



IFAD's Engagement on Climate Change in Arid Zones of the NENA Region

Near East and North Africa Division

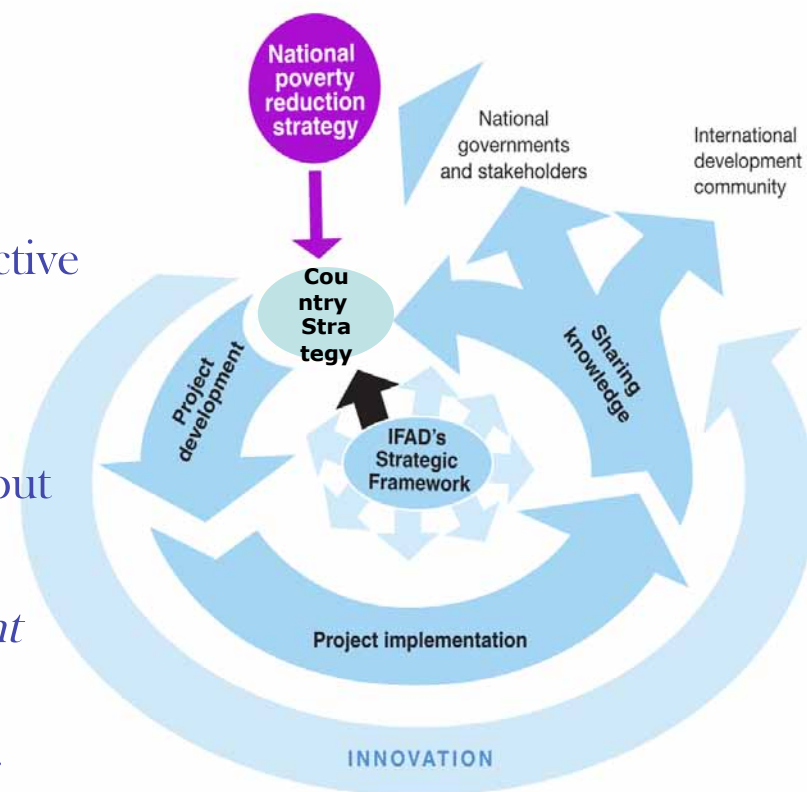
11 December 2009

Copenhagen

IFAD Strategic Framework and Operating Model

Strategic objective: poor rural men and women in developing countries have better access to, and have developed the skills and organization to take advantage of:

- Natural resources (*land, water and climate change*);
- Improved *agricultural technologies* and effective production services;
- A broad range of *financial services*;
- Transparent and competitive agricultural input and produce *markets*;
- Opportunities for rural *off-farm employment* and enterprise development; and
- Local and national *policy and programming* processes.



Enabling poor rural people to overcome poverty



IFAD's Instruments for Engaging in Climate Change

- I. Regional and country programmes/investments** – funded with loans and grants “stand-alone” and “climate proofing”;
- II. Knowledge management and capacity development;**
- III. Studies, diagnostics, and, advocacy for the rural poor;**
- IV. Strategic Partnerships-** e.g. GEF, CGIAR, IFIs, etc.



IFAD's Contributions to Development Outcomes

In 2008, 200 on-going programmes and projects

On-going investment \$ 3.4 billion

✓ *Natural resource management*

3.86 million ha of land under improved management practices

470 thousand ha of land under constructed/rehabilitated irrigation schemes

✓ *Agricultural technologies*

1.72 million people trained in crop production practices/technologies

1.03 million people trained in livestock production practices/technologies

✓ *Rural financial services*

4.35 million of active borrowers

5.44 million of voluntary savers

✓ *Marketing & Micro enterprise*

15 000 km of roads constructed/rehabilitated

25 000 marketing groups formed/strengthened

162 000 people trained in business and entrepreneurship

19 000 enterprises accessing facilitated non-financial services

✓ *Policies and institutions*

338 000 people trained in community management topics

24 000 village/community action plans prepared



Key characteristics of arid eco-systems

Arid and semi-arid zones cover 25% of the world's land surface, and generally suffer from:

- Low productivity of land
- Water salinity and soil degradation problems
- Conflict over productive land and over water use
- Out-migration from rural areas
- High youth unemployment
- Low levels of food self-sufficiency and food security

