

Policy Challenges and Implementation Arrangements of

GLOBALLY IMPORTANT AGRICULTURAL HERITAGE SYSTEMS

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UNITED NATIONS
UNIVERSITY



Challenges of poverty, food security, and natural resources degradation

With present development trends

- In 2030 world population will double
- Majority of population will live in urban areas
- Arable land expansion will be restricted
- Water Scarcity will Arise at Local and Regional Levels
- Natural Resources Degradation Will Accentuate

Investment policies in General and particularly in Africa have favoured:

- **Industrial and service sector development versus Agricultural and Rural Sector Development**

- **Urban development versus Rural Development,**

» **And Within Agriculture Sector:**

- **High potential areas and lowlands VS low potential areas/highlands**
- **Irrigation intensification VS water conservation and water management**
- **irrigated agriculture VS rain fed and dry farming**
- **Single crop production VS total farm productivity**
- **Land and irrigation development VS land rehabilitation and water conservation**
- **Export crops VS food and local crops**



Australia - The Browns of River View Food expenditure for one week: 481.14 Australian dollars or US\$376.45



China - The Dong family of Beijing Food expenditure for one week: 1,233.76 Yuan or \$155.06



North Carolina, United States : The Revis Family \$342 USD



Great Britain - The Bainton family of Cllingbourne Ducis Food expenditure for one week: 155.54 British Pounds or \$253.15



Tingo, Ecuador: The Ayme Family; \$31.55 USD



Breidjing Camp, Chad: The Aboubakar Family; \$1.23 USD



**India - The Patkars of Ujjain Food expenditure for one week:
1,636.25 rupees or \$39.27**



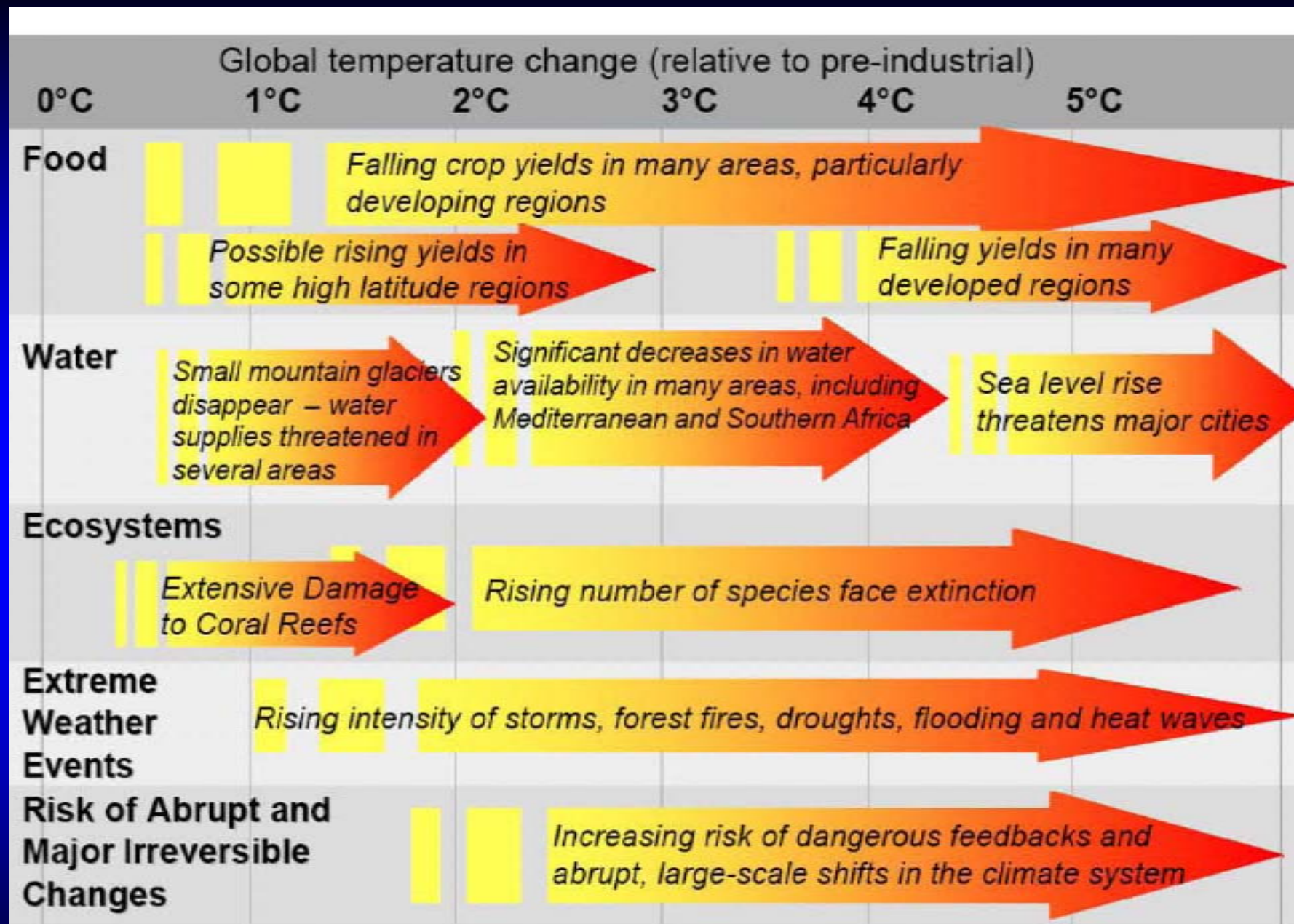
Cairo, Egypt: The Ahmed Family; \$68.50 USD

