

## FIGURES AND TABLES

**Table 6.1. Importance of small-scale fisheries and fishers.**

Key Features	Large-Scale Fisheries	Small-Scale Fisheries
Direct employment in fishing	500,000 people	50,000,000 people
Fishery-related occupations	-	150,000,000 people
Fishing household dependents	-	250,000,000 people
Capital cost per fishing job	US \$30,000- US \$300,000	US \$20-US \$300
Annual catch for food	15-40 million tons	20-30 million tons
Annual fish by-catch	5-20 million tons	< 1 million tons
Annual fuel oil consumption	14-19 million tons	1-2.5 million tons
Catch per metric tons of oil used	2-5 metric tons	10-20 tons

Source: Berkes et al. 2001

**Table 6.2. AKST for improving adaptive capacity to climate variability and change.**

Climate risk	Adaptation	Option	Application
Inadequate or variable rainfall: drought stress, salinity, wind erosion	Improve soil water-holding capacity	Improve soil structure to decrease runoff (6.a.b, appropriate section number in the text would be indicated)	Soil organic matter management through conservation agriculture practices
		Improve root exploitation of soil profile	Address root parasite and soil chemical/ physical impediments, better mycorrhiza establishment
	Enhance water capture	Rainwater harvesting	Rocklines, demi-lunes, small resources
	Exploit groundwater reserves	Expand irrigation while minimizing soil salinization	Drip irrigation, especially combined with improved soil management
	Improve crop germplasm for drought and salinity tolerance	Conventional and GM breeding	Farmer participatory breeding, improve seed distribution networks
	Protect sensitive crop growth stages	Improved crop establishment practices	Seed priming, seedbed solarization, root disease control, stagger planting times
Temperature increase: Increased evapotranspiration, physiological heat stress, reduced yield	Improve heat-tolerance	Switch to heat tolerant crops	Couple crop and climate models for crop system planning
		Conventional and GM breeding for heat tolerance	Seed access, farmer adoption
		Soil surface residues to reduce evaporation	Conservation tillage
Excessive rainfall: Soil erosion, nutrient leaching, water logging	Control soil erosion	Maintain soil coverage	Cover crops, surface residue retention
		Tillage operations normal to slope	Contour ridge tillage
	Decrease nutrient leaching	Stagger N addition, lime application	Site-specific nutrient management
	Improve drainage	Subsurface compaction	Long-term conservation tillage, use of deep rooting crops,
Sea level rise	Improve crop germplasm for salinity tolerance	Conventional breeding and genetic modification	Integrate long-term weather and seasonal climate forecasts into community planning networks
Seasonal and interannual variability:	Improve skill of and user access to seasonal climate forecasts	Probabilistic forecasting, imbedding crop models into climate models	

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	Strengthen early warning systems	Famine, malaria, ENSO-related, locust, and livestock EWS	Build capacity for early response to match early warning
	Improve crop storage	Controlled storage facilities, credit for storage, storage pest control	
	Agroecosystem diversification	Livelihood diversification, particularly targeted at vulnerable groups	High value agroforestry products, access to markets, local value-added processing; Combining aquaculture with water impoundment
		Broader use of irrigated vegetable production as means for purchasing cereals, Drought and submergence tolerant legumes and cereals	Focus research on improving under-utilized, traditional crops