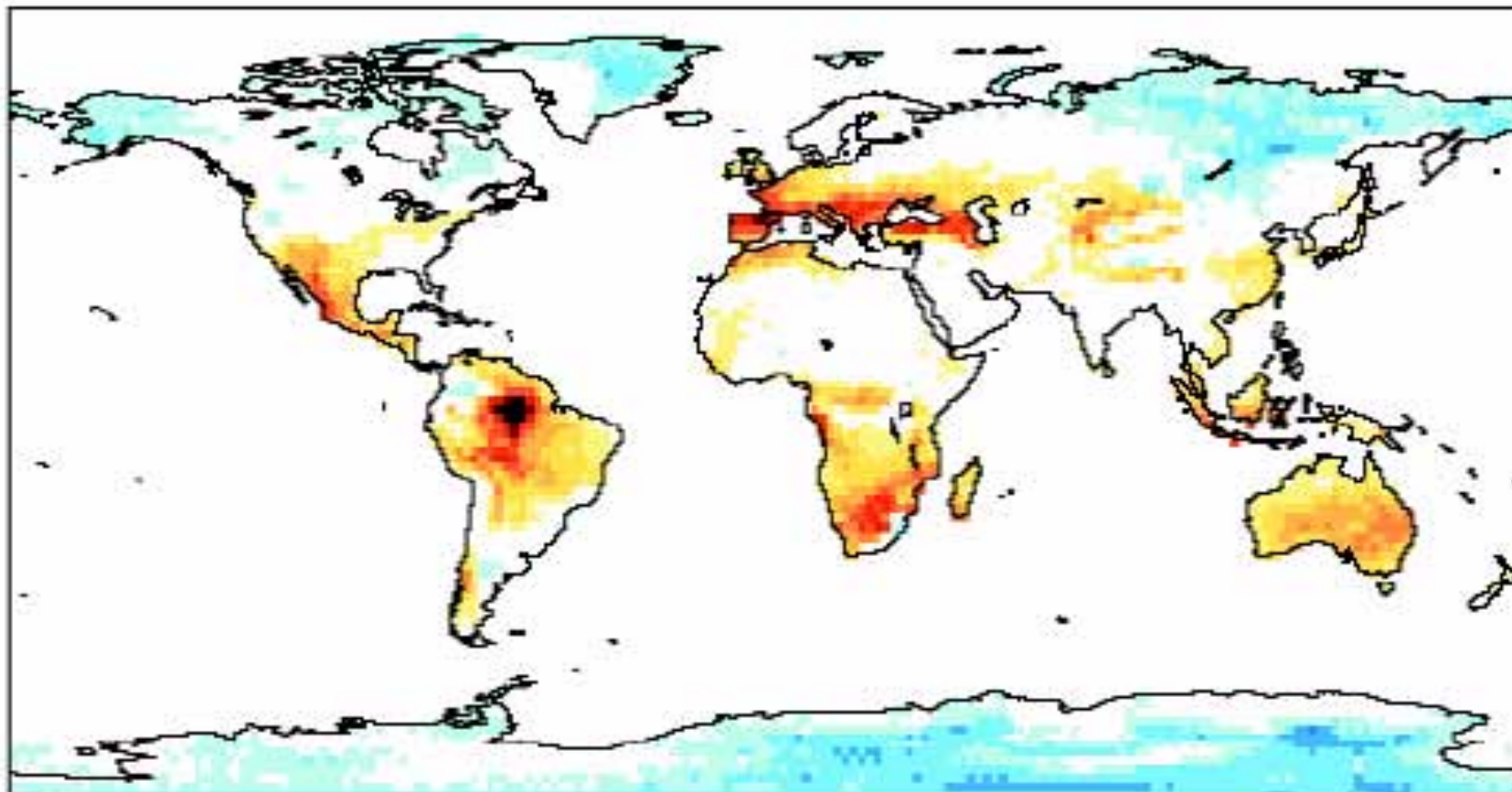
Predicted impacts of climate change in arid zones

- Higher frequency of droughts & extreme events
- Lower, more sporadic rainfall
- Declining soil fertility
- Loss of biodiversity (genetic, species and ecosystems)
- Agricultural productivity could decline between 10 to 25 % (in some areas 50%) by 2080
- Reliance on food imports: source of vulnerability to market volatility, and thus to climate change



