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ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS IN THE DRYLANDS

GENDER CONSIDERATIONS

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EXECUTIVE SUMMARY

The quest for development remains the top agenda for many nations and individuals. There is not however, one meaning for the term development. Most people equate development with economic growth exemplified by physical capital formation, human capital formation and technical innovation. Critiques of the economic growth model have sought to shift the focus to basic needs and distributive concerns. The absence for tools to measure these latter concerns have led to the predominance of the Gross Domestic Product (GDP) as the unit of measurement for development. What has not been lost however is the discussion on the right to development for individuals and states. With regard to states, their right to exercise control over their resources as an aspect of sovereignty has been affirmed in international instruments. With regard to individuals, it is now widely accepted that all peoples enjoy a right to a minimum level of development measured in more than economic terms.

Development for drylands and people in these lands is influenced by the physical and social conditions in these lands. The challenges in these lands include: political marginalisation; conflicts and insecurity; dearth of public administration capacity; degradation of ecosystems; loss of species; poverty; malnutrition; rapid population growth and declining land holdings; out migration; insecure tenure and unequal access to land and other resources; disease burden; and lack of access to markets among others. Drylands people are not a homogenous group. They comprise men/ women and young /old members. These distinctions have implications for individuals' access to development resources. While the challenges outlined affect all people in the drylands, women as a social category experience them within an already constrained context where being female dictates that they do particular things and have access predicated on their relationships with other more powerful members of the community.

To achieve the targets under the Millennium Development Goal 3 focusing on promoting gender equality and empowerment of women, a multi-pronged approach needs to be adopted. Firstly, it must be recognised and acknowledged that gender is a cross-cutting issue and must be mainstreamed in all the other MDGs if real progress is to be made. Secondly, there is need to generate gender disaggregated data of activities in the drylands so as to target interventions effectively. Thirdly, there is need for an integrated approach to development in the drylands since there are very close connections between diverse actors and processes. Fourthly, a concerted effort must be made to involve local women and men in the design of dryland management projects. Fifthly, the role of law in the achievement of MDGs needs to be interrogated through the legal instruments used by polities at different levels to allocate resources to ensure that the negative impacts on women are minimised while also providing an enabling framework for women's empowerment. It is also critical that women's participation in decision-making at higher levels is assured to get beyond the rhetoric and tackle the need for change in gender issues. Finally, local institutions in the drylands need to be strengthened and equipped to work for the good of all members of the communities including women. In this regard, there is need for institutional supply to the local institutions to enable them accept and apply principles of fairness and equity even when these are not required by the local cultural norms.

In a nutshell, women's empowerment will only be achieved if gender is mainstreamed into the development process and efforts are made to reach this group in each of the MDGs. Granted that all people living in drylands suffer from marginalisation, women's further marginalisation within the social groupings necessitates the putting in place of special measures targeted specifically at them. Indeed formal equality can result in unfairness where there are already differentiations in entitlements. In the words of Aristotle

if they are not equal, they will not have what is equal, but this is the origin of quarrels and complaints—when either equals have and are awarded unequal shares, or unequals equal shares. Further, this is plain from the fact that awards should be 'according to merit'; for all men agree that what is just in distribution must be according to merit in some sense.¹

I. INTRODUCTION

Drylands cover approximately forty per cent of the earth's land surface and provide a means of livelihood for

¹ Aristotle, *The Nicomachean Ethics* (trans. David Ross, revised by J.L Ackrill & J.O. Urmson, 1991) quoted in Philippe Cullet, *Differential Treatment in International Environmental Law: A New Framework for the Realisation of Sustainable Development* (Ann Arbor, MI: UMI Dissertation Services, 1998).

about one billion people, mainly in developing countries.² Sustainable management of drylands continues to present a challenge because of climate change and pressure for more land occasioned by increasing populations' encroachment into these lands. The climate and variable water supply in drylands present challenges to plant and animal survival, but many species have evolved with special adaptations that allow them to cope in that environment.³ For these reasons, drylands are perceived as parched landscapes devoid of diversity of life, prone to drought, with very limited productive potential, subject to desert advance and serious degradation. Local farmers and herders are portrayed as both ignorant and so oppressed by poverty that they destroy the very basis of their future existence. Their capacity to develop long-term strategies is questioned while their increase in numbers is identified as a factor contributing to their continued impoverishment.

Paul Spencer's observation after several years of research among the Samburu and Rendille of Northern Kenya exemplifies this:

I find it inconceivable that the people I describe can change substantially in the foreseeable future while all evidence suggests that the changes taking place elsewhere in Kenya will continue to bypass them for many years to come, and may even encourage them to take several more steps in the direction of a return to tradition.⁴

Land degradation and out-migration as a consequence of rural poverty and lack of local opportunities further exacerbates the precarious conditions in the drylands.⁵ Urban growth in the drylands is decried as unsustainable and likely to lead to further rural crisis. Some have even gone as far as to argue that people should be moved from such difficult and risk prone dryland environments to higher potential areas elsewhere.⁶

Researchers however are discovering that arid and semi arid areas are in fact rich in biodiversity. They argue that despite limited potential there are considerable gains to be made by more careful management of soils, water, nutrients and biomass.⁷ Farmers have a lot of local knowledge and skills which can provide a good basis for improved agricultural technologies. Dryland households actively pursue a range of different strategies to balance their various needs given the opportunities available to them.⁸ Farmers in the drylands have for centuries been investing time and limited capital in responding to challenges and identifying new options within very constrained contexts. Livestock keepers have similarly kept abreast of changing prices in near and distant markets and adapted accordingly.⁹

It is within this context that one must contextualise how and why meeting MDGs in the drylands is different in relation to achieving these in other areas. There are diverse challenges ranging from environmental, social and economic to political ones. This paper seeks to identify the key challenges in achieving MDGs in the drylands from a gender perspective. Indeed the concerns about gender and development have been a subject of discussion for many years as it has been realised that the economic growth model has neither factored women's contributions nor taken women's needs into consideration. Women as a gender component of society have been systematically removed from fully participating in the development process despite their active participation in the production processes alongside men.

This paper begins by defining gender in a bid to provide a context within which to analyse the challenges faced in achieving MDGs in the drylands. It also links gender and development broadly highlighting the gendered aspects of development before analysing specific MDGs and their attainment in the drylands.

2 White, R. P. & Nackoney, J. (2003) Drylands people 7 ecosystem goods and services. A web based geospatial analysis. Accessed at http://forests.wri.org/pubs_content.

3 Zafaar Addeel. Dryland crisis threatens planet poor. Posted on the web on 15 June 2005. <http://www.people & planet.net/doc>.

4 Paul Spencer, *Nomads in Alliance: Symbiosis and Growth among the Rendille and Samburu of Kenya* (Oxford University Press, 1973).

5 Mohamed-Salih, M.A (1992). Environmental and Social Insecurity in the Drylands of Sudan. In: Security in African Drylands: Research, Development and Policy (Uppsala) pp.123-138.

6 *Ibid.*

7 Barrow, E.G.C. (1996). *Arid and Semi-Arid Development*, In: The Drylands of Africa: Local participation in tree management. Initiative publishers, pgs 99-109.

8 *Ibid.* at 105.

9 *Ibid.* at 32-35.

A. Gender

The term gender means the state of being either male or female. The male and female genders define and characterize all human beings in society. The two genders are distinguished from one another by physical, that is, biological sexual/ reproductive differences. The term 'gender' has however increasingly acquired a social meaning where it defines how the male and the female gender relate in society. The social meaning refers to social characteristics of one's biological sex. These characteristics include gender-based division of labour whereby duties are allocated on the basis one's sex. For example the female gender is allocated duties such as cooking, washing and other domestic chores, which belong to the private rather than the public domain. The male gender on the other hand, is allocated non-domestic duties such as decision-making, bread winning and others, which belong to the public realm.¹⁰

Thus when one adverts to the issue of gender today, one is not merely talking about the physical difference that being biologically male/female would entail. One is also talking about social constructions of maleness and femaleness and this often translate into power relations between men and women. Sex then is distinguished from gender by what one is born as, that is female or male, and therefore it is a biological concept. Culturally determined patterns of behaviour such as rights, duties, obligations and status assigned to women and men in society (gender roles) are varied even within the same society. Women's studies have analysed the condition of women in the society and when such studies have been directed to the changing of women's condition in the society, it has been categorised as feminist studies. Feminism is a political movement, which aims at transforming gender relations, which are oppressive to women.

