Technology Fact Sheet for Adaptation

Technology Fact Sheet: Development of drought-tolerant rice varieties [i]

Sector	Agriculture/ Technology development and knowledge management
Technology Name	Development of drought-tolerant rice varieties
Adaptation Benefits	The northern part of the country facing slow onset of drought that are causing loss of rice crop production and forcing people to migrate in search of alternative livelihoods options. This technology will allow protect agriculture based small-holders livelihoods, reduce the number of unemployed people and protect increasing number of poverty affected people.
Background/ Notes, Short description of the technology option	In Bangladesh, drought prone areas are mainly located in the in the Northwestern part, with very severe areas on centered in the *Barind* Tract and adjacent to the upper Ganges-Padma river floodplain areas. A recent study (Shamsuddoha, Md et at 2012) showed that in the drought prone areas small-scale rice farmers are selling out their pieces of land to the big-farm owners who are converting rice-crop land to mango orchards. Thus, agricultural labors are losing their employment opportunity and migrating to the urban growth centers for livings. Therefore, a new drought-resistant paddy could offer hope to the farmers in the drought prone regions of Bangladesh whose crops are being affected by increased level of drought. While,Bangladesh is trying to increase rice production to meet rising domestic demand it is crucial to develop drought-tolerant variety that will give higher yield in upland areas with a little water.
Implementation assumptions, how this technology will be implemented and diffused across the subsector	Important considerations for this technology implementation and diffusion includes: • 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	• Number of jobless and unemployed people will be reduced. • Will protect from increasing number of poverty affected people
Country economic development priorities	• This technology will increase rice production and will contribute to country's goal of attaining food security
Country environmental development priorities	• This technology will make drought prone areas productive and ensure conservation of biological resources in the drought prone areas.
Costs	
Capital costs	• Approx cost = Tk 2000.00 Lakh for research and development of new variety • Approx cost for experimentation of the performance new rice variety Tk 500 lakh Total: Taka 2500 lakh ; (USD 3125000)
Operational and Maintenance costs	• Approx cost of field experimentation and demonstration = Tk 500.00 lakh/ town • Development of dissemination packages and tools Tk 150 lakh • Approx cost of monitoring = Tk 150.00 lakh/ year Total: Taka 800 lakh; (USD 1000000)

[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/**