

Drylands Management : Challenges and Opportunities.

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1. Introduction

This paper discusses successful approaches to addressing desertification in the West African Sahel. It starts by clarifying what is meant by 'desertification' and the need to examine closely the evidence underlying estimates of how fast desertification is proceeding. It goes on to describe the differing views of the Sahel held by scientists and development agencies and, in particular, the current recognition that Sahelian society has been remarkable in its adaptation to persistent drought. It then outlines results from a series of activities carried out by the Drylands Programme of the International Institute for Environment and Development (IIED) aimed at informing debate both within the Sahel and at global level, regarding how best to support local efforts to address desertification. Finally, it assesses the challenge faced by the Convention to Combat Desertification (CCD) and, in particular, how it must encourage national governments to address policy changes which will be essential if dryland people are to have the necessary incentives to invest in the management and improvement of their resources. Such policy changes are necessary to complement a focus on technology.

1.1 Defining desertification

'Desertification' is taken by the Convention to combat Desertification (CCD) to mean :

*land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activities (Art 1(a), CCD, 1994)*¹

'Desertification' as a term has been the subject of much debate and dispute in the scientific literature. Confusion has arisen because it is associated in the public mind with the idea of an advancing desert. Such an association has often been encouraged by those agencies responsible for desertification-related activities, since pictures of sand dunes provide exciting and photogenic material for the illustration of publicity documents. However, desertification as defined above is not concerned with problems of mobile sand dunes but with much broader and more significant processes of land degradation which are usually found many kilometres from any real desert, or sand dune. Instead, it is concerned with a combination of factors which render land less productive over time, as a result of processes which include soil erosion, loss of

soil fertility, changes in soil structure, and a reduction in plant cover and the biological diversity of plants and animals. These processes either together or separately have the effect of making the agricultural or livestock system less productive in terms of yields of useful outputs and more vulnerable to shocks such as drought.

Farmers throughout the world recognise the dangers of soil degradation damaging the productive capacity of their land. However, the impact in dryland areas can be particularly harsh because first, these agroecosystems tend to experience high levels of rainfall variability and associated yields of primary production ; second, the long dry season, high temperatures and great intensity of rainfall when it does fall mean that protection of soils against erosion through conservation structures and maintenance of vegetation cover are of particular importance ; and third, the very low incomes of dryland populations mean that such people are particularly exposed to risks of food shortage and impoverishment.

Such concern for the position of poor farmers and herders in marginal dryland areas of the world led to the proposal by many African governments during the preparations for the Rio Earth summit that an international convention to address desertification be negotiated. Many African governments had felt that their particular interests had been neglected during the run-up to Rio. As a result, they demanded that the problems faced by poor nations experiencing resource degradation should be faced by the world community, as well as the high level of attention given to questions of climate change, deforestation and losses of biological diversity.

Governments began negotiation of the CCD in May 1993 and reached agreement on a text for signature in October 1994. The ratification by fifty signatory governments necessary for its formal adoption was achieved in 1996 so that the Convention entered into force as international law on December 26th 1996. As of February 1999, the CCD has achieved 146 ratifications, indicating a high level of global support for its overall objectives. The challenges faced by the CCD and how best these may be addressed are outlined at the end of this paper.

1.2 Two divergent perspectives on the West African Sahel

Following the droughts and famines of 1984-5,

¹ United Nations Convention to combat Desertification, 1994.

² Swift, J 'Desertification : Narratives, winners and losers' in *The Lie of the Land*. Leach, M and Mearns, R (eds.) Routledge 1996.

many observers and development agencies adopted a very pessimistic view of the options for the Sahel.

This region was portrayed as hopelessly prone to drought, with very limited productive potential, and subject to very rapid environmental degradation. Desert advance was portrayed as a major threat to the entire West African region, it being variously suggested that the Sahara was moving south, at 5, 10 or even 15 km per year². The main causes of such degradation were identified as over-population leading to over-cultivation, over-grazing, and over-exploitation of forest and water resources. Local farmers and herders were portrayed as both ignorant and so oppressed by poverty that they were destroying those resources on which any future existence would depend. Nomadic herders were singled out most especially as the primary agents of desertification, their herds of cattle, goats and sheep being considered responsible for major shifts in vegetation cover, rainfall levels and desert movement. At its most extreme, this view argued in favour of moving people out of these drylands, if necessary, by force, a policy which was fortunately only adopted by the Ethiopian Dergue which in the mid-80's, took thousands of people from the northern highlands to settle them in the empty, malaria-ridden lowlands in the south-west of the country.