Feminist scholars use gender as an analytical variable denoting the manner in which women and men are differentiated and ordered in a given socio-cultural context. Sexuality appears as the interactive dynamic of gender as an inequality. As an attribute of a person, sex inequality takes the form of gender, moving as a relation between people, it takes the form of sexuality. Gender emerges as the congealed form of the sexualization of inequality between men and women. So long as this is socially the case, the feelings, acts or desires of particular individuals notwithstanding, gender inequality will divide their society into two communities of interest. The male centrally features in the hierarchy of control. For the female, subordination is sexualized, in the way that dominance is for the male, as pleasure as well as gender identity is femininity.

Gender is thus a relational concept, which describes how men and women by virtue of their socially constructed differences relate to phenomena around them. Gender refers to the socially constructed roles of men and women as well as to the interaction between them. It also includes the differentiation between men and women in terms of income, social status, literacy and other factors. It is an important analytical concept used to explain the different learned identities associated with masculinity and femininity. The difference between men and women is always emphasized, sex roles and responsibilities accepted and idealised as contrasts and complementary. In the drylands, gender considerations can, for instance, be seen in terms of the roles played by men and women and the impact that the physical conditions of the drylands have on men and women. In many instances the failure to accept the differences and the emphasis on equality tends to mask the differentiated roles and impacts of specific contexts. The situation is further compounded by the fact that gender considerations may be obscured by the more visible ethnic, racial and economic class differentiations. It is important to appreciate that even though gender considerations may not be universal; the dominance of men and masculinity is pervasive especially in patriarchal societies. Most communities living in drylands have very defined gender roles and any interventions must isolate the needs of specific genders if they are to be effective. As we will see below, drylands tend to be politically and economically marginalised. Women in these areas must therefore deal with the broad marginalisation as communities in drylands as well as specific marginalisation of women as a social category.¹¹

B. Women and Development

There has been in the overall, general awareness of the specific activities and problems of women in development. Many theories explaining underdevelopment in the third world countries have emerged since the advent of the

¹⁰ Clarion, An Introduction to Gender, Law and Society: Constitutional Debate No. 11 (Claripress Limited, Nairobi 2001) p.2.

¹¹ See Fareda Banda & Christine Chinkin, Gender, Minorities and Indigenous Peoples (Report of the Minority Rights Group International, 2004).

calls for the new international economic order. Two approaches emerged explaining the roles and status of women in the development process. The first was the Women in Development (WID) approach which assumed that women would automatically benefit from the development process.¹² Thus, it did not integrate women into the development process, and women's needs were perceived as separate units, since it was assumed that the structures in place, though designed by men, served both men and women equally. This theory assumed that women are a homogeneous group and that the development process is neutral.

The Women and Development (WAD) approach was developed to address the problems emerging from the WID perspective, and also to critique it. The WAD framework added a women's perspective to economic dependence theory, and designed an analysis of the role, class and gender relations.¹³ The main focus is on work that is done by women within and outside households. In the WAD perspective, assumptions are made on a macro basis, and women's individual realities and strategies are not explored. No attention is paid to the fact that interventions to bridge the gap between women and development such as the introduction of new technologies may marginalise some women.

In relating the WID and WAD approaches to women in the drylands, it is important to point out the interlinkage between women's work in the private and in the public. For most women in these lands, their place of work is their home and therefore the exclusion of the private-reproductive realm of women's lives from development analyses excludes many women from the interventions in WAD. Feminists have over the years challenged division between private housework/reproductive work and public /productive work and the definitions of work and non-work. This challenge is of particular relevance to women in the drylands.

II. CHALLENGES IN ACHIEVING MDGS IN THE DRYLANDS

A. Socio-Political Challenges

1. Political marginalisation

There is generally lack of political will to deal with the problems in the drylands which have for a long time been considered barren lands inhabited 'by some of the world poorest people'¹⁴ While it is true that eight of the world's ten most impoverished nations are located in arid or semi-arid regions, it is also true that the people who live in such areas display resilience and creativity that has often been ignored by officials from their governments and the international aid agencies seeking to help them. Viewed as marginal lands inhabited by marginal people, policies and programmes were sometimes put in place that failed to take account of centuries of local experience and accumulated knowledge in dealing with these harsh environments.¹⁵

Political incompetence and bureaucratic inefficiency explain the devastating effects that droughts often have. This is due to the inability of governments to develop and implement policies that take into account the unpredictability of the climatic conditions in agricultural production and fail to provide necessary services such as storage capacity, infrastructure, early warning systems to name a few. Further, political boundaries by states restrict free migration of pastoralists. This results in disruption of pastoralists migratory routes which negatively affects their management systems in the drylands.

According to Darkoh, a significant drawback in combating desertification and drought is the failure of African governments to devolve power to the people who are affected and to link environmental degradation to economic

12 http://www.usaid.gov/our_work/cross-cutting_programs/wid/

13 Maria Mies, *Patriarchy and Accumulation on a World Scale: Women in the International Division of Labour* (Zed Books, London, 1986).

14 Morton, J. (ed.) (2001) *Pastoralism, Drought and Planning: Lessons from Northern Kenya and Elsewhere*. Chatham, UK: Natural Resources Institute.

15 Oygard, R. Vedeld, T. Aune, J. (1999) *Good practices in dryland Management*. World Bank, xiii.

policy.¹⁶ Many programmes lack local support or are undermined by conflicting trade and agricultural policies pursued by governments. Thus African political leaders are often criticised for seeming not to care about the plight of their people where poor people are marginalized, denied their rights and have voice in the national politics.¹⁷ The marginalization of poor people is a big problem in dryland areas and should be a focal point when discussing potential solutions to dryland problems.

Conflict in the dryland zones and civil unrest constitute another challenge which leads to food insecurity. Owing to the severe conditions in these lands, not many people are willing to work in them. Consequently, another constraint to dryland development is the lack of technical and administrative staff to ensure changes. This is also fanned by poor reward systems, tough living conditions and poor career prospects. Some major agencies have noted the existence of a wider and deeper malaise in public administration than simply a shortage of trained staff namely, the ineffectiveness of institutions and staff due to imprecise mandates, counter-productive staffing procedures and inadequate guidance, facilities and motivation. The problem is magnified in drylands in so far as postings in these areas are often regarded as punishment stations.¹⁸ This results in maladministration and inadequate analytical capacity to provide updated and adequate information on conflicts and food security status at various localities at all times.¹⁹

There is also the problem of lack of adequate planning data to guide political decisions. There are few opportunities for quick-fix solutions in the development of drylands and, although such prospects have political appeal, politicians should ensure that decisions are taken only after adequate planning based on sufficient reliable data. Time and resources need to be given to planning, as well as to policy formulation and the implementation of development.²⁰

B. Environmental Challenges

The drylands are perceived to be degrading or degraded environments. One held view states that the degradation is a result of mismanagement of, and increased pressure on, natural resources caused by population growth.²¹ This growth has allegedly resulted in overgrazing, over cultivation, over cutting of woodlands and deforestation which have consequently led to environmental degradation and desertification. There has been a misconception that indigenous management practices have been often destructive and that checking on or reducing the human population can alleviate the problem. Perceiving problems in this way often leads to misconceived efforts of alleviation.²²

Recurrent droughts are a permanent fact of life throughout the drylands and pose a big challenge to any development initiative. The effects of droughts are numerous and it all depends very much on its nature. The drought may range from mild, severe to extreme. During this period crops experience limited water for shorter periods, or a major devastation of the crops, livestock and humans. Severe droughts affect agricultural production, cause deaths and acute malnutrition.

The areas of drylands are subject to considerable natural variability and growing socio-economic pressures posing a major challenge for proper management of natural resources. The main predicament that people living in the drylands have to contend with is that of unpredictability and insecurity. Long term planning is often impossible in such an environment where conditions fluctuate. In extremely arid areas, the focus is on risk minimisation whereas in less extreme areas with more stable rainfall, people can afford to concentrate on maximising labour productivity.²³

16 Darkoh, M.B.K (1999) The nature, causes and consequences of desertification in the drylands of Africa. *Land Degradation & Development*, Vol.9.no.1, pp 1-20.

17 *Ibid.*

18 See Barrow, *supra* note 7 at pg 232.

19 Ornas, A.h. (ed) (1992) *Security in African Drylands: research, development and policy*. Uppsala University. Pp-122-124.

