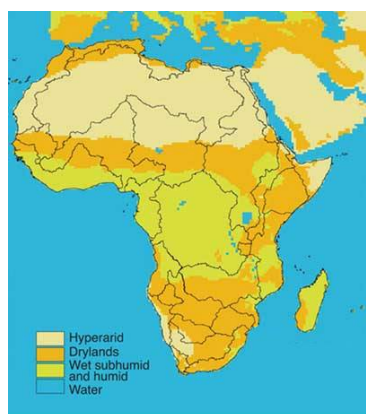


## AIDA Policy Brief - Why invest in Africa's drylands?

J.Francis<sup>1</sup>, R. von Kaufmann<sup>2</sup>, D. Clavel<sup>3</sup>, A. Ekwamu<sup>4</sup>, D. Hamidou<sup>5</sup>, H. Mloza-Banda<sup>6</sup>, A. Mwangombe<sup>7</sup>, J. Verhagen<sup>8</sup>

### Context

In Africa, 43% of the land area is classified as drylands and annual water availability per capita is about 5,000m<sup>3</sup>. This includes several countries in: the Sahel, the Greater Horn and some parts of Southern Africa. 268 million people, more than 40 % of the continent's population, live in these areas and many of them depend on farming and pastoralism for livelihoods and food.



In Kenya, for example, about 36% of the national population and 50% of the livestock are found in drylands which occupy over 80% of the country. Over the years, dryland people have learned to cope with the very harsh and variable environmental conditions. However, the continuous threat from further soil degradation and increasing water

scarcity, are overstressing their traditional resilience and adaptation strategies. Increasing human and livestock populations, climate change, incoherence in national and international policies and lack of long-term funding for research programmes that build on local knowledge are aggravating the situation. The increasing conflicts, poverty and food insecurity and inability to

sustain ecosystem services are priorities for governments, donors, non-governmental organizations, researchers and the dryland people themselves.

The perception that Africa's drylands are non-productive remains and their importance and contribution to the food and nutrition security and livelihoods of drylands people is not being given sufficient attention. The challenging environmental conditions suggest that little can be done to sustainably raise productivity and improve livelihoods. Yet, on the contrary, Africa's drylands have considerable potential for development and can provide multiple goods and services: crop, forage and livestock production, freshwater catchment, biodiversity conservation, tourism, energy, and carbon sequestration. That is provided that the right balance can be found in dryland policies and programmes that are aimed at; increasing food security, reducing poverty, improving livelihoods, achieving natural resource management and ecosystem sustainability (biodiversity, soil and water) and enhancing local adaptation strategies to cope with climate change.

The Agricultural Innovation in Drylands of Africa project (AIDA)<sup>1</sup> analyzed rural development initiatives, identified key drivers for success and proposed policy options for investing in the sustainable development of Africa's drylands. This policy brief is an output of the project and is aimed at sensitizing all stakeholders who have an interest in investing in the future of Africa's dryland.

### There are successes in Africa's drylands

Since 1995, in Mali, building on a traditional practice of ridge tillage, a new technique of field arrangement along contour lines was tested. Contour lines are permanently marked in the field by a large ridge covered by natural grass. Farmers then work parallel to the ridge. The resulting inter-ridge becomes a basin that holds rainwater. This water conservation technique, increases soil fertility and quality and respects traditional land rights. It has been adopted by significant numbers of farmers. (Traoré, K. et al., 2007)



Photo: T.F. Shaxson, FAO Bulletin No. 79

Following a study tour to Yatenga region in Burkina-Faso, Nigerien farmers introduced the traditional zaï technique for rehabilitating degraded soils in the Illela District in Niger. They developed it into an integrated water harvesting and soil fertility management technique. This improved practice of conservation agriculture, spread farmer-to-farmer, and led to the rehabilitation of 9,000 ha barren and encrusted land. (Hassane, A et al., 2000)



Photo: R. Lahmar, CIRAD

## What contributes to success?

The following list is not exhaustive but it indicates the factors that can lead to success in Africa's drylands. These are:

- Participation of dryland communities in policy and programme identification and development to ensure local ownership of rural development initiatives;
- Partnerships between and among all the different actors/stakeholders in programme implementation;
- Availability of innovations and co-investment by government, donors and the communities, to up-scale them;
- Enabling policies that facilitate secure access to land and water resources, credit, inputs and markets;
- Demand-driven research, and science and technology interventions using multi-stakeholder participatory processes that build on local knowledge;
- Education, training and communication that integrate farmer-to-farmer transfer.



Photo: R. Lahmar, CIRAD

## What investments to pursue for the development of Africa's drylands?

Policy makers and other stakeholders including researchers believe that the following are necessary investments for the sustainable development of Africa's drylands:

- Good governance and holistic policies that are consistent with the realities of Africa's drylands and their people;
- Equitable allocation of and access to resources;
- Strengthening capacity in natural resources management (soil, water and biodiversity) and ecosystems services;
- Long term funding for research on dryland issues that enable local communities to participate in the research design and uptake and out-scaling of results;
- Development of trading and marketing systems which reduce transaction costs and maintain equitable terms of trade for dryland people especially at times of climatic stress;
- Appropriate institutional structures and arrangements for encouraging and facilitating sustainable land use practices e.g. conservation agriculture and water harvesting techniques, improving crop and livestock production systems, enhancing food security and facilitating market access and enhanced intra-regional trade;
- Infrastructural development – roads, telecommunications, schools, health services.

## Conclusion

Much can be achieved in Africa's drylands if policies and research programmes reflect the realities of dryland ecosystems. It is essential to recognize and involve traditional users and owners of the drylands in policy development, programme planning, research design and implementation and in monitoring and evaluating co-innovation processes. In drylands, mobility is not just a key survival strategy; it is also an appropriate approach to sustainable land use which needs to be facilitated, sometimes across national borders. This requires complementary regional and national policies that will enhance environmental sustainability, reduce resource-based conflicts and facilitate trade. Research in support of drylands agriculture should reflect the diversity of local adaptation strategies and dynamics and the holistic ethnic science that produced them. Enabling education, access to information and learning are key strategies for enhancing knowledge for sustainable development. Two-way interactive communication is also critical for up-scaling best practices.

**Acknowledgements** - AIDA partners recognize the contributions of Y. Kebede, A. Barro, R. Lahmar, AIDA postgraduate students attached to AGHYMET, University of Nairobi, University of Malawi - Bunda College, WUR ACT postgraduate students and their supervisors, Africa Dryland experts (Antony Esilaba, Tesfay Belay, Gebre Michael, Wellington Ekaya, Charles Gashene, Amon Kabuli, Kalifa Traore, Gandah Mahamadou) and representatives of embassies, ministries, national, regional and international research organizations and NGOs in the preparation of this policy brief.



<sup>i</sup> The AIDA project (Project No- 2006-043863) falls under the Specific International Scientific Cooperation Activities (INCO) of the EU and is co-ordinated by the French Agricultural Research Center for International development (CIRAD). Project partners are the AGRHYMET<sup>5</sup> regional centre (Niger), CIRAD<sup>3</sup> (France), CTA<sup>1</sup> (The Netherlands), FARA<sup>2</sup> (Ghana), PRI Wageningen University and Research Centre<sup>8</sup> (The Netherlands), RUFORUM<sup>4</sup> (Uganda), University of Malawi - Bunda College<sup>6</sup> (Malawi) and the University of Nairobi<sup>7</sup> (Kenya).