

# **Integrated Land and Water Management for Food Security: Lessons Learned**

## **Session 2: Improving Agricultural Water Management**

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# The Argument

- Food security refers to both production and distribution of agricultural produce;
- A focus on food production requires in turn a focus on key inputs of land and water resources;
- With increasing scarcity of both and more conflict, we must address issues pertaining to optimizing production (efficiency);
- Greater productivity can be achieved through integrated management of both resources.

# Against a Backdrop of...

- Increasing Population;
- Growth and Development interspersed with Natural and Man-made Shocks;
- Persistent poverty, rising inequality;
- Variable Political/Security Stability at Regional and National Level (esp. post-conflict situations);
- Changing climate!

# Therefore...

- Integrated land/water management is increasingly recognized as a key component for achieving sustained growth that promotes poverty reduction, equity, and food security.
- The issue is how to achieve greater agricultural productivity through more efficient use of land and water resources under demographic and climate pressure and increasingly contested.

# Several Issues Stand-Out

- Institutional Arrangements
- Governance
- Development Planning
- Role of Science
- Information and Knowledge
- Capacity Building

# Institutional Arrangements

- National systems routinely separate the two “sectors”, which may then compete for scarce resources and pursue different objectives, or the same objective albeit differently.
- There is a need for genuine structural coordination and a consolidation of authority at the policy level.
- At the sub-national level, basin and sub-basin approaches that truly integrate land and water management are needed in terms of practice and implementation.
- There is a need for aligning the policy and planning objectives both vertically and horizontally.

# Governance

- Land and water tenure rights (and obligations) are routinely not clear, and jurisdiction governing such rights are equally unclear;
- Thus creating situations in which strong outside actors are able to gain control over and access to land and water resources, at the expense of poor, local actors.
- Tenure rights and obligations as well as the roles and authority of different jurisdictions need to be clarified, and;
- Dispute resolution mechanisms need to be fair, impartial and enforceable (involving individuals, groups, corporations, and official entities).

# Development Planning

- Changing perspectives: Agriculture and water together as a broader, integrated eco-system
- Integrated land/water management requires a long-term planning horizon, shifting away from short term project interventions.
- How can governments, DPs, and CS incorporate longer-term planning cycles into regional and national programs? How to engage private sector interests?
- How to build multi-party commitments to these issues so that programming approaches are not disrupted by political cycles?

# Role of Science

- Increasingly important => requires substantial and sustained support
- Building strong linkages:
  - - science and policy
  - - science and farmers
  - - science and civic society/advocacy
- Whose Science? Who defines the research agenda?

# Information Management

- There is often a lack of accurate and transparent data available regarding land and water resources, that creates
- Ambiguity/opportunities for powerful actors to obtain/maintain control over resources.
- Data collection and information need to be systematized, routinely updated, and publicly available.

# Capacity Building

- How to build capacity at key strategic points in the policy environment in the shorter-term, while
- Strengthening science component of education systems over the longer-term?
- A real need to target natural resource management training at the teacher level (e.g. developing new science curriculum, while
- Undertaking special interventions for policy makers & CS (e.g., non-formal ed, scholarships).

# Ways Forward

- We need to view land+water as integrated eco-systems;
- We need more information about how to most efficiently integrate land/water resources to increase food security;
- We need transparent dialogue between policy makers, the private sector and citizens (the public) about integrated management of land and water resources;
- We need institutional arrangements that facilitate and promote integrated approaches to land/water management;
- We need governance arrangements that are clear as well as fair and objective;
- We need to build capacity at all levels of society that strengthens the role of science and listens to local knowledge.