

ENHANCING ADAPTIVE CAPACITY

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KEY MESSAGES:

- Adaptation processes occur across all scales from individual to community, industry, regional, national and global. Understanding the adaptation process and supporting or enhancing it at various scales will be important for maintaining effective functioning of social and economic systems in the face of climate-driven changes.
- The effectiveness of adaptive responses will be influenced by (1) the operating context within which responses occur (e.g. the policy and governance setting); (2) the availability of effective adaptation options, and (3) the capacity of individuals to access support and implement adaptation options. For each of these areas we suggest actions that can be taken respectively by policy-makers, research and development providers, and enterprise managers.
- Strategies to enhance adaptive capacity at broad policy scales include investing in (1) climate-related natural, physical, financial, human and social assets; (2) financial incentives and other incentives that provide social status and/or reward early adopters; (3) climate research; (4) adaptive governance approaches that encourage climate-learning and adaptive management through developing effective environmental, economic and social feedback mechanisms; (5) 'mainstreaming' climate change into all relevant government policies, particularly drought and natural resource management policies, and (6) addressing other key stressors that can interact with those of climate change.
- Research and extension agencies can help identify effective adaptation options by (1) applying existing knowledge in more effective and innovative ways including greater collaboration with decision-makers; (2) broadening the array of research approaches used to identify practical solutions, and (3) continuing basic research that fills fundamental knowledge gaps, tests the validity of key assumptions, and evaluates the effectiveness of adaptation options.
- At the enterprise level, adaptive capacity can be enhanced by (1) managing climate risk and uncertainty; (2) planning, learning and reorganising for climate-driven change; (3) building flexibility to absorb the costs of change and experiment with options for the future; (4) developing the capacity for individual evaluation of climate change adaptations through access to climate information, expertise and technology, and (5) reducing dependency on the climate-sensitive resource (such as through increasing strategic skills).

Introduction

As the preceding chapters have discussed, climate change has the potential to dramatically alter agricultural production and the natural resource base on which it depends. In the face of

such large potential change, agricultural communities and industries will explore a range of pathways and means to adapt. This book is an attempt to make that exploration more efficient and effective by identifying a range of adaptation options, their costs, benefits and other consequences that