PREFACE TO:

Kenya’s Drylands, research of Moi University School of Environmental Studies, in collaboration with the University of Amsterdam

This chapter was/is planned to be the preface of a book to be published by Moi University Press, which has been delayed. It was based on a conference organised in Narok in 2002.

Ton Dietz, Wilson K. Yabann, Elias Ucakuwun, and Thomas Munyao

INTRODUCTION

It is more than ten years now since the start of the School of Environmental Studies of Moi University and also more than ten years since the collaboration started between the University of Amsterdam and Moi University. We could secure funding from the Dutch Ministry of Development Co-operation, first as a single project, and from 1994 onwards as part of the MHO programme co-ordinated by NUFFIC. Indeed, the collaboration between MUSES and the University of Amsterdam was the pioneer of a much larger collaboration between many Dutch universities and many, both academic and non-academic, units of Moi University. This year is the final year of the MHO programme and hence it is a year of stock taking. This conference about MUSES’s contribution to environmental research in Kenya’s drylands (or Arid and Semi-Arid Lands, ASALs in brief) can be seen as one of the elements of academic stock taking.

In 1992 MUSES selected five types of environmental problem areas to organise its research endeavours in Kenya:

a) the Coastal zone; facilitated by the Malindi-based Coastal Environmental Research Station; and a.o. resulting in two stock-taking conferences and proceedings published by ACTS Press, and in PhD dissertations by Abuodha and Munyao, and one forthcoming by Atamba;

b) the Lake area; facilitated by the Lake Victoria Environmental Research Station in Homa Hills; and a.o. resulting in a stock-taking conference and its proceedings, which were published as the first one of the MUSES Occasional Papers Series, and in PhD dissertations by Ikiara and Odipo Osano;

c) the Highlands of Western Kenya, a.o. resulting in PhD dissertations by Mutoro, Nyang and Marigi;

d) the Urban areas, a.o. resulting in PhD dissertations by Anyumba, Ombura and a related one by Mwangi, on resp. Kisumu, Eldoret and Nakuru;

e) and Kenya’s Drylands, a.o. resulting in this conference, and in PhD dissertations by Nunow, Kibiiy, Shem Mwasi, Njogu, and forthcoming ones by Ben Mwasi, and Adano, as well as those by Zaal, Witsenburg (forthcoming), and a related one by Horst from the University of Amsterdam. A spinoff project on economics and the environment in Machakos and Kitui Districts saw another DPhil dissertation by Samwel Mwakubo and one by Michael Bowen (forthcoming).

And in all areas there has been a lot of M.Phil research, research by members of staff of the School of Environmental Studies, and research by students and staff from the University of Amsterdam, who have been associated with Moi University. This book will look at the academic harvest from research work accomplished in the fifth area of research focus, Kenya’s ASALs, within the last ten years of the project.
In 1992 one of the first activities of the MUSES-UvA collaboration was a seminar about research priorities for MUSES. It took place in Malindi from 25-27 August 1992, and it resulted in a document, which was published in October 1992. Rereading it now, after more than ten years, its continuing urgency and insight are intriguing. The problems of Kenya’s drylands were already featuring prominently in that seminar, and good use could be made of earlier research experiences in Kenya by the Dutch co-ordination staff of the UvA-MUSES programme.

These earlier experiences started in the early 1980s when Annemieke van Haastrecht and Ton Dietz were asked by the Netherlands Embassy in Nairobi to provide useful data and analysis for the ASAL programme in West Pokot and what was then called Elgeyo-Marakwet Districts, which was about to start as a Kenyan Government programme with Dutch funding. It would last until the late 1990s and it was one out of many ASAL programmes, which would be started in the 1980s. The request by the Netherlands Embassy fitted well with their own research plans to do a human geographical study about processes of what they then called “commodification of produce and labour in Kenya’s peripheral areas”. They had already decided to select West Pokot, and Elgeyo-Marakwet, next to Machakos and Kitui Districts for their work. The Nairobi-based Institute of Development Studies had endorsed this research plan, and made them research affiliates in 1982. Accepting the challenge of the Embassy meant that they had to concentrate their work on West Pokot and Elgeyo-Marakwet Districts and forget about Machakos and Kitui Districts. Their main interest was to study the impact of development projects and external interventions in general on people’s livelihoods. The study was immediately marked by the dramatic crisis, which most of the people in the research area had been experiencing in the period between 1979 and 1981: severe drought, combined with human and livestock disease epidemics, cattle theft and widespread violence. And it was marked by the fact that the area was suddenly invaded by a large variety of agencies, who in one way or another wanted to support the disaster-stricken population. The ASAL programme would be one of those, but many non-governmental agencies also came, like a swarm of locusts, but all waving different colours. Scientifically, debates about climatic variability, livelihood options, survival strategies and the so-called carrying capacity naturally came in given the situation in the area. Environmental issues soon took a prominent place in the work and hence a shift from what might have been called political economic geography to political ecology. It became necessary to integrate social, economic, and physical and biological approaches in the study. Their own focus shifted ever more to the fate of pastoralism and pastoralists in these Arid and Semi-arid lands. The study became the basis of a PhD study about the western section of the Pokot and their lands, “Pastoralists in Dire Straits” by Ton Dietz, which he defended in 1987.

