by:**
  - ensuring full access for rural people to all layers of education
  - opening more public funding for rural support activities to private suppliers
  - promoting the involvement of women, young people, Indigenous Australians and people of culturally and linguistically diverse background
  - ensuring universal access to telecommunications of a quality that permits efficient e-networking and web access
  - promoting the use of e-networks and the web through, for example, sponsoring discussion groups, establishing common websites and compiling relevant databases
  - promoting capacity building within frameworks that require a holistic approach—for example, value chains, natural resource management systems, and community development
  - monitoring and building awareness of the effects of commercial restrictions on the sharing of information

- **Capacity-building programs should be designed holistically, to ensure access to the full range of resources required for effectiveness.**
7. Creating a shared capacity-building agenda

**Proposition.** Effective capacity building creates a common agenda and a willingness to collaborate among the members of the relevant communities of practice.

This chapter pursues the above proposition in three stages. In the background section the proposition is related to the conceptual framework developed in Chapter 4 and amplified in Chapters 5 and 6. The impact of institutional arrangements on the initiation and form of programs is canvassed, as is the need to understand potential participants and their situation as a basis for action to involve them. The second section of the chapter presents a case study that apparently meets the capacity-building criteria (as amplified in Chapter 5) and the conditions of the proposition just cited. The third section discusses the existing situation as it relates to the matters raised in the preceding sections.

7.1 Background

It is argued in Chapter 4 that capacity building, as defined there, is usefully seen as the work of a social learning system whose subsystems are communities of practice. Setting the boundaries of the system in terms of which communities of practice should be involved is described as a matter of judgment that depends on the nature and scope of the problematic situation to be improved. Who determines the boundaries is described as a question of leadership and governance.

It is further argued that, if capacity building is about interdependent learners operating as self-improving systems, it is counterproductive to define some communities of practice as providers (of capacity-building services) and others as users (of the services). All are co-learners in the process, albeit bringing different attributes and motivated by different forces. But people cannot be co-learners unless they are participants, and someone has to take the lead in initiating the activity they can participate in.

In practice, the initiation of capacity building depends on someone with an interest in improving a problematic situation acting as the ‘owner’ of an initiative to improve it and either providing or sponsoring the necessary leadership. Whether this is initiated as or subsequently translated into a capacity-building program, as defined in Chapter 4, is also a question of governance and leadership. Governance and leadership related to the initiation and form of programs are strongly influenced by the prevailing institutional arrangements.

7.1.1 Institutional arrangements and the emergence of a shared agenda

Synapse Consulting and Capital Agriculture (2000) reviewed three regional research projects designed to explore various dimensions of planning for regional resource management. Their analysis highlighted a number of critical institutional factors that affect the emergence of a shared agenda among program ‘providers and users’:

- Project participants should be involved in establishing the goals and design of the project. It is desirable that the goals and design evolve as the project progresses and participants identify new problems or redefine old ones.
- There is a need from the outset for the program team and as wide a cross-section of the community as possible to identify and engage individuals and groups within the community.
- Institutional factors from outside the region should be aligned with the aspirations and capabilities of individuals and institutions within it. Substantial progress will be achieved only if all levels of government commit to the goal of capacity-building programs and realign their processes and resource allocations accordingly.
• Project team leaders need considerable freedom to meet the evolving aspirations of the community. This freedom should, however, be balanced by independent monitoring and evaluation of the project.
• The duration of funding should be such as to enable the project to succeed or fail. Ill-will is created by terminating funding before a project can be adequately tested. A degree of self-sufficiency within the local community is likely to be positively associated with stronger ownership of the processes.

7.1.2 Research as the basis for decision making
The questions of which communities of practice should be involved and how they can be involved depend on who ‘owns’ the initiative. McDonald (2002) claims that the too-frequent education and training failures are characterised by lack of understanding of the market for the programs, lack of clarity of purpose, or undue reliance on traditional methods. He presents the concept of social marketing as a counter. It combines three principles:
• Place the customer centrally.
• Attach prime importance to changing behaviour.
• Adapt social marketing strategies for the stage at which each audience is found. There are different ways in which the market for learning can be segmented, and McDonald chooses ‘indifferent, aware, ready or active’. He claims that segmenting the market in this way allows for the development of strategies to progressively move people from one segment to another. Segmentation is based on professional studies that:
  • provide information so far lacking on what might make people want to be involved and that complements currently available demographic data and studies (for example, Clark and Associates & Rural Advantage 2001)
  • provide data to estimate the number of people in each segment, which then leads to information about segment size and where the greatest leverage will be obtained
  • provide data that lead to a more effective communication/marketing strategy
  • establish benchmarks for monitoring and evaluation.

The question of who needs to understand the system or community they want to work with is pertinent. Where programs are regarded as a provider product, the obvious answer is the provider and the accompanying assumption is that they will commission the necessary research. When, however, the program is jointly ‘owned’ by a range of stakeholders, the need to know is jointly owned. If one or more of the stakeholders is funding the initiative there is a danger that the exploratory research will be distorted to meet their expectations.

7.2 An ideal situation: ‘what should be’

The Macquarie 2100 Draft Plan (Macquarie Valley Landcare Group 1999) presents the elements of an ideal. It is a community, environmental and economic plan for the mid-to-lower Macquarie Valley in New South Wales, including Narromine shire and parts of Warren and Bogan shires. It was initiated in 1995 by the Macquarie Valley Landcare Group. Start-up funding was a Natural Heritage Trust grant, subsequently supplemented by funds from local government and agribusiness firms. The annual budget between 1995 and 1999 was about $90 000. The five elements of the ideal and the Plan’s response to them are as follows:
1. Diverse and relevant communities of practice collaborating in creating a shared agenda. The acknowledgments section of the Plan states,
   Macquarie 2100 was developed by a fluid team of community members, professionals, government agency staff and local government councillors and staff. People became involved because they were interested or were invited to bring in their expertise and knowledge in a particular area. They were involved as individuals, not representatives. Macquarie 2100’s strength is that hundreds of people have been generous enough to give their time, ideas or energy to make it work.

   The section goes on to acknowledge the contribution of 335 individuals and the ‘continuing support’ of 51 organisations.
2. **A systemic approach to situation improvement.** The Plan includes long-term strategies, medium-term aims and initial projects within each strategy area. The seven interrelated strategies encompass all aspects of capital improvement—human, social, physical, financial and natural:
- salinity—minimise its extent and impact on the region
- river—improve the riverine environment and water quality
- vegetation and land use—preserve and regenerate biodiversity, soil and vegetation while encouraging diverse and innovative land use
- health and lifestyle—improve quality of life
- youth, family and culture—foster pride, security, integrity and trust within the community
- economics and tourism—work towards a sustainable economy through employment, industry and business development
- education and information—improve the availability of and access to quality information, education and training.

3. **Stated assumptions that reflect a collaborative learning paradigm.** As its underlying set of values and beliefs, the Plan states
- It is our responsibility to improve and protect our region for future generations.
- The quality of the whole is shaped by the integrity of the individual.
- Working together brings greater community control, strength and unity.
- Strength lies in valuing and developing local talent and resources.
- Stability and health lie in diversity of nature, enterprise and culture.
- Relationships based on respect, discipline and tolerance are the foundation of strong communities.
- Individuals need to be responsible and accountable for their own actions.
- Incentives, quality information and cooperation turn change into opportunity.

4. **Scope for continuous improvement being offered by consistency between desired outcomes, methodology, and the monitoring and evaluation strategy.** The program timeline for 1995 to 1999 was:
- 1995. Macquarie Landcare Group members visit southern New South Wales irrigation districts, become excited by possibilities of developing a regional plan, and appoint a steering committee.
- March 1996. The committee presents a planning structure and timeline to the wider community in public meetings and appoints a salaried coordinator.
- October 1996 to March 1997. An open interview process is conducted with 500 locals to ‘find the issues’.
- February to April 1997. Interview transcripts are collated into a database—a ‘picture of the Valley’.
- April 1997. Public meetings are held in Warren, Trangie and Narromine, presenting to the community ‘This is Our Life’, a document based on the database.
- November 1998. A skeleton plan is presented to community groups, government officers, local professionals and community members for comment and feedback.
- March to June 1999. A mailed benchmarking survey of 246 school students and 499 adults generates quantifiable data for measurement over time.
- July to December 1999. The Draft Plan is released for public comment at Macquarie 2100 Muster and then is modified and released as the Final Plan. It includes a four-phase monitoring and evaluation strategy—short term (1–5 years), short to medium (5–15), medium to long (15–50) and long term (50–100).

