



Part

## **REDD+**

Governance Process in  
Tanzania

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## **Lessons Learned from REDD+** Pilot Projects in Kondoa and Rungwe Districts, Tanzania

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### **Abstract**

Reduced deforestation and forest degradation ‘plus’ the role of conservation, sustainable management of forests and enhanced carbon stock (REDD+) has been singled out as one of the core strategies against climate change. At the same time, forests offer important livelihoods. To acquire experience on how to establish REDD+ ‘on the ground’, REDD+ pilot projects were established in Tanzania. The pilots were expected to provide valuable insights on many issues that will likely be encountered by both the government and local communities as REDD+ develops to assist in future REDD+ initiative. This study was conducted to draw lessons from two REDD+ pilot projects in Kondoa and Rungwe districts in Dodoma and Mbeya regions, respectively. Structured questionnaires for households with both closed and open ended questions were used to collect socio-economic, institutional and livelihoods-

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related information. Participatory rural appraisal (PRA) techniques, participant observation and focus group discussions (FGDs) were also employed. Results show that land and forests are the main livelihood assets in the two pilot project areas. Although REDD+ was generally accepted by most communities in the pilots, there were some levels of scepticism based on their past land use history. For example, the introduction of REDD+ in Kondoa faced rejection from some villages due to fears over land grabbing and exclusion from forest access. On the contrary, villages which depend solely on state-owned forests did not object to REDD+ as they are used to resource use exclusion mechanisms from such tenure systems. Assessment of the trial payments showed that most of the people would consider stopping deforestation and forests degradation if they get compensation relative to the losses of income they will encounter. Communities prefer payments in form of community investments rather than paying cash to individuals. It was observed as well that at the local level parallel governance structures for REDD+ have increasingly become a source of intra-village conflicts. In fact, the livelihood of the poor inhabitants is directly hooked to surrounding forests and natural services with growing future needs of land per household that threaten the future of REDD+. On the other hand, land use plans go through a relatively too long process and are costly. Thus, the government should consider preparing plans for all villages to reduce the costs of planning for natural resource management and use.

**Key words:** *Climate change, REDD+ architecture, Livelihoods, Tanzania.*

## 1.0 Introduction

Reduced deforestation and forest degradation 'plus' the role of conservation, sustainable management of forests and enhanced carbon stock (REDD+) has been singled out as one of the core strategies against climate change (IPCC, 2007; URT, 2009). At the same time, forests offer important livelihoods. In Tanzania, forests have been estimated to contribute 1.9 percent of the Gross Domestic Product in 2006 (FAO, 2009). The sector also provides employment to about three million Tanzanians through forest industries, government forest administration as well as self-employment in forest-related activities (MNRT, 2008). However, the real value of forest resources is grossly underestimated in official statistics due to unrecorded fuel-wood and other forest-related products for direct consumption by households (URT, 2011). Vedeld *et al.* (2007) document that forest incomes are typically about 20 percent of the total household income in the rural south.

Notwithstanding their contribution to the national and local economies, Tanzania's forests face enormous challenges, including deforestation and forest degradation. Tanzania is reported to be twelfth among countries with the largest forest loss per year in Africa (Murray and Olander, 2008; Vatn *et al.*, 2009). Deforestation and forest degradation take place in both reserved and unreserved forests, but are more pronounced in the latter (Mwakalobo *et al.*, 2011; URT, 2013). Forests in the general land are de facto under open access characterised by insecure land tenure and lack land use plans. Typically, shifting cultivation, annual wild fires, uncontrolled harvesting of fuel-wood, poles and timber, and heavy pressure for conversion to other competing land uses, including agriculture, livestock grazing, expansion of settlements, and industrial development degrade these forests (Blomley and Iddi, 2009; Zahabu, 2008). The rate of deforestation in Tanzania is estimated at between 130,000 and 500,000 hectares per annum (Zahabu, 2008). Deforestation has been magnified by limited human capacities and financial incentives and the government's inability to institute effective management plans for ensuring active and sustainable forest management in the country (Blomley *et al.*, 2008; URT, 2009).

Zahabu (2008) reports that the current rates of deforestation and forest degradation in Tanzania result into high CO<sub>2</sub> emissions estimated to be in the order of 126 million tonnes per annum. Recognising its significant contribution to global carbon emissions, Tanzania, with support from the Norwegian government, developed a REDD+ Framework in 2009 (URT, 2009) and a National REDD+ Strategy in 2013 (URT, 2013a), which provide a direction for future REDD+ implementation in the country. However, it remains unclear how Tanzania will participate in REDD+ initiatives in terms of what options the country will offer and the attendant costs of these options.

