



Regional Learning & Advocacy Programme for Vulnerable Dryland Communities



OUTCOMES OF THE CROP AGRICULTURE IN THE DRYLANDS WORKSHOP, WEDNESDAY FEBRUARY 6, 2013, JOHN VERCOE AUDITORIUM, ILRI NAIROBI CAMPUS

[REGLAP](#) and ILRI organised a validation workshop on the 6th February 2013 for two studies carried out by FAO and REGLAP, at the International Livestock Research Institute (ILRI) Campus in Nairobi. FAO had contracted Oca consultants to do a study on *the threats and opportunities of irrigation development in Kenyan drylands*, while REGLAP had contracted Mike Mortimore to do a study on *the appropriateness of crop agriculture for resilience promotion in drylands of the Horn of Africa*.

The objectives of the workshop were: ***to present and get feedback on the key findings of the studies and to develop an action plan to promote improved practice in dryland crop agriculture in the future.***

The workshop was attended by over 50 people from government, NGO, CSOs, UN, researchers and donors. This report presents a summary of the presentations, discussions and a framework for action.

The workshop was opened by Polly Ericksen from ILRI, who thanked members for making it to the workshop which was jointly organised ILRI and REGLAP. She said that ILRI was happy to host as it has a cross research programme focusing on dryland development. She briefly introduced Mike Mortimore and welcomed Suji to facilitate the presentations.

SESSION 1: PRESENTATIONS

A: Phares Ragwe, Oca Consultants - Opportunities and threats of irrigation development in Kenyan drylands (see powerpoint)

Study objectives: to inform investment in irrigation in Kenya's drylands focusing in Daua, Tana, Turkwel and Kerio river basins and Merti aquifer.

Conclusions:

- Irrigation potential is limited due to scarcity and quality of water;
- Most schemes are perennially dependent on outside assistance hence sustainability is doubtful unless they are commercialized;
- On contribution to livelihood, existing irrigation projects have contributed to food security and household incomes;
- Irrigation development affects availability of dry season grazing and livestock corridors hence agro-pastoral-pastoral conflicts;
- Negative environmental and social impacts exist (soil erosion, salinisation, increase water borne diseases, human-wildlife conflicts, new crop pests and diseases and invasives) but most of these can be mitigated through appropriate ESMP

Q & A

Q: Clarification on calculation of 9,000 litres of milk annually per person in the pastoral areas

A: This estimate was based on the assumption that every person consumes 2 litres of cattle milk per day.

B: Mike Mortimore - Appropriateness of crop agriculture for resilience promotion in drylands of the Horn of Africa by (see powerpoint)

Key issues raised:

- Overview of the context: variability – temporal/spatial, food security, resilience, demographic change, markets
- Strengths, weaknesses, opportunities and constraints of irrigation
- What is success/success for whom in small scale irrigation: state revenues, the economy, urban consumers, farmers (well off, middle income or poor?), women, children, elderly, biodiversity and ecosystem conservation
- How to get the balance? Finding optimal combinations of livelihood systems for resilience in the drylands.

Q&A&C:

C: ASAL Policy Paper was launched on the 5th February 2013, and is a useful reference document.

Q: Any linkages between these investments in dryland agriculture and other extension services required as aspects of sustainability?

A: It was suggested by many people Mike interviewed that extension services need to include health, nutrition, livestock and agriculture.

Q: Does it make general economic sense to invest in agriculture in the drylands (whether irrigated or rainfed) vis-à-vis livelihoods support for pastoralism, since they are countries that are mainly dryland and livestock based, yet food secure?

A: In for example the Awash Valley study by IIED that analysed the profitability of government initiated sugar and cotton plantations compare to mobile pastoralism. It was found that mobile pastoralism was found to be more economically viable than cotton, and sugar. Although sugar was more profitable when processed on site.

“What are some of the policy recommendations made to governments, and which ones are they taking up? How are people dealing with the fallout from their livelihoods? Governments not dealing with core roots of fallout, so how desirable is focusing on agriculture as an option without answering the root programmes”

SESSION 2: GROUP DISCUSSIONS

(a) TECHNICAL GROUP

SUSTAINABLE BALANCE OF LIVELIHOOD SYSTEMS:

- Livestock and agriculture policies are not integrated, but are seen in isolation.
- The ALFA Bill in Kenya has been passed but there are concerns about it.
- There is a need to engage with different government offices to integrate livestock to agriculture for healthy environments and promote co-existence of pastoral and agriculture activities
- Consider the key role of water and that it is shared between different uses and livelihoods. This is needs to be done as per the context and with community involvement.