5. **Improvements in the stock of physical, financial, natural, social and human capital.** These are generated through participation in:
- situation-improving activities
- identification of learning needs
- relevant topic-based education and training programs offered by various providers and/or tailored learning activities.
7.3 The reality: ‘what is’

7.3.1 The paucity of research for decision making

Most programs with the potential to become capacity-building ones, or to contribute to capacity building, are initiated by program ‘providers and funders’. Rather than commissioning research along the lines suggested by McDonald (2002), there is a predisposition to base programs on assumptions. The initiators are responsive to organisational expectations, as opposed to the expectations of potential participants, and there is a tendency to rationalise the lack of response instead of developing knowledge of the market and implementing an appropriate suite of responses.

The considerable cost of market research may not be included in the funds allocated for a project on the assumption that the contracted organisation considers it knows the market. Organisations frequently exhibit a sense that they do know what is needed, and this might be well based given the supposed short-term focus of target participants and the hopefully more objective and strategic one of the organisations involved. In the absence of market research, the danger is that arrogance outweighs discernment. In a recent study (Drinan 2003), farmers responded adversely to their sense of marginalisation in consultative groups and their impression that the provider agency already knew what was needed—‘we don’t need others to tell us what we need’.

7.3.2 Generating a shared agenda

Programs that meet the criteria illustrated in the Macquarie 2100 example are becoming more common. The authors recall the impact during the 1970s of the Bannockburn Project in the Inverell district of New South Wales (Miller 1971). It was a sophisticated community-based capacity-building program that fulfilled the criteria to a remarkably high level. It received scant institutional appreciation or support, however, and was neither sustained nor replicated following the resignation of Ron and Audrey Miller, the facilitators.

The emergence during the 1980s of the Landcare movement and of ‘sustainable development’ as a policy priority created a more supportive institutional environment for similar programs. Coleambally Irrigation (Bramston 2001), for example, is devoting its considerable funding, manpower and physical resources to a strategy that meets these criteria. But programs of this nature are the exception rather than the rule, and the Synapse Consulting and Capital Agriculture study (2000) spells out some pertinent institutional reasons for this. They found the following in at least the Queensland regional resource management project, one of three they studied:

- Institutions and organisations outside the region are either unaware of the need to or unable or reluctant to modify their structures, cultures, processes and priorities to facilitate holistic community-led planning processes at the regional level. State government resource allocations, for instance, are based on departmental structures that cut across integrated planning and service delivery at the regional level.
- There was no concerted plan or effective action to realign state and federal government arrangements and processes to capture and strengthen the benefits of enhanced capacity at the regional level.
- Commitment to integrated community outcomes and participation in project processes were less from current major land-using sectors (for example, pastoralism and mining) than from new or small sectors. Possible explanations put forward by the researchers are:
  - the major sectors already having established mechanisms for within-sector communication and policy determination
  - the higher influence on them of out-of-region forces because their structures and processes are more broadly based geographically
  - the perception, right or wrong, that they have more to lose from integrated community-led solutions than do other sectors
  - lack of exposure to and debate about alternative views and values, at least at the regional level
  - the existence of dedicated state and federal government agencies that see the major sectors as constituents and tend to protect their interests, even at the expense of the broader local and regional communities
  - their inherently conservative natures.
7.4 Summary, conclusions and recommendations

7.4.1 Summary

- The research cited highlights the importance of involving participants in establishing project goals and design; involving a wide cross-section of the community; aligning institutional factors from outside the region with the aspirations and capabilities of individuals and institutions within it; giving freedom to project leaders; and ensuring that the duration of funding is sufficient to enable the project to succeed or fail.
- Social marketing is a useful basis for making decisions about which communities of practice should be involved and how to involve them.
- There is a predisposition among the initiators of programs to base decisions on assumptions.
- The initiators are responsive to organisational expectations rather than those of the potential participants, and there is a tendency to rationalise a lack of response by the potential participants.
- The Macquarie 2100 Draft Plan apparently meets the capacity-building criteria and the conditions of the proposition.
- Programs that meet these criteria are becoming more commonplace but remain the exception rather than the rule. Institutional reasons include structures and processes outside the region being incompatible with holistic community-led processes at the regional level and state and Commonwealth government arrangements not being aligned to capture and strengthen the benefits of enhanced capacity at the regional level.

7.4.2 Conclusions and recommendations

A sense of shared ownership of potential capacity-building programs by the relevant communities of practice is a prerequisite for the communities’ active participation in those programs. This is enhanced by institutional arrangements that facilitate alignment of communities and organisations within a region with relevant ones from outside it. Research that provides decision-making information to enable this is a sound investment. Ownership and participation will increase if the program is perceived as meeting the criteria for what constitutes a capacity-building program.

To achieve this, the following is recommended:

- The Cooperative Venture should commission a project to develop a set of criteria for assessing capacity-building initiatives. The project should have as an outcome (by Venture members and other relevant stakeholders) of the criteria to guide the design, conduct, monitoring and evaluation of capacity-building initiatives. A preliminary set of criteria is proposed, as follows:
  - diverse and relevant communities of practice collaborating in creating a shared agenda
  - a systemic approach to situation improvement—that is, interrelated strategies that encompass all aspects of capital improvement
  - stated assumptions that reflect a collaborative learning paradigm
  - scope for continuous improvement being offered by consistency between desired outcomes, methodology, and the monitoring and evaluation strategy
  - provision for and access to the full range of resources needed for success
  - improvements in the stock of physical, financial, natural, social and human capital generated through participation in situation-improving activities and related learning activities.

An element of the proposed project should be the review and identification of projects and programs that apparently meet these criteria or did so but have since been disbanded. The aim here is to identify more precisely the conditions that help or hinder the initiatives’ emergence and sustainability.

- Funders of programs with capacity-building potential should ensure there is a sufficient allocation to enable the initiators to identify and engage the relevant communities of practice in the design process. This should include research that provides decision-making information on what might make people want to become involved.
8. Political, institutional and organisational commitment to the goal of community-led programs

Proposition. Effective capacity building depends on political and institutional commitment to the goal of capacity-building programs and the alignment with it of strategically important organisations.

Chapter 6 highlights the need to involve the communities of practice that are interested in improving the situation a capacity-building initiative is focused on. Also highlighted is the importance of local leadership in initiating the capacity-building activity and as an outcome of it. The need to create a shared capacity-building agenda is the focus of Chapter 7. The proposition above puts these imperatives into a wider institutional and political context.

The background section of this chapter links a discussion of political rationality and governance with the modus operandi and underlying world views of strategically important organisations. It discusses the role of some of these and the importance of open boundaries, prevailing world views and responsiveness to complexity. A ‘what should be’ situation based on this background is then compared with ‘what is’.

8.1 Background

Because of the magnitude of the challenges canvassed in Chapter 3 and the goal of capacity building as improvement in the stock of human, social, financial, physical and natural capital, it is obvious that local intervention will have only a marginal impact if it is not complemented by supportive institutional arrangements. The modus operandi of the organisations involved will play a critical role in enabling this, as will the prevailing political rationality and its effect on governance.

8.1.1 Political rationality and governance

The Landcare program serves as a useful basis for illustrating the significance of political rationality and its effect on governance (the distribution and exercise of power). There is a longstanding critical commentary (for example, Martin et al. 1992; Gray & Lawrence 2001) that describes Landcare as a plank of rural environmental policy that encourages rural people to form local groups to care for the local environment, with limited government input in the form of small grants and facilitation support. The program’s local, self-help nature is seen by the critics as reflecting an approach to governance characterised by devolution, fiscal constraint and encouragement of market mechanisms—that is, emphasis on self-regulation.

The critique maintains that this approach neglects the need to expand the scale and scope of action beyond management at the local level—to embrace the complex dynamics highlighted in Chapter 3. Doing so requires more systemic forms of integration, such as coordination and regulatory institutions at the regional level, together with performance incentives and devolution of authority and resources. ‘Exhortations [to rural communities] to develop themselves, have “visions” or find leaders may provide minimal excitement and opportunity, but—without the devolution of decision-making power and provision of resources necessary to give effect to that power—they border on the futile’ (Gray & Lawrence 2001).

