

### LAND USE PLANNING IN THE CONTEXT OF CLIMATE CHANGE ADAPTATION

# LESSONS AND RECOMMENDATIONS FROM GCCA TANZANIA

This policy brief is based on the experience of land use planning and land use management interventions of five climate change adaptation projects in Tanzania, financed under the EU-funded Global Climate Change Alliance (GCCA) initiative. This policy brief is directed at policy and decision

makers in land use planning, as well as related sectors such as agriculture, livestock and fisheries. It outlines the challenges encountered in the areas where the five projects were implemented and provides some recommendations to address these.

### The five GCCA Tanzania projects are:

- Community Forests Pemba Scalable Resilience:
   Outspreading Islands of Adaptation (Pemba Island)
- EcoAct Eco-Village Adaptation to Climate Change in Central Tanzania (Dodoma)
- **ECOBOMA** A Climate Resilient Model for Maasai Steppe Pastoralists (Arusha)
- IGUNGA ECO-VILLAGE PROJECT (Igunga)
- Integrated Approaches for Climate Change Adaptation in the East Usambara Mountains (Muheza)









### **KEY MESSAGES**

- Land is the biggest asset for rural communities.
- Since the establishment of the National Land Use Planning Commission in 2007, out of 12,545 registered villages in the country, so far only 13% of rural villages have land use plans to date.
- Competing and growing demand for land in rural areas has led to an increase in conflicts. Land use planning and management are seen as a tool to address this problem.
- Land use planning regulations and guidelines focus on village and district level, but larger scale landscape level planning is often required, for example for rangeland areas and river basins.
- Land use planning is hampered by a lack of resources, such as human resources, financial resources and technical resources.
- Where land use plans exist, compliance, enforcement and coordination is often weak due to the failure of Planning Authorities (District and Village Councils) to exercise the powers on land use control vested in them.
- Climate change impact like extreme droughts will increase the problems related to land access and land management, but are not yet considered in existing land use planning policies, regulations and guidelines<sup>1</sup>.

### KEY RECOMMENDATIONS

- Provide for different approaches and scales to land use planning that go beyond village and district level, such as landscape level planning in rangeland areas and river basins.
- Incorporate the use of modern data sources that are freely, or at low cost, available in land use planning guidelines. Information from these sources can complement local knowledge to inform land use plans.
- Promote local awareness and ownership by applying strong participatory approaches for village land use plans.
   This requires building the facilitation skills of district staff.
- Include explicit conflict resolution mechanisms in all land use plans regulations and guidelines.
- Mainstream climate change in all land use planning related policies, regulations and guidelines.

### INTRODUCTION

For rural communities in Tanzania land is their biggest asset. About 72% of the population in Tanzania derives its livelihoods and incomes from activities that depend directly on land resources, in particular through crop farming and livestock keeping, which both are highly affected by climate change. Secure access to land and sound land management that considers climate change impact are therefore crucial elements for sustainable rural livelihoods. The fact that the agricultural sector contributes to 26% of Tanzania's GDP also indicates the importance of good land management policies and practices. Tanzania's National Five-Year Development Plan (NFYDP 2017–2021) recognises this and asserts that land use planning and management are a key variable for unlocking the potential for growth by making land accessible for productive use in rural and urban areas.

Due to competing land demands in rural areas, the country has been witnessing frequent land use conflicts leading to insecurities. This problem was already recognised in the National Land Policy of 1995, which points out that the livestock population is growing while the land available for grazing has reduced due to the extension of land for cultivation. Land use planning is seen as an important tool to address this problem and is promoted through the Land Use Planning Act of 2007, the Land Act No. 4 of 1999 and the Village Land Act No.5 of 1999, which foresees the preparation and management of village land use plans.

The absence of land use plans that regulate access to land for different uses is also mentioned as a cause of conflict in the National Agricultural Policy of 2013 and the National Livestock Policy of 2006. To strengthen land use planning, the government repealed the National Land Use Planning Commission Act and put in place the National Land Use Planning Act, 2007, which strengthened the existing National Land Use Planning Commission. From being an advisory body for the Government, the Commission became the authority on land use planning related issues with the mandate to ensure coordination between all different sectors and stakeholders involved in land use planning, develop guidelines for efficient and orderly management of land use, and evaluate and monitor their implementation. So far however, only around 13% of villages have completed land use plans (according to the NFYDP).

The five GCCA projects have learnt first-hand that climate change is exacerbating conflicts over land. In particular, the climate change induced increase in more extreme droughts is leading to declining water catchments/ resources and the destruction of ecosystems, and to an increase in movements of the rural population in search of water, good pastures or better land for cultivation. The challenges and recommendations outlined below are based on their experience with supporting land use planning processes in support of climate change adaptation in the agriculture and livestock sectors.

### **CHALLENGES**

#### Inadequate scale of planning

The focus of most land use planning policies and legislation in rural Tanzania are at village level, and to a lesser extent, district level land use plans. However, for effective land use planning the scale required is often not village or even district level but landscape level. There are two clear examples of this from the GCCA projects.