To acquire experience on how to establish REDD+ 'on the ground', a number of REDD+ pilot projects have been established. Despite most of them developing rather slowly, they are expected to provide valuable insights into many salient issues that likely be encountered by both the government and local communities as REDD+ develops. Furthermore, they will serve as valuable test cases for a full national programme regarding the engagement of stakeholders, the understanding of potential effects on livelihoods, the realisation of challenges related to necessary clarification of property and land use rights and the development of benefit-sharing mechanisms (Jagger *et al.*, 2009; Sills *et al.*, 2009; Van Bodegom *et al.*, 2009). Hence, they provide valuable information on the suitability and implications of various solutions supporting the design of an effective and equitable future REDD+ mechanisms.

This chapter is aimed at providing such insights based on the data collected from two of Tanzania's REDD+ pilot projects based in Kondoa and Rungwe districts. The focus is on potential livelihood consequences, tenure issues, local

perceptions of REDD+ and REDD+ payments. Finally, an analysis of the implementation status of REDD+ in the two pilot projects is made, including some emerging land use conflicts in relation to the introduction of REDD+.

## 2.0 Materials and methods

### 2.1 Location of Study Sites

The Rungwe pilot area is located on Mount Rungwe Nature Reserve in Rungwe district, Mbeya region. The pilot project in Kondoa District is located around Kolo Hills Forest Reserves, Dodoma region (Figure 10.1). The sites were selected on the basis of their differences in ecology, forest management regimes and cultural conditions.

Rungwe district lies between 8°30' and 9°30' S and 33° and 34° E. It consists of 30 villages and has a total population of 307,270 people. The Nyakyusa and Ndali are the main indigenous ethnic groups accounting for more than 70 percent of the population. The other ethnic groups in the area include the Nyiha, the Nyamwanga, Bungu, Safwa, Kinga, Hehe and the Sukuma. The pilot project in Rungwe district covers four areas—Mount Rungwe Nature Reserve, Livingstone Nature Reserve, Kitulo National Park and Mbizi Forest Reserve. The present study was conducted around Mount Rungwe Nature Reserve. The project is run by the Wildlife Conservation Society (WCS).

Kondoa district, on the other hand is one of the five districts of Dodoma region. The district lies between latitudes 40 10 and -50 44' South and longitudes 340 54'-360 28' East (Mung'ong'o, 1995; Mung'ong'o *et al.*, 2004), 5° 0' S and 35° 45' 0 E. It consists of 34 villages with a total population of 269,704, according to the 2012 National Population Census (URT, 2013b). note The Rangi and the Sandawe are the major ethnic groups accounting for about 80 percent of the populations in the district (Mung'ong'o *et al.*, 2010). Other groups include the Alagwa (also known as Aasi), the Burunge, the Gorowa (or Fyome), the Nyaturu and the Barabaig. REDD+ is being tested at the Salanka, Isabe and Kome Forest Reserves on the Irangi Hills and Irangi Escarpment, which together make up the so-called Kolo Hills Forest Reserves. The African Wildlife Foundation (AWF) is responsible for the implementation of this REDD+ pilot.

The study was conducted in ten villages—five in each district. In Rungwe district, the study villages covered Ndala, Kibisi, Kabale, Ikama and Katumba whereas in Kondoa district it covered Mnemia, Bereko, Kikore, Gwandi and Haubi.