8.1.2 Alignment of strategically important organisations

The Synapse Consulting and Capital Agriculture (2000) research cited in Chapter 7 found that ‘substantial progress will only be achieved if all levels of government commit to the goal of community-led programs and realign their processes and resource allocations accordingly’. A recent newspaper profile of newly appointed New South Wales Minister for Infrastructure and Planning, Craig Knowles, indicates political recognition of this need (see Box 8.1). Whether political will is
implemented in practice depends to a large extent on how it aligns with the structure, processes and culture of strategically important players.

**Box 8.1 Political recognition of the need for change**

A profile of new New South Wales Minister for Infrastructure and Planning Craig Knowles (*Sydney Morning Herald*, 20 May 2003) indicates political recognition of the need for institutional arrangements which, if implemented, would greatly enhance the efficacy and effectiveness of capacity-building initiatives:

> Land clearing, water sharing and river catchments, native vegetation and planning and development have all been transferred into his giant new fiefdom with two major goals identified: forging a conciliatory and co-operative relationship between major stakeholders and reforming the complex array and layers of bureaucracy which govern the state’s natural resources.

People have historically seen this as a competing green/brown agenda. It is not. It is a social agenda … The development control systems we have now are the result of accretions over 150 years … they have more to do with the organisation structure and convenience of government … Knowles has already moved to dilute the ludicrous duplication of bureaucracy on the state’s water management committees and catchment management committees, limiting government representation … Differences between government agencies should be sorted out before meetings so that a single, coherent government position can be presented to other stakeholders, not myriad turf arguments … The creation of individual, integrated but locally based management structures for the state’s valleys and catchment areas is the ultimate aim.

... The priorities of how each area is to be managed can be very different … Tailoring your regulatory framework to meet the needs of the local catchment, that is where the skills of the centre [Sydney] come in … Those services can be provided to those catchments. But the doing of it can logically be done at the local level and audited independently.

Knowles envisages a new resources assessment commission: ‘It will be a credible part of government machinery but charged solely with making sure the catchment management authorities are doing the right thing’.

Research and development corporations constitute a group of key players in institutional arrangements related to rural capacity building. They have enormous leverage over their own and other funds directed to this purpose, as evidenced by Gleeson and Piper (2002): ‘Public support for innovation in rural Australia is largely directed towards agricultural R&D, in the order of $1 billion per year … The Rural Research and Development Corporations account for at least two-thirds of the influence on the direction of agricultural R&D’. They maintain, though, that the corporations ‘are focussed primarily on optimising the profitability and environmental sustainability of existing agricultural enterprises. They are driven by short term narrowly-based commercial imperatives and they are managed by command and control processes’.

Other funders, such as the Murray–Darling Basin Commission and the Department of Agriculture, Fisheries and Forestry, play a similarly critical role. Public sector funders-cum-providers such as state departments of agriculture, primary industries and natural resources are also in a powerful position. Peak farmer organisations such as the National Farmers Federation and specific industry organisations such as the Grains Council of Australia have strong links to the Department of Agriculture, Fisheries and Forestry and the research and development corporations and are also highly influential. Cooperative research centres are playing an increasingly important role in reconfiguring the relationships among key organisations.

The pattern of relationships among these organisations enables the exercise of power within and on the RD&E system. The call within the system for more attention to capacity building reflects an emerging policy position. There may well be a paradoxical position where translating this into action challenges the way these influential organisations function and the nature of their relationships with
each other. This will influence and be influenced by the prevailing political rationality and its effect on governance.

### 8.1.3 Maintaining open boundaries

Long and Villareal (1994) comment on knowledge networks to the effect that in many situations the ‘life worlds’ of groups that make up the networks are partially sealed off from each other. This is because ‘members’ values, norms and interests differ so greatly that they do not allow for communication and interaction between the parties’. When vested interests are at stake there may be a conscious strategy of denying access to views with the potential to challenge the status quo; examples are upsets to power arrangements and job security and challenges to the fundamental beliefs of incumbents.

The ‘partial seal-off’ phenomenon within knowledge networks is problematic given that the potential source of capacity building is the network’s diversity of knowledge and its application. In Chapters 4 and 6 it is argued that a community of practice (Wenger 2000) is innately conservative but is constantly challenged because members are usually also members of other communities of practice, with their own expectations and belief systems. The tension this creates is a stimulus for intra-community change, as well as for the emergence of new communities of practice.

### 8.1.4 Prevailing world views

Andrew (2002) outlines three ideological perspectives (world views) related to rural extension and claims the perspectives will pervade the response of their holders to virtually everything they encounter. Each reflects a fundamentally different view about the existence of reality; about knowledge and learning; about the role of and relationship between participants (learners), extension providers and extension officers; about the purpose of extension; about the organisation and functioning of the ‘learning environment’; and about decision-making structure, control and power relationships. The three perspectives she nominates are:

- **Positivist.** Positivists believe their method is value-free and therefore see themselves as able to separate ‘factual observations’ from ‘opinion’. Positivist extension is ‘information transfer’. It is a process whereby information, derived through technical processes, is ‘packaged’ and delivered to farmers. The information is not dependent on specific contexts and is believed to be applicable across a range of circumstances.

- **Interpretivist.** This form of extension is concerned with ‘practical reasoning’ to do with individuals deciding on a ‘wise and proper’ course of action to take when confronted with complex situations. An example is when farmers are provided with the opportunity to put into practice particular concepts, understandings, technical skills and other potential farm improvements in an experiential way. Interpretivist extension is ‘lived experience’: it is about experiencing what is possible.

- **Critical.** Extension of a critical kind is fundamentally change oriented and driven by the people whose practice is most affected. An example of critical extension is where groups of farmers, sometimes with other interested parties, discuss, plan and respond to problems they see as warranting resolution. The issue is not externally derived or driven: it is one that is generated by the farmers because they see it as important. Critical extension is context dependent; the learning is defined by and for the people involved in the learning, and they learn through engagement in resolving real problems.

Does one or other of these perspectives dominate within the strategically important organisations? If so, why? Are ‘birds of a feather flocking together’ through the recruitment process? Once together, are they reinforcing the prevailing perspective by marginalising those with different perspectives? Does a different perspective dominate the approach of advocates of capacity building and another that of the farming community? If so, is this contributing to their being “partially sealed off” from each other?
8.1.5 Responding to complexity

Stacey (1992) illuminates the ‘partial seal-off’ dilemma by relating insights drawn from complexity theory to the dynamics of organisational life. He maintains that people embedded in an organisational framework too often fail to question one of their most basic assumptions:

As soon as we claim that we can envision and plan, that is, determine the long-term future of an organisation, we make the unquestioned assumption that there are identifiable links in organisational life, at least in principle, between a cause and an effect, between an action and an outcome ... It is no longer possible, however, to avoid questioning that assumption about causality, and when we do we have to revise our views on how organisations develop strategically.

Stacey argues that all organisations are powerfully pulled in two different directions: one set of forces pulls them towards a stable equilibrium (ossification) and another set pulls them towards an explosively unstable equilibrium (disintegration). In his view, success lies at the border between these states, where managers continually alter systems and structures to avoid attraction either to disintegration or to ossification. Waldrop (1992) refers to this as ‘the edge of chaos’.

Stacey contrasts the prevailing frame of reference among managers with a new one based on the concept of human organisations as non-linear feedback systems. The contrast amounts to a fundamental paradigm shift and is depicted in Table 8.1.

Table 8.1 Contrasting frames of reference to organisational dynamics

<table>
<thead>
<tr>
<th>Today’s frame of reference</th>
<th>A new frame of reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term future is somewhat predictable</td>
<td>Long-term future is unknowable</td>
</tr>
<tr>
<td>Cohesive teams of managers operating in a state of consensus</td>
<td>Learning groups of managers, surfacing conflict, engaging in dialogue, publicly testing assertions</td>
</tr>
<tr>
<td>Decision making as a logical, analytical process</td>
<td>Decision making as an exploratory, experimental process based on intuition and reasoning by analogy</td>
</tr>
<tr>
<td>Long-term control and development as the monitoring of progress against plan milestones. Constraints provided by rules, systems and rational argument.</td>
<td>Control and development in open-ended situations as a political process. Constraints provided by need to build and sustain support. Control as self-policing learning.</td>
</tr>
<tr>
<td>Strategy as the realisation of prior intent</td>
<td>Strategy as spontaneously emerging from the chaos of challenge and contradiction, through a process of real-time learning and politics</td>
</tr>
<tr>
<td>Top management drives and controls strategic direction</td>
<td>Top management creates favourable conditions for complex learning and politics</td>
</tr>
<tr>
<td>Adaptive equilibrium with the environment</td>
<td>Non-equilibrium, creative interaction with the environment</td>
</tr>
</tbody>
</table>


Which frame of reference characterises the strategically important organisations? Which perspective will best enable them to play a leadership role in capacity building? In what way is the existence of one or other organisational frame of reference linked to the prevalence of one or other of the perspectives proposed by Andrew (2002)?

