GEF 5 Strategy for International Waters (IW) Focal Area

GEF Familiarization Seminar
January 18 – 20, 2011

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Objectives for Today

- Background for the GEF IW focal area: transboundary waters
- Briefing on the GEF 5 strategy.
- Discussion on integrating climatic variability & change into water resources and coastal management—GEF 5 focus for IW with IWRM in basins and ICM at coasts.

Concerns of International Waters & People, Ecosystems, and Development

- Transboundary Pollution: Water unusable, diseases
- Wasteful Water Use, Droughts, floods: conflicts
- Groundwater quality & quantity
- Overfishing/Depleted Oceans: Livelihoods & $ 100 billion in annual trade in jeopardy
- Habitat loss—coastal blue forests; invasive species
- MDGs will not be met because of water mismanagement/conflicts/globalization
- Peace, stability, security at risk

1995 GEF Operational Strategy- International Waters (GEF Council)

International Waters* include the oceans, coasts, Large Marine Ecosystems and connected river basins; transboundary rivers**, lakes, groundwater basins

**2 Long-term Goals* *for the IW area*:

-Agreement for collective, multi-state management of transboundary water systems

-Implementation of the full range of technical, economic, financial, regulatory, and institutional reforms and investments contributing to sustainable use of those transboundary waters

**Collective management* can increase the basket of benefits, flexibility, adaptive opportunities for shared water resources/oceans

Simplistic View of GEF IW Strategy

- Progressive funding provided to countries adopting progressive commitments to joint action
- First, foundational capacity building projects- build trust & confidence, undertake joint fact-finding, make commitments
- Follow-up projects & programs to help implement joint commitments to national/local reforms and investments and support for waterbody-based adaptive management institutions for IWRM in basins and ICM at coasts.
- Portfolio learning, experience sharing, KM

Key Elements of GEF Recommended Foundational Processes

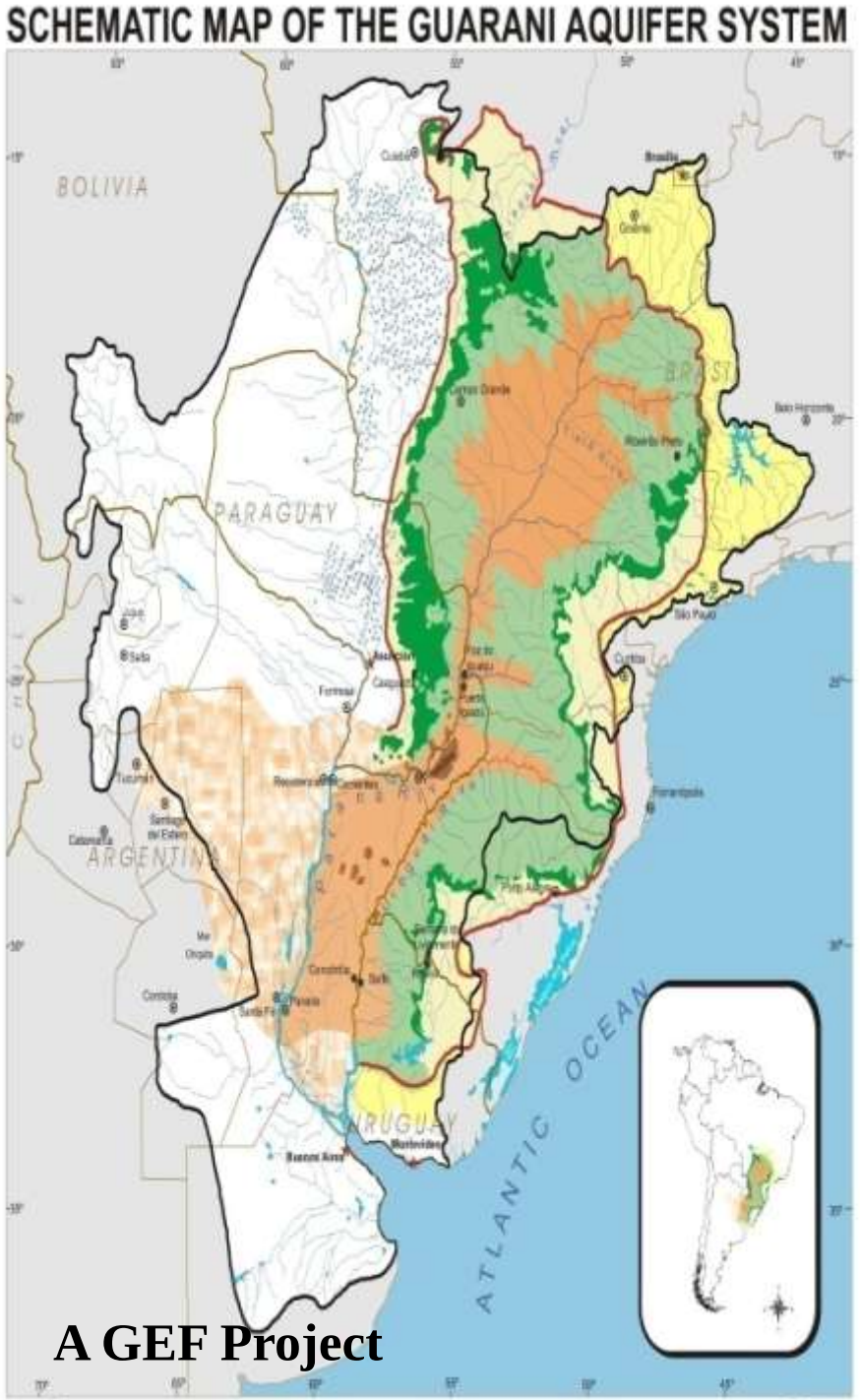
- **Establishment of National <u>Inter-ministry Committees.</u>**
- **<u>Transboundary Diagnostic Analysis:</u>** joint fact-finding for concerns and opportunities in the hydrologic unit; involve science communities, set priorities, break down complexity into manageable pieces.
- **<u>Strategic Action Programme</u>:** Formulate shared vision, reforms and investments to address priority concerns & opportunities; set targets, commitments to adaptive management institutions with adoption by ministers.
- **Required stakeholder involvement; M & E indicators; website development for transparency; portfolio experience sharing & learning**