Their interest in drylands and pastoralism was further developed by a request, this time by the Netherlands Organisation SNV, to support a new ASAL programme, which would be funded by the Netherlands in Kajiado District. This involved the so-called Identification Mission (in 1986), in a conference about the Future of Maasai Pastoralism (in 1990) and in supervising two PhD studies, one by Marcel Rutten, about land tenure dynamics: “Selling Wealth to Buy Poverty” (1992), and one by Fred Zaal about Pastoral Commercialisation (1998). His work was a bold attempt to compare Maasai pastoralism in Kenya with Fulbe pastoralism in Burkina Faso. Marcel Rutten would later contribute to a research project about water harvesting in Kajiado and Turkana, together with Prof.
A’kong’a, and some Israeli colleagues. Fred Zaal would continue his research involvement in Kajiado by supervising a number of student thesis projects, under MUSES’s umbrella, and in connection with the ASAL programme, later the SARDEP programme, and at the moment the Netherlands Development Organisation SNV.

The stark contrasts between Maasai and Pokot pastoralism and land use stimulated the development of a Kenya-wide comparative research programme in which a PhD project in Garissa could be added, by Abdirizak Nunow, now a member of staff at MUSES and a PhD project in Marsabit by MUSES graduate Adano Wario Roba, and UvA graduate Karen Witsenburg, which will soon be defended. The comparison gave a better theoretical hold on the livelihood debate, the carrying capacity debate, and the concept of caloric terms of trade. A joint summary, regarded as a seminal contribution to the international debate about pastoralism, was presented in a conference in Addis Ababa. This resulted in a book about “African Pastoralism”, published in 2001, which Ton Dietz co-edited. It is the first book ever about African pastoralism, in which the majority of the editors and of the contributors were African scholars. The chapter on caloric terms of trade is also included in this book.

Continuing his interest in ASALs, Ton Dietz, under the umbrella of MUSES, started a research project about the impact of the last twenty years of development interventions by the ASAL programme and by the multitude of other agencies in the western part of West Pokot District. They used a tool of participatory evaluation workshops in three different areas. Part of it also deals with environmental interventions and with the perceived impact on the environment by all types of interventions. Some of the results are presented in this book.

Ton Dietz, Fred Zaal, and Wilson Yabann, together with colleagues from the Free University at Amsterdam, and two D.Phil students from MUSES became involved in another study about Kenya’s drylands in Machakos and Kitui Districts. It was a comparative assessment of the soil conservation practices in areas with high versus low population densities, and areas with easy and difficult access to markets. Fred Zaal and Remco Oostendorp took the lead in publishing some results in the top-level journal World Development, called “Explaining a Miracle”. It highlights the importance of commercial outlets and of labour migrant income for people’s willingness to invest effort and money in soil and water conservation and it undermines the central thesis of Mary Tiffen and her colleagues about the importance of population or population pressure. It also emphasises the importance of a livelihood approach to people’s decision-making in environmental matters. Three papers based on this research project are included in this book, the paper in World Development, and two papers by W.K. Yabann, with the two MUSES D.Phil students in the project, Michael Bowen and Samuel Mwakubo still await finalisation. Together with W. K. Yabann and others they have published two papers in this book. The results of this work together with results from projects in Cameroon, Benin and the Philippines, which were all part of this comparative work, will be published as another book project.