A major challenge and opportunity: The Small scale farmers

- Produce the bulk of the global food
- Are the largest number of stewards for the environment and its services, biodiversity
- Higher and sustainable productivity increase at their level will have a major impact on poverty reduction, economic growth and climate change mitigation and adaptation

Best options for the poorest?

- **Which work best for the poorest?**
 - great success in past... but still over one billion people are food poor
- **Key questions:**
 - to what extent can farmers improve food production with low-cost and locally-available technologies and inputs under climate change Scenarios?
 - What impacts do these methods have on environmental goods and services, and the livelihoods of people relying on them?



Projected impacts of climate change

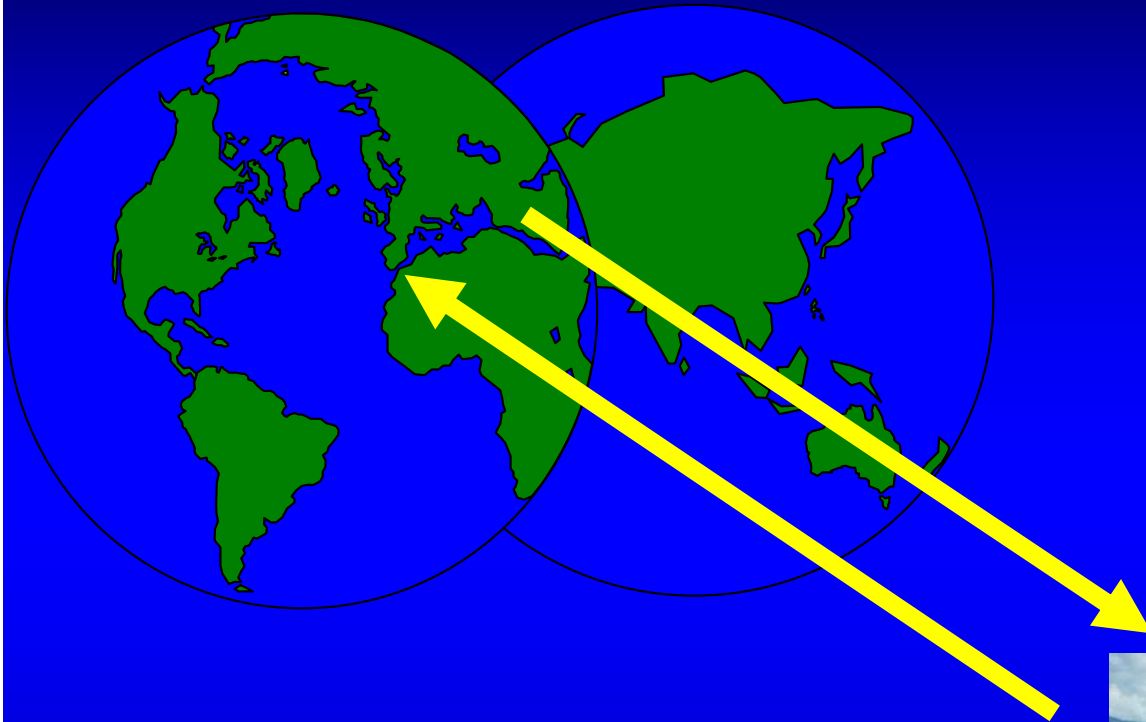


Conditions of Success

- Integrated across sectors
- Promotes diversification
- Enhances positive externalities and reduces negative externalities
- Knowledge-based and nature-based
- Builds on renewable assets
- Participatory and bottom-up
- Use Mixture of instruments
 - economic, advisory, regulatory



Global to local



and local to global



Steps towards sustainability

- Diversify crops and animal enterprises
- Substitute ecological management for off-farm inputs (agrochemicals, fuel, etc)
- Maximize use and recycling of on-farm resources
- conserve soil, water and genetic diversity
- reduce energy use (machinery, equipment) and keep costs down
- Increase functional biodiversity at landscape level

GIAHS Partnership Initiative

Recognizing the importance and sustainable characters of such agricultural systems, in 2002 during WSSD, FAO launched an international partnership – the GIAHS Initiative with support from the GEF and in collaboration with UNDP, UNESCO, UNEP, CBD, UNCCD, and other partners.



