



Climate Change Risk Management in Egypt

Forecasting and IWRM Component

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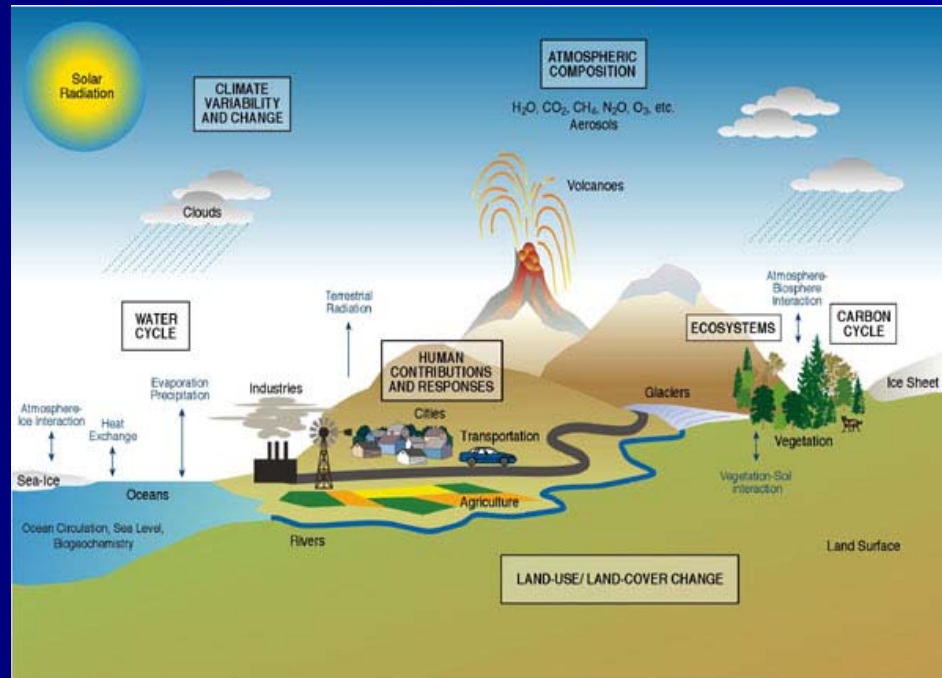