GEF Nile Basin Transboundary Environmental Action Project

The Nile Basin Initiative: 10 nations and many development partners promote transboundary peace, security, & stability, toward sustainable development and MDGs.

The Guarani Aquifer Project

Without preventative measures, uncontrolled pollution in its extraction and recharge areas could threaten the Guarani aquifer, which contains sufficient water to supply 360 million people on a sustainable basis.



A GEF Project

CELEBRATING TWENTY YEARS
GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Large Marine Ecosystems of the World and Linked Watersheds

1 East Bering Sea
2 Gulf of Alaska
3 California Current
4 Gulf of California
5 Gulf of Mexico
6 Southeast U.S. Continental Shelf
7 Northeast U.S. Continental Shelf
8 Scotian Shelf
9 Newfoundland-Labrador Shelf
10 Insular Pacific-Hawaiian
11 Pacific Central-American Coastal
12 Caribbean Sea
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16 East Brazil Shelf
17 North Brazil Shelf
18 West Greenland Shelf
19 East Greenland Shelf
20 Barents Sea
21 Norwegian Shelf
22 North Sea
23 Baltic Sea
24 Celtic-Biscay Shelf
25 Iberian Coastal
26 Mediterranean Sea
27 Canary Current
28 Guinea Current
29 Benguela Current
30 Agulhas Current
31 Somali Coastal Current
32 Arabian Sea
33 Red Sea
34 Bay of Bengal
35 Gulf of Thailand
36 South China Sea
37 Sulu-Celebes Sea
38 Indonesian Sea
39 North Australian Shelf
40 Northeast Australian Shelf-Great Barrier Reef
41 East-Central Australian Shelf
42 Southeast Australian Shelf
43 Southwest Australian Shelf
44 West-Central Australian Shelf
45 Northwest Australian Shelf
46 New Zealand Shelf
47 East China Sea
48 Yellow Sea
49 Kuroshio Current
50 Sea of Japan
51 Oyashio Current
52 Okhotsk Sea
53 West Bering Sea
54 Chukchi Sea
55 Beaufort Sea
56 East Siberian Sea
57 Laptev Sea
58 Kara Sea
59 Iceland Shelf
60 Faroe Plateau
61 Antarctic
62 Black Sea
63 Hudson Bay
64 Arctic Ocean