20 FAO. (1993) *Key aspects of strategies for sustainable development of drylands*. Rome. Italy Accessed at <http://www.fao.org/documents/>

21 Stiles, D. (1998) *Biodiversity conservation, conflict and migration in Africa's drylands: Linkages and solutions*. *Desertification Bulletin*, No. 32, pp. 13-21.

22 *Ibid.*

23 Benjaminsen, T.A. (1998) *Beyond degradation: essays on people, land and resources in Mali*. Cited from Movik, S. Dejene S. *Poverty and environment Degradation in the drylands: An overview of problems and Process*. Noragric Working paper No.29. July 2003.

The physical processes of land degradation, biodiversity evolution or extinction, and climate change are intimately inter-twined, especially in drylands.²⁴ Land degradation reduces natural vegetation cover, and affects productivity of crops, livestock and wildlife. Soil micro-organisms are also affected through soil erosion. The loss of biodiversity likewise undermines the environmental health of drylands and makes them more prone to further degradation. The vicious cycle fuels increased soil erosion, which causes increase in sedimentation of rivers and lakes. This contributes to the degradation of international waters and affects biodiversity in rivers, lakes and coastal ecosystems. Drylands contain highly resilient species adapted to the seasonal pattern of rainfall and recurrent droughts that prevail in these ecosystems. These attributes have global significance in the context of predicted global warming.

Due to the gendered division of labour, environmental stress in dryland areas increases the workload for women whose tasks of providing food for the family become harder as the source of livelihood is degraded. Such tasks as fetching water for domestic use and providing household fuel take longer times in the constrained environments.

C. Social and Cultural Challenges

1. Poverty

In the late 1980s 69 percent of the rural population in the 42 least developed countries were living in poverty. The largest number of rural poor was in Asia, Sub-Saharan Africa and Latin American Countries.²⁵ Nelson et al. analysed the distribution of the poor among favoured and marginal lands²⁶ in developing countries and concluded that about 325 million poor people resided on favoured lands and 630 million on marginal agricultural, forested and arid lands. A high proportion of the latter are estimated to be in the drylands. Given the patriarchal power structure of many communities, poverty has gender nuances such that in a poor community, women tend to be poorer than men hence the phrase 'feminisation of poverty'.

2. Malnutrition

Malnutrition is also high in the drylands. Nearly half of the children under 5 in developing countries in 1990 were malnourished in the warm, semi-arid tropics and sub-tropics. A third were malnourished in the warm sub-humid and humid tropics; a quarter in the cool tropics and sub-tropics, less than a fifth in the warm/cool humid sub-tropics and cool sub-tropics, an estimated 44 percent are living in warm, semi-arid regions (27% in the tropics, 17% in the sub-tropics). Another 26% are in humid zones of the tropics and sub-tropics; and 15% each in the cool and sub-humid zones.²⁷ This impacts directly on women who, because of their reproductive role, are the carers of children.

3. Rapid population growth and declining land holdings

Increasing populations and multiplying land uses partly due to industrialization in high potential areas are causing dryland areas to become more important for production. Population growth has a fundamental bearing on food and agriculture world-wide and, in most developing countries, sustainable agriculture will only be feasible if population pressure on natural resources is reduced. Each area of land under a subsistence form of land use has a maximum population support capacity, and if that capacity is exceeded then the land is over-exploited and degradation results. In the case of the drylands, where the environment is especially fragile, the human support capacity is low and the chances of over-exploitation are greater.²⁸

Unless there is commitment to reducing population growth, at both government and community level, then any strategies implemented to alleviate poverty and increase production will only be short-term and unsustainable,

24 Lean, G. 1995. A simplified guide to the Convention to Combat Desertification, why it is necessary and what is important and different about it. The Center for our common Future.

25 Jazairy, I., M. Alamgir, T.Panuccio. 1992. The state of world Rural poverty; An inquiry into its causes and consequences. International fund for Agricultural Development. New York University Press, New York.

26 Favoured lands were defined as rain fed and irrigated cropland in areas which are fertile and well drained. Marginal lands were defined as those currently used for agriculture, grazing or agro forestry with varied topography.

27 Sharma, M. M. Garcia, A. Quershi, L. Brown. 1996. Overcoming malnutrition; is there an eco-regional dimension? Food, Agriculture and Environment Discussion Paper 10. International Food Research Institute. Washington, DC.

28 Ornas, A.H. , Salih, M. (1991) Research and Development Issues for Africa Drylands. *Ambio*, vol.20. No.8, pp388-394.

leading ultimately to further degradation of resources by pressure of agriculture and increasing livestock numbers.²⁹ Interventions to reduce population growth should not just look at women's instrumental role in the programmes but address the systemic subordination of women within specific contexts.³⁰ For instance, dryland ecosystems tend to have the lowest levels of human well-being, the lowest per capita gross domestic product (GDP) and the highest infant mortality rates. The small amount of precipitation and its high variability limit the productive potential of drylands for settled farming and nomadic pastoralism, and many ways of expanding production through increased livestock and provision of fuel wood for domestic use result in environmental degradation. The combination of high variability in environmental conditions and relatively high levels of poverty leads to situations where human populations can be extremely sensitive to changes in the ecosystem.³¹

4. Migration

Dryland populations are robust, but very vulnerable to drought and other shocks. If the conditions for development in these regions are not improved, more drylands people will be driven into poverty and join those who have already left and are adding to the pressures on cities of both the developing and developed world.³² Seasonal migration from dryland areas has always been a normal feature of their economies with the export of labour being a fundamental means of improving livelihoods. But in recent decades the phenomenon has grown with more people migrating permanently, and more escaping civil conflict and serious drought.³³ As more working age men spend more time away from their homes seeking work, it can be expected that there will be weakening of the capacities of remaining communities to be productive and an increase in the numbers of female headed households. In places where access to power structures is predicated on there being a male household head, women's access to resources and justice will be curtailed as they have to identify other males to present their cause.³⁴

5. Land tenure and drylands

Land and resources linked to it form a critical part of many communities' life lines. Lack of access to these resources can lead to the decimation of the affected communities. This is especially the case where the communities' life is linked to a particular ecosystem as is mostly the case in the drylands. In a situation where the rights of the entire community are under threat, the weaker actors ordinarily hold the shorter end of the stick in so far as access to, control over and ownership of resources is concerned. Land tenure systems that impose unequal access to and control of resources for marginal populations can contribute to the degradation of dryland areas where the owners and controllers are not the managers of the land.³⁵ Effective secure access to land resources on the other hand can provide an incentive for land users to invest in sustainable land use practices. Land degradation and desertification lead to loss of livelihoods especially for vulnerable dryland dwellers. These are problems in themselves but may also be manifestations of deeper structural social and economic problems, including land pressure, lack of access to land, poorly defined land tenure regimes and poorly managed land reform efforts.

Women in the drylands perform many tasks associated with land management and play a major role in the agricultural sector, which forms the economic mainstay in many developing countries. They provide the bulk of the labour required for day to day management of farms including planting, weeding, harvesting and processing agricultural produce. Many women are also *de facto* heads of their households since their husbands have moved into the cities to seek for or perform jobs as pointed out above. In times of drought, it is incumbent upon the women to provide

29 See Darkoh, *supra* note 16.

30 Lourdes Beneria and Gita Sen, 'Class and Gender: Inequalities and Women's Role in Economic Development – Theoretical and Practical Implications' in *Feminist Studies Vol. 8 No. 1* 1982, pp 157-176.

31 Mortimore, M. Adams, B. Harris, F. International Institute for Environment and Development (IIED), London. UK (2000) Poverty and Systems Research in the drylands. Gatekeeper series no. 94 pgs 3-5.

32 See FAO, *supra* note 20.

33 See Stiles, *supra* note 21.

34 Among the Rendille of Northern Kenya, women are not allowed to attend meetings held at the *nabo* which is the decision-making and dispute resolution mechanism in the community. They are expected to get their issue to the elders through one of the elders. See P. Kameri-Mbote & Kamau Mubuu, 'The Impact of Traditional/Religious Institutions on Gender Relations and Gender Discriminative Practices and Scope for Changing the Negative Trends: A Case Study of Select Pastoral Communities in Kenya' prepared for the Netherlands Development Cooperation Organisation (SNV), looking at the Maasai, Samburu, Rendille, Borana & Gabra communities in Marsabit, Samburu & Laikipia districts (October 2004).