An aerial photograph of a mountainous region featuring extensive terraced rice fields. The terraces are carved into the steep slopes, creating a series of green, rectangular plots. At the base of the terraces, a small village with several buildings and a cluster of houses is visible. The surrounding landscape is lush and green, with more terraced fields extending into the distance. The sky is clear and blue.

What are GIAHS?

“Remarkable Land Use Systems and landscapes which are rich in biological diversity evolving from the co-adaptation of a rural community/population with its environment and its needs and aspirations for sustainable development (FAO, 2002)”.



GIAHS are important for their contribution to:

- ⇒ food security, health and nutrition of many poor, helpless and isolated people
- ⇒ humankind and its agri-cultural diversity
- ⇒ **biodiversity and genetic resources**
- ⇒ agroecosystem and landscape diversity
- ⇒ **ecosystems services through functional diversity**
- ⇒ products and services diversity
- ⇒ **collective and individual knowledge systems**
- ⇒ resilience and adaptive capacity to climate change

Examples:

- **Rice based traditional farming systems**
- **Maize and root crop based agro-ecosystems**
- **Taro based systems**
- **Pastoral transhumant and nomadic systems**
- **Ingenious irrigation and soil and water management systems of drylands (oasis and qanat)**
- **Multi-layered home gardens and agro-forestry system**



In China



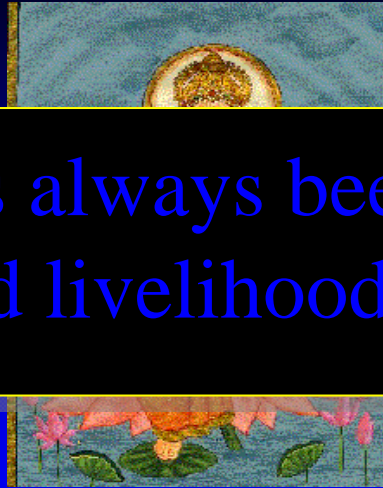
the Goddess **Guan Yin** took pity on humans and gave her milk and blood to create white and red rice.

In the Himalaya



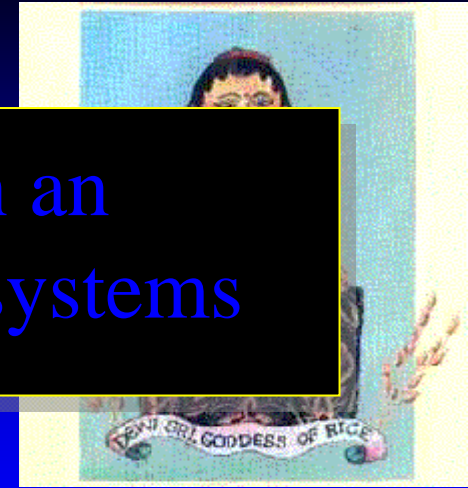
Goddess **Pavarti**, the daughter of the mountains, was the first to grow rice.