It is also important to mention the work of another MUSES graduate, James Njogu, who defended his PhD work in October, 2003. He studied the controversial relationship between the Taita people in South-eastern Kenya, and the surrounding environmental agencies in the Tsavo National Park and the Forest Reserves on top of the Taita hills.
Given the above perspectives sees a major involvement in an international research trend of what is known in the School as human ecology. It is a lesson in ‘political environmental geography’ with close relations to biology, applied physical geography, environmental economics, and environmental planning.

There are concerns about the political use of environmental argumentation against the livelihoods of poor and marginal people. Dietz (1996) in his inaugural lecture gave an example from Narok: the Enoosupukia clashes. He strongly advocated for critical analysis of ideas and practices of so-called advocates for the environment, both government or pseudo-government agencies (like KWS in Kenya), and the many non-governmental agencies, whose existence depends on attracting funds, based on public outcries concerning so-called environmental disasters. For a specialised scientific institution dealing with environmental issues, like MUSES, this poses quite a problem: many of its staff and students are attracted by sincere care about the environment, in a public and policy context full of manipulated images about environmental tragedies. Still, scientific work demands some distance and a sincere wish to critically examine established images. Dietz, in his recent work on Climate Change studies in West Africa fed his suspicions about biases and taboos in circles of international climate and global change circles, which should be challenged by the scientific community. On the other hand international policy making and massive funding tends to feed these biases and taboos and tends to sideline critical voices.

Experiences from studies suggest the importance of cultural studies as an element of environmental science, and particularly the linkages between identity constructions (e.g. ethnicity) and environmental images and practices. Access to environmental resources, and interpretations about their importance, usefulness, and significance as identity markers has a strong cultural element. Many environmental scientists have neglected this element for too long. The scientific community has discovered the importance of so-called indigenous knowledge. Equally important, however, is indigenous valuation and the competing valuations between people with different cultural identities. World-wide environmental sciences have developed from a technical, science-based orientation until the 1970s, to more holistic studies, with attention for environmental economics, planning, law and social sciences in the 1980s and 1990s. That led to a host of studies in the realm of livelihood and environment. However, there is need to shift from livelihood and environment studies to livelihood, identity and environment studies. Understanding people’s relationship with nature not only means understanding access rules, and livelihood practices, but also understanding conflicts of interpretation and valuation. These conflicts not only involve neighbouring ethnic or neighbourhood groups, or people with different land use profiles, but also people representing a host of global and local agencies with diverging environmental interests, ethics, and each with different power positions in global, national and local arenas where there is a continuous struggle to define rules of judgement. The many papers in this book, based on MUSES M.Phil and D.Phil work in the realm of ‘human ecology’ attest to the importance of a cultural outlook in these environmental studies. The role of MUSES affiliate, and anthropology professor, Joshua A’konga has been very crucial in that respect.
SIGNIFICANCE OF MUSES’S RESEARCH WORK IN KENYA’S DRYLANDS

Looking at the Research Priorities paper of 1992, one sees a legacy of the first group of core people in MUSES, lead by dean Professor Charles Okidi, representing their ideas about the mid-term priorities of the School. It has not lost much of its appeal and its urgency.

The paper presented five major research fields with about 25 sub-themes. The five major themes were:

a) The sustainable use of land and water resources
b) Biodiversity
c) Environmental problems connected with urbanisation and human settlement
d) Environmental hazards, and
e) Technology, energy and environment and development.

All five major research themes, and most of its sub-themes are also relevant for drylands research. Looking at the many papers published in this book it is obvious that the theme of sustainable use of land and water resources dominates, with quite a lot of papers dealing with soil and water conservation, water quantity and quality assessment, and a lot of interest in the fate of pastoralism in Kenya’s drylands, and about conflicts related to natural resources. On the other four major themes there are a few papers each: on biodiversity, on environmental management issues in human settlements (with papers about urban areas, mining areas, and tourism sites), on drought and related environmental hazards, and on energy issues. Looking at the many titles and issues, one would like to go back to a very basic issue.

Both the concept of ‘arid and semi-arid land’ and the concept of ‘dryland’ point to the main environmental problem in those types of areas: lack of water. Water availability and water management should be core elements of any attempt to understand the relationship between people and their natural environment, and to understand nature as a resource for people’s livelihood and identification. Not only water availability as such is a crucial factor, but also the variability of its availability. And its study should go much beyond hydrology and climatology/meteorology. Understanding the environmental problems of people living in drylands means understanding the variability of their access to water resources.