A second, contrasting view has been increasingly evident. This view presents a much more optimistic scenario for the Sahel, and Africa's drylands more generally. It argues that the people and resources of the Sahel offered much greater potential than had formerly been recognised. Such potential could be achieved by more careful management of soils, water and vegetation, building on indigenous knowledge and techniques. In addition, the great importance of economic, institutional and socio-cultural factors was identified³ along with the recognition that farmers need a clear economic incentive if they are to invest in a more intensive form of agricultural land management⁴. Far from being hopelessly backward and unwilling to change their farming methods, local people are now seen as having demonstrated remarkable flexibility and capacity to adapt to large changes in rainfall patterns and economic opportunities. Traditional knowledge and techniques have been shown to provide, for example, a good basis for developing improved methods of soils management⁵.

At the same time, while 15-20 years ago, many observers considered pastoral land use and patterns of grazing to be anarchic and without any rationale, the accumulated research and experience with pastoral societies show this view to be wrong. Nomadic herders do not wander aimlessly. Instead they follow a set of movements between different grazing lands and

water sources which adapt from year to year, depending on resource availability and access to fodder. Such mobility, far from being an ill-considered and pointless rambling across the countryside, in fact represents an effective and remarkably flexible means by which grazing pressure is tailored to the highly variable availability of pasture between areas and from season to season. Mobility thereby helps reduce environmental pressure by shifting animals from lesser to greater productivity areas at any particular moment⁶.

This optimistic view of the Sahel has also been questioning the idea of inexorable and rapid environmental degradation. It takes the position that dryland systems have always been subject to great variability and points to the recent changes in the pattern and volume of rainfall in the Sahel. Hulme(1992)⁷ for example shows the sharp decline in rainfall received by the Sahel in recent decades, and shows that for the period 1961-90 average rainfall was 25-30% lower than for the previous thirty year period, from 1931-60. Explanations for such a downward shift in rainfall levels have been inconclusive. They have included heightened reflectance (or albedo) from the Sahel land surface, global warming stemming from increased CO₂ and sulphur emissions, and changes in sea surface temperatures in the Gulf of Guinea due to as yet unexplained changes in ocean currents in the Atlantic Ocean. However, since 1990, rainfall levels have improved somewhat reaching remarkable conditions in 1998 when heavy rains brought exceptional growing conditions throughout the region. It remains to be seen whether the Sahel will return to higher levels of rainfall in future. The International Panel on Climate Change (IPCC) suggests that the Sahel should receive higher rainfall levels as a result of global warming, but that its efficiency may be expected to decline, due to higher temperatures bringing higher rates of evapotranspiration, while increased run off is likely from heavy, intensive storms.

Predictions of future weather patterns are, therefore, difficult but one prediction is likely—that the Sahel's climate will remain highly variable with considerable differences in growing conditions from year to year, combined with a high degree of spatial variability. Such characteristics demonstrate the need for flexibility, mobility and diversification, by which means dryland peoples can adapt their livelihoods to the opportunities and constraints offered by a given season.

While the pessimistic perspective of the Sahel's future identifies 'over-population' as a major concern, recent research shows this to be much too simple a view of the dynamics linking population density, the

³ C Raynaut, *Societies and nature in the Sahel*. Routledge, London, 1997.

⁴ Mortimore, M *Roots in the African dust: Sustaining the drylands*. Cambridge University Press, 1998.

⁵ C.Reij, I Scoones and C Toulmin, *Sustaining the soil: Indigenous soil and water conservation in Africa*. Earthscan, London 1996.

⁶ I. Scoones (ed) *Living with uncertainty*. IT Publications, London 1995. Behnke, R et al(eds). *Range ecology at disequilibrium*. ODI, London. Thébaud, B et al. *Recognising the effectiveness of traditional pastoral practices*. Drylands programme Issue Paper no. 55, IIED London.