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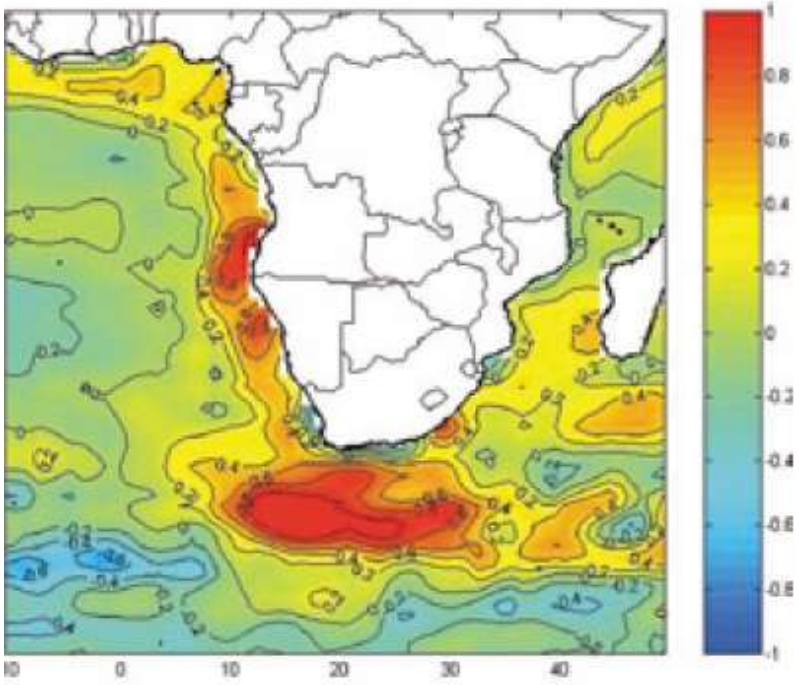
Is the BCLME feeling the effects of global climate change?

In May, 40 oceanographers and regional experts gathered in Cape Town to discuss the changing state of the Benguela ecosystem. At an intensive three-day workshop, the participants analysed the patterns in long term data sets, identified the possible drivers of climate change and the prospects for adapting to the social and economic consequences of climate change in the Benguela region.



They noted that the BCLME is a highly productive, complex and variable ecosystem. In such a system, it is extremely difficult to separate the climate change "signal" from "noise". Other large ocean basins, such as the North Atlantic and the North Pacific, have well defined inter-decadal changes. In contrast, the Benguela has a higher degree of variability than its counterparts in other parts of the world such as the Humboldt, Canary and California Current systems. This has to be taken account of when managing the ecosystem and its response to climate change. The Benguela Current LME is at the confluence of three major ocean systems, (the Atlantic, Indian and Southern oceans) and is subject to not only the marine resources in the coastal regions, but also terrestrial rainfall and weather patterns over the entire region.

Major findings were:

- One of the strongest trends in the data has been a warming at the northern and southern boundaries of the Benguela system. In the north the warming has occurred across the boundary, while in the south, warming has occurred just south of the Agulhas Bank. In the inshore areas of the Agulhas Bank and southern Benguela it has cooled slightly, increasing the gradients across the southern boundary region.
- There has been an increased

Legal Treaty/Institution Critical for Ecosystem-based Adaptive Management

Benguela current news

THE NEWSLETTER OF THE BENGUELA CURRENT LARGE MARINE ECOSYSTEM PROGRAMME

The Benguela Current Commission

by Dr Mick O'Toole

The Benguela Current Commission Interim Agreement was signed by Angola in

institutional support necessary for effective transboundary management and to put in place legal and

Inside News July 2007 Issue 5

Lake Manzala
Engineered Wetland

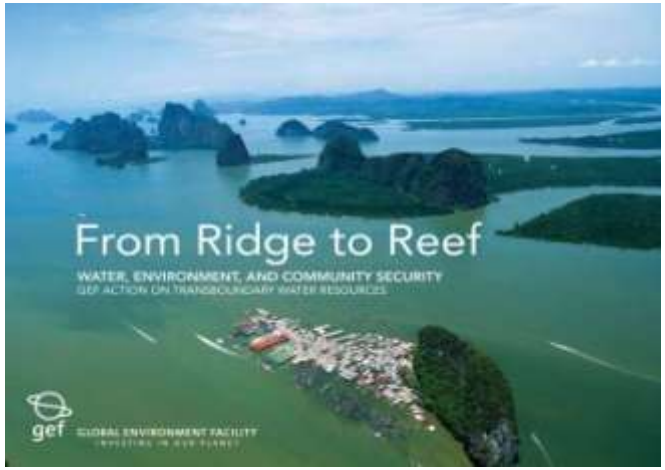
A GEF/UNDP project in Egypt

Lake Manzala, like many coastal wetlands of the Mediterranean, is threatened by high nutrients and toxic discharges. By constructing an engineered wetland capable of treating 25,000m3/day of raw sewage, the project is demonstrating the effectiveness of low cost natural ways to reduce pollution loading.

20 YEARS
CELEBRATING TWENTY YEARS
GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

GEF International Waters Portfolio

- GEF is largest investor in multi-country collective water & coastal management: $1.2 billion GEF & $6.1 billion co-financing.
- 149 GEF recipient States cooperating with 23 non-recipient States on their shared water systems.
- In working to reverse fisheries depletion, reduce water pollution, and balance conflicting water uses through IWRM, and protecting aquifers, GEF contributes to water, environment, and community security as well as regional integration.