8.1.6 Learning and leadership programs

Bawden’s (1995) concept of a ‘development holon’ offers a framework for the design of capacity-building programs within the strategically important organisations. Such programs could facilitate the emergence of leadership committed to the needed realignment with community organisations. The development holon incorporates feedback flows based on learning, leadership and repositioning of organisations:

- Individuals learn about themselves and their environment and ways of effecting a more satisfying relationship between the two.
- They are also enabled to provide leadership that realigns the corporate purpose, structure, functions and culture of their organisations to meet the demands of the wider environment.
- This meets the need for strategic repositioning of their organisations and changes in institutional arrangements.
8.2 An ideal situation: ‘what should be’

The concept and process of capacity building developed in Chapter 4 presupposes a high level of autonomy and interdependence among individuals and organisations. Funders will assist the development of autonomy and interdependence by entering into collaborative relationships with regions. This will be mutually beneficial and will encourage the emergence of creative solutions to complex questions.

Institutional factors from outside the region will be aligned with the aspirations and capabilities of individuals and institutions within the region. Governments and strategically important organisations at all levels will be committed to the goal of community-led programs and realign their processes and resource allocations accordingly.

Strategically important organisations will play a leadership role by modelling capacity building in developing their strategic direction and managing operational processes. They will use monitoring and evaluation to enable institutional learning. They will seek to maintain within their organisations a diversity of perspectives and a level of professional expertise commensurate with those of their external capacity-building partners. They will encourage open dialogue and debate in decision making.

8.3 The reality: ‘what is’

The Wentworth Group (2002) maintains that there has been a profound change in Australia in terms of the way we are treating our landscapes but that, despite this, the reforms developed through Landcare, the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality have stalled. The Group argues that the support base needed by farmers is stymied by bureaucracy, that integrated catchment management is not being adopted, and that communities are being consulted rather than engaged. It calls for the establishment of regional authorities with statutory powers, independent scientific expertise and financial resources. These authorities would be run by boards of community representatives, landholders and scientific experts. The Group points to a successful model in South Australia, where catchment boards have fund-raising powers and plans have a statutory basis.

It is easy to stereotype organisations, but there is a widespread belief that the strategically important organisations just referred to are dominated by a non-systemic, compartmentalised (that is, positivist) perspective and use a command-and-control system that reflects Stacey’s (1992) ‘today’s frame of reference’ to organisational dynamics. If this is true, challenges to the status quo will activate a well-rehearsed defence, part of which will point to the many projects that effectively devolve varying degrees of responsibility to regional groups. These are undeniable moves away from command and control, and they often draw substantial funds, but their histories often testify to the tussle between the desire for control and autonomy in facilitating innovation within regions.

Although a single perspective might appear to dominate there will usually be a wide range of perspectives within any organisation, and this represents a potential initiating set for internal reform. A ‘learning and leadership’ program within CSIRO from 1998 to 2001 highlighted the existence of diverse perspectives and a willingness to challenge institutional constraints. It was a program that enabled a collaborative review of existing arrangements and encouraged the design and conduct by participants of projects to change them (McKenzie et al. 2000). It was a capacity-building program as well as a situation-improving one, and it attracted a diverse mix of administrators and researchers. The impact of programs of this nature depends, however, on the wider organisational and institutional dynamics.

A similar program in Papua New Guinea (Macadam 2000) was judged an outstanding success by participants, senior management and indigenous members of the board of directors of the sponsoring organisation. They held high hopes that this would be translated into a realignment of corporate
purpose, structure, functions and culture, but their hopes were dashed, largely by complex dynamics associated with the prevailing institutional environment.

8.4 Summary, conclusions and recommendations

8.4.1 Summary

- Local intervention will have marginal impact if it is not complemented by supportive institutional arrangements.
- The local self-help nature of initiatives such as Landcare is seen by critics as reflecting an approach to governance characterised by devolution, fiscal constraint and encouragement of market mechanisms.
- A policy perspective conducive to the development of regional coordination and regulatory mechanisms and the devolution of authority and resources appears to be on the rise.
- Whether political will is implemented in practice depends to a large extent on how it aligns with the structure, processes and culture of strategically important organisations.
- There is a widespread belief that these organisations are dominated by a non-systemic, compartmentalised perspective and use a command-and-control system of management.
- Within the organisations, there is recognition of the need to challenge existing organisational arrangements.
- Support for internal leadership and expertise critical of the status quo will play a large part in achieving the needed alignments for capacity building, internally and externally.

8.4.2 Conclusions and recommendations

Capacity building, as defined in this report, is not sustainable without realignment of institutional arrangements to support it. There is growing appreciation of this at the political level, within the complex of strategically important organisations, and at the community level. The needed realignment is inhibited by institutional inertia, where closed organisational boundaries and a command-and-control approach based on a non-systemic, compartmentalised world view continue to hold sway.

The alignment nexus depends to a large extent on the establishment at the regional level of coordinating and regulatory mechanisms that enable a partnership between community-based organisations and communities of practice on one hand and those within the complex of strategically important organisations on the other. Effective action by these partnerships requires a reallocation of resources and authority away from the centre to the regions.

The concept of capacity building and its perceived reciprocity with reform of institutional arrangements will support this development and be a major beneficiary of it. Linking initiatives of a capacity-building nature at the community and regional levels with those at the level of policy and strategically important organisations is the key to this alignment.

To support the necessary alignment the following is recommended:

- The Cooperative Venture should highlight within its mission its role in identifying needed changes in institutional arrangements to facilitate rural capacity building. It should place a high priority on research whose outcome is realignment of coordinating and regulatory mechanisms to enable partnerships between community-based organisations and communities of practice on one hand and those at the centre on the other.
- The Cooperative Venture should use its influence within the complex of strategically important organisations at the centre to advocate the necessary reallocation of resources and authority away from the centre to the regions.
- Monitoring and evaluation of programs with capacity-building potential should serve to highlight institutional constraints and opportunities to further the programs’ effectiveness and should focus energy on action to either remove or strengthen the programs (see also the recommendations in Chapter 7).
In its advocacy of capacity building, the Cooperative Venture should highlight the need for staff development programs within and between relevant organisations to be designed and conducted as capacity-building programs whose outcomes are:

- improvements in human and social capital within the organisation, based on action to reposition the organisation in such a way as to increase the effectiveness of its contribution to rural capacity building
- identification of opportunities and constraints related to needed institutional alignment
- advocacy of and, where feasible, action to achieve needed alignments within and between organisations.
9. Reflective practice and research

**Proposition.** Continuous enhancement of capacity building depends on the availability of skilled practitioners, on their reflective practice, and on research into all its aspects.

The concept of capacity building developed in this report implies that reflective practice and research are integral elements of capacity building itself; that is, capacity builders should critically review and learn from each capacity-building experience, to develop new approaches to practice and to identify areas requiring more extensive research. Active reflection on the experience is the key to improved practice and to exposure of questions that should be examined through further research—by the community or professional researchers, or both.

Effective capacity building assumes a ready supply of practitioners who understand and are practised in the skills of capacity building and in research related to it, including action research. This chapter explores the three elements of supply, reflective practice and research.

9.1 Background

Leading capacity-building initiatives is not the sole province of professionals employed by agencies, despite it being of crucial importance for them (see Box 9.1). It is argued in Chapter 4 that competence to lead is defined by personal qualities and social context rather than by an institutionally defined role. For example, although they are expected through custom and regulation to support rural people and communities, extension workers do not have exclusive rights to capacity building: there are many others in the community who, of necessity, play the leadership role required to facilitate action on community problems. Consequently, the terms ‘facilitative leader’ and ‘capacity builder’ were nominated instead of role definitions such as ‘extension worker’, ‘teacher’ or ‘educator’. It was agreed, however, that some agencies have an institutionally defined role and obligation to play a leadership role in capacity building and are resourced accordingly. At issue, then, is the effectiveness of the agencies and related institutional arrangements in facilitating the development of the capacity-building competence of relevant professionals and community members.

