#### September 2001

# **POVERTY AND THE DRYLANDS**

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#### Introduction

Since the negotiation of the United Nations Convention to Combat Desertification and Drought (CCD) there have been numerous attempts to estimate the number of people living in the world's drylands, and obtain an idea of the scale of the problems at stake and argue for greater attention to their needs. Unfortunately the figures that are quoted are usually consolidated from many different sources. Thus, it is very difficult to deduce exactly who the poor are, where they live and what they do.

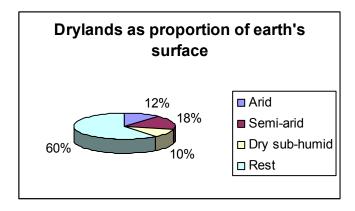
Global statistics need careful handling. Skepticism may be raised when very high figures are quoted with no attempt made to disaggregate them. Equally, by quoting large numbers of people at risk and associating these figures with images of starving people living in hostile arid places, many observers simply conclude that there is little hope for the world's drylands. Instead, they would opt to invest in higher potential areas leaving drylands problems to be dealt with by welfare and crisis management programmes. A third problem is that focusing on drylands peoples ignores the dynamics of movement and trade taking place between the drylands and other areas. The economic opportunities for drylands will not be understood simply by counting the people who are there at any time,

but by understanding the ways that other areas rely on the produce and labour provided by the drylands, and how the drylands in turn import goods and services from outside.

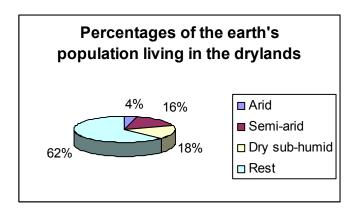
This paper takes as its initial premise the assumption that there are important and significant populations in the world's drylands who, given the right conditions and incentives, can achieve good livelihoods, accumulate assets to reduce vulnerability and escape from poverty. However, to make a convincing case it is necessary to challenge current wisdom on the distribution and condition of drylands populations, and build more realistic scenarios that decision makers can take seriously. This is a major task, and this paper will only set the challenge and introduce some of the new evidence that is required.

## **Commonly quoted statistics**

Two recent publications provide the most comprehensive up-to-date statistics on drylands populations available<sup>i</sup>. They tabulate the extent of arid regions in Africa, South Asia and Latin America, and their respective human populations. Based on the definitions agreed within the CCD, it is shown that about 40% of the earth's surface is made up of drylands.



The remaining category above includes 8% hyper-arid desert and 18% cold drylands according to CCD classifications. The percentage of the world's population living in these drylands was calculated to be about 38%, equivalent to 2.3 billion of today's global population of 6 billion.



These are startling figures for the number of people living in the arid, semi-arid and dry sub-humid parts of the world, and should be better known to policy makers. Indeed, one of the original purposes of the research that led to these figures being published was to draw attention to the very significant numbers of people living in and deriving their livelihoods from the drylands. Closer analysis is needed, however, to understand their full importance.

## **Challenging the figures**

The first challenge in interpreting these data is to get a better understanding of drylands livelihoods. It would be a mistake to assume that all 2.3 billion are poor, rural dwellers. Indeed, the arid, semi arid and dry sub-humid parts of the world contain many of the world's great cities. New Delhi (1993 population 8.96 millionii) and Mexico City (1990 population 9.8 millioniii) are just two examples of mega cities that happen to be in the drylands. In 1995, the level of urbanization in the world was as follows: Africa 34%, Europe 74%, North and Central America 68%, South America 78%, Asia 35%, and Oceania 70%. By applying these proportions to the number of people living in the drylands, it can be estimated that 800 - 900 million of the world's drylands population live in cities. While this is a very crude estimate, it does serve to emphasize that development can only be tackled through a clear understanding of the regional dynamics in drylands areas containing both urban and rural populations. Therefore, the number of rural dwellers directly suffering from desertification and land degradation are

considerably fewer than the figure of 2.3 billion. However, even more importantly, the figures point to the overall economic vitality of the drylands, with modern cities as well as more traditional agriculturalists.

A second adjustment that needs to be made to global figures is to separate them into developed and developing regions. Again, the data to do so are not readily available. Half of the surface area of the United States of America is classified as drylands. However, most people would argue in favour of excluding the US populating (276 million) and that of Australia (19 million) from the estimate of those at risk of impoverishment from desertification.

There are clearly many types of drylands country, facing very different challenges and requiring very different policy responses, as shown below.

|          | Land area         | Population | Population on | Drylands      |
|----------|-------------------|------------|---------------|---------------|
|          | (thousands        | on         | drylands      | population as |
|          | Km <sup>2</sup> ) | productive |               | % of pop. on  |
|          |                   | lands      |               | productive    |
|          |                   | (million)  |               | lands         |
| India    | 3,275             | 919        | 410           | 45            |
| Nigeria  | 913               | 111.7      | 42.6          | 38            |
| Botswana | 580               | 1.4        | 1.4           | 100           |
| Mali     | 1,254             | 10.7       | 10.3          | 96            |
| Eritrea  | 121               | 3.1        | 3.1           | 100           |

India and Nigeria are examples of large, populous countries that have significant dryland areas and the total numbers of people living in these areas are 410 million and 42.6 million respectively (although many will be urban dwellers and not reliant on livelihoods directly from the land)<sup>vi</sup>. However, the proportion of people living in the drylands in each country is less than half their total population. Countries of this size have the advantage of considerable diversity

within the country, so far as the climate is concerned. There are many other opportunities for alternative livelihoods, and substantial trade in goods and services. India has a highly diversified economy, with a strong industrial sector (26.3% GDP in 1999, including 15.9% manufacturing). (All economic data are *World Bank*<sup>vii</sup>). However, agriculture continues to be a prominent sector (27.7% of GDP). Much of this is dryland agriculture, comprising about 50% of India's agricultural land. The country has made extensive use of irrigation and other forms of water management, and can trade commodities and services between the drylands and other regions.