35 P. Kameri-Mbote & Jacinta Oduor, 'Following God's Constitution: The Gender Dimension in the Ogiek Claim to Mau Forest Complex', in Anne Hellum et. al, *Paths are Made by Walking: Human Rights Interfacing Gendered Realities and Plural Legalities*, Weaver Press (forthcoming 2006).

food for their families.³⁶ They are also responsible for saving seeds for the planting season. Land ownership patterns however do not reflect this reality. Most landowners are men and women have often been denied access to agricultural loans due to their not having land title deeds.³⁷

At the macro-level, land husbandry techniques developed through experimentation by local land users in the drylands are largely ignored in favour of externally developed and transferred technologies. A high percentage of the women in the rural areas are illiterate and yet they are the major players of food security at household level. This leads to further marginalisation of women. The weaknesses or non-existence of institutional capacities at the local level to enhance proper management of the resources pose a serious challenge.

D. HIV/AIDS

There is no data focusing on HIV/AIDS in the drylands specifically. However, one can extrapolate information from data available on the prevalence of the pandemic in the Sahel. The prevalence of HIV/AIDS in many countries in Africa is likely to impact on people living in the drylands. Given the marginalisation of most of these lands, interventions are likely to be nuanced by the general perception of drylands as barren lands. Moreover, the political marginalisation of these areas will impact on the capacity of people living in them to demand that the government attends to their situation.

E. Economic Challenges

Dryland degradation, for example, costs developing countries an estimated 4 to 8 percent of their gross national domestic product each year.³⁸ During drought periods, people in the drylands emigrate to more hospitable environments either in cities within their own country or less stricken areas in foreign nations. This places additional economic and environmental pressures on already fragile and over burdened areas.

1. Lack of competitive and accessible rural markets

The development of markets is critical for economic growth and brings the benefits of market integration for the rural poor. Policies to build infrastructure and market institutions and regulations in the drylands can be designed explicitly to facilitate access to the poor. Research has shown that areas with drier and more difficult physical environments but better market access may outperform more favoured areas in terms of economy, natural resource conditions and human welfare. The relative poverty of drylands is often the result of historical under-investment, rather than lower economic potential.

2. Low level investment in productive natural resource assets of the poor

Dryland development requires investment in improving resource conditions on farms so that they can support higher productivity and lower the risk agricultural activity. Examples include small scale irrigation, rain water harvesting at plot and landscape scales, soil improvements to increase water-holding capacity, establishment of water resistant perennial vegetation that not only produces cash crops or livestock feed, but also serves for wind protection, erosion control and waterway protection. Efforts are most effective when designed through participatory landscape planning with local people, to build on local priorities and innovations for water and land improvement.³⁹

3. Access by the landless and rural poor to basic subsistence resources

Low cash incomes means that access basic subsistence resources must be achieved through new social and

³⁶ See, e.g., Barbara P. Thomas, *Household Strategies for Adaptation and Change in Kenyan Rural Women's Associations* (1988) and B. Thomas-Slayter, *Politics, Class and Gender in African Resource Management: Examining the Connections in Rural Kenya* (1989).

³⁷ See e.g., Ingunn Ikdahl et al, *Human rights, Formalisation and Women's Land Rights in Southern and Eastern Africa* Studies in Women's Law No. 57. Institute of Women's Law, University of Oslo (2005).

³⁸ Schaffer, D. (ed) 2001. Dry Diversity. Third World Academy of Sciences Newsletter. April-Jun. Vol 13. No.2 pg 18.

³⁹ See Toulmin (1999).

institutional mechanisms to resources owned or controlled by or shared with others. Key elements include: reform of rental agreements, reform of water rights to ensure access by the poor as well as environmental uses of water; insurance systems for poor farmers for periods of drought or major crop failure so that they can provide for subsistence needs without over-exploiting natural resources.⁴⁰

4. Agricultural technologies and resource management systems

These technologies must raise overall productivity in the drylands both increasing livelihood security and protecting or improving the natural resource base. Innovations are needed in soil, water and nutrient management, livestock feeding strategies, genetic adaptations to the dryland environment and more efficient management of natural vegetation for diverse purposes.⁴¹ Technologies need to be tailored for use on specific soil types, climates, land use intensities, thus requiring heavy investment in on-farm adaptive research. New institutional strategies are needed to reduce the cost of this research by linking with extension efforts and farmer organizations to reach the poor effectively.⁴²

5. Compensating the poor for conserving or managing resources of value to others

In the drylands, though poor farmers and agricultural workers have few economic incentives for natural resource management, outside groups may have an abiding economic or environmental stake in maintaining or improving those resources. For instance, drylands host biological diversity in the form of flora and fauna that is of benefit to a broader array of persons than those living in the drylands. Mechanisms can be negotiated for farmers to be compensated for the costs incurred in changing their management or use of resources. This approach can achieve both poverty and environmental goals by changing local valuation of resources, local capacity to make necessary investments and economic incentives while confirming long term tenure or access rights for the local people involved. Examples are transfer mechanisms for poor farmers to manage dryland forests or rangelands for carbon sequestration or to manage watersheds to protect water flows for downstream urban users.⁴³

III. ANALYSIS OF SPECIFIC MILLENNIUM DEVELOPMENT GOALS

MDGs embody the multidimensionality of development and the policy agenda they cover is broad and multi-sectoral. While the attainment of the goals requires enhanced economic growth, the policies also necessitate the enhancement of the capabilities of the poor to participate in growth through improved access to education and health services as well as policies to improve environmental outcomes. The empowerment of the poor, including women through increased access to resources fosters social inclusion and promotes growth. They seek to free men, women and children from the abject and dehumanising conditions of extreme poverty. This cannot be achieved without taking on board the gender dimension especially in Africa where most countries' economic mainstay is natural resource-based.

If one looks at development as a process of social transformation at the local, national and international levels, then the interface between MDGs and gender become clearer. Indeed development occurs within a context which for many countries that have drylands, exhibits the following characteristics: Low levels of economic development; Trans-generational equity issues; Conflict and insecurity; Over-dependence on agriculture and environmental resources; Environmental degradation; Constrained context for access to economic, political and environmental resources; Poor governance; and High disease burden and food insecurity.

Gender is indeed a cross-cutting issue and to that extent, all MDGs have a gender nuance. For instance, Goal 1 seeks to eradicate extreme poverty. As pointed out above, poverty has a gender dimension when one looks at the skewed mechanisms for access, control and ownership of resources such as land. Goal 2 seeks to reduce by half people suffering from hunger. Due to the division of labour among men and women and the task of women to provide food for their families, this goal has specific application to women. Along similar lines Goal 4 (Reducing by two thirds the mortality rate of children under five); Goal 5 (Improvement of maternal health); Goal 6 (halting

40 *Ibid.*

41 *Ibid.*

42 *Ibid.*

43 See Barrow, *supra* note 7 at pgs77-96.

and reversing the spread of HIV/AIDS); Goal 7 (ensuring environmental sustainability) and Goal 8 (developing a global partnership for development) all have pronounced gender dimensions. Gender issues are therefore highly relevant to achieving all the Millennium Development Goals, be it protecting the environment, achieving sustainable development or enabling universal access to health care. Because the MDGs are mutually reinforcing, progress towards one goal affects progress towards the others. Success in many of the goals will have positive impacts on gender equality, just as progress toward gender equality will help further other goals.⁴⁴ Goal 3 which seeks to promote gender equality and empower women is particularly relevant as it focuses on gender specifically.