Box 9.1  The professional and reflective practice

The dilemma of the professional today lies in the fact that both ends of the gap he is expected to bridge with his profession are changing so rapidly: the body of knowledge he must use and the expectations of the society he must serve. (Brooks 1967, quoted in Schon 1983)

… reflection-in-action … consists in on-the-spot surfacing, criticising, restructuring, and testing of intuitive understandings of experienced phenomena; often it takes the form of a reflective conversation with the phenomenon. (Schon 1983, pp. 241–2)

Just as reflective practice takes the form of a reflective conversation with the situation, so the reflective practitioner’s relation with his client takes the form of a literally reflective conversation. (p. 295).

The idea of reflective practice leads to a vision of professionals as agents of society’s reflective conversation with its situation, agents who engage in cooperative enquiry within a framework of institutionalised contention. (p. 353)

Taylor’s (2003) recent Rangelands Australia project identified gaps in capacity among those expected to support land managers—advisers, extension officers, land care facilitators, trainers, researchers, and so on. He noted,

… the findings acknowledge the strengths of most support staff in the bio-physical and technical areas, but highlight serious deficiencies in their training and professional development in systems, social and business skills. These deficiencies will make it all the more difficult to build the trust and relationships that are fundamental to effective participatory approaches and to engage the knowledge and experience that exist in agencies. [They] will also limit the effectiveness of support staff in assisting and supporting producers to position themselves for emerging market requirements and to seize new resource use and market opportunities, and in engaging with stakeholders and fostering new alliances and partnerships.
Taylor quoted several US studies in support of his observations. These called for development of, for instance:

- management expertise, systems perspectives and integration skills
- skills in communication, conflict resolution, working with diverse groups, critical thinking and problem solving
- interdisciplinary skills.

Institutions expected to play a leading role in formulating a response to this situation are those whose mission is provision of post-secondary and adult education programs—universities, TAFE and adult and community education, for example.

An effective response will appreciate the significance of reflective practice. Schon (1983) was a leader in drawing attention to the role of reflective practice in developing the competence of professionals. Capability in reflective practice enables professionals to resolve and learn from the puzzles that stem from their daily professional experience and accommodate new developments as they emerge. It is also the source of insights into the issues that need sustained attention and how this is best done—that is, into research questions and how to research them.

It is readily apparent that research related to capacity building will be multidisciplinary in nature: social science, political science, institutional economics, learning and cognitive science are as relevant as extension and adult education theory.

9.2 An ideal situation: ‘what should be’

9.2.1 The supply of competent capacity builders

Universities will play a central role in the preparation of professionals. Relevant undergraduate programs will be designed and conducted such that their graduates are oriented to and competent in playing a capacity-building role. Postgraduate coursework programs will be based around research centres focused on rural capacity building and will enable people engaged in capacity building or wanting to be so to develop and refine the needed competence. The universities, their staff and students will network with each other and play an important advocacy and leadership role.

TAFE’s widespread centres and distance education facilities will be used to provide access to competence-development programs. TAFE and universities will facilitate recognition of prior learning—through experience and award and non-award programs—and offer articulated programs to provide awards for those who seek them.

Private sector providers will also play an important role, often in joint ventures with organisations such as universities and TAFE.

Adult education agencies offering non-award programs will play a major part. Many people who play a capacity-building role come into the role through particular circumstances and look for educational support to do the job well, without necessarily looking for a professional qualification. The sympathetic culture of adult and community education will be co-opted into developing and supporting programs for local needs. Such agencies will be well supported by universities and TAFE and by agencies involved in capacity building.

Such arrangements will develop the competence of those involved or wanting to be involved in a capacity-building role. These people will be drawn from public and private sector agencies and from the community. The programs will typically enable participants to:

- scan the environment they are living and working in and discern challenges
- review new approaches to capacity building and adult learning
- continually reassess their own approach and design better strategies
- develop and practice needed new skills
• establish a mentoring system to support their continuing development
• develop a pool of resource materials and people they can continue to access.
The programs will be designed and conducted with development of capacity-building competencies as the expected outcome. Ideally, graduates of the programs will be:
• well-informed and appreciate the interrelated nature of events—be systemic
• able to discern emerging issues and manage risk—be strategic
• aware of their assumptions and those of others—be critical
• able to learn from their experience—be reflective
• able provide facilitative leadership—be leaders
• able to accommodate current realities in taking effective action—be executors.
Participation in situation-improving projects will be an integral feature of the program experience and will allow participants to ground their studies through reflection on the experience; that is, the programs will encourage reflective practice.

9.2.2 Reflective practice
The daily work of capacity building offers a rich basis for learning but calls for self-discipline and time to develop it. Education about capacity building will stress the need for reflective practice. Agencies will require their professional capacity builders to allocate time to this and the writing, dissemination and discussion of their learning and research questions. Community leaders who are engaged in capacity building will be encouraged to do the same. A few well-recognised and easily accessed websites and print publications will seek contributions from reflective practitioners, as will regular conferences and workshops.

9.2.3 Research
The growth of a professional field of study, and support for the continuing development of professionals and others working within it, requires centres dedicated to research, education, scholarship and community service. Several centres of sufficient critical mass will be dedicated to rural capacity building and will be distributed so as to capture and service all relevant geographic areas. They will be connected in a strong network that responds to emerging issues through the efforts of professional researchers and by their encouragement of action research conducted by and with practitioners in the field.

The centres will foster research into the need for and ways of developing rural capacity and, through associated universities, will offer undergraduate and postgraduate programs. They will enjoy close relationships with funding organisations, communities of practice and professional organisations. Their modus operandi will reflect a learning paradigm, use multiple research approaches (including ones emerging from capacity building itself) and have a commitment to improving the situation of rural Australians. Their research findings will be disseminated through a few well-recognised and easily accessed websites and print publications and through conferences and workshops.

Applied research programs will be funded with a view to exploiting the capacity-building opportunities they generate. That is, funders will recognise applied research as a component of capacity building and facilitate the improvements sought as well as the uncovering of new understandings of the process.
9.3 The reality: ‘what is’

The reality is some distance from the ideal. There is widespread questioning of current learning and extension arrangements—as shown by the review of extension arrangements in the rice industry (Macadam et al. 2002), this and the other projects sponsored by the Cooperative Venture, the conversation about extension in the dairy industry (Drinan 2002), and New South Wales Agriculture’s current review of its extension arrangements. Despite this questioning, traditional notions of extension appear to be well-embedded at managerial and operational level: this assessment demands testing because of its importance as an institutionalised block to progress toward capacity building (see Box 9.2). Despite the potential richness of capacity building as a research field, universities and research organisations, at least in Australia, appear to have little interest in it, although the precise level of activity is difficult to gauge because of the very dispersed sites of publication. Pressures on extension agents also preclude the rigorous reflective practice that would accelerate change, and the widely dispersed locations of information create substantial obstacles to those seeking to be better informed and better practised.

9.3.1 Supply

Universities’ activity in developing, maintaining and supporting graduates focused on rural capacity building appears to be limited. No university supports a centre that meets the description outlined earlier. Financial pressure is resulting in rationalisation of courses and resources, including staff, and a rural capacity—building focus is being marginalised as a result. During the 1980s and into the 1990s the University of Western Sydney Hawkesbury’s School of Agriculture developed a rural capacity—building strategy that captured international attention for its innovative approach to educating ‘new professionals’ competent to lead rural capacity building (Chambers 1993). This strategy and the resources devoted to it have since dissipated.

In other universities, ‘extension’ teaching and research have always had a marginal role. The Extension Centre at the University of Queensland’s Gatton campus was unique in enjoying external support (from the Queensland Department of Primary Industries) but is struggling with the dynamics afflicting all universities. The University of Melbourne, once a significant contributor to extension thought and practice, gradually withdrew support for its centre until the Dairy Research and Development Corporation provided funding to re-establish it as one of the two dedicated academic centres in Australia known to the authors. It is, however, likely that there are other units in which capacity building receives attention within broader contexts.