GEF International Waters Ecosystem-Based Approach to Management of LMEs at Multiple Scales

- **Large Marine Ecosystem Scale** (South China Sea LME-UNEP)
- **Coastal Municipality/Provincial ICM scale** (Da Nang, Vietnam - UNDP PEMSEA)
- **River Basin Linkage Scale** (GPA Mekong River Basin/delta - World Bank)
- **Local Community-based Demo Sites**

  (Phu Quoc *Fish Refugia* Vietnam- UNEP)

Monitoring & Evaluation Indicators for Tracking Results from Transboundary Water Projects

- **Process indicators* – Adoption of agreed processes & reforms regionally and nationally for particular sector

- **Stress Reduction indicators* – Implementation of on-the-ground measures leading to reduced stress

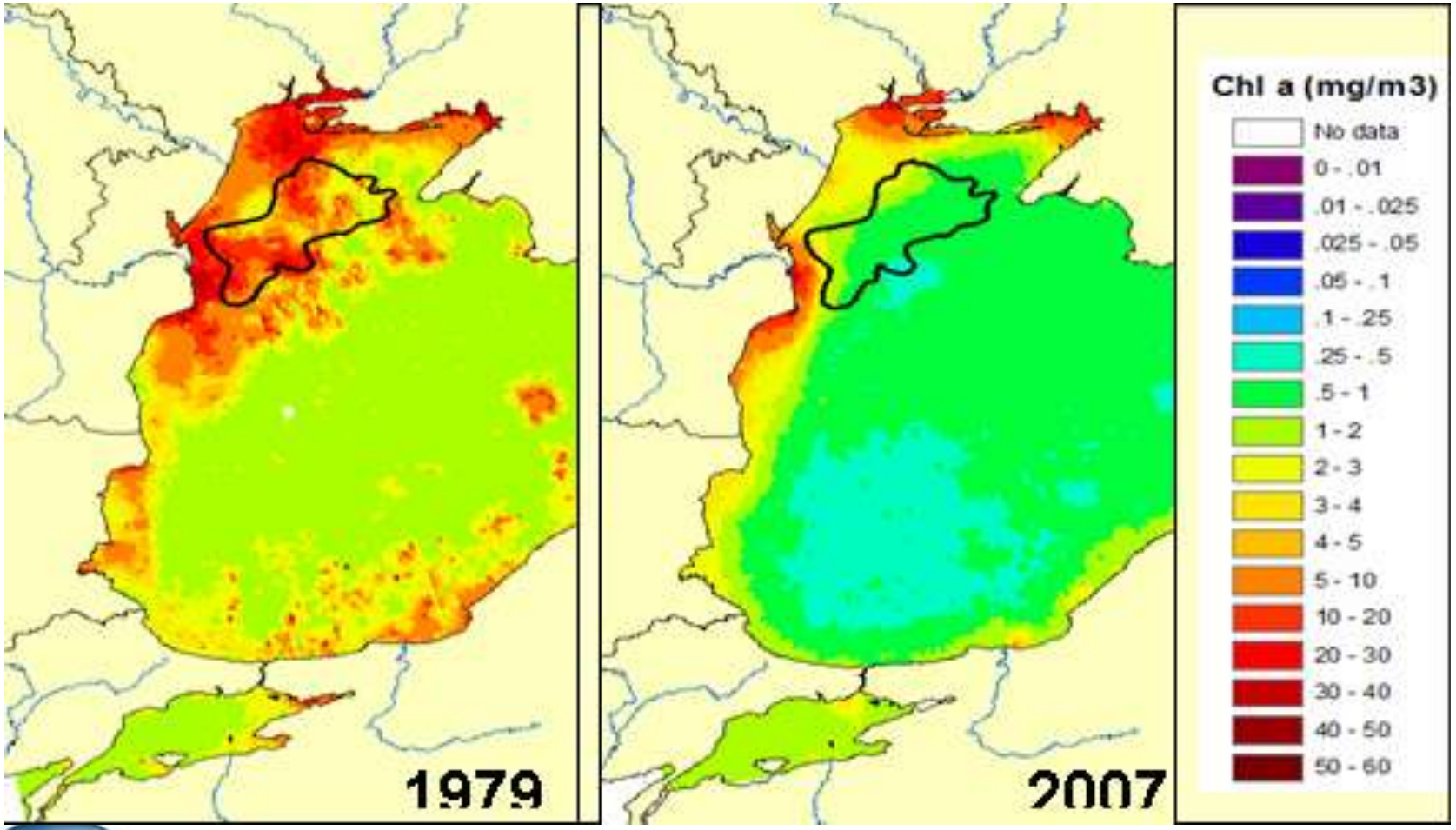
- **Environmental/Water Resources Status indicators* – Actual improvement in water resources/water environment/socio-economic conditions