In India



Rice is associated with prosperity and with the Hindu Goddess of Wealth, **Lakshmi**.

In Indonesia and Bali.



People perform rituals to honor **Dewi Sri**. As goddess and guardian of rice and the rice harvest,

Tradition and culture has always been an integral part of rice based livelihood systems

In Japan



It is said that the Sun Goddess **Amaterasu-Omi-Kami** grew rice in the fields of heaven, giving the first harvest to **Prince Ninigi**. He was told to take it to "The Land of Eight Great Islands," Japan.

In Vietnam



For the **Rungo** people, the shadows on the moon are created by the Rice Goddess stacking up her freshly harvested rice in the shade of a Bo tree.

In Hindu Temples



Large tapestries of rice cakes are made as offerings to Hindu temples.



NUMEROUS EXAMPLES OF GIAHS EXISTS ACROSS THE WORLD



Peru



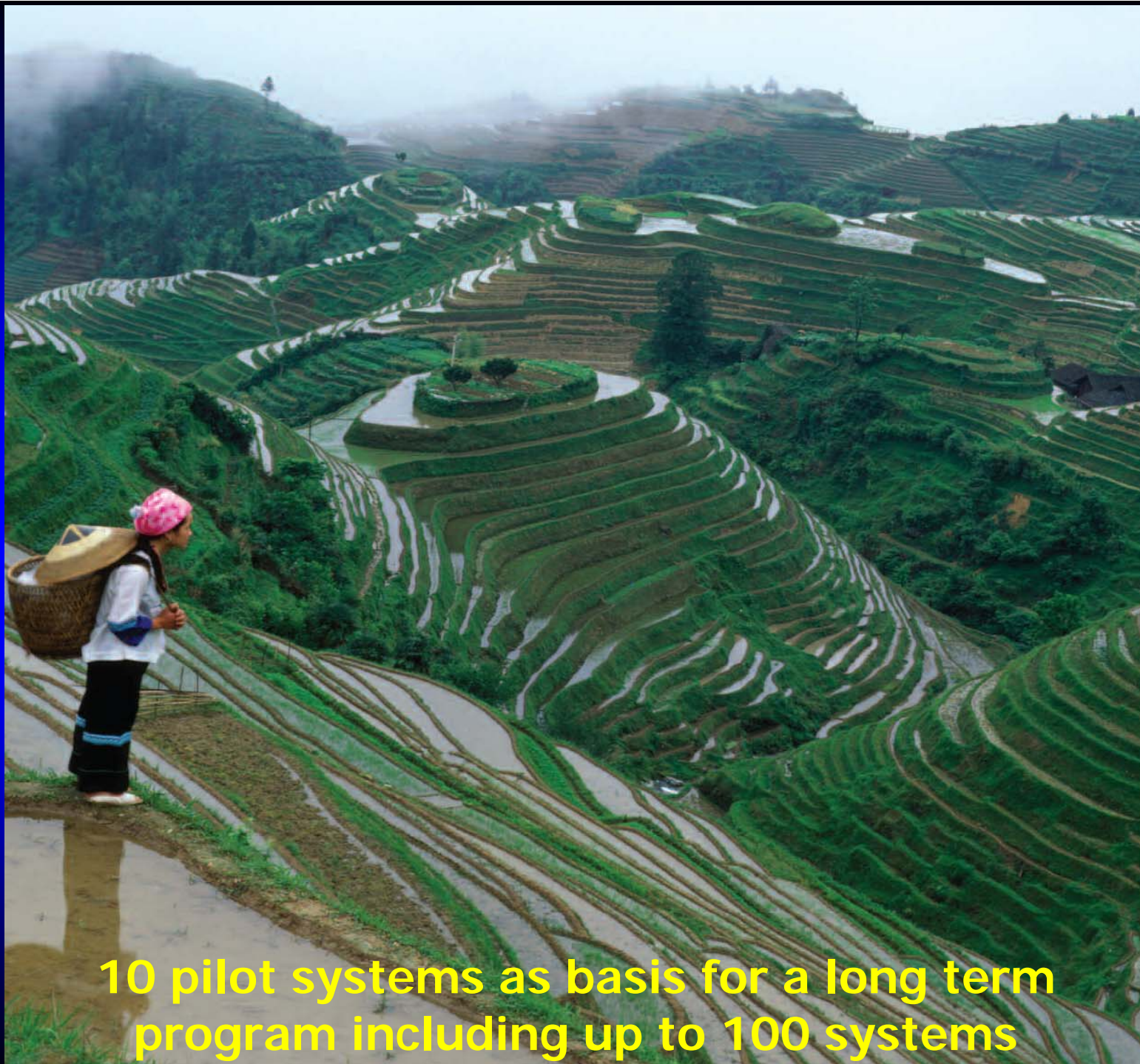
Indonesia



Philippines



Madagascar



10 pilot systems as basis for a long term program including up to 100 systems











THEY ARE UNDER THREAT BECAUSE OF:

- Inappropriate policies and legal contexts,
- Neglect of diversified systems and local knowledge
- Low community involvement in decision making
- Low priority given to *in situ* conservation
