

Plastic Soup and Dead zones: Source prevention for cleaner seas

Addressing Food Security and Nutrition

through a **Source-to-Sea (S2S)** approach

Olcay Unver, FAO

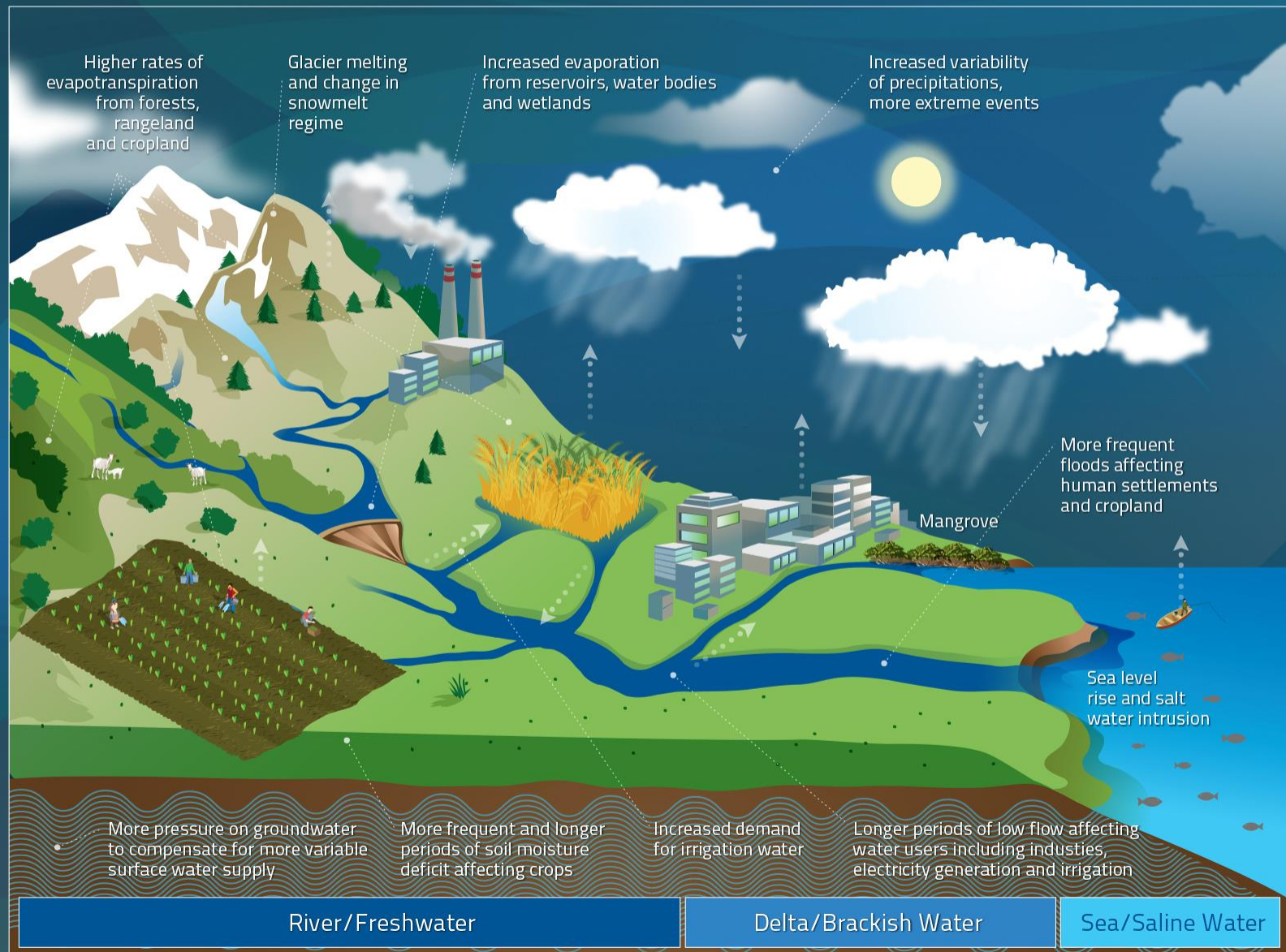
Amani Alfarra, FAO



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FAO Works within S2S to achieve Sustainable Food Security & Nutrition