⁷ *Rainfall Changes in Africa: 1931-1960 to 1961-1990*, International Journal of Climatology, Vol.12, 685-699(1992), Mike Hulme

status of the natural resource base, and broader economic and institutional factors, such as agricultural prices and security of land holdings. In many places, growth in population brings a positive change in land management, leading to more careful maintenance of soil fertility and increased investment in the construction of soil and water conservation structures. Increased population can be a good thing because, as pressure increases, land becomes scarcer⁸. As land becomes scarcer, it also becomes more valuable, and farmers have a greater incentive to invest in more careful management of soils and vegetation. In many places, such an intensification is taking place, most particularly near towns since urban populations provide a ready market for farmers to sell their crops. Good prices for crops provide a further incentive for farmers to invest in making their land more productive.

It is also clear that there is no evidence for the Sahara Desert advancing into the rest of West Africa. Recent research⁹ shows that the desert margin ebbs and flows from year to year; in a wet year, the Sahara contracts while in a dry year it effectively expands. These changes in annual rainfall explain all movement in the desert frontier. There is also no evidence for declining efficiency in rainfall or its capacity to generate primary production as shown by the lack of any downward trend in the greenness index associated with a given level of rainfall.

This virtuous circle in which population growth is accompanied by rising investment in land does not always happen. It needs a combination of factors to be right :

- institutional - whereby farmers feel secure in their rights of access to and control over land,
- technical - ensuring that farmers have at their disposal techniques for improving the productivity of their soils and farming system, and
- economic - providing farmers with both the means and incentive to invest in improved land husbandry.

The Convention to combat Desertification provides an opportunity for governments to improve the conditions faced by dryland peoples through a balanced approach which addresses institutional, technical and economic aspects.

2. Addressing Desertification in Africa's Drylands

Work by IIED's Drylands Programme has been investigating how Sahelian farmers and herders are currently managing their resources, how this management has been changing over time, and the conditions

which promote more sustainable patterns of natural resource use. This work falls into four major activities :

- collaborative research
- training in participatory methods
- policy advice and advocacy
- information networking and dissemination

2.1 Collaborative research

Collaborative research programmes are currently under way in the fields of soil fertility management, indigenous soil and water conservation techniques, pastoral livestock development, land tenure, decentralisation and conflict resolution. Each research project is carried out in collaboration with a number of partner organisations in Africa and Europe.

One example will be taken from our soils research work to highlight relevant findings. Characteristics of our approach will also be described which illustrate the importance of the research approach adopted and of setting research within a broader context.

2.1.1 Dynamics of soil fertility management in Savannah Africa.

This research programme has addressed the options for intensifying the agricultural sector in sub-Saharan Africa, through examination of soil fertility management strategies of small-scale farmers in three countries, Ethiopia, Mali, and Zimbabwe. It has taken as its framework the high level of interest and debate amongst national governments, and the international community regarding the need to maintain and improve soil fertility in savannah Africa.

Taking a diverse range of farming sites spanning high and low potential areas, our research programme has examined five main themes: understanding farmers' perceptions of soils, their classification and ways to improve their fertility; relations between a farmer's socio-economic status and soil fertility management; methods to measure and monitor nutrient flows within the farming system; approaches to on-farm experimentation and farmer assessment of interventions; and the impact of policy issues on decisions by farmers to invest in soil fertility improvements.

This research programme funded by the European Commission has been carried out from 1995-98. It has brought together partners from Mali, Ethiopia and Zimbabwe, with those from The Netherlands and the UK.

The research has adopted a number of innovative approaches which include :

- a high degree of multi-disciplinarity, bringing together socio-economics, anthropology, environmental history, agronomy, soil science, and political science
- a strong emphasis on farmer participatory research methods to provide opportunities for sharing farmer and researcher perceptions on soil qualities and classification, trends in the structure and productivity of soils, how farmers try to improve different soils and plots within the farm and how farming fits into broader patterns of livelihood diversification

⁸ M.Tiffen et al More people, less erosion. Wiley, London 1994. M.Mortimore et al Soils and cultivars. Report to DFID, 1997. West African Long Term Perspective Study. WALTPS OECD/CILSS, 1995.