Rainfall variability and unreliability, both between and within seasons directly impacts on the productivity of crops, grasslands, trees and bushland. But it also has an indirect (and often postponed) impact on water availability in rivers, reservoirs, and aquifers. Physical capital to influence the availability of water for domestic use, for plants, and for animals (like terraces, irrigation structures, dams, boreholes) of course may dampen the variability curves, but when these physical investments are damaged, or a drought becomes prolonged, the impact on people’s livelihoods based on these more sophisticated systems of water use can be even more dramatic than in so-called traditional systems. Physical capital investments in water systems often diminish risks in the short and medium term, but they might strongly increase risks in the longer term, as system breakdown has much more severe consequences, and also often for far more people.
Attention for human population supporting capacity in drylands should be studied by highlighting fluctuations and adaptability to stress and variability. Access arrangements are often also flexible. The contrasts between flexible age-old arrangements, and often far more rigid management and maintenance rules designed by so-called ‘modern’ environmental agencies are major reasons for conflicts and risk exposure.

Keywords for understanding drylands are variability, flexibility, diversity, adaptability, and mobility, and these concepts are needed to understand tenure, access and use regimes of water resources, and often of other natural resources as well. Many casual researchers and policy makers tend to look at drylands with the same mind frame as they use for humid areas: rather static and stable equilibrium environments. That is not very helpful, if not downright disastrous in its consequences. However, really understanding dryland nature and livelihoods, means using a time frame of decades. The problem of course is that most research work only has brief periods of fieldwork. MPhil and DPhil thesis work has a few months up to a few years of fieldwork only. Also most if not all donors for research projects use time frames of a few years at the most. It is only institutions like MUSES, which could really change that. It demands a long-term commitment to long-term data collection, in a large number of research sites, by a variety of environmental scholars.

Everyone who knows the drylands will also agree that it is crucial to understand diversity within the drylands, and hence the need to work in quite a lot of research sites at the same time. On the other hand practical problems often are in the way of working at a variety of sites at the same time. The logistics involved, and the related costs, are often prohibitive. It is again an institution like MUSES, which could make a difference, by combining research efforts of a group of people, and do so over a long period of time. From international research interest in the world’s drylands a growing interest in this variety within the drylands, and in particular in so-called opportunity niches can be observed. These are for instance the permanent or seasonal wetlands in the drylands, the mountain and hill niches, the valleys, or riverine areas, and the areas with cheap and reliable access to groundwater resources. However, not only natural niches provide opportunities (or at least during some periods), also man-made niches become increasingly crucial: growing towns and ever-larger villages, mining settlements, tourist sites, these are all socio-economic niches around which ‘ripples of opportunities’ develop. They form opportunities for investments in nature, which otherwise would not be possible, and these investments then increase the area’s opportunities further.

But where these investments in water availability and water conservation become the lifeline of communities their sustainability becomes crucial. Many physical investments can easily be destroyed or become dysfunctional. Society demands a higher level of risk management and insurance. If not, the breakdown will result in disaster, as so often happens in current-day Africa.

Also investments in soil and forest conservation should be seen in this light. There is growing awareness that these investments are not only important for the chemical and physical properties of the soil or for biodiversity, but certainly also for improving water balances at micro, meso, and even macro levels of scale. The return on investments in forest and soil conservation is at least partly in the form of higher and more stable water availability.
Comparing the 1992 document with current ideas, water would probably need to get a higher priority and a more central position, and hence the politics and practices of water provisioning would probably become more central in the School’s work. There is a need to study downhill and downstream consequences of uphill and upstream water management and land use practices. There is a need to become more aware of water-related hazards, and of the hazards, which are a result of fluctuations in water availability (like droughts and floods) and water quality. This is both important in rural and urban settings, and we should realise that the urban element in Africa’s drylands is rapidly increasing. The consequences of the urban sprawl in Kenya’s drylands should get a more prominent place in dryland research. Urbanising drylands not only provide niches of opportunities, but, through increasing demands on water, firewood, food, and building materials from their surroundings they also provide management challenges, which are often beyond the abilities of local management agencies. Competition for and conflicts over natural resources increasingly get an urban component in Africa’s drylands.