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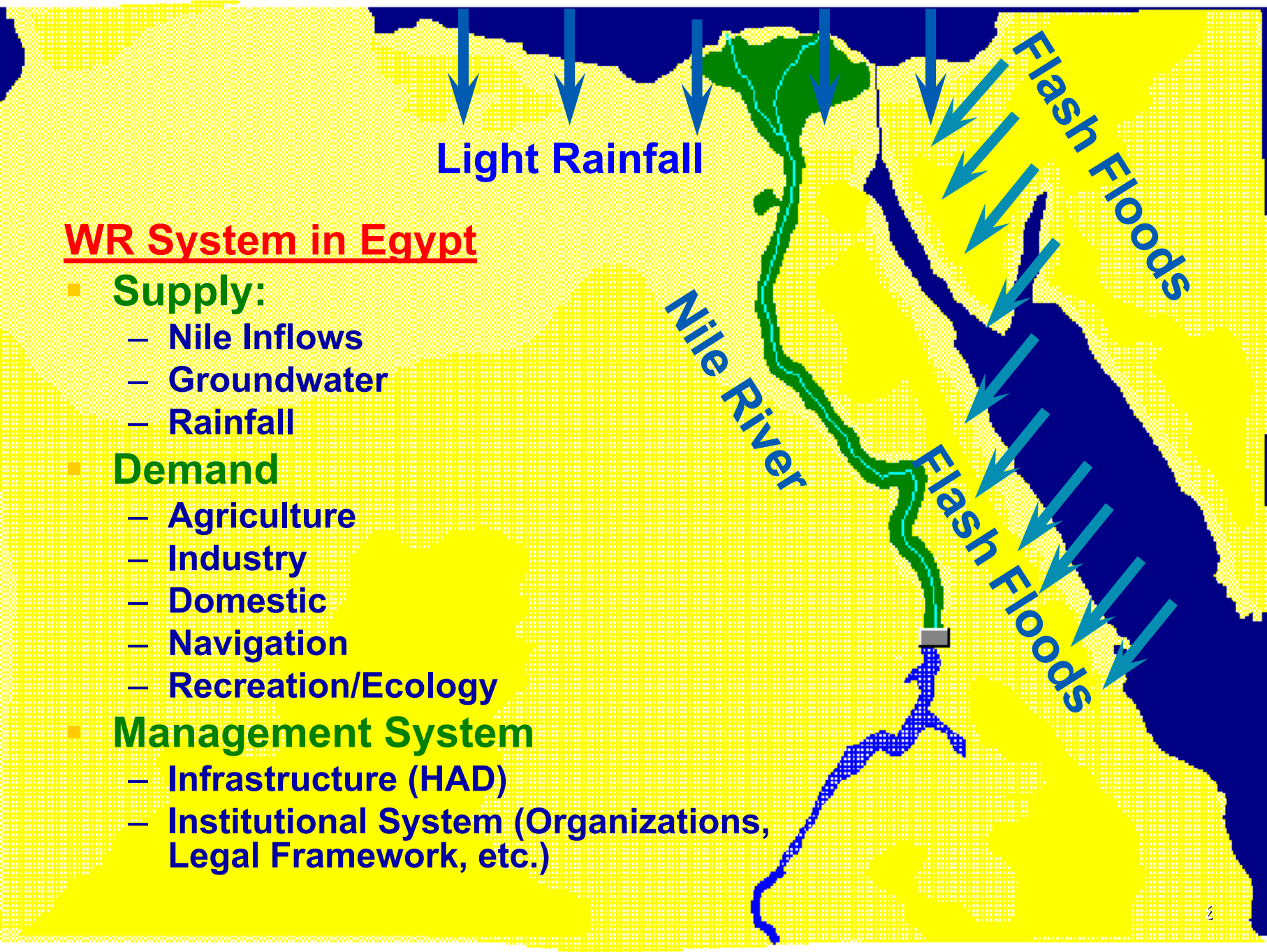
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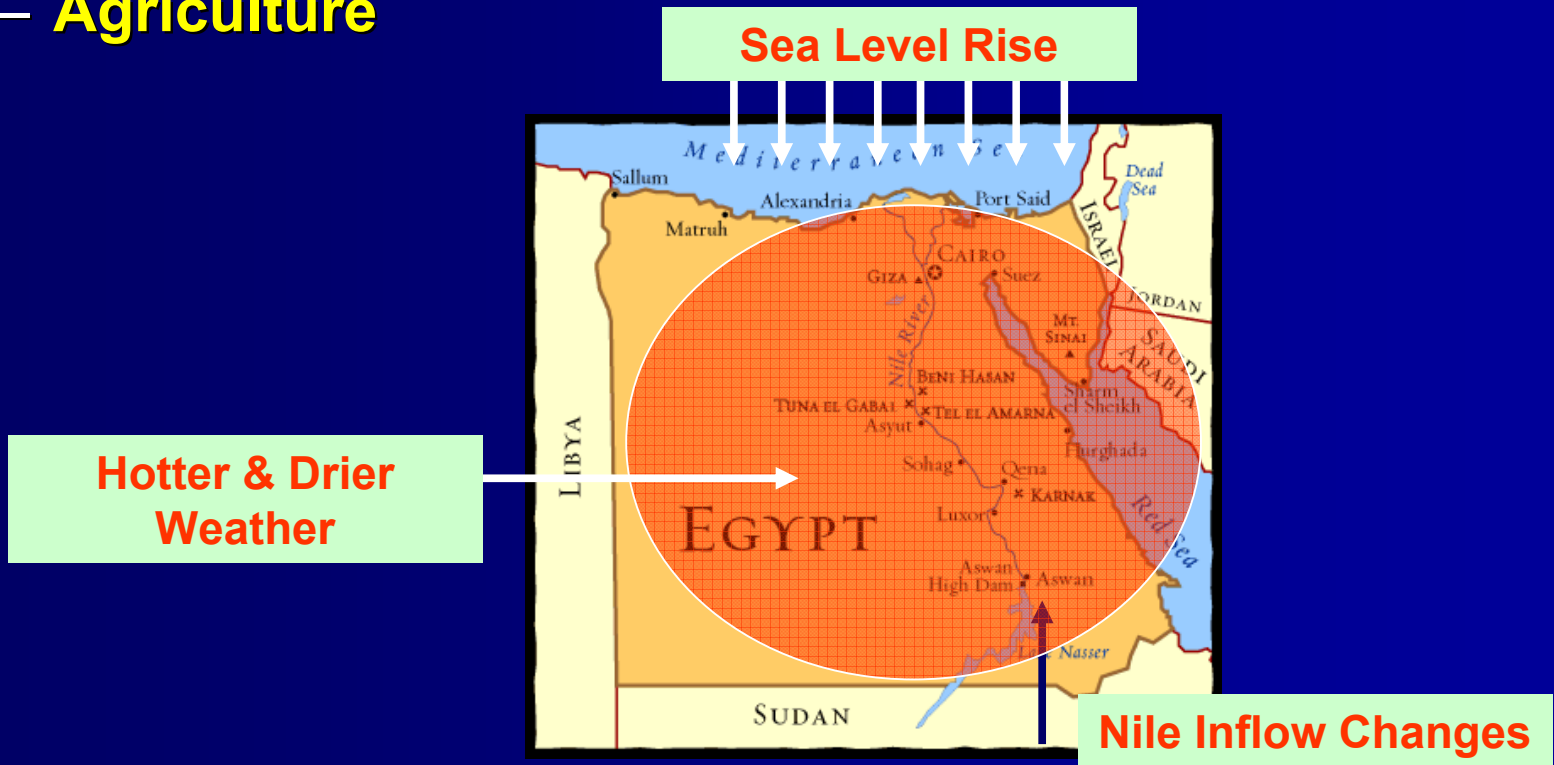
WR System in Egypt