⁹ Desertification, Drought and Surface Vegetation : An example from the West African Sahel, Bulletin of the American Meteorological Society, Nicholson et al, Vol 79, No.5, May 1998

- opportunities for testing out methods for improving soil fertility management, through action-research, involving joint farmer-researcher diagnosis of nutrient flows between different components of the farm, identifying ways to cut losses and improve efficiency of nutrient use, and evaluation by farmers of various improvements to their soil management practices
- explicit treatment of policy issues, such as structural adjustment measures (devaluation, liberalisation, abolition of fertiliser subsidies etc.), land tenure changes and access to credit. This has encouraged our researchers to investigate more systematically the interactions between farm level decisions, national policy change, and global processes.

Findings from the research include :

- ◆ In all sites, farmers clearly recognised the importance of soil fertility, the need for its maintenance, and the difficulties faced in doing so.
- ◆ The research demonstrated the high degree of diversity in farmer practice between countries, and sites studied. Within each site, there is considerable differentiation between farmers depending on their access to key resources, such as labour, livestock, cash and credit.
- ◆ Within a single farm, there are wide differences in practice, as farmers tend to concentrate nutrients on smaller areas, where high value crops are grown. Nutrient losses are found on fields of lower priority for farmers, where lesser value crops are grown.
- ◆ Livestock are extremely important as a means of converting rough grazing into manure used as an input to soil fertility.
- ◆ Such a diverse range of farmer strategy means that interventions in this field should be highly localised and involve farmers in identifying, monitoring and evaluating different ways of improving soil fertility. Resource flow diagrams and on-farm trials used during this research programme provided valuable tools for supporting such interventions.
- ◆ The broader policy framework within which farmers must make decisions was found to be of great importance. Considerable changes to macro-economic policy have been brought about, often as a result of structural adjustment programmes, which in general have reduced many farmers' access to chemical fertiliser through increased prices, abolition of subsidies, and reduced credit availability.

Debate regarding improvements to the management of soil fertility amongst small-scale farmers in Africa needs to be set within a broader concern for more sustainable rural livelihoods. Farmers face many choices relating to their farm enterprise, given the other economic opportunities open to them, and their domestic commitments. Soil degradation and nutrient losses will not prompt increased investment by farmers in their soils unless and until there are clear benefits from doing so. National strategies aimed at promoting more sustainable soils management need to tailor their activities to address the particular needs of different farmers in diverse settings. At macro-

level, this involves attention to policies which provide a greater incentive to invest in soils and agriculture ; while at micro-level further work is needed to encourage a more productive partnership between farmers, researchers and extension agents, through joint analysis of and experimentation with a range of technical interventions.

Outputs from the research include :

- a set of publications, articles, book, resource guide¹⁰
- contribution to policy debate at national and international levels¹¹
- opportunities for researchers from different African countries to meet and exchange ideas
- demonstration of action-research methods for improving soil fertility management of broader applicability in Africa
- a set of new research questions, activities and networks in this field which build on the initial research project¹²

2.2 Participatory planning and research methods

Since 1991, the Drylands Programme has been supporting a series of training activities in four French-speaking Sahelian countries-Burkina Faso, Mali, Niger and Senegal. This has involved the translation and adaptation of participatory rural appraisal (PRA) methods developed from the mid-1980s onwards¹³ in the English-speaking world. The purpose of the Méthode Active de Recherche et de Planification Participatives (MARPP)-the equivalent of PRA in French- is to promote an underlying set of principles, tools and behaviour, as well as a forum for reflection for development workers whereby they can put into practice the widespread political rhetoric in favour of popular participation. At the same time, this programme has been developing participatory methods in local languages, to empower villagers to carry out their own analysis and planning of activities within the community.¹⁴

The spread of MARPP skills within the Sahel through IIED's training programme has been able to make a significant contribution to achieving more participatory approaches to local development and the strengthening of local institutions for the management of natural resources, most particularly in the field of gestion de terroirs projects. The Convention to

¹⁰ Soil Fertility management in Africa, Resource Guide for Participatory Learning and Action Research Part 1 Textbook. Nutrient budgets : What use for policy ? I Scoones and C Toulmin Agriculture, Ecosystems & Environment, 71(1998) : 255-267

¹¹ Policies for soil management in Africa I Scoones and C Toulmin, DFID/IIED London 1999.