The ability to benefit from different ecosystems within a single country is also very clear in the case of Nigeria, where agriculture is the dominant sector (39% of GDP in 1998, a figure that has increased over the last twenty years). Nigeria stretches from the humid south coast to the semi-arid lands of the North. Rains that are plentiful in the South extend northwards seasonally, touching the northern regions for only a short period. Thus rainfall is lower and the rainy season shorter the further north one travels. Over centuries, the north has been used for rearing of livestock and growing millet and sorghum – well adapted to low rainfall. Nomadic pastoralists drive animals through the arid and semi arid zones, which can be productive, with good management. The animals are driven south during the dry season, when tsetse fly is absent, to be sold in urban markets in the humid coastal region. In turn, produce from the humid lands (maize, yams and other root crops etc.) is carried north. Obviously, this traditional pattern has become less dominant as a way of life over recent decades, but Nigeria nevertheless provides a good example of how drylands can be used to their best comparative advantage within a national economy. Clearly, simply counting the people in the dry areas reveals little of this complex trading economy.

Mali, by contrast, is a huge West African country, which is almost all dryland and hyper arid desert. Only the valleys of the Niger river system provide opportunities

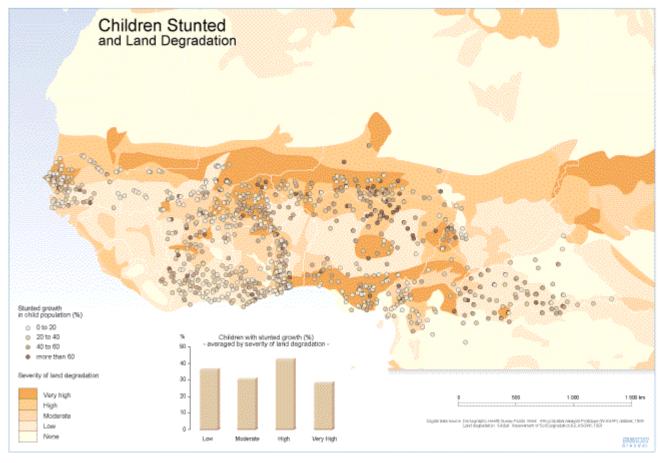
for water management and irrigation. As a result, 96% of Mali's population lives in the drylands, and the economy of the country reflects this. Mali is a predominantly agricultural country, this accounting for 46.5% of the economy in 1999. Apart from intensive rice production schemes on the Niger, most rural Malians are engaged in pastoralism or the production of dryland crops, especially millet and sorghum. Since colonial times, Mali has been growing cotton. More recently, such production has expanded greatly. In 1999 exports of cotton were worth \$244 million, more than 40% of Mali's total exports, and exceeding even gold, Mali's former export leader. Within an international trading context, Mali has been able to make use of the comparative advantage conferred by its drylands. Unlike Nigeria, Mali's north-south trade routes must cross national boundaries and hence makes trading opportunities dependent on trade policies in the broader region - a topic that will be returned to later in this paper. Equally, many Malian farming families depend on migrants' remittances from travel to Côte d'Ivoire and elsewhere. Were such opportunities to be shut down, there would be great impoverishment.

Botswana is an example of a dryland country whose economy has shifted completely from agricultural production, which contributed only 3.6% of GDP in 1999. Industry, especially the mining of diamonds, copper and nickel, dominates the economy. However, Botswana still has many poor people employed in pastoralism and small-scale crop production. The challenge for countries like Botswana is to establish the means by which dryland farmers can trade profitably within a rapidly modernizing economy. The opportunities established under agreements to export beef to the European Union under concessionary terms exemplifies the shifts that are taking place in traditional dryland economies. While minerals, beef and other exports make major contributions to the national economies of some drylands countries, they do not necessarily bring incomes to poor rural dwellers, who may be unable to assert claims on the resources in question. Indeed, exploitation of resources may even lead to the shifting of people from their land.

## The poverty dimension

It is clear from the above discussion that while global figures provide insight into the need for support to drylands development, they can only be the first step in understanding how to address poverty reduction. There are strong grounds to believe that the drylands are home to great numbers of very poor people. Four years ago, Nelson et alviii estimated that of the world's poor, about 325 million lived on favoured lands, while 630 million lived on marginal agricultural lands, forested areas and drylands. The effects of increasing populations on marginal lands which leads to increased impoverishment have been commented on by many authors. The most important contributing factor towards degradation of fragile lands in Sub-Saharan Africa is a nexus of poverty, rapid population growth and inadequate progress in increasing crop yields. Poor people in their quest for food and other livelihood needs are increasingly expanding cultivation into forests, steep hillsides and other fragile areas ... reducing fallow periods to the point where soils are inadequately rejuvenated, pursuing land management practices that deplete soil nutrients ... overgrazing pasture ... cutting trees for fuelwood ... ix. When studying the location of poor people in different parts of the world, there is a clear correlation between those living in degraded areas and

high levels of impoverishment.



Source: Bournay & Recacewicz. (1997). Statistics Norway/SSB - Ministry of Environment

Take Cameroon for example, which is characterized by a fairly moist southern region and progressively dryer conditions further north, with the Northern Region being extensively dryland. In 1987 31% of all Cameroonians lived in the Northern Region, and 50% of the country's poor population lived there. Poverty increases

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