- The EcoBoma project works in pastoralist communities with pastoralists moving beyond village and district boundaries in search of water and pastures. This requires higher level land use planning that goes beyond these administrative boundaries and instead considers larger landscapes rangeland and the multiple roles of those landscapes for different socioeconomic groups as well as their other roles like supporting wildlife corridors.
- The East Usambara project works in watershed areas within the Pangani river basin, with developments in the whole basin directly influencing this sub-catchment and hence this needs to be linked to land use planning processes.

Land use plans that do not consider this higher-level scale may be ineffective or even lead to conflicts by restricting land uses for others (e.g. pastoralists from outside) or by allowing land uses that have negative effects elsewhere (e.g. drawing water from a river for irrigation that may negatively affect downstream communities). With village boundaries not always well defined, a land use plan made for one village only may also lead to conflicts with nearby other villages.

#### Lack of resources and information

The cost for elaboration of land use plans is considerable. Given the limited budgets at LGA level this is a considerable hindrance for development of such plans. Furthermore, good land use

planning is ideally based on combining local knowledge with more science-based data. Such data, like land suitability maps, are often not available and collecting this information through field level research is generally a very expensive undertaking. Other possible sources of information, such as satellite data, are becoming more and more accessible but are not yet widely used in land use planning exercises.

### Lack of compliance, enforcement and coordination

Where land use plans have been developed, there is often a lack of enforcement / compliance, with political and economic interests taking precedence over agreed land use plans. A recent example from one of the GCCA projects is the allocation of land for grape farming, while in the village land use plan that same land is marked as community forest. Similarly, enforcement of bylaws related to the management of the land (and the natural resources it supports) are also often not adhered to, due to a lack of awareness of the population on the existence of such bylaws and/or a lack of understanding of the importance of such bylaws for the long term interests of the community.

# Climate change not considered in land use planning policies and legislation

Climate change has a direct impact on land and on natural resources. The drought in 2016/2017 led to land degradation from overgrazing and related wind erosion in pastoralist areas, forcing pastoralists to migrate over long distances in search of pastures. Conversely, heavy rainfall events in 2017/2018 led to considerable soil erosion in some semi-arid areas. Such land degradation processes will lead to an increase in "internally displaced" people in search of "new" land, which in turn may lead to more conflicts over land. Existing land policies, regulations and guidelines do not consider these climate change impacts and their potential consequences.

### **RECOMMENDATIONS**

# Differentiated guidelines for different landscapes and agroecological zones

There is a need for land use regulations and guidelines to provide for different approaches to land use planning depending on the landscape and agroecological zone. For example, in pastoralist rangeland areas, land use planning should ideally start at a landscape level that covers the main extent of rangeland as used by the pastoralists in their annual movements. Similarly, in river basins, the first level of planning should be the main basin level. More detailed planning can then be done at e.g. district, village or sub-catchment level as long as those more detailed plans are aligned with the land use plans (or guidelines) agreed at the broader landscape level.

### Make use of modern data sources to complement local knowledge

The lack of sound science-based information to inform land use plans can at least be partly addressed by making more use of modern data. Increasingly, such data are becoming available for free or at low cost. Examples of such data sources include Google Earth maps (which includes historical data to allow for trend analysis), and the FAO CEO-CEPAL system for monitoring vegetation cover land use change. It is recommended that the Land Use Planning Commission engages with stakeholders involved in land use planning on the sources and

standards for scientific data that can be used in conjunction with local knowledge to inform land use plans.

### **Build capacity for participatory approaches**

Awareness at the local level of both the existence of land use plans (and related bylaws) and the importance of such plans for local livelihoods is still low. The 'Guidelines for participatory village land use planning, administration and management in Tanzania' as developed by the National Land Use Planning Commission, rightfully emphasises the importance of participatory approaches, but their effective application requires strengthening the capacity of those who facilitate these processes, such as at district level, where there is not always sufficient expertise and experience available to effectively coordinate these processes. It also requires ensuring all relevant groups are involved, including for example, pastoralists and agro-pastoralists who are not permanent inhabitants of a village.

### Conflict resolution approaches

Competing demands for land will continue to give rise to conflicts over land, with the number of potential conflict situations likely to increase due to the effects of climate change. While the guidelines for village land use plans mention conflicts as one of the main justifications for the development of land use plans, they do not include explicit guidance for conflict resolution mechanisms. While village land committees and ward committees have a general role in resolving land conflicts, it is recommended to include more explicit conflict resolution mechanisms in land use plans, not only at village level but also at higher levels. They should not only cover the probably most recognised source of conflict i.e. between pastoralists and crop producers, but also possible conflicts between neighbouring villages, between different groups within the village, and between the local population and any outsiders who may lay claims on land for their own use or for broader objectives like wildlife conservation.

### Mainstream climate change aspects in land use planning policies, regulations and guidelines

Climate change directly impacts on land and natural resources and on the livelihoods that depend on these. There is therefore a need to consider climate change more explicitly in land use planning. This should start with the recognition of this aspect in the land policy and culminate in providing guidance on inclusion of climate change considerations in the land use planning exercises at landscape level and at district and village level. One option to consider is the inclusion of climate change vulnerability assessment tools in the guidelines for land use planning processes.

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