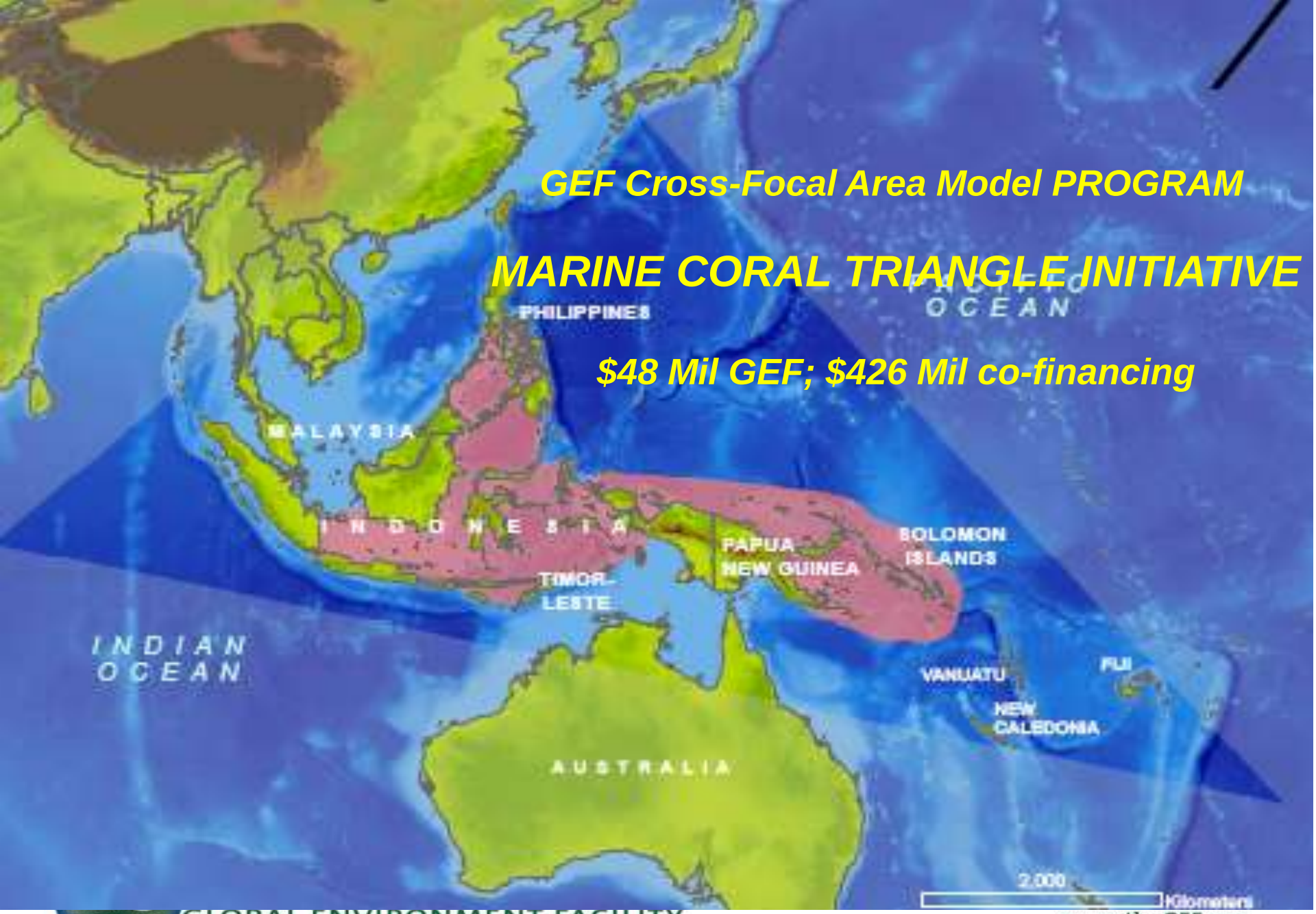
-see GEF M & E Paper # 10 M & E Indicators for GEF IW Projects

The Danube - Black Sea Basin Strategic Partnership for Nutrient Pollution Reduction: support to the GPA ($100 m GEF)

- **UNDP; UNEP, World Bank; EU**
- **16 basin countries**
- **3 Regional projects**
- **$70 million Investment Fund (WB) approved by GEF Council in 3 tranches-$330 m co-fin.**
- **PROGRAM, not just PROJECTS with multiple PARTNERS**