¹² The Nutrient Networking in Africa project, funded by the Netherlands Ministry of Foreign Affairs.

¹³ Conway, G Agroecosystems analysis. Agricultural Administration. 20(1985)31-55. Chambers, R Whose reality counts ? IT Publications, 1997. London

¹⁴ Guèye, B Emergence et développement de la Méthode Active de Recherche et de Planification Participatives au Sahel. IIED, January 1999. Rélais MARPP, Bulletin du Programme MARPP Sahel, IIED-Dakar.

Combat Desertification in common with many other initiatives to promote more sustainable development, places great emphasis on the need for projects to build on the needs and priorities of local people. The further development of MARP methods will therefore continue to play an important role in helping to promote more participatory styles of development.

The MARP process

The *Methode Active de Recherche et de Planification Participatives* (MARP), or Participatory Rural Appraisal (PRA) in English is a multidisciplinary and iterative learning process providing a set of participatory research methods to enable local people and outsiders to gain a better understanding of local situations. It is based on visual tools that recognise and promote the value of local knowledge and skills. The aim of MARP is to strengthen the capacity of local people to better understand their situation in a broader context through a process of self-analysis and participatory planning. In this respect, the production of knowledge and identification of solutions to local problems are seen as the primary responsibility of the people themselves. The development worker's role is to catalyse and facilitate this process which demands relaxed, informal relations, open dialogue, mutual respect and an honest exchange of ideas between them and the local people.

MARP, when used correctly, is a powerful tool to enable communities to play a determining role in the diagnosis, planning, monitoring and evaluation of development activities. Unlike conventional research which often uses 'participation' as a means to an end, MARP considers the involvement of local people as its primary aim. They must claim ownership of the MARP process and methods in order to analyse their own situation and plan, develop, monitor and evaluate their own development programme.

Promoting such a process is, however, complex and needs support. MARP is more than a simple tool-box. It expresses a new development paradigm requiring a fundamental shift in attitudes and behaviour on the part of both the community and the development organisations which support them.

2.3 Policy advice and advocacy

The Drylands Programme works with a number of governments and international organisations to help develop strategies for intervention, identify how best to implement the provisions of the CCD, and promote reflection on different policy options. Land tenure provides one such area where we are supporting work

by African and donor governments.

Land tenure is of great importance in providing the set of rules and incentives within which land users make their decisions. Currently, many African governments are reviewing the legislation and administrative procedures relating to land^{15,16}, with aims which include :

- clarification of overlapping and contradictory systems of customary and statutory land law,
- delegation of rights for administration of land and resolution of disputes to decentralised bodies,
- redistribution of land holdings to address the needs of very poor groups,
- providing greater security to land users, to encourage investment in land improvement, such as terracing, and treeplanting.

In West Africa, IIED has been working in partnership with a French organisation GRET¹⁷, to support research on land tenure and access to resources in both French and English-speaking countries of the region. Such research is aimed at investigating the dynamics of resource tenure in different settings, to identify how and why such systems are changing. This research has strong policy relevance since it is aimed at identifying how best to incorporate a clearer understanding of current practice into changes in land tenure and administration currently being proposed. Work in both English and French language areas within a single programme provides an opportunity for West Africans to compare and learn from their respective historical legacy, and examine common issues to feed into policy debate at national and regional levels.

Work under this programme to date has included two regional workshops, publication of a set of documents on land tenure issues in West Africa, and the launch of a new collaborative programme involving ten West African research groups. This will study the set of informal arrangements and institutions through which people can gain access to land and other resources, such as rental, loans, tenancy and share cropping. Much debate regarding land tenure has focused only on questions of ownership and property rights. However, many rural producers, particularly poorer and more marginal groups, depend on other mechanisms for gaining access to resources. This research will investigate such arrangements in order to understand better how they operate, trends in their operation, and ways in which these mechanisms might be recognised in land legislation and administration. Close contact with those in national governments and donor agencies provides a means for feeding research

¹⁵ Ouedraogo, H and Toulmin, C (1999) Tenure rights and sustainable development in West Africa. A regional overview. Paper prepared for the DFID workshop on Land Tenure, Poverty and Sustainable Development in sub-Saharan Africa. February 1999.