Given that rural capacity building is not a significant interest in universities, it is not surprising that graduates are not well prepared to play a leadership role—as shown, for example, in Taylor’s (2003) work. Most professionals involved in capacity-building work move into it with little formal background education. When they do seek support, there are few postgraduate programs available to meet their learning needs. If they find a suitable program they find that program fees militate against the participation of relatively poorly paid professionals such as agriculturalists and natural resource managers. Despite the willingness of some research and development corporations to meet students’ fees, the effect has been a decline in the scale and viability of relevant programs.

This means that development of capacity-building skills largely occurs on the job, with or without formal support. There are different ways of fulfilling the objectives and outcomes suggested for ‘the ideal’ program just outlined. Numerous agencies offer in-house training programs designed to remedy perceived deficiencies.

There are many apparently successful extension programs on offer in many agricultural industries, each well supplied with the resources necessary for design, development, provision and, in many cases, evaluation. Examples are Countdown Downunder and Target 10 in the dairy industry and Sustainable Grazing Systems and the EdgeNetwork in the red meat industries. Coutts et al. (2003)
review a number of these. Participation in the programs, as either a provider or a user, is a stimulus for development of capacity-building leadership, especially if coupled with participation in leadership programs such as those nominated in Chapter 6.

The advent of Landcare also initiated a period during the 1980s and 1990s when group facilitation workshops in regional areas were in vogue. These were highly relevant given the expectations surrounding the facilitator role many were playing for the first time, and the need continues with the introduction of programs such as the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust. The effectiveness of education and action learning programs depends on support enduring for the term of need: regrettably, the track record appears patchy at best.

Purpose-designed programs of the type suggested in ‘the ideal’ are, however, rare. An apparently successful example conducted in Papua New Guinea (Macadam 2000) did not realise the considerable promise indicated during its two-year duration because of institutional constraints associated with the expatriate community. This was despite the program being initiated by the indigenous CEO and actively supported by most of his senior staff and by indigenous members of the board of directors.

TAFE is not currently relevant in dialogue about rural capacity building, despite its apparently conducive mandate and widespread distribution in rural areas. During the 1990s in South Australia there was a concerted move into the arena by TAFE, led by Jim Richardson. The initiative was guided by a systemic learning paradigm and acted as a bridge between university research and scholarship and regional communities. It appears that the initiative depended on Richardson’s leadership and was eventually submerged by the emphasis in TAFE on ‘technical education’. TAFE has effectively withdrawn from further education (in favour of vocational education and training), which is now being replaced by community-based adult and community education. In a declaration in 1999 Australia’s Education Ministers noted,

> Solutions to these challenges are emerging from communities themselves through adult community education. These solutions—based on partnerships within communities and with government—harness the potential of our community organisations, social and educational institutions and workplaces to create new and innovative learning resources and opportunities … This collective commitment by staff, volunteers and learners achieves broader outcomes. It increases social participation and cohesion by connecting people within their local communities. It renews community capacity and social capital and creates environments that promote cross-cultural understanding. It also contributes significantly to local and regional economic development.

These sentiments indicate the potential of adult and community education as an instrument of capacity building itself and of enhancing others’ skills in capacity building, especially if no qualification is required. Despite the foregoing comments about the role of TAFE, the vocational education and training system offers valuable opportunities for developing and providing relevant courses within the National Framework for Recognition of Training. This would require the cooperation of industry organisations such as the Cooperative Venture, the Rural Training Council and TAFE institutes. If successful, programs should also articulate with university programs.

Another avenue is also open and could be more effectively used—communities of practice such as the Australasia Pacific Extension Network and the Action Learning, Action Research and Process Management Association. APEN has recently written to members, reminding them of how it seeks to support them in their professional work, citing a list of activities that fits well with the findings of this study. A feature of the forums and conferences of APEN and ALARPM is attendance and participation by field operatives, who are there as individuals rather than representatives of organisations. It is noticeable, however, that participation appears to be influenced by the dynamics of the organisations in which participants work and the institutional arrangements and history they are embedded in. For instance, anecdote suggests that ALARPM functions in Brisbane are largely frequented by staff from the Queensland Department of Primary Industries, and APEN ones in Melbourne by staff from the Victorian Department of Natural Resources and Environment. Individuals who regularly attend the activities of either APEN or ALARPM are also likely to
participate in occasional activities conducted by the other. In New South Wales neither APEN nor ALARPM is active.

**9.3.2 Reflective practice**
Wherever the avenues just discussed are open, they are likely to stimulate reflective practice to varying degrees. Whatever the case, anecdote suggests that reflective practice is not generally embedded in the personal habits or organisational requirements of professional extension agents. There appears not to be a sufficiently well developed culture of reflective practice in educational organisations and courses that might develop it in students, nor do funding and employing agencies make it a requirement—except, perhaps, with in-house training courses. Recently, however, the Victorian Department of Primary Industries established an evaluation unit that will facilitate attainment of this objective.

**9.3.3 Research**
As noted, Australia lacks a strong research resource base for capacity building. There are a few, widely dispersed, competent and committed people who are challenging current understanding and arrangements through their research, but the resources available to them are limited to those provided by the few agencies that recognise the importance of challenging the prevailing situation: in general, extension or capacity-building research ranks rather low on the profile of research priorities. The work of the researchers is probably hampered by strongly embedded traditional mind-sets among influential people and agencies. It is not helped by the uncertainty and confusion inevitable in a field in transition because it has the propensity to blur the focus of many researchers and practitioners. The effect of research work is also blunted by the lack of a concentration of places for publication and discussion of researchers’ findings; instead, research is published in a wide range of print media and websites, thus inhibiting access.

Given the range of research questions related to capacity building, the current research situation is a source of considerable disquiet. Questions such as those in Box 9.2 are unlikely to be confronted in a coherent manner without agreement on a research agenda on the part of funders, although the existence of the Cooperative Venture generates hope that this will occur.
Box 9.2  Some examples of research questions related to capacity building

- Is it possible to come to a widely agreed definition of capacity building? If so, how might it be clearly distinguished from extension and education and what are its implications?
- What are the mind-sets and institutional arrangements within and between organisations that are inhibiting or encouraging capacity building?
- Which of Stacey’s (1992) frames of reference typifies the strategically important organisations and which appears to be most effective in encouraging capacity building?
- What courses are currently offered in Australia that are focused on capacity building and how might they be supported and publicised more effectively?
- What institutional arrangements are most effective in supporting lay people to become effective capacity builders?
- What insights and understandings relevant to capacity building can be drawn from reviews of related literatures; for example, how might capacity building be viewed through the prism of institutional economics?
- What examples of capacity building meet the criteria in the definition used in this report? How effective have they been? Have they endured or not? Why?
- What institutional arrangements are effective in sustaining capacity-building projects to the point of completion?
- What criteria are appropriate for monitoring and evaluating capacity building?
- What are the effects and relationships of capacity building at the levels of the individual person, organisations and communities?
- Who should determine the membership of communities of practice and on what grounds?
- What institutional arrangements hinder or help the building of alignment between relevant organisations?
- How might effective and efficient collaboration be engendered among diverse communities of practice? What makes for change in the ways people choose to interact?
- What are the barriers to reflective practice and how might they be overcome?
- How do capacity builders mediate and capitalise on the opportunities available at the boundaries of constituent communities of practice?

Note: The authors acknowledge the substantial contribution of Sally Marsh to the compilation of this list.
9.4 **Summary, conclusions and recommendations**

9.4.1 **Summary**

- Enhancement of capacity building depends on an adequate supply of competent reflective practitioners and researchers. These are currently inadequate, in both quantitative and qualitative terms.
- The underpinnings of new fields of practice are provided through centres of research and education, usually in universities. At present there are a few small centres, a few widely dispersed researchers, and insufficient support from funders and the universities themselves.
- The development of most capacity builders is probably going to occur mainly through adult education and as needs emerge. A variety of avenues offer potential as providers and facilitators, among them adult and community education, universities, TAFE and professional bodies such as the Australasia Pacific Extension Network and the Action Learning, Action Research and Process Management Association. This potential is under-exploited, and support does not always continue for the duration of need.
- Reflective practice is little practised or encouraged. Its use depends on modelling by educational institutions, focused discipline on the part of capacity builders, and encouragement from funding and employing organisations.
- There is a substantial body of research questions about aspects of capacity building. The Cooperative Venture offers potential to develop a research agenda and fund a network of researchers for the purpose of resolving those questions.