Technical interventions

- The need for economic and physical infrastructure
- Enhancing multi-cropping and pasture and multi-purpose agro-systems (i.e. push and pull approaches)
- There is a substantial technical capacity gap e.g. post-harvest conservation of fodder.
- Land tenure needs to be secure including communal tenure.
- The need for early warning systems and information to be widely shared- weather predictions, pests and diseases, plus general information, e.g. soil quality and hydrological information, the need for investment in infrastructure ahead of emergencies
- There are weak extension services (in Kenya, extension is demand driven), there is also little sharing of information between development agencies, ministries and NGOs.
- There is need for improved coordination and communication strategy considering WHAT, WHO, WHEN. In Kenya ASCU seems to be the right forum for information exchange.

CRITICAL SUCCESS FACTORS:

Rainfed agriculture

- Need on soil and water conservation
- Choose the right crops for the right agro-ecological conditions
- **Action point:** This information has already been generated by **KARI (need to disseminate)**

Irrigated agriculture

- Strong water users associations and local resource governance needs to be promoted.
- Successful micro-irrigation at household level can be replicated in agro pastoral areas

Technology transfer methods:

- Group based methodologies and peer knowledge
- Use appropriate mechanisms to reach targets e.g. community learning centres, radio etc.
- Promote more accessible extension services,
- Promote livestock and agricultural contents in formal education curriculum.

Conditions for local technical experimentation and innovation

- Explore the indigenous knowledge and traditional practices
- Use indigenous species
- Exchange visits including cross border
- Provide education in the community
- Access new technologies and capital
- Criteria to target community members to transfer technology and information (including gender)
- Economic viability and profitability (livestock and agriculture)

ROAD MAP/Framework FOR ACTION

1. Research gap: returns from small scale irrigation versus livestock
2. Create awareness and present REGLAP and FAO reports to NDMA, Kenya Food Security Working Group and Regional Food Security Working Group and use existing forums as much as possible;
3. REGLAP and FAO to prepare a brief of key recommendations and studies and more meetings;
4. Prepare results in a regional meeting on dryland agriculture (April, Addis Ababa);
5. Enhance coordination between policy makers and implementers- for Kenya, we need to make structures work including at county level and in some countries we may need to start from scratch;
6. KARI to share with FAO and REGLAP good practice guidelines on production practices and standards in order to develop a synthesis and share with practitioners including implementers of Farmers Field Schools and Pastoral Field Schools;
7. Encourage lessons learned from past experiences including impact assessments of irrigation schemes and monitoring of impact to ensure implementation is improved and adjusted;
8. Promote community participatory approaches for planning to minimise conflict (i.e. protect strategic resources, markets and migration routes by IGAD);
9. Strengthening and involving community in planning and management of resources at the county level and promoting linkages between community and county plans;
10. Advocate on observation of IGAD protocols on animal movement through borders;
11. Improve access to information through a review of what is accessible and how useful it is;
12. Link to knowledge management structures at national and regional levels.

(b) SOCIO-ECONOMIC/ FINANCIAL GROUP

SUSTAINABLE BALANCE OF LIVELIHOOD SYSTEMS:

Underlying issues to be looked at:

- Trade presence in the ASALs
- Physical infrastructure
- Innovation and innovation of new technology
- Adaptation to climate change through community learning programmes e.g. Garissa by CARE
- Financial institutions
- Legal framework for protection
- Increased and sustained production and income
- Exports from livestock products
- Urban migration of humans and livestock in the local towns. It was noted that many of the people in urban settlements are still part of the pastoral economy.
- Proceeds from farming are often used for restocking
- Education-both formal and informal
- Less aid dependency

CRITICAL SUCCESS FACTORS:

- Little land is required
- Utilization of high value crops
- Infrastructure is put in place
- Using a holistic approach- integrate pastoralism so as to feed the livestock on the residues as has been done in Ethiopia
- Where there are potential markets e.g. Middle East market for livestock
- Water harvesting technologies in place
- Utilizing good gravity systems as has been tried in some of the irrigation schemes in Kenya
- Consistency to develop market opportunities for continued production (HOW??)
- Encouraging crop diversification on the side of private industries, e.g. Kenya Breweries Limited utilising sorghum instead of barley to make beer
- High acreage for irrigated agriculture
- Huge storage tanks for rainfed agriculture. Is it worth the investment?
- Critical analysis of policy options and how they conflict

e.g. the importation of food yet some of the areas identified have the potential to produce enough food

Research gaps:

- The proportion of riverine land that is privately owned.
- Levels of mechanization for rain-fed agriculture in the drylands and the cost of labour in the drylands compared to high production areas.
- Trend analysis of the benefactors of pastoralism and agricultural production in the drylands, including ethnic and age bracket compositions.
- Cost and benefits analysis of both irrigated and crop agriculture in the drylands including investment returns.