Investments by the urban rich in livestock holdings, in charcoal businesses, in irrigated agriculture, and in mining and quarrying ventures in the rural areas within the drylands, often close to the growing urban dryland centres, become new challenges for the rural poor. Often they become casual labourers and clients of the urban rich, and they become prone to impoverishment and marginalisation. Quite a number among them become part of a floating mass of mobile urban-rural ‘straddlers’. The tragedy is that many among them have received quite a good education, as products of the commitment of missionary NGOs to improve the educational situation in Kenya’s drylands since the mid 1970s. They have often become rather alienated from their cultural and economic roots, but on the other hand they never succeeded to get a job for which their education prepared them. If there is ethnic and/or religious diversity between the urban rich and their clients/labourers emerging conflicts easily get an ‘identity element’, and conflicts over resources, and related violence, may become ‘ethnicised’. Kenya has experienced ‘ethnic cleansing’ in the 1990s, related to severe conflicts over access to or user rights over natural resources in some areas. It would be naïve to think that the start of a new political era has made an end to the root causes of these problems. But again we should refrain from stereotypes. There is simply too much complexity and not enough scientific information to understand these controversial issues fully.

To be scientifically significant has a number of different sides to it. MUSES’s first task has been to produce a new generation of highly trained environmental academics, at Master’s (M.Phil) and PhD (D.Phil) levels, and, through these graduates, to improve the training/teaching about, the public awareness in, and the interest among policy makers concerning a large variety of urgent environmental issues. Looking at the work profiles of the School’s graduates, a lot has been accomplished. However, the importance of scientific work is often defined by the attention it gets in international scientific circles. Publishing the proceedings of the ASALs conference in the form of this book will hopefully play a role in making it known to the world what the School has been doing in the field of dryland studies. However, more continuous scientific attention should be given to (international) publication strategies. Another element of significance is the impact on policies and practices. There always is an in-built tension between academics and policy makers, and it is difficult for every academic to combine teaching, research and policy impact. Some members of the School have successfully influenced policy making, by actively involving themselves in think tanks and consultancy jobs for the public and
private sectors. It is suggested that more systematic attention be given to increase the impact of the School’s assets (people and products) in the public and private sector. It is also a challenge for the School to be more systematic in commenting upon current environmental issues in the country, in influencing public debate, and in challenging the public and private sectors even though this may pose a conflict of scientific integrity. However, as one of the School’s publications says in its title: “You Don’t Learn by Dodging”.

Environmental problems are interface problems. ‘Environment’ is not the same as ‘nature’. It is nature as a resource; nature in its relationship to human livelihoods and identifications. Environmental problems are multidimensional, and need the attention of teams of often many different scholars, from different disciplines. That has always been the thrust of the School. However, organising the School in ‘divisions’ and organising thesis work within these divisions potentially results in the ‘mono-disciplinarisation’ of environmental research work. With a relatively strong representation of the natural sciences in MUSES there will be a tendency to accept, or even stimulate purely mono-disciplinary work in biology, chemistry, or physics and still call it ‘environmental’. In the international scientific community the idea of multi-disciplinary, problem-oriented approaches is somewhat under attack, and in some universities retreating. While in policy circles EIA (Environmental Impact Assessment) has gained worldwide recognition as a strong multi-disciplinary tool, the scientific world seems to be counter-reacting, and again seems to overemphasise extreme specialisation. The same tendency can be observed in the social and economic sciences as well. The School’s mission is clear, but it is quite a task to make environmental research, e.g. on Kenya’s drylands, as multi-disciplinary, and as problem-oriented as is the ideal.

A very fine attempt to arrive at such an all-inclusive research design was made in 1992 when a proposal on the Athi-Galana-Sabaki was developed. It failed to get funds from the European Commission by that time. It didn’t go further than those nice ideas, but the challenge to get these types of really encompassing research designs funded remains. Bridging the gaps between the scientific community, policy people, and practitioners, including the private sector in Kenya and with partners from abroad is the way to do so. But then the work done in the School should be ‘sold’ to these scientific and non-scientific circles. Getting the world to know what has been going on at MUSES is one way to start. This publication is certainly an important step towards doing so, at least for the School’s dryland research.