9.4.2 **Conclusions and recommendations**

Enhancement of capacity building depends on an adequate supply of competent, reflective practitioners and researchers. It is apparent, however, that these conditions are not being satisfactorily addressed in quantitative and qualitative terms. Many of the foundations for improvement do, however, exist.

It is recommended that the supply of reflective practitioners and researchers and the conduct of research into capacity building be enhanced through the following measures:

- A cooperative research centre kind of arrangement of researchers and educators, including several university centres for research and education, should be established and funded to provide research and education focused on capacity building. This entity should be charged with responsibility for:
  - being responsive to the needs of communities of practice
  - refining a research agenda incorporating the research questions listed in Box 9.2 and conducting research initially on that agenda
  - providing undergraduate, postgraduate and adult education programs
  - stimulating the widest possible dialogue among practitioners, researchers and relevant organisations. This should be done through the development of a credible, well-recognised and easily accessed website, plus a print journal for publication of papers, ideas and debate, and through facilitating regular workshops and conferences.
- The Australasia Pacific Extension Network, as an organisation of people engaged in the profession of capacity building and being committed to regularly informing and facilitating debate on practice, should receive sponsorship.
- A cooperative relationship between the proposed cooperative research centre and the Australasia Pacific Extension Network, in which the Network would provide forums and workshops on emergent issues and facilitate ongoing debate, should be encouraged.
- The potential of using adult and community education and TAFE as sources of capacity-building support programs should be explored.
### Appendix A  Current concepts and terminology related to capacity building

<table>
<thead>
<tr>
<th>Author and publication date</th>
<th>Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women's Health Victoria (2003)</td>
<td>Capacity building involves the development of sustainable skills, organisational structures, resources and commitment to improvement in health and other sectors.</td>
</tr>
<tr>
<td>Australian government agency (2002)</td>
<td>Capacity building relates to a range of activities by which individuals, groups and organisations improve their capacity to achieve sustainable natural resource management. Capacity in this context includes awareness, skills, knowledge, motivation, commitment and confidence.</td>
</tr>
<tr>
<td>NSW Health (2001)</td>
<td>Literature on capacity building describes it as an approach to development that builds independence. It increases the range of people, organisations and communities who are able to address problems, and in particular problems which arise out of social inequity and exclusion. The definition used in health promotion is the development of sustainable skills, structures, resources and commitment to improvement in health and other sectors to prolong and multiply health gains many times over.</td>
</tr>
<tr>
<td>Yarram Health (2002)</td>
<td>The Alberton Project is a community redevelopment program aimed at building community capacity in a holistic context. That is, to enhance social, spiritual, environmental, cultural, and economic values, leading to a confident, vibrant and energetic community exhibiting an outstanding community lifestyle.</td>
</tr>
<tr>
<td>Department of Natural Resources and Environment (2002)</td>
<td>Community capacity building is a process of change management which allows residents to direct change instead of being overwhelmed by it. It enables the development and implementation of agreed community projects, encourages the development of new skills and helps obtain further resources to achieve community goals. It involves building and strengthening the relationships between individuals, associations, institutions and businesses. The community's assets are identified and mobilised to achieve a common vision. The community then identifies the projects and actions required to implement that vision, and its capacity to manage and implement change grows.</td>
</tr>
<tr>
<td>Napier (2002)</td>
<td>… build the capacity of communities with a view to creating communities that are participatory, empowered and as a result sustainable.</td>
</tr>
<tr>
<td>Victorian government agency (2002)</td>
<td>Social capacity is the community’s ability to utilise their human and social resources (capital) to scope and define their collective issues, undertake collaborative action and manage change. Social capacity building focuses on enhancing genuine community engagement in all aspects of natural resource management.</td>
</tr>
<tr>
<td>European Centre for Development Policy Management (2003)</td>
<td>Capacity development has to do with the process of change and adaptation at a variety of levels, including the individual, the functional, the organisational, the multi-organisational and the institutional.</td>
</tr>
<tr>
<td>Ballantyne, Labelle and Rudgard (2000)</td>
<td>Capacity development is the process by which individuals, groups, organisations, institutions and societies develop abilities (individually and collectively) to perform functions, solve problems and set and achieve objectives. More specifically, it is a way for groups or organisations to increase their ability to contribute to poverty alleviation.</td>
</tr>
</tbody>
</table>
| Thomson and Pepperdine (2003) | 1. Capacity could be described as the ability to understand and deal with the enabling and constraining elements, dimensions and issues that drive the process of capital accumulation and decline (in all its forms).  
2. … our regional investigations have confirmed that capacity is very much about the skills and knowledge of individuals and their perceptions and values, the social networks and relations, including feelings of trust and reciprocity and support and cooperation within and between institutions and between individuals. However, issues of governance, administration, consistency, continuity, and the availability and accessibility of financial and other resources, are also important. In addition, the physical and natural capital of the region can play a large role in determining the level of capital of other forms required to successfully manage riparian lands. |
<p>| European Centre for Development Policy Management (2003) | The concept of capacity has to do with the competence or the capability to perform or to produce some sort of developmental value. |</p>
<table>
<thead>
<tr>
<th>Reference</th>
<th>Definition</th>
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</table>
| Land (2000) | 1. Capacity is the ability of individuals, organisations, or societies to set and implement development objectives on a sustainable basis.  
2. Capacity building is a continuous process by which individuals, groups, institutions, organisations and societies enhance their abilities to identify and meet development challenges in a sustainable manner. |
| European Centre for Development Policy Management (2003) | Core capacities are themselves made of bundles of connected functional capacities or competencies. Capacity thus implies capabilities at different levels, many of which are combined and interconnected—for example, the ability to learn and adapt. It is this ability to combine or at least coordinate different abilities into an overall core capacity that makes the real difference in performance. |
| Thomson and Pepperdine (2003) | Capital is often thought of as a stock of assets or resources that can only be enhanced with investment and have an assessable value. Five types of capital are often cited in the 'social capacity for [natural resource management]' literature—natural, social, human, physical and financial capital. |
| World Bank (2002) | Social capital refers to the institutions, relationships and norms that shape the quality and quantity of a society’s social interactions. Increasing evidence shows that social cohesion is critical for societies to prosper economically and for development to be sustainable. Social capital is not just the sum of the institutions which underpin a society: it is the glue that holds them together. |
| Putnam (2000) | Whether the specific suggestions I have made for institutional reform are persuasive or not is less important than the possibility that we may have a national debate about how to make our institutions more social capital friendly. In the end, however, institutional reform will not work—indeed it will not happen—unless you and I, along with our fellow citizens, resolve to become reconnected with our friends and neighbours. |
| Bullen and Onyx (1998) | Social capital is the raw material of civil society. It is created from the myriad of everyday interactions between people. It is not located within the individual person or within the social structure, but in the space between people. |
| Cox (1995) | Social capital refers to the processes between people which establish networks, norms, social trust and facilitate coordination and cooperation for mutual benefit. |
| Putnam (1994) | Social capital [refers to] those features of social organisation which facilitate cooperation for mutual benefit, enhancing a community’s ability to benefit from investments and physical and human capital. |
| European Centre for Development Policy Management (2003) | Performance has to do with the way and the degree to which actors at the personal, functional, organisational or multi-organisational level deliver services or produce some sort of developmental value, either externally or internally. Performance is not about potential or institutionalisation or organisational design or motivation or capability or competence or organisational change. It is about production and achievement and accomplishment. In this sense, performance is the true test of the existence of capacity. |
### Appendix B Changing mind-sets, institutional arrangements and practice in rural Australia from the 1950s to the present