At another level, MDGs are global but have specific relevance for dryland areas. Countries with drylands are putting in place mechanisms to achieve these goals. Some African countries have indicated that they are unlikely to reach the set targets by 2015. In Kenya for instance, the Minister for Economic Planning has admitted that it is unlikely that Kenya will meet these targets owing to rampant poverty. The latest *World Development Indicators* reviewing progress toward the major development goals show that global poverty rates continue to fall, largely due to substantial progress in reducing poverty in East Asia, mainly China. The global trends however mask substantial regional differences, including less progress towards achieving the MDGs in many African countries. (Table 1). Slow economic growth across much of Africa means that more than 314 million people in the countries of sub-Saharan Africa live on less than US\$1 a day. It is forecast that on present trends poverty in Sub-Saharan Africa will fall very slowly in the next 11 years, unless there is a major change in prospects. Based on future projections, the numbers of poor people in sub-Saharan Africa is expected to increase to 366 million by 2015. (Millennium Development Goals http://www.developmentgoals.org/Sub-Saharan_Africa.htm)

Forests contribute to the livelihoods of many people living in extreme poverty accounting for as much as 90 percent of terrestrial biodiversity. They are however shrinking in most countries as economic development gets under way. There is a link between the reduction in forest cover and the increase in drylands. Forests serve as water catchment area and host other biological resources. Significant decreases in forest cover thus leads to reduction in rainfall levels and reduced biodiversity. It is estimated that forest cover accounts for about 30 per cent of the land area. This however masks the differences between diverse regions of the world as Chart 1 below illustrates. It is also instructive to note that forest cover shrank by 95 million hectares in the last decade. (See Chart 2)

TABLE 1: POVERTY

People living on less than \$1 a day

	<i>Millions</i>		<i>%</i>	
	1990	2001	1990	2001
East Asia and Pacific	472	284	29.6	15.6
China	377	212	33.0	16.6
Europe and Central Asia	2	18	0.5	3.7
Latin America and Caribbean	49	50	11.3	9.5
Middle East and North Africa	6	7	1.6	2.4
South Asia	462	428	40.1	31.1
Sub-Saharan Africa	227	314	44.6	46.5
Total	1,219	1,101	27.9	21.3

⁴⁴ Gender and development Group -World Bank, from the report 'Gender Equality and the Millennium Development (2003)

People living on less than \$2 a day

	Millions		%	
	1990	2001	1990	2001
East Asia and Pacific	1,116	868	69.9	47.6
China	830	596	72.6	46.7
Europe and Central Asia	58	94	12.3	19.7
Latin America and Caribbean	125	128	28.4	24.5
Middle East and North Africa	51	70	21.4	23.2
South Asia	958	1,059	85.5	76.9
Sub-Saharan Africa	382	514	75.0	76.3
Total	2,689	2,733	61.6	52.8

Source: World Bank data

CHART 1: FOREST COVER
Forest as percentage of land

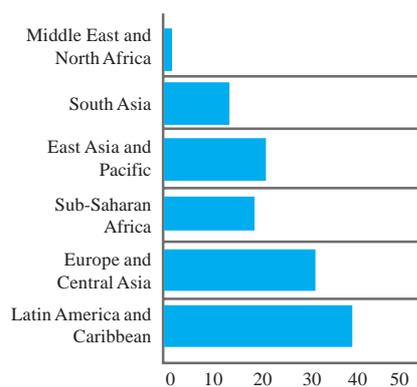
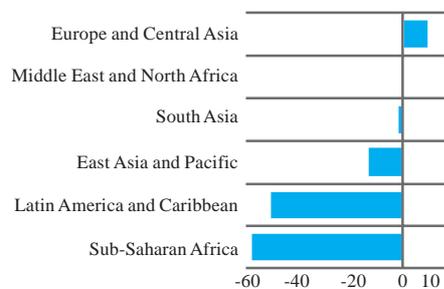


CHART 2: FOREST COVER LOSS

Change in forest areas,
1990-2000 (million hectares)



Source: World Bank Data

A. Goal 3: Promote Gender Equality and Empower Women in the Drylands

1. Gender as a cross-cutting issue in MDGs

The target of MDG 3 is to eliminate gender disparities in primary and secondary education preferably by 2005 and at all levels by 2015. The positive thing about MDGs is that they are targeted to help those who are poor, marginalized, and underprivileged in society. Women in the drylands fit into this category. It is important to note that gender equality is broader than the attainment of primary and secondary education. There are related issues such as ending violence against women, an issue that is notably absent in the MDG goal and target. It is obvious that violence against women represents a key barrier to gender equality and women's empowerment and those women who are victims of domestic violence are less productive on the job, leading directly to a decrease in national output. Violence against women (and the fear of violence) also increases women's vulnerability to unwanted pregnancy, sexually transmitted infections (STIs) and HIV by restricting their ability to negotiate protection or leave risky relationships.

While there is an explicit reference to governance in the indicators namely, the number of women elected to national parliaments, the MDGs do not include issues such as war and peace although it is widely known that the problems women face during and after an armed conflict are one of the major challenges to advance development. The United Nations Security Council has time and again reiterated that peace is inextricably linked with equality between women and men.

In developing countries, access to land can determine a family's food security, income, social status, and political power. However, while women perform the majority of the world's agricultural work, they often do not have secure land tenure and rarely reach financial independence. When a male family member dies or divorces his wife, women often lose their entitlement to use the land, and land plots that are allocated to women are often too small or of too poor quality to be productive. Because land is used as collateral to obtain credit, many women are barred from starting a business. Women's access to land is not identified as a specific target in the MDGs, but at the 2002 World Summit on Sustainable Development, governments upheld the right of women to inherit land. Reform of land tenure systems based on gender equality and human rights will improve the overall achievement of the MDGs and some governments are drawing from international human rights treaties to give women equal access to land rights.

In most parts of the world, women and girls are responsible for collecting water for cooking, cleaning, health and hygiene, and if they have access to land, growing food. Increasingly limited water supplies, poor service delivery, pollution, growing population pressure and privatization are jeopardizing women's survival and that of their families. Under MDG 7, governments agreed to halve the proportion of people without sustainable access to safe drinking water by 2015. If women are to be targeted effectively, governments must link their efforts to MDG 3 on gender equality and women's empowerment. Improvement of water services can only come about when women have a stake in decision-making so that their needs are met. Linking these goals will also further efforts toward poverty eradication envisaged in MDG 1.

Another area calling for intervention is peace building. Building on the Beijing Declaration and Platform for Action and the outcome of the twenty-third special session of the General Assembly, as well as the work of the Security Council and other legislative bodies on peace and security, resolution 1325 (2000) called for women's equal participation with men and their full involvement in all efforts for the maintenance and promotion of peace and security. It reaffirmed the need to fully implement international humanitarian and human rights law to protect women and girls from human rights abuses, including gender based violence. It identified the need to mainstream gender perspectives in relation to conflict prevention, peace negotiations, peacekeeping operations, humanitarian assistance, post-conflict reconstruction and disarmament, demobilisation and reintegration initiatives.

The way that the MDGs are being deployed to support development is causing a problematic understanding of gender equality and human rights. This can be seen by looking at the indicators, the MDG Reports, the work of the Task Forces, and statements by the international financial institutions. The faces of women in the MDGs are predominantly those of a girl child, a pregnant woman, and a mother. The indicators under MDG 3 call attention to women's roles as producers in the formal economy and decision-makers, but these indicators are routinely forgotten. Women's empowerment is pursued, not because it is a human right, but because attainment of equality will address market inefficiencies and produce favourable ripple effects like birth rate reductions. Linkages have been forged between gender and a growth-driven approach to development.

For example, studies have shown that a failure to meet the goal of gender equality in education will lead to economic growth losses.⁴⁵ Although women's empowerment is difficult to measure, existing models have fallen off the agenda (for example, the Gender Development Index and the Gender Empowerment Measure). Such efforts conceptualise empowerment under three factors of power: resources (pre-conditions), agency (process), and achievements (outcomes). Within these categories, a wide range of indicators far beyond education captures the experience of empowerment. Common indicators of empowerment focus on allocation of income and resources within a family; less common indicators look at division of household labour, freedom from violence, and couple negotiations regarding sex.

Proxy indicators such as education, literacy rates, and parliamentary representation can play a role, but they should not be allowed to replace and overshadow the broader goal which is being measured, as is taking place in the MDGs. The work of Task Force 3 represents a challenge to the instrumentalist understanding of gender and, indirectly, the neo-liberal growth-driven model of development. The Task Force Report argues that not only is it essential to achieve the Gender Equality and Women's Empowerment MDG, it is also essential to integrate gender considerations into the other MDGs. They explain problems in using the Girls' Education target as a proxy indicator for gender equality and women's empowerment. Even if parity in girls' education is achieved, it does not bring empowerment without the opportunity to use that education to obtain decent work or without the chance to participate in political decision-making. Education of girls cannot eliminate violence against women. Furthermore, empowerment requires agency – the ability of women to control their own destiny. On the basis of their analysis, the Task Force proposes additional targets to be monitored at a country-level, sub-populations who should be a focus of attention (poor women, adolescents and youth), and six strategic priorities aimed at keeping on the agenda the issues which have been left out of the MDGs.

