

Technology Fact Sheet for Adaptation

Technology Fact Sheet: Development of short-maturing rice varieties ⁱ

Sector	Agriculture/ Technology development and knowledge management
Technology Name	Development of short-maturing rice varieties
Adaptation Benefits	<p>Introduction of this technology in the specific disaster prone areas will save standing crops from these sudden disaster events.</p> <p>This technology will allow protect agriculture based small-holders livelihoods, reduce the number of unemployed people and protect increasing number of poverty affected people.</p>
Background/ Notes, Short description of the technology option	<p>In Bangladesh, climate change already has affected, and will intensify in future in 2 ways. Firstly, global warming lead to change in precipitation and weather pattern leading agriculture and food security to enormous threat. And secondly, increased number of climate induced disasters in the form of extreme hydro-meteorological events such as flood, drought, salinity ingress, river bank erosion and increased tidal surge leading to destruction of infrastructure, crop production, natural resources, livelihoods and of course the national economy. It has been observed that people of different agro-ecological zones have been experiencing new type of disaster event which they didn't face in the past, at the same time duration of disaster prevalence also has changed or shifted. Different disaster events that damages the standing crops are;</p> <ul style="list-style-type: none">a) Dense fog: Damages seasonal crops and seedling beds.b) Erratic rainfall: Damages standing crops, seed beds and sometimes delays cultivation time due to lack of soil moisture contentc) Excess rainfall: Damages standing crops, seed beds and sometimes delays cultivation period.d) Monsoon flood: Damages standing crops, seed bedse) Storm and hail: Damages standing crop resulting to household level food insecurity <p>Therefore, damages and loss of standing crops from these sudden disaster events could be avoided through replacing the crops with an early maturing</p>

	variety.
Implementation assumptions, how this technology will be implemented and diffused across the subsector	<p>Important considerations for this technology implementation and diffusion includes:</p> <ul style="list-style-type: none"> • Development of improved rice variety • Experimentation of performance in different soil salinity condition • Field experimentation and demonstration • Development of dissemination packages and tools • Monitoring of variety suitability in different coastal regions
Impact Statements-How this option impacts the country development priority	
Country social development priorities	<ul style="list-style-type: none"> • Number of jobless and unemployed people will be reduced. • Will protect from increasing number of poverty affected people
Country economic development priorities	<ul style="list-style-type: none"> • This technology will increase rice production and will contribute to country's goal of attaining food security
Country environmental development priorities	<ul style="list-style-type: none"> • Awareness building to guide for taking action by the decision makers to ensure future sustainability.
Costs	
Capital costs	<ul style="list-style-type: none"> • Approx cost = Tk 2500.00 Lakh for research and development of new variety • Approx cost for experimentation of the performance new rice variety Tk 500 lakh/ town <p>Total: Taka 3000 lakh; (USD 3750000)</p>
Operational and Maintenance costs	<ul style="list-style-type: none"> • Approx cost of field experimentation and demonstration = Tk 500.00 lakh • Development of dissemination packages and tools Tk 250 lakh • Approx cost of monitoring = Tk 250.00 lakh/ year <p>Total: Taka 1000 lakh; (USD 1250000)</p>

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