Black Sea LME-Reduction of Nutrients: Reduction of Eutrophication & Hypoxia





GEF Cross-Focal Area Model PROGRAM

MARINE CORAL TRIANGLE INITIATIVE

$48 Mil GEF; $426 Mil co-financing

New Features For GEF 5 IW Focal Area Strategy

- **Four strategic objectives approved; $US 440 million.**
- **No longer thematic priorities; back to original 1995 strategy with multiple drivers needing to be addressed if they are important to the transboundary system**
- **Climatic variability and change explicitly included for freshwater basins and LMEs and their coasts**
- **Aquifers/groundwater explicitly included for true integrated water resources management (100 x water)**
- **ICM Critical in all marine projects for climatic variability**

IW SO-1: Catalyze multi-state cooperation to balance conflicting water uses in transboundary surface and groundwater basins while considering climatic variability and change

- Implementation of agreed basin action programs
- Multi-country institution sustained; treaty; protocol; and droughts, floods, aquifers incorporated in mgmnt
- National policy/legal reforms water sub-sectors
- Innovation solutions provide on-ground results: water use efficiency, pollution reduction, sustainable fisheries, restored/protected floodplains/aquifers, water supply protection in SIDS, IWRM in basins

IW SO-2: Catalyze multi-state cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems while considering climatic variability and change

- Multi-country institution sustained; treaty; protocol;
- Implementation of agreed basin action programs and climatic variability, ICM incorporated in mgmnt
- National policy/legal reforms in coastal/marine issues, including local ICM, rights-based fisheries
- Innovation solutions provide on-ground results: sustainable fisheries, pollution reduction, ICM demos, restored/protected habitat (blue forests),

IW SO-3: Support foundational capacity building, portfolio learning, and targeted research needs for joint, ecosystem-based management of transboundary water systems

- Shared vision, political commitments to action, capacity built, reforms identified, inter-ministry committees functional and agreed TDA/SAP for basin/LME
- On-ground demos produce results in sub-sectors
- IW Portfolio performance enhanced by experience sharing, learning, KM, communities of practice
- Targeted research projects in IW fill gaps in understanding and develop methodologies for portfolio

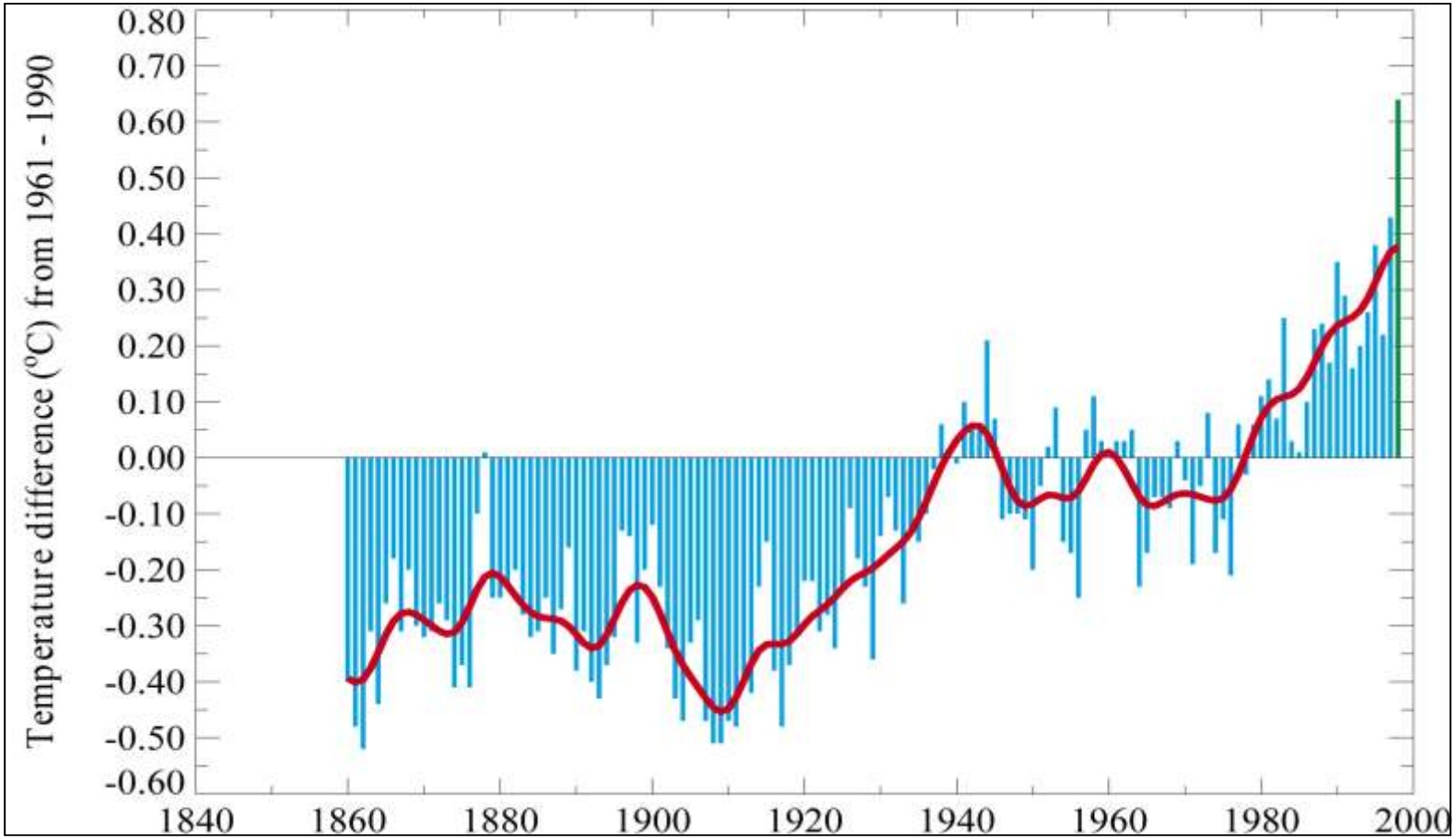
IW SO-4: Promote effective management of Marine Areas Beyond National Jurisdiction (ABNJ)