The work of Task Force 3 is a forward step, but it has weaknesses. Its reports are erratic in terms of a rights analysis of gender equality and women's empowerment. There is insufficient effort to link up their analysis to a human rights framework and little regard for the sources of accountability offered by the international human rights machineries. It is only in the section on violence against women that the international human rights system is mentioned. A further problem, which goes beyond this Task Force report to the structure of the Millennium Project, is the weak linkages between the MDG3 analysis of gender equality and the other MDGs. It does not appear that there is any structure in place to ensure that the linkages between the MDGs are being made and that gender is being mainstreaming in all MDGs. The consequences can be seen in the poor gender mainstreaming in the other Task Force Reports.

2. Gender & MDGs in the drylands

There is a lack of reliable sex and age disaggregated statistics on roles in dryland management activities. In general, men are responsible for decision making and the planning of farming activities while women have little authority and have to seek their husbands' permission before they commit family resources or make decisions. Nonetheless, rural women in dryland areas play a key role in natural resource management and achieving food security. They often grow, process, manage and market food and other natural resources. They are generally responsible for small livestock, vegetable gardens and collecting fuel, fodder and water, as well as carrying out their traditional reproductive roles. The Convention to Combat Desertification puts emphasis on women's roles 'in regions affected by desertification and/or drought, particularly in rural areas of developing countries, and the importance of ensuring the full participation of both men and women at all levels in programmes to combat desertification and mitigate the effects of drought'.⁴⁶

However despite their multiple roles in the dryland management, women's access to and control over natural resources such as land and agricultural support including credit and extension services are often restricted. This limited access to agricultural resources and services is caused by a series of interrelated social, economic and cultural factors that force rural women into a subordinate role and hamper their productivity as well as limiting their participation in decision making processes and development initiatives. In some cases, customary practices and laws that limit women's right to land tenure reduces women's and men's incentives to maintain soil quality because they have no permanent rights to the land. Without secure land rights farmers have little or no access to credit, rural organizations and other agricultural inputs and services.

⁴⁵ Responsible growth for the millennium: Integrating Society ecology and the economy. Washington DC <<http://www.worldbank.org>>

⁴⁶ See Preamble United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa 33 I.L.M. 1328 (1994).

Dryland degradation can lead to changes in gender roles. Such factors as migration, population pressure, and education and market forces have resulted in women taking more responsibilities. In response to change, for instance when they are left behind in the migration process, women readily assume most of men's traditional roles in addition to their existing agricultural, domestic and reproductive roles. This extra work and responsibility leads women to demand more equal access to land and fertility control. Consequently, control over resources may change, or women may become increasingly involved in decision making. Many field experiences illustrate how women and men have taken on new roles to combat desertification⁴⁷ such as through reforestation and land reclamation activities.

Given that women and men have different roles in the dryland management, the impact of desertification affects them in different ways, and the field experiences suggest that environmental change has a far greater impact on women. For example deforestation and desertification increase the amount of time that rural dwellers have to spend gathering fuel wood and fodder and fetching water. This is one of the most widely cited examples of the impact of land degradation on women, as many societies traditionally see these as women's tasks. At the same time as women are assuming more tasks and responsibilities, desertification is leading to loss of efficiency in such tasks as cooking owing to diminishing fuel wood sources and farming activities.

B. Achievement of MDG 3

It is clear that gender is an important frame of reference in the quest to achieve MDGs. With regard to dryland areas, a number of things need to be addressed. First, there is need to look at the activities that are carried out in the drylands through a gender lens. Sex and age disaggregated statistics on gender roles in dryland management activities are crucial to designing effective interventions. More specifically, access to and control of resources in the dryland management needs to be addressed through a gender perspective to examine how and why men and women have different rights and benefits in land tenure, credit, education, time, markets, support services, decision making, awareness raising and information. Gender specific impacts of drylands' degradation and misuse should also be acknowledged and incorporated in the data which should then be fed into decision making processes.

Second, an integrated approach must be used to ensure that projects and policies on agricultural production, poverty alleviation and environmental protection are related. In order to combat land degradation in a sustainable way, human activities and natural variations also need to be considered in an integrated manner. Gender is a critical variable in that integration.

Third, there is need to provide alternative sources of livelihood for people in the drylands. This would enable households to meet their food security needs in an environment of declining land productivity and at the same time, it reduces the pressure on drylands natural resources. It can also begin the process of redefining gender roles and contribute to the empowerment of women if women are targeted as a category in the search for these alternatives.

Fourth, local women and men need to be involved in the design of dryland management projects. This will ensure that local social and cultural factors inform the interventions and that they contribute to the identification of priorities of both women and men. The devaluation of local knowledge has been perceived as a factor limiting the success of resource management initiatives. International conventions such as the Convention on Biological Diversity⁴⁸ underscore the role of indigenous knowledge in sustainable management of biological resources. It is envisaged that the involvement of local resource users and land use management arrangements will increase women's and men's authority over resources and thus promote indigenous knowledge.

Fifth, the role of law in the achievement of MDGs comes into sharp focus. Different legal instruments are used by polities at different levels to allocate resources that contribute to development. These are influenced by power relations at both state and individual levels. At the individual level, gender and age are important factors and they influence specific groups' inputs into the decision-making process. Law can be used to reinforce or give permanence to certain social injustices leading to the marginalization of certain groups of people. In the drylands, legal rules may give rise to or emphasize gender inequality. Legal systems can also become obstacles when change is required in legal rules, procedures and institutions to remove the inequality by the oppressed. One often finds that the *de*

47 Heyzer, N. 1995. Gender Population and environment in the context of deforestation. A Malaysian case study. *Ids Bulletin, Gender Relations & Environment Change*, 26(1)

48 United Nations Conference on Environment and Development: Convention on Biological Diversity, 31 *I.L.M.* 818 (1992).

jure position, which may provide for gender neutrality cannot be achieved in practice due to the numerous existing obstacles, which make the law powerless.⁴⁹ Gender neutral laws have, in many instances, resulted in *de facto* discrimination. As Tove Stang Dahl aptly points out

As long as we live in a society where women and men follow different paths in life and have different living conditions, with different needs and potentials, rules of law will necessarily affect men and women differently. The gender-neutral legal machinery ... meets the gender-specific reality...⁵⁰

Legislation ought to be promulgated to facilitate women's participation in realms where they are excluded, beginning with rights to land and water. Law alone will not however, remove the obstacles to women's participation. Indeed one of the greatest problems for women has been the quest to operationalise legal rights that do not *per se* discriminate against them. The socio-economic realities in the drylands and the patriarchal (the ordering of society under which standards – political, economic, legal, social- are set by, and fixed in the interests of men) ideology in many societies stands in the way of swift and effective translation of abstract rights into real substantive rights. The provisions in the law may remain paper rights for women unless real efforts are made to operationalise them. Even where women's legal rights have been provided for, ignorance of such rights exacerbated by illiteracy ensures that they do not benefit from such provisions. The effectiveness of laws in according women equal opportunities with men depends largely on the society's willingness and ability to enforce such laws. This requires broad-based campaigns to educate society on the benefits of gender equality and to diffuse tensions between the genders as well as legal education on the substance of the rights and procedure to enforce the same. Public awareness campaigns should therefore accompany law reform initiatives.⁵¹

Sixthly and related, if the world is to go beyond rhetoric and begin to tackle the real need for change in gender issues, then a highly practical, pragmatic and empowering approach will be needed. Policies should be promulgated that ensure that women play a significant leadership role in all elected bodies and government programmes related to hunger, poverty and environmental management. Introduction of new technologies should be preceded by an analysis of its impacts on gender relations to ensure that interventions do not contribute to greater marginalisation of women. Special emphasis is needed on developing ways to ensure that women in the marginalised groups benefit from any interventions.