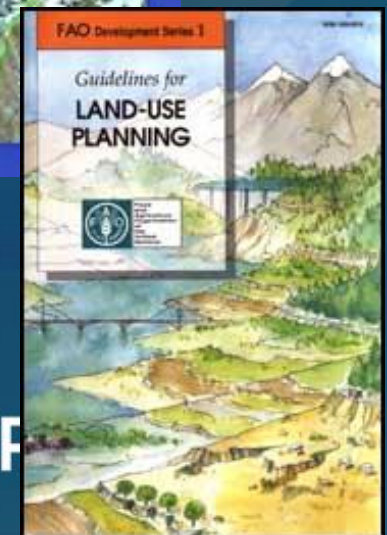
FAO developed guidelines with an integrated approach in 1998

Socio-ecological zones (interconnectivity)

- Local community : natural resource use
- Local government : interface
- National development programmes : larger ecosystem **policies**

Institutional **system**

- Fit existing structures and **mechanisms**
- Jurisdiction
- Responsibilities
- Competence and role of line-**agencies**
- Stakeholders



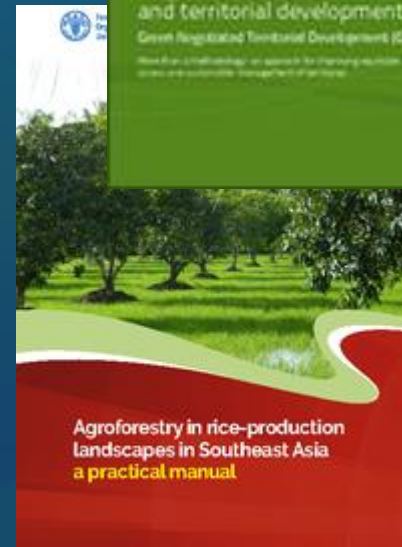
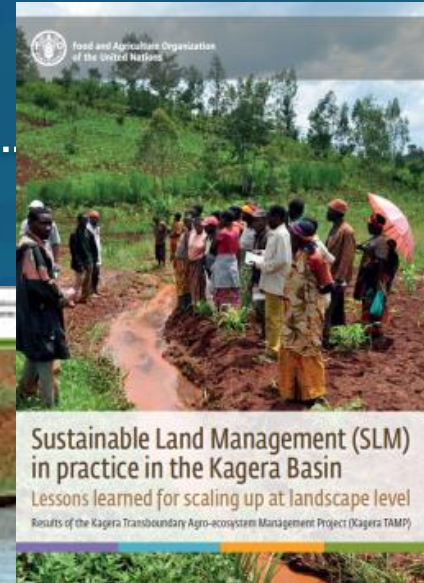
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More recent work with an integrated landscape approach

- Integrated watershed management
- Forest and landscape restoration
- Coastal area management
- Agro-ecology
- Climate-smart agriculture
- Sustainable land management
- Agro-ecosystem approach
- Incentives for ecosystems services
- Negotiated territorial development

...carried out with partnerships



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FAO's contribution to S2S approach

FAO's past/ongoing experience shows the need for:

- Holistic territorial vision, focus on water and up- downstream interconnectivity
- Cross-sectoral/inter-institutional work
- Environmental impact, and, food security & safety evaluation of agricultural/ non-agricultural chemical & wastes
- Medium/long-term strategies, policies, planning & action
- Full stakeholders' involvement at different levels
- Equitable territorial distribution of investments & service supply



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FAO's contribution to S2S approach

by working with national/international partners at all levels offering its experience/skills:

2 ZERO HUNGER



6 CLEAN WATER AND SANITATION



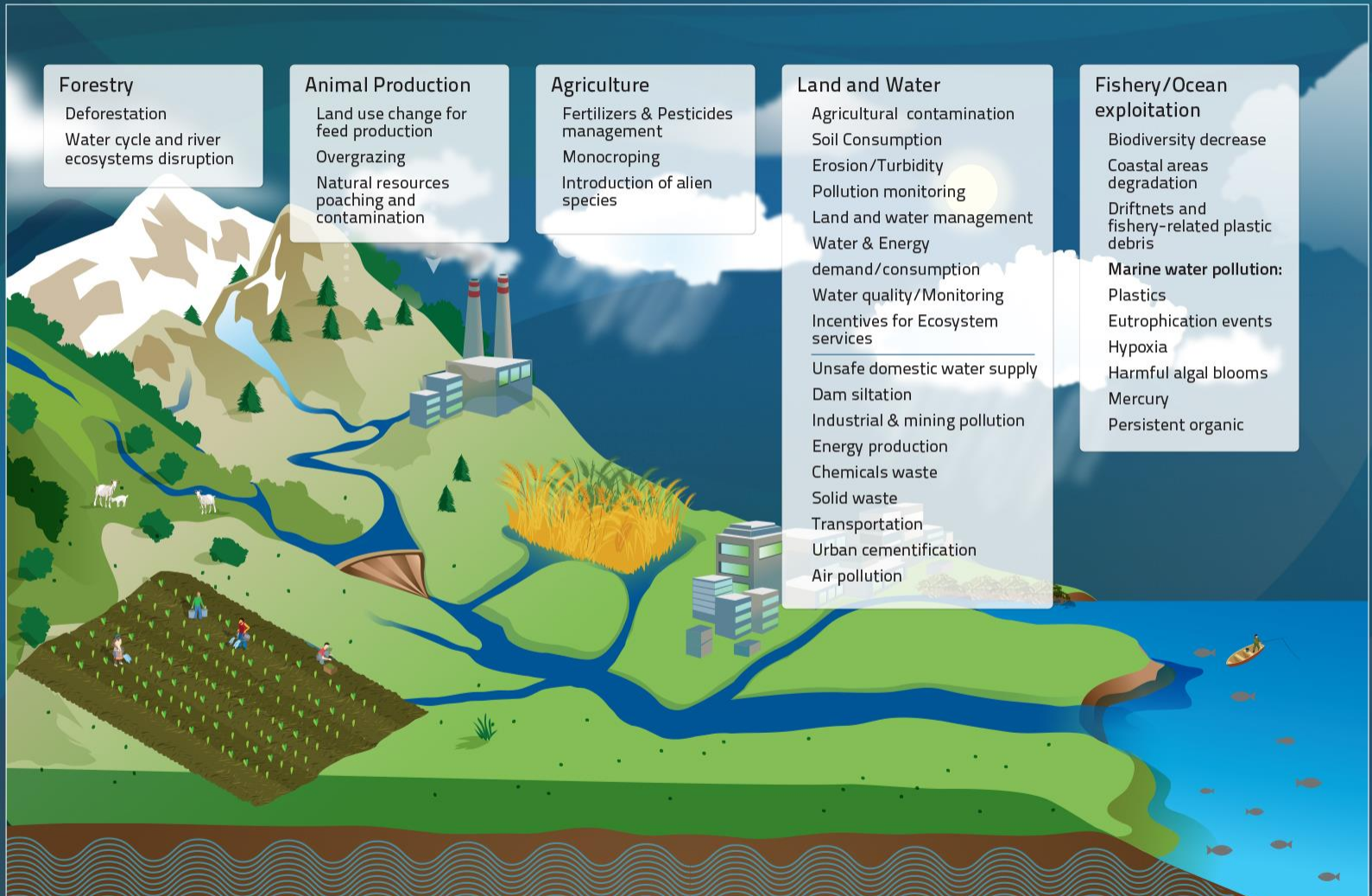
12 RESPONSIBLE CONSUMPTION AND PRODUCTION



14 LIFE BELOW WATER



15 LIFE ON LAND



Contribution to Food Security and Nutrition

- Diversified agriculture production systems to ensure food security, nutrition and safety
- Focusing on agro-ecologically suited production systems
- Preservation and promotion of forest and biodiversity
(e.g. forest foods to improve diets)
- Adoption of multisector/interdisciplinary approaches to tackle immediate, underlying & basic causes of malnutrition
- Diverse, healthy and sustainable diets positively contributing to address malnutrition
- Better resource management to improve food environments & food systems (from farm to plate/from sea to plate)
- Improved handling, processing & storage to prevent food & nutrient loss (e.g. aflatoxins)
- Capacity building and knowledge transfer and management



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ECUADOR/FAO/GEF - PROMAREN project

Interconnected multi-actor planning & implementation by altitude ecosystems

Full national execution through inter-institutional, CSOs & public/private dialogue

Integrated watershed mgmt. addressing diversified altitudinal areas/ecosystems with focus on water resources

Improved food production, access & diet

erosion control, source protection, chlorinated drinking water supply, improved irrigation water use, rangeland mgmt., efficient crops/milk storing systems, bio horticultural & livestock products, awareness raising/capacity development, etc.

Diversified & increased household income sources, including through value chain development (milk, alpaca & vicuna wool, certified potato seeds, silos, etc.)