Photo By FAO SWALIM

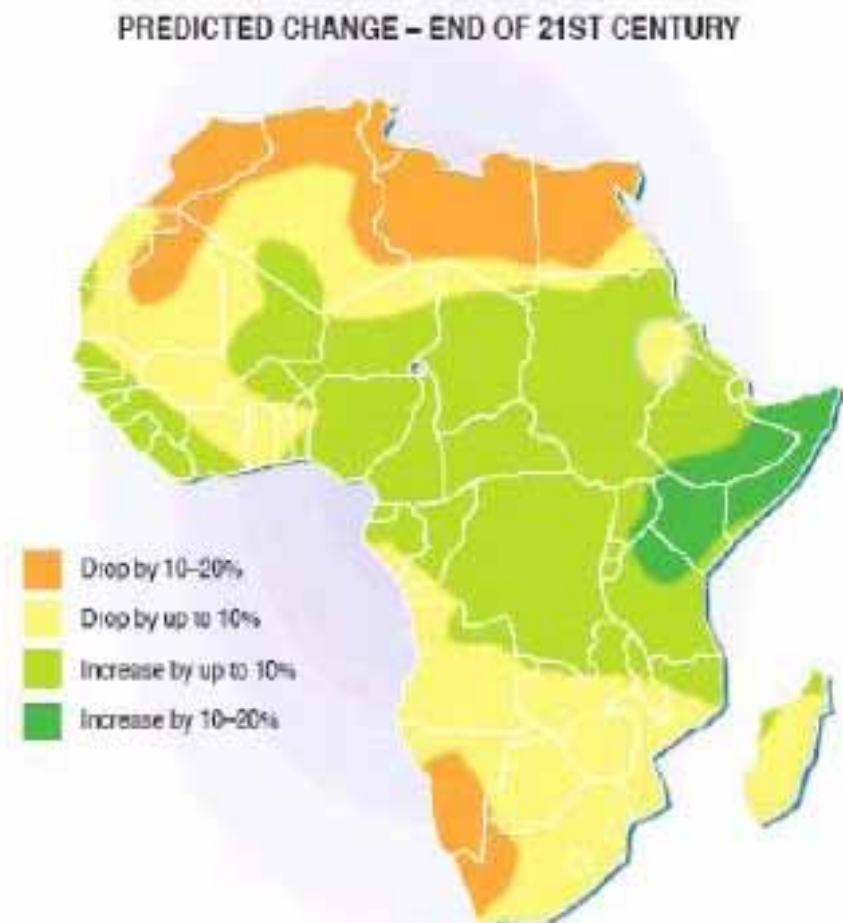
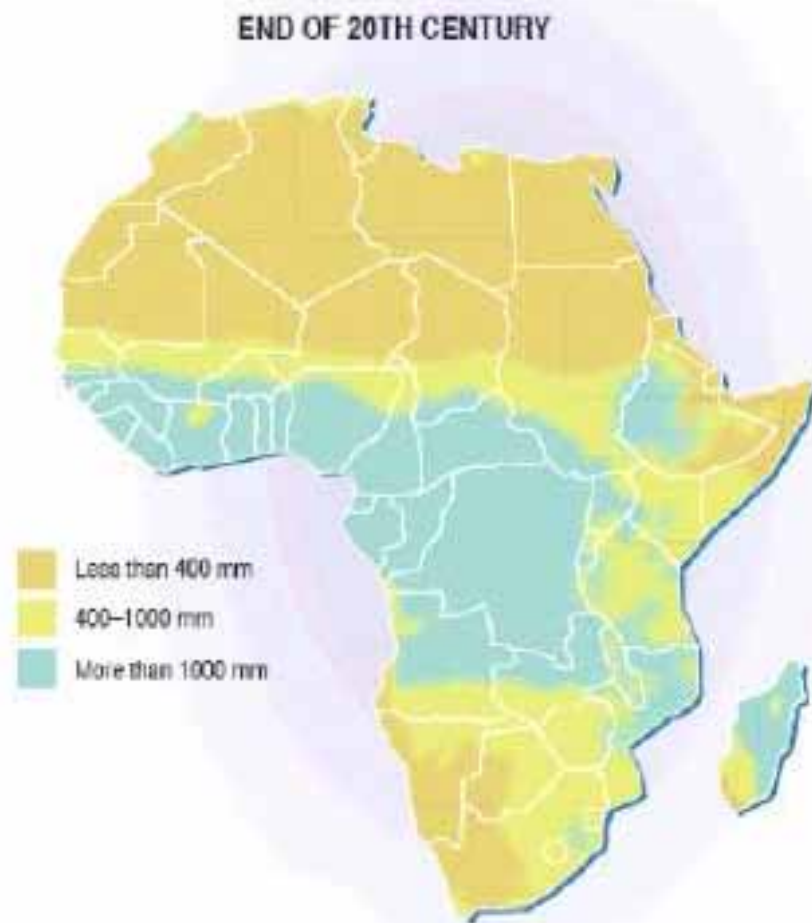
Drought projections for IPCC's A1B scenario



Percentage change in average duration of longest dry period, 30-year average for 2071-2100 compared to that for 1961-1990.