- Population pressure and cultural change
- Migration and neglect of small holders and family farming



Overall goal of GIAHS Initiative

to “protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements”, specifically within agricultural systems. CBD: Article 8(j)

Objective

to promote dynamic conservation and adaptive management of globally significant agricultural biodiversity harboured in globally important agricultural heritage systems.

GIAHS IS BASED ON THE FIVE ASSETS OF RURAL SYSTEMS

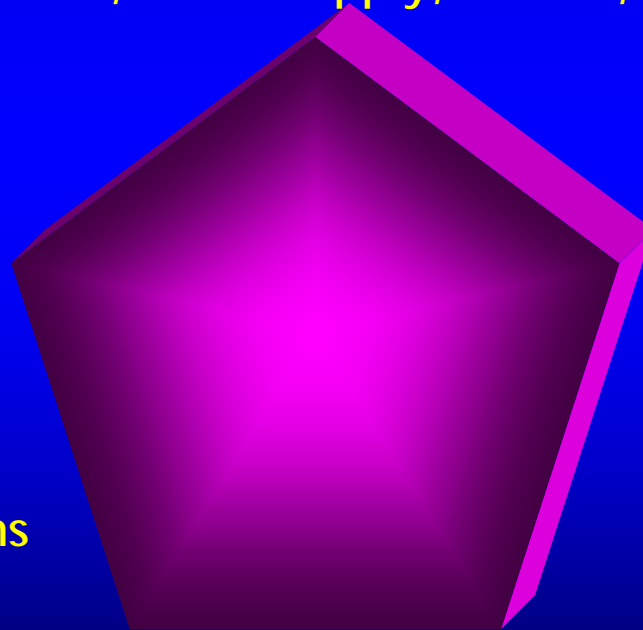
Natural Capital:
nature's goods and services
(waste assimilation, pollination, storm protection, water supply, leisure, wildlife)

Social Capital:
cohesiveness of people and societies - trust, reciprocity, rules and norms, networks and institutions

Human Capital:
the status of individuals - health, skills, knowledge

Physical Capital:
infrastructure

Financial Capital:
money, savings



Examples ...



Native potatoes, Peru

Rice-fish culture, China



Gafsa oases, Tunisia

A woman wearing a wide-brimmed hat, a yellow long-sleeved sweater, and a patterned skirt stands in a rocky, mountainous landscape. The background shows rolling hills and a valley under a cloudy sky.