Seventh, local institutions should be strengthened and empowered to deal with issues in the drylands. Policy interventions ought to take cognisance of and recognise traditional governance systems that can foster sustainable development. The capacity of local/traditional governance institutions to interact with formal institutions should be enhanced and encouraged. For instance, among the pastoral communities of North-Eastern Kenyan, environmental security is closely linked with traditional governance structures owing to the fragility of the ecosystem, water scarcity and historical conflicts over resources among the communities. Any interventions to enhance sustainable development in that region must of essence include these structures if they are to be effective. Non-inclusion of these structures creates parallel structures with token and contemptuous observance of national systems while allegiance typically is to traditional norms and institutions. Investing in institutional supply for these institutions is critical to address the deficiencies in traditional justice systems such as *ad hoc* procedures; lack of awareness of and reverence for national and regional laws; lack of information on status of development resources such as water; and discrimination on the basis of gender and age.⁵²

C. Related Goals and their Gender Implications

1. *Goal 1 Reduce by one half the proportion of people living on less than one dollar a day*

The Millennium Development Goal (MDG) 1 aims to halve the proportion of people who suffer from extreme poverty and hunger. Extreme poverty and hunger are often close related to environmental degradation and therefore

49 Patricia Kameri-Mbote, 'Gender Considerations in Constitution-Making: Engendering Women's Rights in the Legal Process', *University of Nairobi Law Journal* (2003).

50 Tove Stang Dahl, *Women's Law: An Introduction to Feminist Jurisprudence* (Oslo, Norwegian University Press, 1987).

51 P. Kameri-Mbote, 'The Coverage of Gender Issues in the Draft Bill of the Constitution of Kenya, 2002: Have the Hens Finally Come Home to Roost for Kenyan Women?', *University of Nairobi Law Journal* (2004).

52 P. Kameri-Mbote, 'Towards Greater Access to Justice in Environmental Disputes in Kenya: Opportunities for Intervention', *Law Society Digest* (July, 2005).

have close links also to drylands. There are opportunities to harness resources found in drylands for the benefit of all.

Drylands host diverse wildlife species which are important sources of income. Protected areas in these lands have been a major pillar of biodiversity conservation strategies. In Africa for example, about 8.5 percent of the total area of the continent is designated as protected areas. Drylands have a slightly higher share than forests. About 16 percent of Africa's population live within 20 km of designated protected areas and population growth in these buffer zones has been found to be higher than elsewhere. This is indicative of the importance of these sites for local people's livelihoods.⁵³ If the resources are harnessed for local development, all people in the drylands will benefit, including women.

Management of crop biodiversity by local farmers in the drylands dates back to the dawn of agriculture. There is general agreement that many cultivated plants originated from drylands, including species of sorghum, millet in Africa, beans, potatoes, tomatoes from Latin America. In a study of indigenous practices in farming systems and crop planting methods in eastern Kenya, Mathenge⁵⁴ described no less than 10 distinct farming systems with 6 different types for what outsiders would only refer to as one 'slash and burn' system. The crop planting strategy also was found to be very diverse, with 6 different planting methods of mixed seed cropping in which seeds of more than one species are planted in one whole. One of the most commonly practised methods is to plant millet, sorghum and cowpea in one hole. The reasons have to do with risk management, balancing long term ecological sustainability against short term gains, and multiple uses and products rather than specialization in productivity.

Although not unique to drylands, it is a remarkable fact that the use of medicinal plants is a living tradition of dryland rural people. In addition to the 'professional' healers, countless of millions of women and elders have invaluable knowledge of herbal home-remedies and food and nutrition. Much of this knowledge has begun to be documented, preserved and fed into *sui generis* systems of intellectual property rights around the world.⁵⁵

Additionally, drylands provide energy resources to local populations as well as global markets. These resources include wood fuels and a variety of fuel minerals. In some cases, energy resources supply local people with daily heating and cooking fuels. In fact, in Africa, households use more wood fuel than the industry or commercial sectors.⁵⁶

2. Goal 6: Halt and Begin to Reverse the Spread of HIV/AIDS.

The HIV/AIDS pandemic interacts with hunger in a catastrophic fashion. Whereas dryland societies have usually recovered from famines in the past, AIDS-affected famines will be much more difficult to recover from. In AIDS-affected famines the strong and able-bodied fall ill and ultimately die, leaving the burden of caring on those remaining – the children and the elderly.⁵⁷ Women, who have a higher burden of work and are care-givers, are likely to be most affected by the increased burden of care. The emergence of 'HIV-AIDS' famines is relatively recent, and they are quickly leading to widespread and complex humanitarian crises. HIV/AIDS infection severely limits the capacity of people to work. The labour available for agriculture and other means of earning a livelihood is dramatically reduced. Where farmers are women, they are forced to make trade-offs among their tasks of growing crops, seeking firewood, fetching water, cooking for the family and caring for children.⁵⁸

The resilience of communities to famine is severely reduced by HIV/AIDS. Where coping strategies that have worked in the past had depended upon the availability of labour, there may be insufficient labour available for them to work now. Family networks often come to the assistance in times of famine, but the widespread nature of HIV/AIDS places pressure on the entire family. People are often driven to selling off valuable assets such as livestock or land, removing from the family the means of recovery. As matters get worse people move to find work, and desperation often leads them into unsafe occupations such as crime and prostitution.⁵⁹

53 Bonkougou, E. G. Biodiversity in Drylands: Challenges and opportunities for conservation and sustainable use. The Global Drylands Partnership.

54 Mathenge, L. (1999) Indigenous Practices in Farming Systems and Planting Methods: A Case Study in Maragwa and Gikingo Locations of Tharaka District, Kenya, Paper presented at the National Workshop on Agricultural Biodiversity. Nairobi, Kenya.

55 Pottier D & Viegas T. (1998) Using Traditional Knowledge & Modern Science in the Drylands, 172 *The Courier*.

56 Kituyi, E. (2002) Lost Opportunities: Woodfuel Data and Policy Development Concerns in Kenya (Energy policy position paper, ACTS).

57 FAO, Mitigating the Impact of HIV/AIDS on Food Security and Rural Poverty, at <http://www.fao.org> (2005).

58 *Ibid.*

59 *Ibid.*

There are also interactions between nutrition and HIV/AIDS. While the effects of HIV/AIDS on labour productivity reduce the amount of food that is available, people suffering from HIV/AIDS need good nutrition to fight off the disease. Undernourished people infected with HIV/AIDS develop the full symptoms of the disease more quickly than well fed people. The nutrition/AIDS interactions are complex. Sickness leads to diarrhoea and other causes of mal-absorption of food. The metabolism is affected in numerous ways, and the body stores food badly. This leads to a range of nutritional deficiencies that are associated with the suppression of the immune system. The virus replicates quickly, leading to increased sickness.⁶⁰

It is important that the interactions of drought, famine and AIDS are understood by decision makers, and that agriculture, health and other sectors recognize their joint roles in combating such complex crises.

3. Reduce By Half The Proportion Of People Without Access To Safe Drinking Water.

Freshwater resources in drylands, often limited and variable in availability are important water sources for drinking, irrigating crops, and supporting wetland flora and fauna. Water basins in drylands are found on every continent, ranging from small (52 thousand km²) to very large (3 million km²), from low population densities (1 person/km²) to high population densities (nearly 400 people/km²). While the number of wetlands in these basins in drylands is generally low, many contain wetlands listed as internationally important.⁶¹

Many dryland freshwater lakes have become more saline in areas where irrigation, clearance of the natural vegetation and other land use changes has occurred.⁶² In some dryland countries, Salinisation is regarded as the single most important threat to the natural character of fresh water lakes and the availability of water resources. Inadequate water and sanitation services to the poor increase their living costs, lower their income earning potential, damage their well being and make life risky. The lack of convenient and affordable access to water reduces a poor household's consumption of other commodities and services and leaves it consuming less than the optimum amount of water for good hygiene and impacts health and labour productivity of the household members.⁶³

Getting on track to meet the target in both drinking water and sanitation will mean better health, longer lives and greater dignity for billions of the world's poorest people. It will also make a significant contribution to the achievement of other Millennium Development Goals.

Securing safe and sufficient water access for both people and animals is an important part of the work carried out in dryland areas. It is necessary to apply a variety of methods in order to secure water access. Local institutions, such as farmers' associations, pastoralists, and water-use associations, need to be empowered.⁶⁴

4. Goal 4: Reduce By Two Thirds the Mortality Rate of Children under Five

In Africa, some 49% of the 10 million annual deaths among children under 5 years of age are associated with malnutrition.⁶⁵ Desertification, deforestation and overuse of wilderness areas have drastically reduced the amount of supplementary products gathered in the bush, which provide nutritional supplements to entire families. Furthermore, changes in local biodiversity can put at risk traditional medicine, which plays a very important role all over Africa. WHO points out that the drying of water sources forces people to use heavily polluted water, leading to severe epidemics. In particular, desertification and droughts can increase water-related diseases such as cholera, typhoid, hepatitis A and diarrhoeal diseases. Malaria epidemics are also subject to rapid increases in incidence, usually related to season and population movements. The Sahel is the only dryland in the world to have experienced a long drought, with a 21% decline in annual rainfall over the past 100 years. Rainfall has also become less predictable, making malaria prevalence in Sahelian countries appear to be in decline but likely to become unstable, with epidemics occurring in years with excessive rainfall.