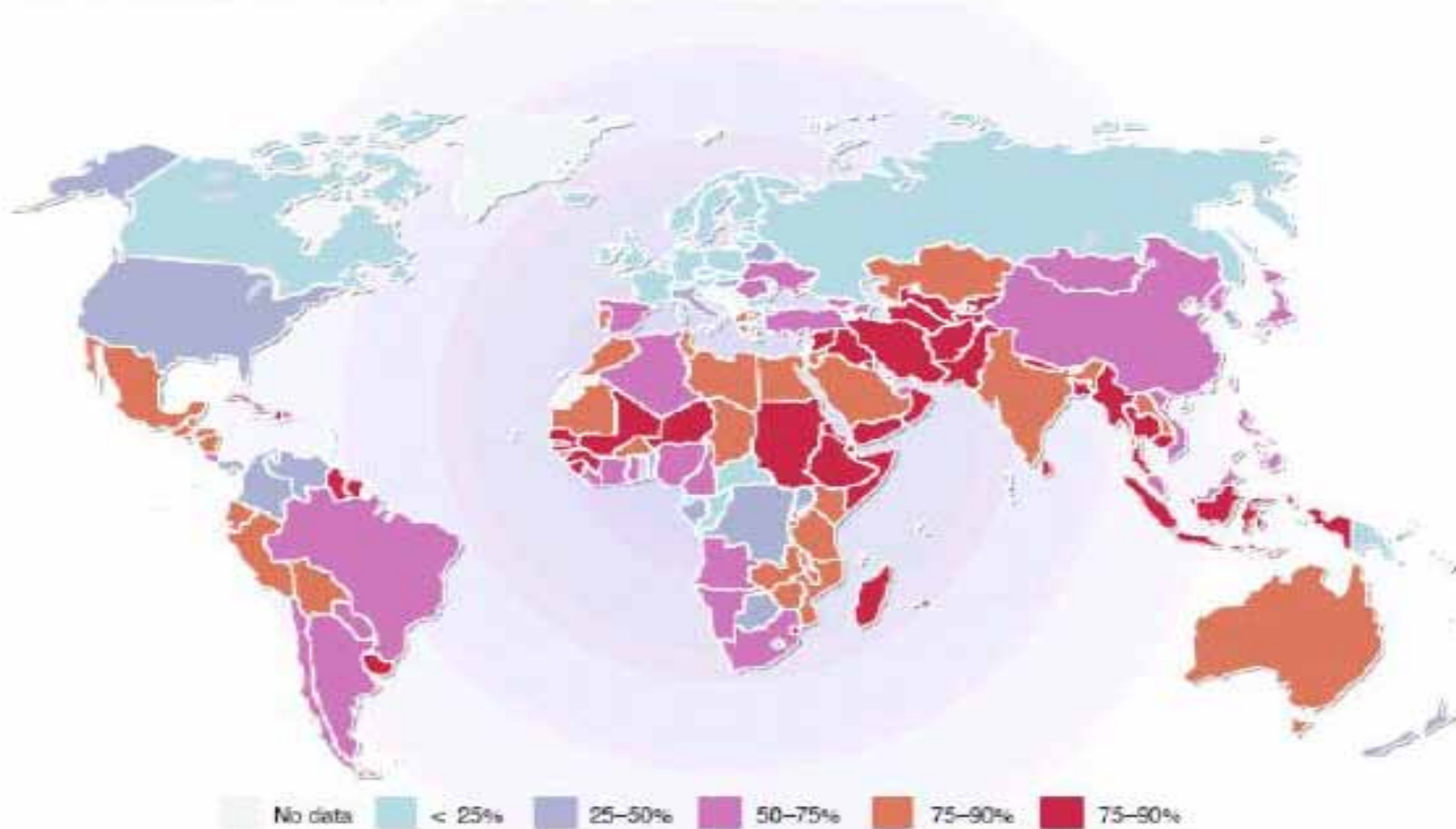
Projected change in available water

Changes in available water



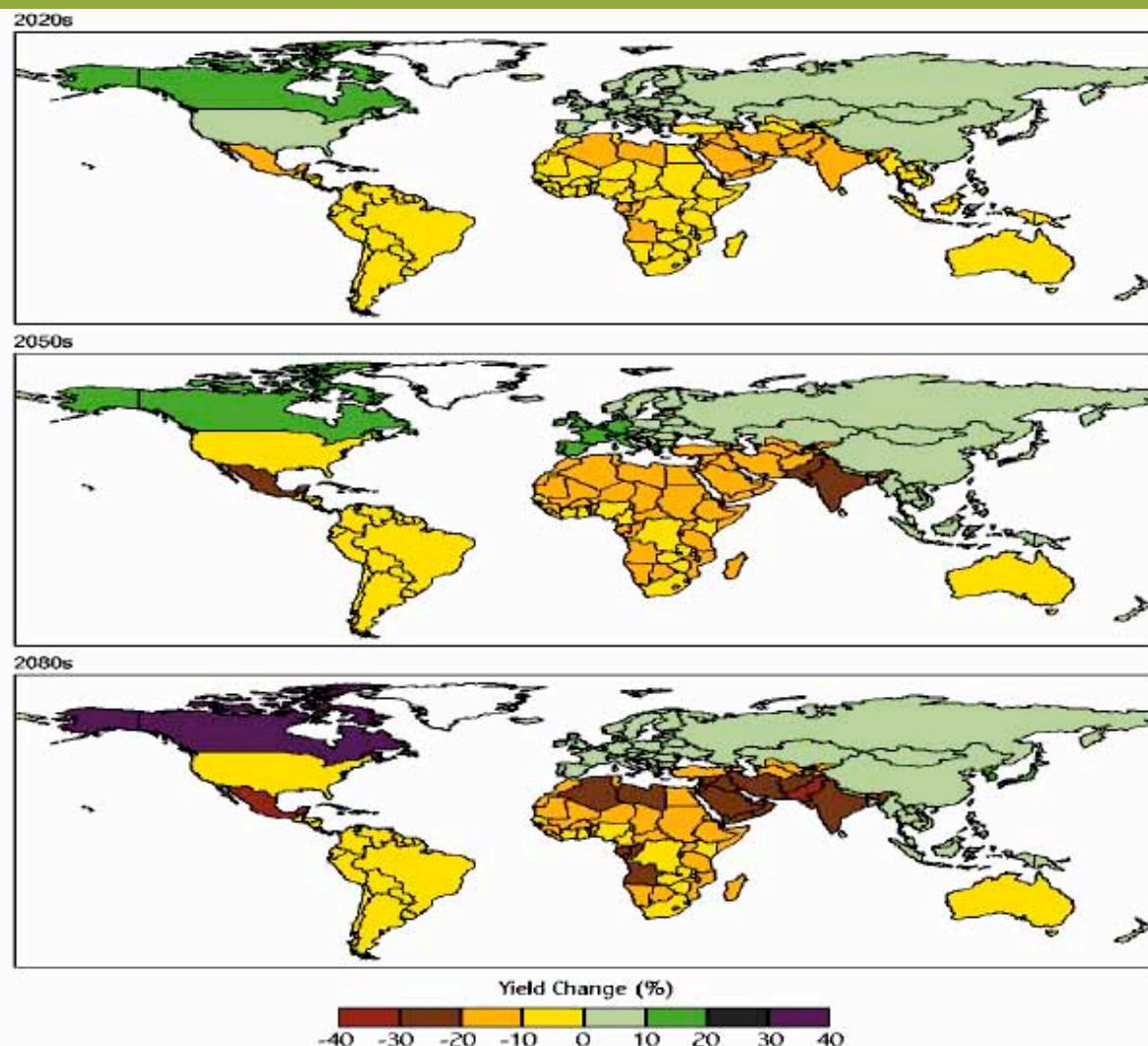
A critical challenge - Water

Proportion of water withdrawal for agriculture 2001



Source: Extracted from Bob Watson presentation at UNEP 2 March 2009

Crops yields are expected to decrease



Percentage change in average crop yields for a mid-range climate change scenario

Even as soon as 2020 crop yields in SSA and parts of Asia are projected to decrease by up to 20%

