

Combating Desertification **IN Kenya** Emerging Lessons from Empowering Local Communities



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AEZ	Agro-ecological zone
AEZ IV	Agro-ecological zone four
AEZ V	Agro-ecological zone five
AEZ VI	Agro-ecological zone six
ASAL	Arid and semi-arid lands
CAP	Community action plan
CBO	Community Based Organization
CDF	Constituency Development Fund
EIA	Environmental impact assessment
ICT	Information and communication technology
NAP	National action programme
NETFUND	National Environmental Trust Fund
NGOs	Non-Governmental Organizations
PEI	Poverty and Environment Initiative
ТОТ	Training of trainers
UNDDD	United Nations Decade for Deserts and the Fight against Desertification
UNCCD	United Nations Convention to Combat Desertification
WDCD	World Day to Combat Desertification
WUA	Water Users Association



Arid and Semi-Arid lands and their challenges



1.1: The Arid and Semi-Arid lands

The Arid and Semi-Arid lands (ASAL) constitute about 80% (467,200 sq. km) of Kenya's total land mass and is grouped into geographical zones including the Savannah covering most of the Northeastern and South-eastern parts, the Coastal region, the North Rift Valley, the Highlands and the Lake Victoria Basin. The ASAL host about 35% of Kenyas population (13 million people) and over 60% of its inhabitants live below the poverty line, subsisting on less than one US dollar per day.

Arid lands: The arid lands are characterised by high ambient temperatures with a wide diurnal range. In most areas, evapo-transpiration rates are more than twice the annual rainfall. These areas receive low and erratic bimodal rainfall that is highly variable both in space and time. In most cases, rain falls as short high intensity storms that produce considerable runoff and soil erosion. Average rainfall figures are deceptive in these circumstances because there tends to be a few years of rainfall well above the average, whilst three out of four rainfall events have below average rainfall. Average annual rainfall in the arid lands ranges from 150-450 mm. The soils are shallow, highly variable, and of light to medium texture. The soils are also of low fertility and are subject to compaction, capping and erosion. A few areas have volcanic soils and alluvial deposits which are suitable for crop production. Heavy clays are found in these areas also, but cultivation is difficult on them due to their poor workability as well as salinity problems. Water availability and accessibility is highly variable and is a considerable constraint to agricultural production. Arid lands are mainly inhabited by pastoralists and agro pastoralists. Large areas are suitable only for nomadic livestock production. These pastoralists/agropastoralists own about 50% of the national cattle and small ruminant herd and 100% of the camel population. Pastoralist systems contain huge amounts of critical human (language, indigenous technical knowledge, culture) and natural (uniquely adapted breeds of plants and animals) capital.



Semi-Arid lands: The lands receive between 500 and 850 mm of rainfall annually and are categorized as follows:

- Semi-arid areas with mixed rain-fed and irrigation agriculture and high economic and political disparities
- Semi-arid areas with encroaching agro-pastoral use by marginalized smallholders
- Semi-arid areas with predominantly pastoralist use in the economic and political periphery
- Semi-arid areas that include game parks and reserves and their surroundings. Examples include Kajiado, Narok and Transmara, Laikipia, Baringo, parts of Samburu, parts of Marakwet and West Pokot, parts of Meru north and central, Tharaka, Mbeere, Mwingi, Kitui, Machakos and Makueni. Also covered under this category are parts of the coast, except Tana River district and a small part of central Kenya. These districts fall into two agro-ecological zones (AEZ); AEZ IV (mixed croplivestock production farming system) and AEZ V-VI (maize/cowpea/pigeon pea farming system).

1.2: Natural, physical, financial and





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