- **Supply:**
 - Nile Inflows
 - Groundwater
 - Rainfall
- **Demand**
 - Agriculture
 - Industry
 - Domestic
 - Navigation
 - Recreation/Ecology
- **Management System**
 - Infrastructure (HAD)
 - Institutional System (Organizations, Legal Framework, etc.)



Motivation

- Egypt is Vulnerable to Climate Change
 - Coastal Zone
 - Water Resources
 - Agriculture



Motivation

- GCMs have coarse spatial resolutions
- GCMs disagree on the climate change signal
- National impact assessment require detailed CC scenarios
- There is a need to downscale the results
- RCM may solve the problem

Objectives (1)

To Develop or adopt a Regional Climate Model for the Nile basin and Egypt

To Construct climate scenarios for the Nile Basin and for Egypt using this RCM

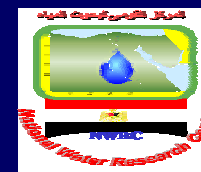
To Assess the impacts of these scenarios on the Nile flows and on the coastal zone

Objectives (2)

To Identify possible adaptation strategies to alleviate and/or take advantage of climate change impacts on water resources within the basin and on land resources (especially the coastal zone) within Egypt

To Foster Cooperation within Nile Basin countries through NBI

Partners



Work Packages

WP1

RCM Configuration and Application

WP2

Water Resources Adaptation to CC

WP3

Coastal Zone Adaptation to CC

WP4

Cooperation with NBI

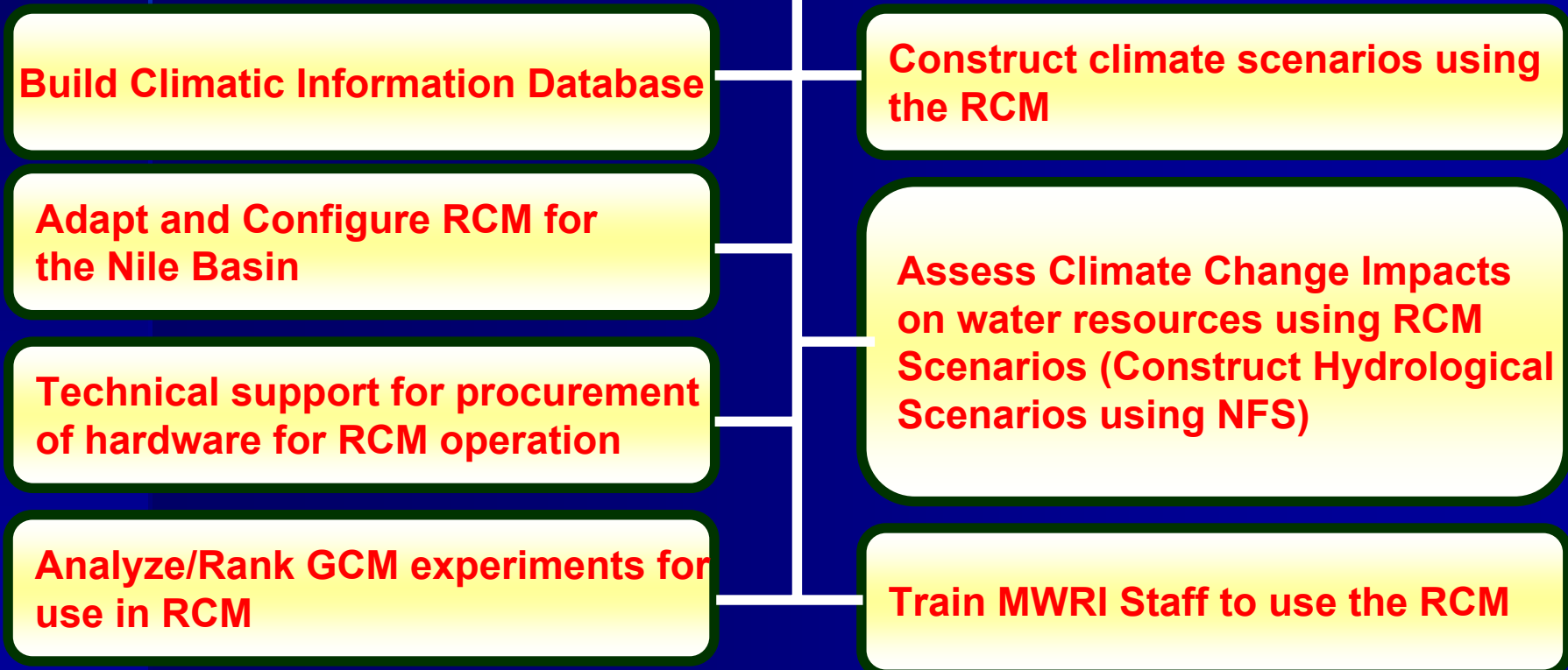
WP5

Administration

WP1 Activities



Output: RCM Adapted & Applied



WP2 Activities

Output 1: Adaptation needs and gaps for climate resilient Integrated Water Resources assessed and identified

Assess existing water resources policies

Assess Climate Change adaptation needs and gaps in Water Resources Sector

Survey available hydrological and meteorological models in the NFC