- Implementation of pilot measures in ABNJ are successful and sustainable within institutions, especially RFMOs and regional seas programs

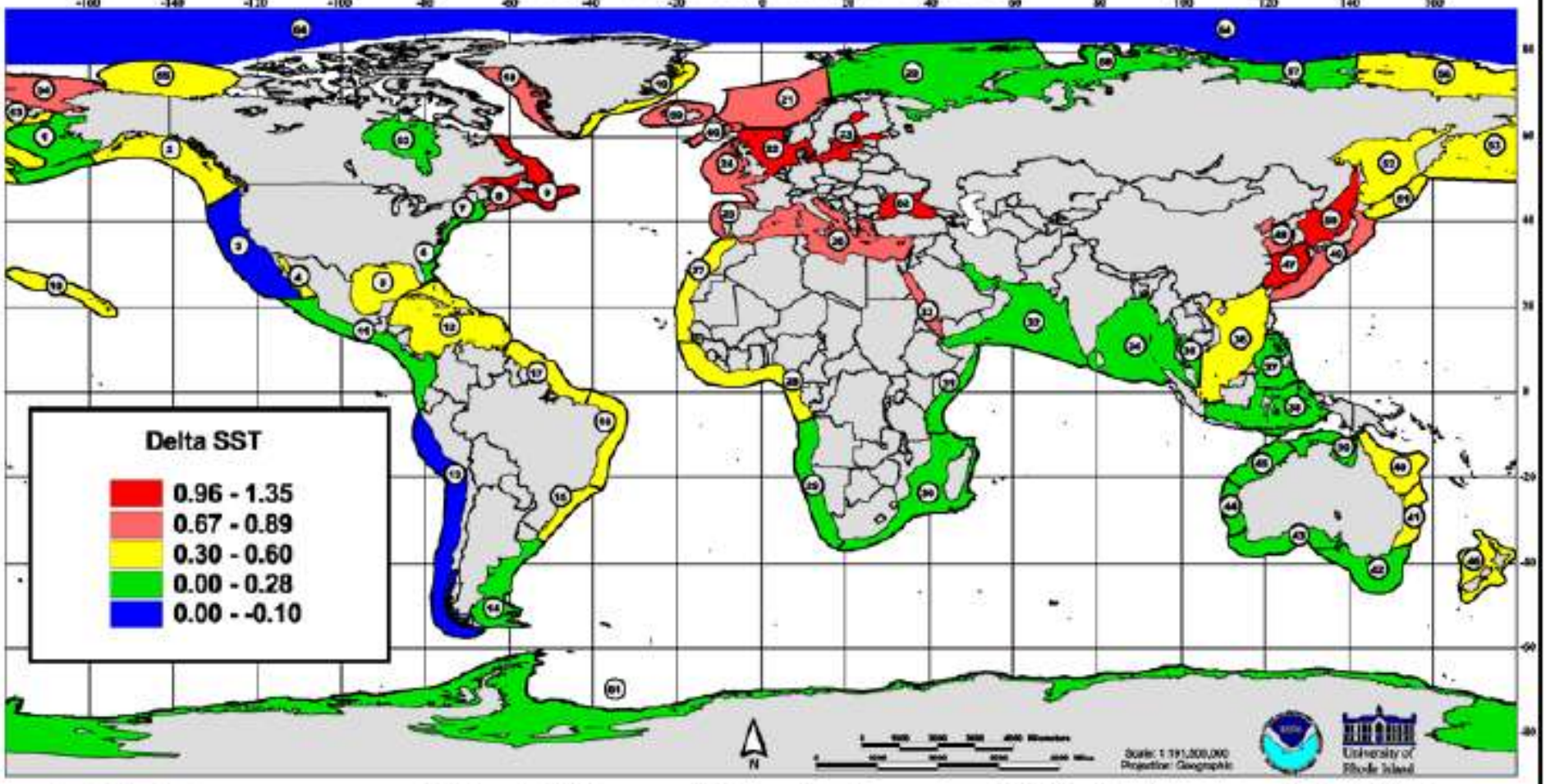
- Plans and institutional frameworks tested and joint work with BD focal area in special designated GEF Program for ABNJ have a catalytic effect on global discussions on the oceans