Source: Extracted from Bob Watson presentation at UNEP 2 March 2009

Agriculture and the Food Security Challenge in the NENA

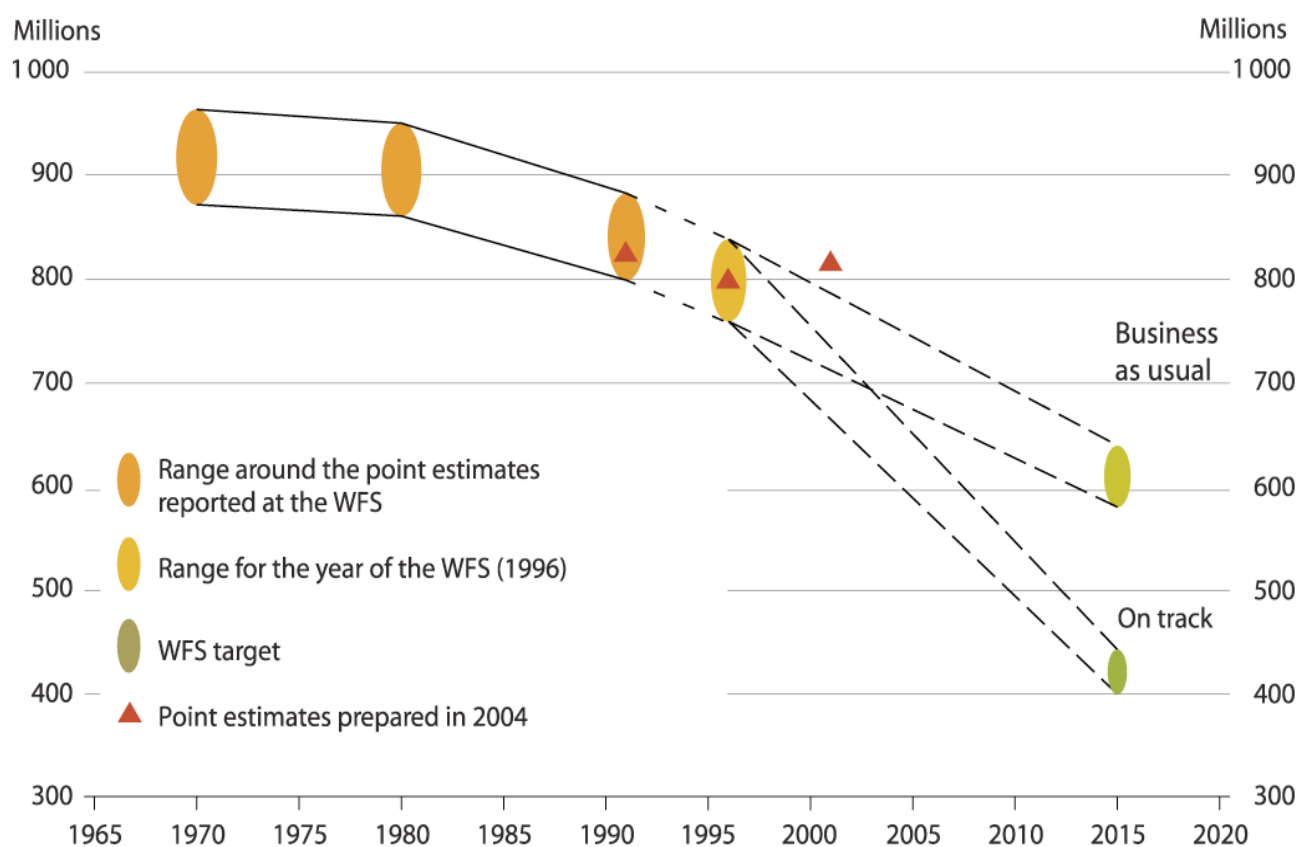
Expectation by 2030:

- 8.3 billion people to feed
- 83% in developing countries
- 60% more food is needed

Before the food price increase 850 million people faced hunger and absolute poverty

After, 200 million people were added to the hungry and poor

Number of undernourished in the developing world: observed and projected ranges compared with the World Food Summit target



