



ESCWA

United Nations Economic and Social Commission for Western Asia

Climate Change Adaptation in the Economic Development Sector and Mapping of existing Funds

Introduction and Overview

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Types of Adaptation



	Anticipatory Adaptation	Reactive Adaptation
Natural		<ul style="list-style-type: none">• Changes in Growth;• Ecosystem Change;• Migration.
Private Sector	<ul style="list-style-type: none">• Insurance;• Reconstruction;• Redesign	<ul style="list-style-type: none">• Change in Business/Farm Practice;• New Insurance Premiums;• New Equipment Purchases.
Public Sector	<ul style="list-style-type: none">• Early Warning Systems;• Codes, Standards;• Incentives relative to Adaptation.	<ul style="list-style-type: none">• Disaster Compensation;• Enforcement of Rules, Codes;• Emergency Reconstruction.

Adaptation Actions



Concern: If the adverse effect of climate change do not materialize, the money invested would have been wasted.

- **No-Regret:** actions that impose no burden.
 - Cost-effective;
 - Do not pose any addition risks;
 - Do not force trade-offs with other policy objectives;
- **Low-Regret:**
 - Very low costs compared to the potential benefits;
- **Win-win:**
 - Achieved when adaptation actions bring in associated benefits, such as job creation or improved gender equity.

Adaptation Actions: Example



Water sector: the risk of water shortages could be reduced by improvements in water efficiency, improvements in water utility infrastructure that reduces losses through leakage...

Agricultural sector, the risk of flooding could be reduced by the construction of holding ditches for excess run-off, planting of trees and shrubs to reduce run-off...

Targets of Adaptation Plans



UNFCCC process: 27 key priority areas for adaptation, some of which are relevant for Arab Countries;

1. Enhanced forecasting for farming, as well as for extreme events (Disaster management);
2. Improved tools for water management, including storage, rainwater harvesting, and irrigation techniques;
3. Food security through (1) crop diversification, the introduction of crops that are more tolerant of drought, flood and land salinity; (2) improved livestock and fisheries breeding and farming techniques; (3) local food banks for people and livestock;
4. Better land and land use management through; (1) erosion control and soil conservation measures; (2) better forestry techniques, especially for wood and charcoal production; (3) sustainable town planning;
5. Coastal zone management, including (1) coral monitoring (Red Sea and Arabian Gulf); and (2) Enhanced coastal defenses.
6. Capacity-building to integrate climate change into sectoral development plans, involving local communities in adaptation activities

Adaptation Measures: Key Vulnerable Sectors (1/2)



	Anticipatory Adaptation	Reactive Adaptation
Water Resources	<ul style="list-style-type: none"> • Protection of groundwater resources; • Improved management and maintenance • Protection of water catchment areas; • Desalination • Rainwater harvesting and 	<ul style="list-style-type: none"> • Better use of recycled water; • Conservation of water catchment areas; • Water policy reform; • Flood controls and drought monitoring
Agriculture & Food Security	<ul style="list-style-type: none"> • Erosion control; • Dam construction for irrigation; • Introduction of new crops; • Crop management; • Soil fertility maintenance; • Seed Banks 	<ul style="list-style-type: none"> • Development of crops tolerant/resistant to drought, salt, and insects/ pests; • Soil-water management; • Early warning systems for extreme events.
Human Health	<ul style="list-style-type: none"> • Public health management; • Improved housing and living conditions; 	<ul style="list-style-type: none"> • Early warning system and Emergency response; • Disease/vector surveillance and monitoring; • Enhanced environmental quality.

Adaptation Measures: Key Vulnerable Sectors (2/2)



	Anticipatory Adaptation	Reactive Adaptation
Terrestrial Ecosystems	<ul style="list-style-type: none">• Control of deforestation, reforestation and afforestation;• Agroforestry to improve forest goods and services;• National forest fire management plans;	<ul style="list-style-type: none">• Parks/reserves, protected areas and biodiversity corridors;• Identification/development of climate change resistant species• Development and maintenance of seed banks;
Coastal zones and Marine Ecosystems	<ul style="list-style-type: none">• Protection and conservation of coral reefs and littoral vegetation;• Protection of economic infrastructure;• Measures for coastal erosion control and protection.	<ul style="list-style-type: none">• Integrated coastal zone management;• Research and monitoring

Funds for Adaptation: Arab Countries



Fund	Amount Approved (USD Million)	Number of Projects
Adaptation for Smallholder Agriculture Programme (ASAP)	18.00	3
Adaptation Fund (AF)	19.42	3
Clean Technology Fund (CTF)	725.00	5
Global Environment Facility-Strategic Priority on Adaptation (GEF-SPA)	55.04	1
Global Environment Facility - 2006 -2010 Funding Period (GEF4)	4.62	16
Global Environment Facility - 2011 – 2014 Funding Period (GEF5)	33.85	13
Global Climate Change Alliance (GCCA)	4.05	1
Least Developed Countries Fund (LDCF)	34.56	8
MDG Achievement Fund (MGF-F)	8.00	2
CTF Pilot Program for Climate Resilience (PPCR)	20.50	2
Special Climate Change Fund (SCCF)	38.01	7