¹⁶ P Lavigne Delville (ed) *Quelles politiques foncieres pour l'Afrique rurale ? Reconcilier pratiques, legitimite et legalite* 1998. Edited by Philippe Lavigne Delville. Karthala-Coopération Francaise, Paris. "Rural land tenure, renewable natural resources and development in Africa. A synthesis" 1998 Philippe Lavigne Delville. GRET and the Coopération Francaise.

¹⁷ Groupe de recherche et d'échanges technologiques (GRET).

findings into ongoing national debate.

2.4 Information Networking and Dissemination

The Drylands Programme aims at effective communication of ideas stemming from our work and that of our partners. Communication needs to consider the form, language and style to be adopted for any particular audience. We produce a series of different publications aimed at different audiences, both in paper format and through the IIED web-site. We publish a regular programme newsletter - *Haramata* and accompanying *Issue Papers/Dossiers* in French and English language editions. These provide a clear summary and discussion of major debates, and the results of recent research as it relates to drylands management.

Managing Africa's Soils disseminates research work on the management and improvement of soil fertility in sub-Saharan Africa, with an emphasis on making scientific soils research accessible to a broader audience and ensuring that questions of soils management are understood within a broader framework, such as the impact of markets and prices. The *Pastoral Land Tenure Series* gives space to discussion of pastoral development issues, both from a technical and an institutional perspective. Pastoral land tenure is little understood and even less respected by many African governments and Western donors alike, with the consequence that pastoralists throughout Africa are suffering through the loss of their lands. The imposition of inappropriate development policies has led to reforms that favour individual ownership and the acquisition of pastures for non-pastoral purposes. Finding the institutions and methods to support the sustainable management of rangeland resources, which permit livestock mobility, has become a priority for pastoralists and their supporters alike.

3. What Role for the Convention to Combat Desertification ?

The primary focus of the CCD rests on action by the governments of affected countries to initiate actions at national and local level to combat desertification. The text calls for governments to demonstrate the priority which they place on tackling dryland degradation, by allocating sufficient resources and by appropriate policy and institutional changes, such as ensuring greater security of tenure over land, and devolution of power to local communities. Commitment to support such processes is pledged by developed country parties, both directly in bilateral agreements and indirectly through the support provided to multilateral organisations, sub-regional and regional bodies. The NGO community is also requested to take part in the development and implementation of National Action Programmes.

Affected country governments are committed to establish a central body to co-ordinate activities at national level and develop partnership agreements with external donors, and internal stakeholders. The first step is to draw up a National Action Programme, through a participatory process to identify priorities

in areas most affected by the risk of degradation. Support to improved management of soils and vegetation at local level constitutes the centre piece of National Action Programmes, which are expected to achieve this through a variety of mechanisms, which include :

policy & institutional changes-to establish clearer rights and incentives to land users to manage and invest in their land,

technical support-to support farmers develop methods for more sustainable practices, based where possible on traditional systems, skills, and priorities, and

economic and financial measures-to provide economic benefits and increased incomes from better management and investment.

The negotiation of the CCD has provided an opportunity for governments to discuss common issues, and develop a degree of consensus on the nature of the problems faced by dryland peoples and ways to address them. It is some achievement to have got a text agreed by the nations of the world on a set of problems as diverse as those falling under the heading desertification. The text itself is also strong on the rhetoric of more sustainable and fairer development, with a focus on participation, the needs of marginal areas and groups, building on indigenous knowledge and skills, and so on. It also emphasises the need to get changes in policy at national and international levels, rather than just getting projects funded since, the latter will bear few fruit unless they face a more favourable broader economic and institutional context.

As with all initiatives, the CCD will only be as good as people wish to make it. The text provides a starting point. A number of affected country governments and donor agencies have demonstrated a strong interest and commitment to the convention, by starting work on its implementation and providing support to a range of activities. Despite the pessimism often expressed about drylands development, particularly in Africa, the CCD process provides a sense of direction, of hope, and a code of good practice to follow, as shown in the Box below.

BOX : The CCD-TEN Key Principles

I. Learn from the past : The Convention text is based clearly on lessons from past experience, and represents a code of good practice for drylands management. There is now much clearer understanding of what has worked well and why. This sharing of information and ideas needs to continue and broaden to ensure that good ideas are shared amongst farmers and herders, and amongst the agencies responsible for supporting this work.