Improve available hydrological and meteorological models in the NFC

Assess Climate Change Impacts on water resources using RCM Scenarios (Construct Hydrological Scenarios using NFS)

WP2 Activities (cont'd)



Output 2: RCM outputs used in Formulating national adaptation water management scenarios using IWRM processes and approach

Use the output of adopted RCM to develop National Water Resources strategies using available models (e.g. RIBASIM and HADDSS)

Train MWRI Staff on developing water management strategies

Develop/Assess water resources adaptation strategies

Integrate adaptation strategies into water resources policies

WP3 Activities



Output: Adaptation needs and gaps for climate resilient Integrated Coastal Zone Management assessed and identified

Assess existing policies (climate screening and proofing)

Assess adaptation needs and gaps including gender issues

Analyze the cost of climate change on coastal zone using a gender sensitive macro-economic method (mini-Stern reviews)

Train MWRI Staff on developing coastal zone management strategies

Advocate adoption of developed adaptation policies

WP4 Activities

Output: Links established with NBI



organize joint workshops and seminars for selected staff from Nile countries to discuss and exchange knowledge about climate change

Time Schedule (Foreign Partners)

		Yearly Quarters												
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	
Work Packages	1	UNEP (DHI/UK Met) UNESCO												
	2			UNESCO UNDP										
	3			UNDP										
	4				UNE- SCO			UNE- SCO				UNE- SCO		

Component Focal Points

Managerial

- Dr. Shaden Abdel Gawad, NWRC
- Dr. Mohamed Abdel-Motaleb, PS

Operational

- Dr. Bayoumi Attia, NWRC
- Dr. Maha Tawfik, ECRI
- Dr. Mamdouh Antar, NFC, PS
- Dr. Mohamed Elshamy, NFC, PS

Thank You