Global Observed Temperatures

Combined global land, air, and sea surface temperatures
1860 to August 1998 (relative to 1961–1990 average)



Large Marine Ecosystems of the World
SST Trends, 1982 - 2006



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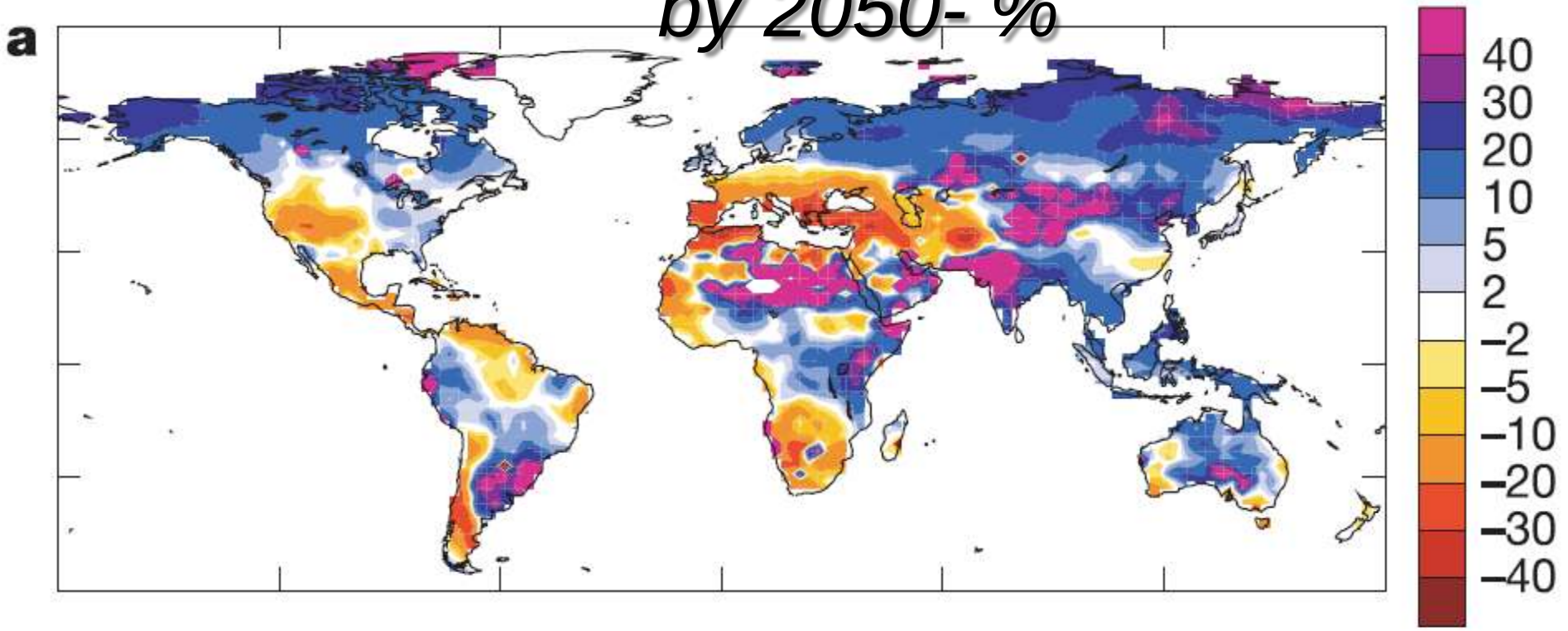
ICM is Critical at Coasts, Addressing Multiple Drivers and IWRM in Linked Basins

- Including coastal storm risk/vulnerability , sea-level rise, coastal flooding, protection “blue forests”, salt water intrusion

A Different World-Projected Change in Runoff by 2050 in % by 2050- %



- **Many of the major "food-bowls" of the world are projected to become significantly drier**
- **Higher temperatures will tend to reduce run off**

More information on GEF and International Waters

GEF website:

www.thegef.org

GEF IW Learning/KM website:

www.iwlearn.net