The effects of desertification, drought and poverty can include protein-energy malnutrition intrauterine growth retardation and deficiencies of several micronutrients (such as iron and Vitamin A), infections, blindness and anaemia.

⁶⁰ *Ibid.*

⁶¹ See Bonkoungou et. al., *supra* note 53.

⁶² Williams W.D. (1999) Salinisation: A Major Threat to Water Resources in the Arid and Semi Arid Regions of the World, *Lakes Reservoirs: Res. Manag.* 4, 85-91.

⁶³ *Ibid.*

⁶⁴ See Barrow, *supra* note 7 at pgs 231-248.

⁶⁵ See Zafar et. al., *Ecosystems & Human Well Being, Desertification Synthesis - Report of the Millennium Ecosystem Assessment* (WRI, Washington DC).

Furthermore, drought increases the susceptibility of some forests and rangelands to fire, often resulting in severe episodes of air pollution, which may also affect neighbouring countries. This biomass burning can cause acute respiratory disease and exacerbate chronic respiratory disease in children and adults.⁶⁶

The provision of health and education services is generally inadequate in the drylands, and especially so for pastoral populations because of their low population density and mobility. This general deficiency in health, education and social services warrants early attention, with consideration in pastoral areas for special arrangements such as mobile health clinics and schools (even if such mobility incurs extra expense). The education of children will encourage emigration to higher potential areas. Even basic adult education can be expected to facilitate adoption of improved agricultural practices; and, in the case of women, to lower the risk of infant mortality.⁶⁷

Family planning may not always be immediately acceptable and, even where it is, it may take years for the effects to be substantially realized. Nonetheless, it has a central role in reducing the future difficulties of the drylands. It is therefore a matter of urgency that governments accelerate the implementation of national family planning programmes. Both commitment and sensitivity are needed to overcome the array of religious, social and technical obstacles that face effective family planning and to design programmes adapted to local conditions. In the drylands, where families are often remote from services and dependent on a large family labour force, it may well be essential to link rural services for family planning to health clinics and dispensaries.

IV. INITIATIVES

UNCCD stresses the global dimension of desertification and calls for increased efforts to implement national, sub regional and regional action programmes to combat it, thus promoting sustainable development particularly in the drylands of our planet. It is a legally binding instrument resulting from the United Nations Conference on Environment and Development (held in Rio de Janeiro in 1992). To date, 172 countries are Parties to UNCCD.

Dryland management was addressed in various chapters of Agenda 21 of the United Nations Conference on Environment and Development (UNCED) or the Rio Earth Summit in 1992. For example Chapter 12 of Agenda 21 focuses on strategies to combat desertification. However, the more significant outcomes of UNCED were three international conventions, which have a bearing on management of drylands namely the Convention to Combat Desertification (CCD), the Convention on Biological Diversity (CBD), and the Framework Convention on Climate Change (FCCC). In addition, the pre-UNCED Convention on International Trade in Endangered Species (CITES) has some important implications in dryland management. Most SSA countries are party to these conventions and agreements. However, the degree of their commitment and compliance varies widely. In general, SSA countries lack the necessary capacity and sustained commitment to comply.

Chapter 12 of Agenda 21 and subsequent CCD Conferences of Parties (COPs) have elaborated strategies and actions to be taken at the country level. For example, CCD calls for formulation and implementation of National Action Plans (NAPs). However, most SSA countries lack resources to implement NAPs. A few countries have received specific support through a special window of CCD dedicated to SSA (essentially to continue support previously provided by UNSO). In addition, there are some on-going CCD related initiatives in SSA including the UNDP/GEF/UNEP regional initiative on rehabilitation of dryland vegetation in Eastern and Southern Africa and the CGIAR desert margins research initiative in Africa.

Arising from CCD processes, some countries have formulated comprehensive and integrated policies and plans (National Action Plans or NAPs) consistent with guidelines in Chapter 12 of Agenda 21. Thus, countries like Burkina Faso, Senegal, Cape Verde and Botswana have concluded their NAPs through comprehensive participatory consultations. Others like Eritrea, Kenya, Lesotho, Malawi, Sudan, Swaziland, Tanzania, Uganda and Zimbabwe have only made pilot attempts at integrated policies and strategies.

Many SSA countries have large proportions of their land experiencing arid and semi arid climates with dry zone forests in advanced stages of degradation. These areas are under varying degrees of desertification threat.

⁶⁶ See Evers, Y.D (1994).

⁶⁷ *Ibid.*

Rehabilitation of degraded forests will not only abate desertification but will more importantly improve the livelihoods of pastoral populations, who depend on them. Moreover, the countries have recognized that future agricultural and forestry production in high productivity land is limited and they have given high priority to forestry development in arid and semi arid lands (ASALS).

Sustainable management of forest resources in dry zones calls for close integration with range management, wildlife management, and soil and water management. Support for rehabilitation of dry zone forests and desertification control will make great impact on the livelihoods of marginalized pastoral communities in many SSA countries.

Some promising interventions have been explored in some of the countries. These include tree regeneration studies in dry zones of Kenya and 'forest closures' in Eritrea. At regional level, some of the countries have also participated in the CCD supported national surveys on desertification status and trends. UNDP, GEF and UNEP have just launched a regional initiative on rehabilitation of dryland vegetation, which also extends to southern Africa. The CGIAR organizations in Africa are also preparing to launch a desert margins research initiative.

Among the Rio Earth Summit conventions, it is perhaps the Convention on Biological Diversity (CBD) which has attracted the greatest interest and participation in SSA. The CBD calls for formulation and implementation of National Biodiversity Action Plans and it has an international financial mechanism in GEF as executed by UNEP/UNDP. Currently, dryland biodiversity has a low priority in CBD yet biodiversity loss is most drastic. There have been some previous initiatives in the region. These include an ongoing regional project on capacity building for dryland biodiversity with its coordination unit at Nairobi (Kenya) with support from SIDA/SAREC, the Madagascar biodiversity programme, the FAO/UNDP/GEF East Africa Biodiversity project, IUCN Eastern Africa Biodiversity Conservation programme, FAO/GEF Biodiversity project and the Congo Basin Forest Initiative. In relative terms, this is an area which has attracted substantial donor support in the past. These previous efforts have mainly taken the form of short-term projects by regional and international NGOs with limited direct support to national institutions. A lot remains to be accomplished to mitigate the accelerating biodiversity losses in forests and relevant national institutions remain weak in their implementing capacities.

Similarly the World Summit on Sustainable Development Plan of Action identified a number of measures to improve the situation in drylands and linked these to poverty resulting from land degradation. These included: mobilisation of adequate resources, transfer of technologies and capacity-building at all levels; formulation of national action programmes to ensure timely and effective implementation of the Convention to Combat Desertification and its related projects; integration of measures to prevent and combat desertification as well as to mitigate the effects of drought through relevant policies and programmes, such as land, water and forest management, agriculture, rural development, early warning systems, environment, energy, natural resources, health and education, and poverty eradication and sustainable development strategies; and improving the sustainability of grassland resources through strengthening management and law enforcement and providing financial and technical support by the international community to developing countries.⁶⁸

V. CONCLUSION

Gender-based roles exist in most societies and are not germane to dryland communities. The social construction of these roles into masculinity (power) and femininity (powerless) has significant implications for women living in drylands where the social, cultural, economic and political structures emphasise these roles while contributing to broader marginalisation of the drylands. For women, there are consequently multiple layers of marginalisation in the poverty, food insecurity and constrained access to resources experienced by dryland dwellers. The quest for economic development has in most cases ignored the gender dimension while paying token attention to the issues of class and poverty. When attention has been focused on gender, the emphasis has been on women's reproductive roles without an attempt to link women's reproductive and productive roles. This needs to change if development is to occur in the drylands.

⁶⁸ WSSD Plan of Action.

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