FRAMEWORK FOR ACTION/ROAD MAP:

- 1. Enhancement of capacities-** invest in formal education, conservation agriculture, promote commercial farming and improve use of appropriate technologies
- 2. Improvement of finance systems-** innovations around mobile money, agent banking systems, and other community owned financial institutions
- 3. Improvement of income generating ventures** - integrate agricultural production with livestock to be complementary and add value; targeted economic interventions e.g. high yielding seed varieties; link with private sector to encourage contract farming
- 4. Fair access** - clear plan for *community-driven* land use to minimise conflicts related to access to land; increase land access especially to women; create awareness on the two reports by REGLAP and FAO; urbanization in the communities to provide youth employment
- 5. Integrated framework-** public investments with strong support for vulnerable groups; localisation of industries for animal products and indigenous herbs, gemstones
- 6. Develop private-public partnerships** (mobilise economic investments)

Discussion

- 1.** The two main challenges to policy implementation identified are lack of legal instruments to enforce policy and a lack of policy integration.
- 2.** The capacity of IGAD in supporting regional knowledge management platform was questioned, and it was confirmed that for regional issues, it has mandate and it's capacity is being built. IGAD is coordinating the current IDDRSI initiative, which provides a framework for member states to promote resilience. A knowledge management platform is among the 6 pillars of priority investment areas. Mechanisms are already in place to enhance this.
- 3.** The need to "*Learn from Mistakes*". A participant suggested that there is need to document and package the information on irrigation schemes that were very active during the 1970s that have since collapsed. The Ministry of Agriculture confirmed that rehabilitation of 9 collapsed irrigation schemes have been ongoing, 5 of which are complete in Mwala, Mbeere and Meru South.

(c) INSTITUTIONAL/ POLICY/ ENABLING CONDITIONS GROUP

SUSTAINABLE BALANCE OF LIVELIHOOD SYSTEMS:

For a sustainable balance there has to be a paradigm shift and perspectives from different actors.

- It is necessary to recognise that it is a technical area that needs co-ordination and has to be informed by science as well as social needs. There should be a platform for sharing experience.
- Irrigation should enrich existing livelihoods (diversification).
- Why is irrigation being promoted? Is it a matter of perceptions versus reality? How policies have enables/disabled? There is an incorrect assumption that everyone has to grow their own food, when they can in fact produce other products that they can trade.
- What are the threats to sustainable balance? What are the truths, half truths, misperceptions?

CRITICAL SUCCESS FACTORS:

- Social and economic infrastructure
- Compatible cultural values
- Community based structures and institutions
- Demand driven to address community needs
- Market business opportunity
- Governance structures
- Involvement and ownership
- Proper management
- Local knowledge
- Effective government support systems.

The above will be effective with security, holistic strategic development plan, coordinated and integrated approaches.

ROAD MAP/ FRAMEWORK FOR ACTION

- 1. Partnership:** strengthening IGAD and national institutions, promoting private public partnerships and multi-level partnerships
- 2. Coordination:** learning networks, joint implementation strategies, shared roles and responsibilities and strengthening coordination mechanisms
- 3. Training/empowerment:** on rights and good governance, strengthen resource users associations, conflict management, natural resource potential and opportunities
- 4. Planning:** participatory planning and water use, comparison of alternative of land uses, mechanisms for ecosystem/landscape approach
- 5. Research:** document best practices, assess resource tenure, compile indigenous knowledge, climate hydrological monitoring, and harmonisation of policy

The meeting was closed at 5 P.M by Paul Omanga, from FAO. He urged people to do more research about food production systems in the drylands and on whether pastoralists will take alternative livelihoods permanently, or if conditions change, will they be able to go back to their previous livelihoods. He also thanked those who produced the two reports and encouraged people to take up the action points and work together to promote more appropriate crop agriculture in the drylands.