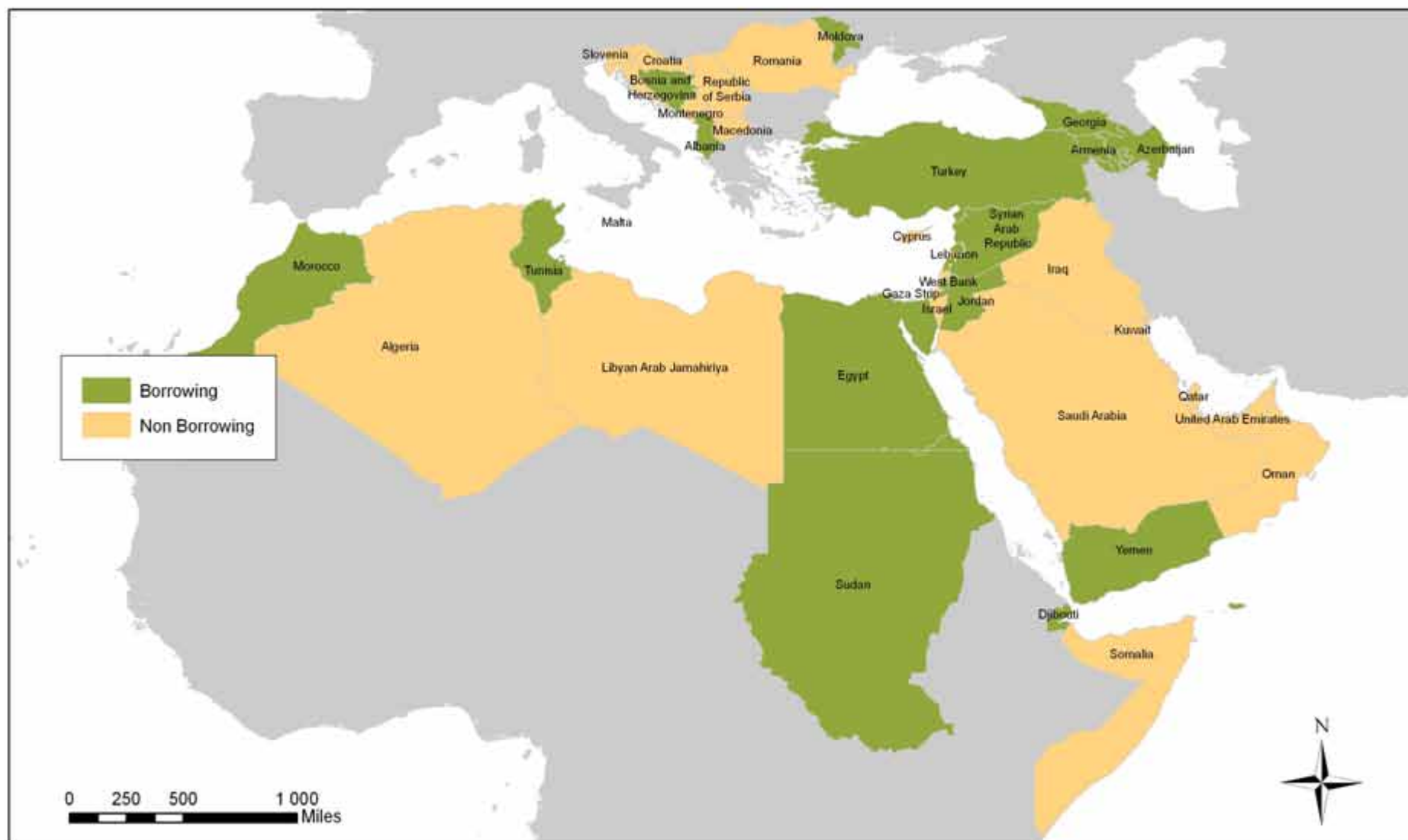
Source: FAO

Enabling poor rural people to overcome poverty



IFAD's Near East and North Africa Division (PN)

Borrowing and Non-Borrowing Countries



The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD

Current thematic focus of IFAD operations in NENA

- Management of natural resources (land & water)
- Increasing agricultural production and productivity
- Community-based and area-based rural development
- Income-generation activities
- Rural financial services



IFAD Investment Portfolio in NENA (December 09)

- ✓ 16 countries: 9 Near East and North Africa, 7 Central and Eastern Europe and the Newly Independent States
- ✓ 43 projects
- ✓ \$ 610 mln in lending
- ✓ \$ 700 mln co-financing
- ✓ \$ 26 mln in grants

IFAD financing instruments:

1. **Loans** - rates: Highly Concessional, Intermediate, Ordinary
2. **Grants** - Regional and Country-specific



Plate 1 (left) depicts a badland while plate 2 (right) depicts a gully control measure (check dam implemented by IFAD)



Plate 3 (left) depicts an agriculture field without any conservation measure. Plates 4 (right) shows an improved soil bund the purpose of which is to stop soil erosion and mainly hold moisture in the soil (implemented by IFAD)