➤ **At Global level**

by identification, selection and recognition of GIAHS

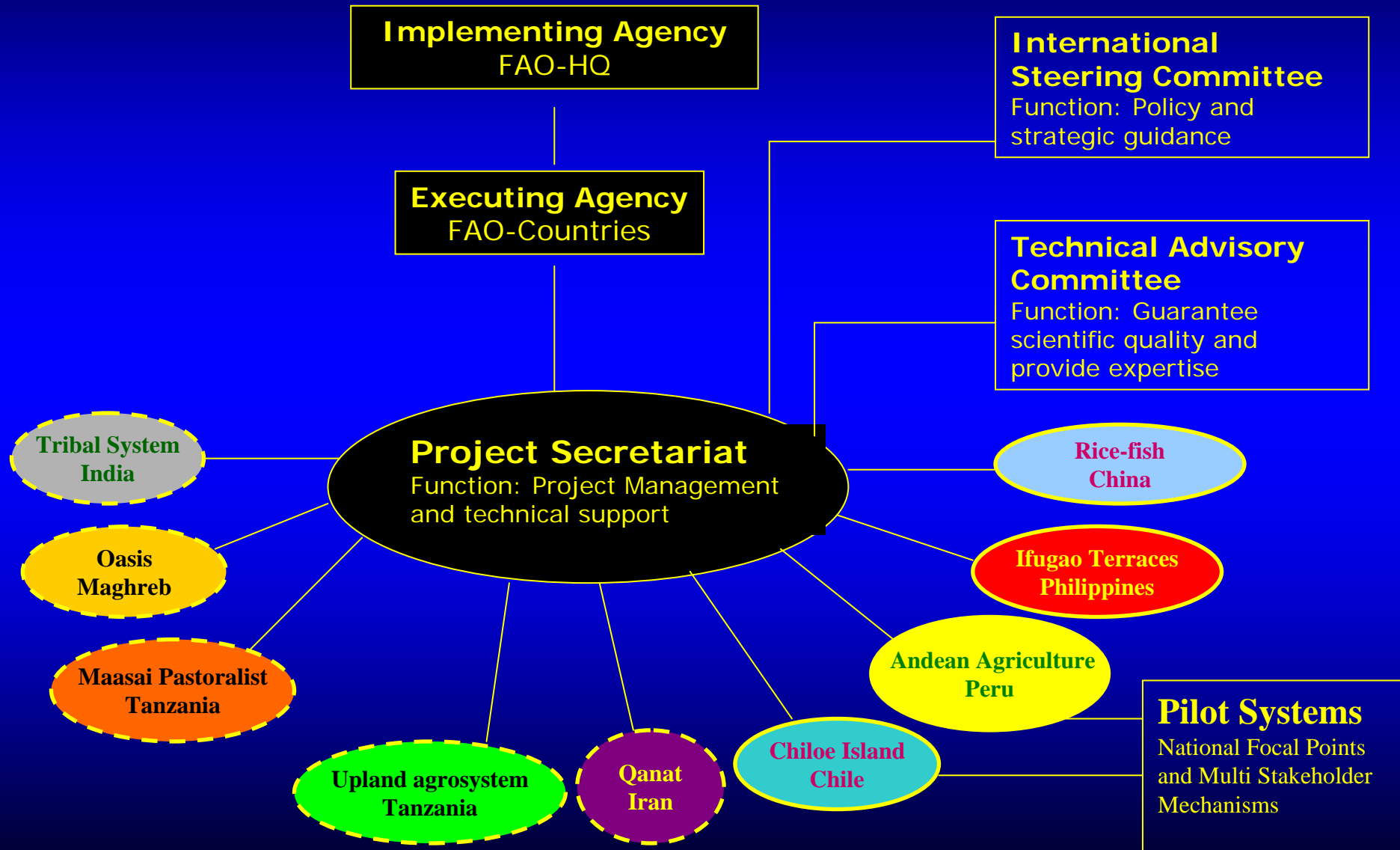
➤ **At National level**

by capacity building in policy, regulatory and incentive mechanisms to safeguard these outstanding systems and use them as sustainability bench mark systems

➤ **At Local Level**

by empowerment of local communities and technical assistance for sustainable resource management, promoting traditional knowledge and enhancing viability of these systems through economic incentives

ORGANISATIONAL STRUCTURE OF GIAHS INITIATIVE



**GIAHS is not about the past but it is
about the future**



Satoyama in Japan





Biodiversity is “The life insurance policy for life itself” (Koffi Annan)



Options for future collaboration between Satoyama Initiative and GIAHS

- **Continuous partnership and advocacy whenever possible at global level**
- **More focused on specific countries and specific concerns such as Payments for Environmental Services, sustainable livelihoods approaches, indigenous and traditional farming communities, etc**
- **A UN-wide partnership including FAO, UNU, UNEP, CBD, etc. targeted at policy level.**



Thank you

www.fao.org/nr/giahs