'Package' compensation scheme for environmental services (CES)
(national government incentives, local governments funds, private sector co-investments, negotiated increase in irrigation & domestic water charges, etc.)

Enhanced cross-sectoral territorial vision, planning & implementation capacities at Government and users level



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Data harmonization:
Biophysical/economy
/institutions

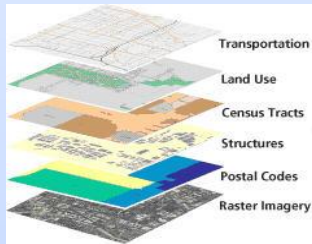


TABLE 2

Growth based on height and collar diameter of *Swietenia mahagoni*, *Dysoxylum turbinatum*, *Gmelina arborea*, *Albizia coriariiformis* and *Styragium grande* seedlings at 3 months (averaged on per se) collected from defoliated and natural forest from Delhazari, Bandahaleh

[illegible]

Notes: Each value is the mean of 5 replications; ** indicates the values are significant ($p < 0.05$).

NFS = Natural forest soil and DLS = Deforested land soil.

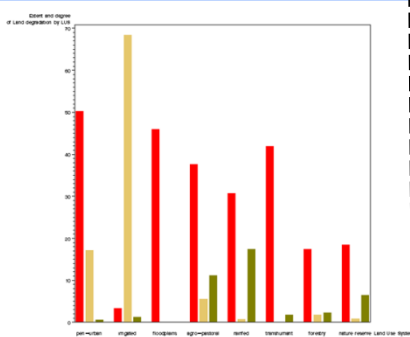


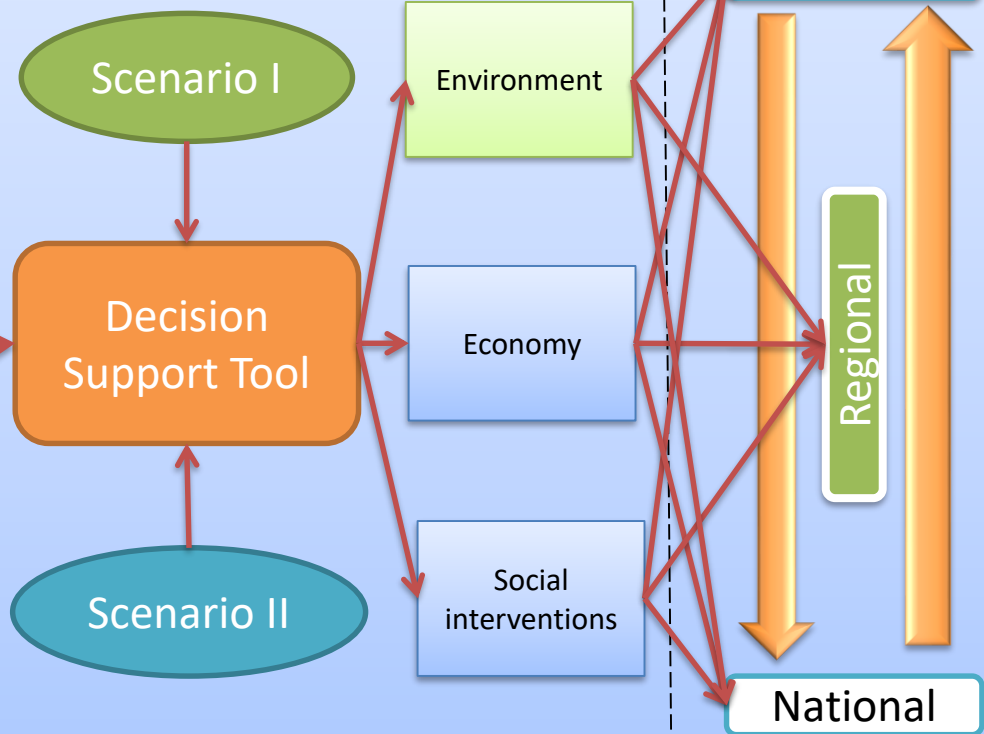
Figure 3.9 Area share for the rate of land degradation by production system: red = increase; sandy brown = stable; green = decrease.

Data processing/ calibration

DST for policy scenarios

Policy guidelines

Upscaling successful interventions



Towards a global program on Source to Sea



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Thanks

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Nutrition-Boitshepo Giyose

Plant production & protection - Debra Turner
& Gerold Wyrwal



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