PN Ongoing Project Portfolio - December 2009

	Country	Project Name	IFAD Financing (USD '000)	Total Co-financing (USD '000)	Board Approval	Project Completion Date	Cooperating Institution
1	Albania	Programme for Sustainable Development in Rural Mountain Areas	8,000	16,254	13 Dec 05	31 Mar 12	IFAD/IFAD
2		Mountain to Markets Programme	9,600	8,345	11 Sep 08	30 Jun 14	IFAD/IFAD
3	Armenia	Rural Areas Economic Development Programme	15,301	13,420	02 Dec 04	30 Sep 09	IFAD/IFAD
4		Farmer Market Access Programme	12,400	19,719	12 Sep 07	30 Jun 13	IFAD/IFAD
5	Azerbaijan	North-East Development Project	12,555	12,593	09 Sep 04	30 Sep 11	IFAD/IFAD
6		Rural development Project for the North-West	17,196	15,129	13 Dec 07	31 Mar 14	IFAD/IFAD
7	Bosnia and Herzegovina	Rural Enterprise Enhancement Project	12,617	11,870	20 Apr 06	31 Dec 12	IFAD/IFAD
8		Rural Livelihoods Development Project	11,113	14,543	17 Dec 08		IFAD/IFAD
9	Djibouti	Microfinance and Microenterprise Development Project	3,597	247	12 Dec 02	31 Dec 12	UNOPS
10		Mobilisation of Surface Water and Sustainable Land Management - PROMES-GDT	3,000	8,637	13 Dec 07	31 Dec 14	UNOPS
11	Egypt	West Noubaria Rural Development Project	18,485	36,266	23 Apr 02	30 Jun 11	IFAD/IFAD
12		Upper Egypt Rural Development Project	16,135	3,714	14 Dec 06	30 Sep 15	IFAD/IFAD
13	Gaza and the West Bank	Participatory Natural Resource Management Programme	8,793	16,390	23 Apr 98	30 Jun 11	IFAD Pilot
14	Georgia	Rural Development Programme Mountainous and Highland Areas	8,000	1,159	13 Sep 00	31 Mar 10	IFAD/IFAD
15		Rural Development Project	10,000	24,705	19 Apr 05	30 Jun 10	World Bank
16	Jordan	Agricultural Resource management Project-Phase II	11,777	30,191	02 Dec 04	30 Jun 13	IFAD/IFAD
17	Lebanon	Hilly Areas Sustainable Development Project	4,605	12,040	15 Sep 09		IFAD/IFAD
18	Moldova	Agricultural Revitalisation Project	14,892	3,274	17 Dec 03	31 Mar 13	IFAD/IFAD
19		Rural Business Development Project	13,024	7,282	13 Dec 05	30 Sep 11	IFAD/IFAD
20		Rural Financial Services	13,243	5,712	11 Sep 08	31 Mar 14	IFAD/IFAD
21	Morocco	Rural Development Project Taourirt - Tarforait	19,520	29,900	04 Dec 96	31 Dec 09	UNOPS
22		Rural Development Project in the Mountain Zones of Al-Haouz Province	18,028	12,215	07 Dec 00	30 Sep 10	IFAD/IFAD
23		Livestock and Rangeland Development Project in the Eastern Region - Phase II	6,361	2,878	11 Sep 03	31 Dec 10	IFAD/IFAD
24		Rural Development Project in the Eastern Middle Atlas Mountains	16,206	28,003	13 Dec 05	31 Mar 15	IFAD/IFAD
25		Rural Development Project in the Mountain Zones of Errachidia Province	18,757	8,288	12 Sep 07	30 Sep 14	IFAD/IFAD
26	Sudan	South Kordofan Rural Development Project	18,024	9,376	14 Sep 00	31 Mar 11	IFAD/IFAD
27		Gash Sustainable Livelihoods Rejuvenation Project	24,946	14,089	18 Dec 03	30 Sep 12	IFAD/IFAD
28		Western Sudan Resources Management Programme	25,463	23,492	02 Dec 04	31 Dec 13	IFAD/IFAD
29		Butana Integrated Rural Development Project	24,799	5,055	14 Dec 06	30 Sep 16	IFAD/IFAD
30		Gum Arabic	3,000	7,880	15 Sep 09		World Bank
31		Southern Sudan Livelihoods Development Project	13,539	12,393	11 Sep 08	31 Mar 15	IFAD/IFAD
32	Syria	Badia Rangelands Development Project	16,604	84,754	23 Apr 98	31 Dec 10	IFAD/IFAD
33		Idleb Rural Development Project	17,551	27,268	11 Dec 02	31 Dec 10	IFAD/IFAD
34		North Eastern Region Rural Development Project	20,135	37,983	18 Apr 07	31 Mar 15	IFAD/IFAD
35	Tunisia	PRODESUD	18,746	25,591	05 Sep 02	30 Jun 10	UNOPS
36		Integrated Agriculture Development Project in the Governorate of Siliana - Phase II	15,490	23,453	13 Dec 05	30 Jun 13	UNOPS
37	Turkey	Sivas-Erzincan Development Project	13,079	16,964	11 Sep 03	31 Mar 12	IFAD/IFAD
38		Diyabakir, Batman & Siirt Development Project	24,100	12,814	14 Dec 06	31 Dec 12	IFAD/IFAD
39	Yemen	Al-Mahara Community Development Project	12,241	5,555	09 Dec 99	30 Sep 09	UNOPS
40		Dhamar Participatory Rural Development Project	14,015	8,642	05 Sep 02	30 Sep 11	IFAD/IFAD
41		Al-Dhala Community Resource Management Project	14,349	8,445	09 Sep 04	31 Mar 14	World Bank
42		Pilot Community-based Rural Infrastructure Project in Highland Areas	12,908	1,048	19 Apr 05	31 Mar 11	UNOPS
43		Rainfed Agriculture and Livestock Project	16,582	25,572	12 Sep 07	31 Mar 14	World Bank
PN Total			608,776	693,148			
			47%	53%			

Enabling poor people to take control of their own lives

IFAD

Collaboration with GEF: the MENARID Programme

(land degradation, biodiversity, climate change & integrated water management)

IFAD leads the GEF-funded Integrated NRM in the NENA Region (MENARID) Programme

- **Partners include:** ICARDA, IFAD, UNDP, UNEP, UNIDO & WB
- **GEF 4 Funding:** \$60 million
- **Estim co-financing:** \$185 million
- **Covers projects in:**
Morocco, Tunisia, Jordan
Iran, Yemen, Algeria
and two regional projects.



