

Technology Fact Sheet for Adaptation

Responsive Agricultural Extension ⁱ

1. <u>Sector:</u> <i>To be written by sector expert.</i>	Food
2. <u>Technology Characteristics:</u>	
2.1 Technology Name:	8. Responsive Agricultural Extension
2.2 Introduction: <i>low/high Brief introduction to the technology</i>	Rural incomes and development are severely impacted by climate change due to the natural resource-base of agriculture industry. Agricultural extension is the service that provides access to knowledge and information required by clients to increase productivity and sustainability of production systems to improve their livelihoods and quality of living. Therefore, agricultural extension systems must gear them to respond to pressures arising from climate change, of which the severity of impact may be disproportionately high in less-favoured areas. Such areas may also be facing greater challenges in terms of required adaption response. Institutional arrangements for providing localized crop and livestock solutions are not in favour of such challenging circumstances where the transaction costs tend to be high with customary service arrangements. Often private service providers tend to ignore needs of low-potential groups in marginal areas. Furthermore, the type of knowledge and information required by rural clients may well extend beyond traditional boundaries of providing agricultural extension. Traditional extension arrangements form an agent-client relationship which is often effective only under somewhat primal situations. Therefore innovative, cost effective extension solutions are required to address needs in such areas. The role of rural extension services and technical capacities of such organizations must be geared to meet needs of such communities. Links between state and non-state actors and target communities should be strengthened with capacity building and appropriate incentives. Community structures and institutes such as producer groups, water users' associations,

	produce marketing and processing groups should be made partners of rural extension and training networks operated by state and non-state entities. Approaches such as use of Community-based extension agents, Farmer field schools, User groups/Associations have been employed under different situations with varying degrees of success. The most appropriate model for a locality is informed by the background and conditions specific to the locality and discovered following some analysis. What is required to install this capacity within extension organizations depend on the extent of training and capacity building activities undertaken. At the same time, building capacity of rural communities to identify, select and implement appropriate strategies in response to impact of climate variability would permit effective interaction between extension agents and target communities, transforming it to be a truly responsive system. Sometimes, institutional arrangements within the target community may assume the form of an organization directly linked to a resource impacted by climate change as in the case of a water-user group, and in other occasions a more generic one in the form of a producer group for a dominant commodity. Opportunities for implementation of responsive extension scheme should factor in social, economic and environmental factors specific to the community or resource under consideration. Financing of such extension systems have often had significant demands for financing, requiring access to development funding from donor partners.
2.3 Technology Characteristics/Highlights: <i>Few bullet points, ie. low/high cost; advance technology; low technology.</i>	The technology rests on activities geared to capacity building and stakeholder organization. Primary interventions are in the form of institutional and organizational arrangements underpinned by knowledge development and transfer.
2.4 Institutional and Organizational Requirements: <i>How much additional capacity building and knowledge transfer is required for the adaptation option to be implemented.</i>	Major requirement in the adoption of this technology relies on improving upon institutional and organizational arrangements for delivery and transfer of knowledge.
3. <u>Operations and maintenance</u>	

3.1 Endorsement by Experts:	
3.2 Adequacy for current climate: <i>Are there negative consequences of the adaptation option in the current climate? Some adaptation may be targeted at the future climate but may have costs and consequences under the current climate.</i>	Being an institutional innovation mechanism, the technology poses no negative consequences.
3.3 Size of beneficiaries group: <i>Technology that provides small benefits to larger number of people will often be favored over those that provide larger benefits, but to fewer people.</i>	Responsive Agricultural Extension is important to protect the ability of current production systems to provide food supplies of everyone. If food supplies are threatened prices will rise affecting food security of large segments of poor populations.
4. <u>Costs</u>	Rs. 60.00 M
4.1 Cost to implement adaptation options: <i>Cost measures</i>	Rs. 20.00 M
4.2 Additional costs to implement adaptation option, compared to “business as usual”:	Electronic Media, Mass propaganda etc; Rs. 40.00 M
5. <u>Development Impacts, indirect benefits</u>	
5.1 Economic benefits: Employment - <i>Jobs</i> Investment - <i>Capital requirements</i>	- Increase efficiency of resource use overall - Promote rural development and resource conservation
5.2 Social benefits: Income - <i>Income generation and distribution</i> Education - <i>Time available for education</i> Health - <i>Number of people with different diseases.</i>	- Encouraged community participation - Support livelihood improvement - facilitate rural development
5.3 Environmental benefits: <i>Reductions in GHG emissions, Local pollutants, Ecosystem degradation etc</i>	- improved biodiversity conservation - Increased Quality of Watershed functions - Reduced ecosystem degradation
6. <u>Local context</u>	
6.1 Opportunities and Barriers:	Requires high quality trained human resources on CC impacts

<i>Barriers to implementation and issues such as the need to adjust other policies.</i>	and adaptation measures
6.2 Status: <i>Status of technology in the country</i>	Agricultural Extension is a ongoing process. But the knowledge on Climate change and extreme weather events and adaptation options should be introduced to the public.
6.3 Timeframe: <i>Specify timeframe for implementation.</i>	Life time
6.4 Acceptability to local stakeholders: <i>Whether the technology will be attractive to stakeholders</i>	Yes

ⁱ This fact sheet has been extracted from TNA Report – Technology Needs Assessment Reports For Climate Change Adaptation – Sri Lanka. You can access the complete report from the TNA project website <http://tech-action.org/>