II. Focus on dryland areas : The dry areas of the world tend only to receive the world's attention when there is drought and famine. Yet debate during the CCD negotiations has shown that dryland areas and people do not have to be imprisoned within a cycle of famine and impoverishment but can be productive and sustainably managed.

III. More money is not the answer : The Convention text recognises that the amount of money devoted to drylands development is much less important than how it is used. Existing sources of funding could be used more effectively, and a greater share allocated and used at grass roots level. National Desertification Funds have been proposed as a means to provide access to credit for local initiatives, and several promising examples exist where development funds have been made the responsibility of local committees.

IV. Decentralise decision - making : It is now recognised that governments have tried to do too much, and intervene in many fields where it is not appropriate. Instead, they need to devolve much power and responsibility to lower levels, to build on the initiatives of farmers and herders, and strengthen local organisations.

V. Work in partnership and collaborate : All interested parties - NGOs, community based organisations, governments, donor agencies, and researchers - are urged to work together, to avoid competition, and help build longer term programmes.

VI. Drylands are part of the broader economy : While the main focus of the Convention is on management of resources in rural areas, this cannot be separated from opportunities to develop and diversify economic activities in other sectors. Opportunities for farmers to earn cash by sale of animals or crops often depend on the operation of very distant markets and prices, while the sums available for farmers to invest in land improvement may stem from migrants' earnings gained thousands of miles away in European capitals.

VII. Don't make new plans ! Parties to the Convention are committed to develop a National Action Programme to combat Desertification. However, rather than instituting a new plan, with new organisations, staff etc., parties to the Convention must take account of existing environmental initiatives, and build on these wherever feasible. Where a country is already half way through preparation of a National Environment Action Plan or a National Conservation Strategy, the NAP can be added to such a process to ensure that drylands issues are tackled within the existing framework.

VIII. Participation matters ! The Convention argues strongly in favour of a participatory approach to dryland development, whether in the process of elaborating a National Action Programme, or in the design of local development plans. Participation is valued for several reasons : as a means to build on local knowledge and priorities ; ensuring that programmes and interventions are well-designed for local circumstances ; and providing some chance of longer term interest and sustainability.

IX. Build on local knowledge & skills : The text recognises that local people have much relevant knowledge about their environment, on which inter-

ventions and technical improvements can be developed. Indigenous technologies are often well-suited to local conditions, although they may need adaptation as circumstances change. Researchers need to work more closely with local people to identify ways of improving the performance of existing technologies.

X. Legal binding commitments : In this Convention, affected country governments and donors admit the need for a legally binding text on the promises made by each party. In the past each side has recognised the need for changes in practice, but has not been willing to follow these through. The Convention provides a means to check whether the parties are taking their commitments seriously.

4. Conclusions

IIED's Drylands Programme pursues a range of activities focused on the arid and semi-arid regions of Africa. We maintain a particular focus on the Sahelian region of West Africa where we promote an exchange of experience and learning between French and English-speaking countries.

Our approach consists of activities which are interdisciplinary which aim to combine

- a technical understanding of the choices open to farmers to improve the management of their soils, building on indigenous technical knowledge,
- economic aspects of natural resource management, and the importance of prices and markets for providing the incentives within which they make decisions regarding investment and land use practices,
- institutional and organisational considerations which provide the setting for decision-making at community, local and national levels.

At the same time, our approach involves setting the options facing Sahelian populations within the broader West African regional context, since many households depend, for example, on migration to other countries for a major contribution to cash incomes for assuring their livelihoods.

Finally, it is important to consider how the global context for drylands Africa is both constrained and facilitated by international developments, such as the Convention to Combat Desertification, and the World Trade Organisation. Such international treaties have the possibility for improving the situation faced by poorer countries in Africa, but only if consensus can be reached regarding the division of responsibilities between national governments and donor agencies, and assurance can be given that the rights of poorer countries be properly considered during such negotiations. There is no guarantee that globalisation will suit weaker nations, hence the importance of generating understanding in richer countries of how best to support more sustainable patterns of development in the marginal drylands of the world.

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