Examples of IFAD interventions towards adaptation to climate change in NENA arid areas

Participatory Control of Desertification and Poverty Reduction in the Arid and Semi-Arid High Plateau Ecosystems of Eastern Morocco

- IFAD loan focuses primarily on livestock production and sustainable management of rangeland resources;
- GEF component aims to control land degradation and preserve the functions and services of the alfa grass ecosystem.

Economic Opportunities Project, Yemen:

- includes water harvesting, water-use efficiency and may include a weather-indexed insurance scheme

Support to Sustainable Land Management in the Siliana Governorate, Tunisia

- IFAD supports sustainable watershed development and rural finance.
- GEF funding will help mainstream land degradation issues & sustainable land management in regional/local development plans, and support pilot biodiversity conservation in selected hot spots.

Agricultural Resources Management Programme Phase II in Karak, Tafileh and Maan, Jordan

- IFAD loan for agricultural and rural development, OFID co-financing
- GEF funding supports integrated eco-system management, land-use planning, sustainable land & water management

Badia Rangelands Development Programm, Syria:

- improves resilience and enhances drought preparedness

Diagnostic study for enhancing IFAD support to climate change adaptation in Syria: Analysing the interface between Syria's national communication on climate change and its 5-year development plan, to support the integration of climate change into national programming

IFAD's Grants in NENA- Some examples on climate change

CURRENT:

Regional Water Demand Initiative (WADIMENA)

Implemented by IDRC

Co-funded with IDRC and CIDA

**Community-Based Management of
Scarce Water Resource in NENA**

Implemented by ICARDA

Co-funded with the Arab Fund & Opec Fund

Development Marketplace 2009 on Adaptation to Climate Change

Implemented by the World Bank

Co-funded with GEF and the World Bank

PIPELINE OR NEWLY APPROVED:

**Sustainable Crop and Livestock Diversification
in WANA Marginal Environments**

Implemented by the ICBA

Co-funded with ICBA, Arab Fund & Opec Fund

**Improving Livelihoods of Rural Communities
in the Nile Valley and Red Sea Region**

Implemented by ICARDA



IFAD's programming for NENA 2010-2012: opportunities for adaptation and mitigation

**In NENA, IFAD plans to fund around 15 projects with adaptation elements
– amounting to approx USD 300 million in new investments**

- Egypt:** Irrigation; Rural finance, SME, Private sector partnership (2009, 2011 and 2012)
- Lebanon:** Natural resource management, Water access (2009 and 2012)
- Morocco:** Rural development in mountain areas, Rural finance, Microenterprise development, Natural resource management, Market access (2010)
- Palestine:** Natural resources management, Value chain development, Financial services (2009 and 2010)
- Sudan:** Agriculture development and irrigation; market access for smallholders; Value Chain Development (2009, 2010, 2011 and 2012)
- Syria:** Natural resource management, Improved market access (2010)
- Yemen:** Value chain development and market access ; Fisheries development (2010 and 2012);



Climate Change Grant Proposals (under development)

Sudan: Integrated Carbon Sequestration Project in Sudan

- plantation of *Tuman* and *Marakh* and other drought resistant indigenous tree species seedlings in the dunes area following rain showers;
- social and private forests that may be linked to the voluntary carbon market
- arboriculture and agroforestry practices by: (i) supporting organic food production; (ii) carrying out pilot agro-forestry PES schemes
- sustainable management system based on participatory approaches
- promoting biomass technologies for energy production at the community level: (i) briquetting, (ii) improved stoves and (iii) biogas production.

Jordan: dHRS Irrigation Technology Pilot Project to Face Climate Change Impact (SCCF Technology Transfer)

- test an innovative and environmentally-friendly technology named Dutyion Root Hydration System (dRHS), particularly promising in arid and semi-arid areas as an adaptation measure

Integrating climate change into Development

Possible elements of IFAD Programming in NENA

I. Investments:

- Ensure that development interventions integrate possible climate change impacts
- Up-scale adaptation measures specifically addressing climate change vulnerabilities
- Develop Payments for Environmental Services (PES) schemes

II. KM & Capacity Development

- Promote innovations
(e.g. Regional “Development Marketplace” competitions)
- Carbon sequestration through agriculture?

III. Strategic Partnerships:

- Integrate dynamic modelling of CC- including socio-economic dynamics
- Support development of heat and drought tolerant crop varieties

IV. Studies, diagnostics and advocacy

- Integrate CC into national development plans
- Support NAPAs implementation



Concluding remarks-increase rural women/men's resilience, incomes & environmental co-benefits

To reduce suffering of rural poor -the most vulnerable groups to climate change in arid areas - need to:

Global:

- **Recognise/engage arid and semi-arid areas in mitigation and adaptation work**
- **Increase efforts to enable access to finance and knowledge**, for adaptation and mitigation in drylands
- **Develop mechanisms for mitigation work in smallholder agriculture**

Regional:

- **Strengthen climate modelling**, including socio-economic dynamics (e.g. agricultural policies, employment patterns, livelihood systems)

National/Local:

- **Integrate climate change into development planning**
- **Value & account for environmental/ecosystem benefits from small farmer services**
- (bio-diversity, carbon sequestration, biofuels, protection of land and water, landscape management, etc.)
- **Develop/introduce PES schemes, for small-scale agriculture in arid areas** to be correctly valued/remunerated

Looking Forward

IFAD will act vigorously to get into partnerships with organizations interested in increasing the pro-poor/pro-employment content of their work, with emphasis on the productive and sustainable use of natural resources integrating the phenomenon of climate change.

- Thank you

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