<table>
<thead>
<tr>
<th>Focus of interventions</th>
<th>Dominant and emerging mind-sets</th>
<th>Some institutional arrangements</th>
<th>Extension methods and providers</th>
</tr>
</thead>
</table>
| Increased production   | • rural Australia is about agriculture  
                          • farming is about agriculture  
                          • agriculture is critically important to the economy  
                          • farmers and agriculture thrive with increasing production  
                          • science is the driver of increasing production  
                          • in the national interest to provide farmers with free science and advice  
                          • scientists produce new ideas and technologies for extension officers to pass on to farmers  
                          • farmers willingly adopt new technologies  
                          • reductionism | • substantial state departments of agriculture  
                          • CSIRO  
                          • Commonwealth Extension Services Grants  
                          • substantial public investment in research and extension  
                          • one-way flow of information from scientists to extension officers to farmers  
                          • services to farmers provided free of charge  
                          • Agricultural Bureau  
                          • Junior Farmers  
                          • tax incentives for producers  
                          • public funding for drought, and so on | • technology transfer via one-on-one farm visits, field days, publications  
                          • government providers |
| **From 1950**          |                                 |                                |                                 |
| Increased productivity | • rural Australia is about agriculture  
                          • farming is about agriculture  
                          • agriculture is critically important to the economy  
                          • no point in increasing production if the costs equal or exceed the returns  
                          • farmers and agriculture thrive with increasing productivity  
                          • science is the driver of increasing production  
                          • in the national interest to provide farmers with free science and advice  
                          • scientists produce new ideas and technologies for extension officers to pass on to farmers  
                          • farmers willingly adopt new technologies  
                          • reductionism | • large state departments of agriculture with substantial research and extension capacity  
                          • large public investment in research and extension  
                          • one-way flow of information from scientists to extension officers to farmers  
                          • services to farmers provided free of charge  
                          • Agricultural Bureau  
                          • Junior Farmers  
                          • tax incentives for producers  
                          • public funding for drought, and so on | • technology transfer via one-on-one farm visits, field days, publications  
                          • whole-farm business management advocated through the above mechanisms and farm record books  
                          • computer-based farm record analysis and comparisons  
                          • government providers  
                          • private farm management advisers  
                          • farm management clubs  
                          • discussion groups |
| **From 1960s**         |                                 |                                |                                 |
| Sustainability         | • rural Australia is mainly, but not exclusively, about agriculture  
                          • farming is mainly, but not exclusively, about agriculture  
                          • agriculture is critically important to the economy  
                          • farmers and agriculture thrive with increasing productivity  
                          • environmental costs of farming may be detrimental to future generations  
                          • science and technology have contributed to environmental degradation  
                          • education is the means of achieving environmental sustainability | • declining state departments of agriculture  
                          • expanding state and Commonwealth agencies for environment  
                          • environmental issues promoted with productivity  
                          • substantial public investment in research and extension but growing emphasis on environmental matters  
                          • declining free on-farm advice and increasing group extension arrangements  
                          • productivity publications at cost  
                          • Landcare, Rivercare, and so on | • technology transfer in decline  
                          • government agencies facilitate discussion groups, seminars, workshops, field days, courses  
                          • one-on-one advice from private consultants  
                          • whole-farm (economic, environmental and social) management advocated  
                          • home computer–based software for decision making and integration  
                          • formation of action groups for wide range of problems |
| **From 1980s**         |                                 |                                |                                 |

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<table>
<thead>
<tr>
<th>Focus of interventions</th>
<th>Dominant and emerging mind-sets</th>
<th>Some institutional arrangements</th>
<th>Extension methods and providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• sustainability</td>
<td>• science is the driver for reducing costs and for finding more sustainable ways of farming</td>
<td>• regional environmental groups comprise all stakeholders, not just farmers and agriculturalists</td>
<td>• government agencies facilitate discussion groups, seminars, workshops, field days, courses on matters of wide concern</td>
</tr>
<tr>
<td>• economic rationalism</td>
<td>• user should pay full or part of costs of services</td>
<td>• regional vegetation plans, and so on</td>
<td>• one-on-one paid productivity advice from private consultants</td>
</tr>
<tr>
<td>• farmers should expect and pay for drought</td>
<td>• farmers should expect and pay for drought</td>
<td>• collaborative approach to problems among all stakeholders</td>
<td>• holistic (economic, environmental, social and individual) management advocated</td>
</tr>
<tr>
<td>• scientists, extension agents and farmers collaborate to find more ecologically sustainable ways of farming</td>
<td>• farmers willingly adopt new technologies</td>
<td>• government programs to arrest rural disaffection</td>
<td>• home computer–based software for decision making and integration</td>
</tr>
<tr>
<td>• farmers willingly adopt new technologies</td>
<td>• rural communities are dying</td>
<td>• Farm Management Bonds</td>
<td>• formation of action groups for wide range of problems</td>
</tr>
<tr>
<td>• sustainability is about environmental, social and economic sustainability</td>
<td>• non-rural people have a right to influence rural policy</td>
<td>• tax incentives for producers</td>
<td>• internet provision of information by subscription for private benefit and free for wide benefit</td>
</tr>
<tr>
<td>• non-rural people have a right to influence rural policy</td>
<td>• reductionism</td>
<td>• public funding for drought under challenge</td>
<td></td>
</tr>
<tr>
<td>• holism</td>
<td></td>
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</tr>
</tbody>
</table>

Holistic improvement of farms, ecosystems, communities—that is, economic, ecological, social (collective and individual) wellbeing—after Bawden (19xx); anticipating and managing change From 1990s

<table>
<thead>
<tr>
<th>Holistic improvement of farms, ecosystems, communities—that is, economic, ecological, social (collective and individual) wellbeing—after Bawden (19xx); anticipating and managing change From 1990s</th>
<th>rural Australia is important for many purposes</th>
<th>state departments of agriculture vacate one-on-one productivity advice altogether but focus on advice about issues placing agricultural industries at risk</th>
<th>government agencies facilitate discussion groups, seminars, workshops, field days, courses on matters of wide concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>• rural Australia is the legitimate concern of all Australians</td>
<td>rural Australia can and must thrive</td>
<td>state departments of natural resource management focus on advice about issues placing ecosystems at risk</td>
<td>• one-on-one paid productivity advice from private consultants</td>
</tr>
<tr>
<td>• rural Australia can and must thrive</td>
<td>catchments or communities, not only industries, should be a focus of attention</td>
<td>state and Commonwealth departments of rural affairs facilitate autonomous community development</td>
<td>• holistic (economic, environmental, social and individual) management advocated</td>
</tr>
<tr>
<td>• catchments or communities, not only industries, should be a focus of attention</td>
<td>holistic individual development is the basis for holistic development of larger organisations</td>
<td>agricultural industry bodies take responsibility for matters of industry significance and for researching and informing</td>
<td>• home computer–based software for decision making and integration</td>
</tr>
<tr>
<td>• holistic individual development is the basis for holistic development of larger organisations</td>
<td>participative decision making at all levels</td>
<td>decision making and problem solving by all involved parties and relevant professionals</td>
<td>• formation of action groups for wide range of problems</td>
</tr>
<tr>
<td>• participative decision making at all levels</td>
<td>devolution of decision making and much control to communities is beneficial to all complex adaptive systems</td>
<td>risk management incentives</td>
<td>• internet provision of information by subscription for private benefit and free for wide benefit</td>
</tr>
<tr>
<td>• devolution of decision making and much control to communities is beneficial to all complex adaptive systems</td>
<td>diversity is essential</td>
<td>tax incentives for producers</td>
<td></td>
</tr>
<tr>
<td>• diversity is essential</td>
<td>costs should be shared in proportion to the distribution of benefits</td>
<td>public funding for drought under challenge</td>
<td></td>
</tr>
</tbody>
</table>

Note: Italics represent emerging mind-sets, institutional arrangements, methods and providers.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIAR</td>
<td>Australian Council for International Agricultural Research</td>
</tr>
<tr>
<td>ALARPM</td>
<td>Action Learning, Action Research and Process Management Association</td>
</tr>
<tr>
<td>APEN</td>
<td>Australasia Pacific Extension Network</td>
</tr>
<tr>
<td>CRC</td>
<td>cooperative research centre</td>
</tr>
<tr>
<td>INSPECT</td>
<td>mnemonic to describe a method of analysis of global trends—Intellectual, Natural, Social, Political, Economic, Cultural and Technological factors</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>research and development</td>
</tr>
<tr>
<td>RD&amp;E</td>
<td>research, development and extension/education</td>
</tr>
<tr>
<td>RIRDC</td>
<td>Rural Industries Research and Development Corporation</td>
</tr>
<tr>
<td>TAFE</td>
<td>technical and further education</td>
</tr>
<tr>
<td>TOR</td>
<td>term of reference</td>
</tr>
</tbody>
</table>
References