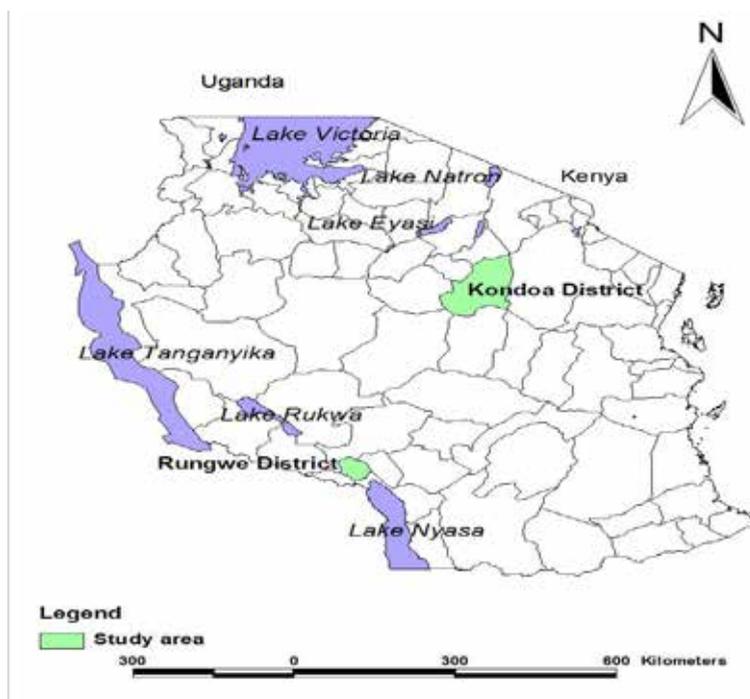


Figure 10.1: Map of Tanzania showing the location of the pilot areas

## 2.2 Data Collection

The study employed a combination of quantitative and qualitative techniques for data collection. The aim of the combination of techniques was to triangulate the sources of data and facilitate the validation of data through cross-verification from more than two sources (Mikkelsen, 1995; Luoga *et al.*, 2006). Household survey was conducted through the administration of structured questionnaires for households with both closed and open ended questions designed to collect socio-economic, institutional and livelihoods data at the time of the introduction of the pilot projects, for example, in 2011. A total of 200 households were involved in this part of the study in the Kondo and 198 respondents in Rungwe.

On the other hand, the study employed some Participatory Rural Appraisal (PRA) techniques such as participant observation and semi-structured interview. The semi-structured interview were organised through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs). These techniques were useful in capturing some in depth and controversial information which could otherwise not be captured through the use of a structured questionnaire. As some livelihoods are based on illegal activities, there were some clear uncertainties related to the data acquired, especially those from the questionnaires. Therefore, information from focus group discussions and key informant interviews were used to supplement the information from questionnaires. Both pilot projects were later

revisited at least once each year to gather lessons from time to time and also for self-monitoring. It was necessary to collect continuous lessons on stakeholders' engagement, potential effects on livelihoods, the realisation of challenges related to necessary clarification of property and use rights and the development of benefit-sharing mechanisms. At this time, interviews with various resource persons such as representatives from the NGOs running the projects, district officials and representatives of village governance bodies, for example, village councils and natural resource management committees were undertaken.

## 2.3 Data Analysis

The IBM Statistical Product and Service Solutions (SPSS) version 20 was used to analyse quantitative livelihood data. Qualitative information captured through participant observation, semi-structured and unstructured interviews, on the other hand, was subjected to content analysis. In this analysis, the components of verbal discussions held with key informants were analysed in detail, whereby recorded dialogue with respondents was broken down into smallest meaningful units of information (Kajembe, 1994; Mbeyale, 2009).

## 3.0 Results and discussion

### 3.1 Role of Forests in Rural Livelihoods

Forests were generally treated as a major livelihood asset in both pilot project areas. At the same time, lack of clear land tenure and land use plans were found to be critical barriers for REDD+ implementation as observed from the very beginning of the pilot projects. Table 10.1 gives an overview of the main livelihoods in Rungwe and Kondoa pilot villages, respectively. Certainly, there are substantial uncertainties involved.

Source of income	Pilot areas			
	Rungwe District (N=198)		Kondoa District (N=200)	
	USD	%	USD	%
Forest income	365	15.7	211	15.9
Crop	1423	61.1	617	46.2
Livestock	316	13.6	283	21.3
Other income	224	9.6	222	16.6
Total	2328	100	1333	100

Table 10.1: Income per household and category for Rungwe and Kondoa districts (N=398)

Source: Source: Survey Data (2011)

There is substantial internal variation in the income, with the largest variation found in Rungwe. Here the richest 1/3 had income that was about 70 times that of the poorest 1/3. In Kondoa the levels were 9:1. Crop income dominated in both districts, with forest income accounting for about 16 percent of the total income in both pilot areas. Whereas a substantial fraction of crop income in Rungwe was cash income (91 %), it was much lower in Kondoa (42 %). Certainly, Rungwe district has very favourable conditions for crop production. In both cases, almost all income from forests was for subsistence.

Generally, forests play three roles in the economy of rural households, namely supporting current consumption, safety netting and serving as an out-of-poverty pathway (Luoga *et al.*, 2006). Table 10.1 covers only the former, and it does so only partially. In other words, it does not capture the role forests play as fallow land for agricultural expansion. Moreover, it does not explicitly show the importance of forests in the livestock economy—grazing—or the role for NTFPs for subsistence. It was found to be too difficult to obtain meaningful data on these aspects. Based on the household survey data we can, however, add the following information:

- In Rungwe, about 6 % of present households were ‘a bit’ too ‘quite’ dependent on clearing forests for agricultural expansion of. In Kondoa, the figure was 11 %, including also some ‘very’ dependent responses. The data does not, however, say anything about the situation for the establishment of new households.
- In Rungwe, 4 % mentioned dependency on forests for grazing. In Kondoa, the figure was 14.5 %.

When interpreting the above data, one must be aware that the government forest reserves were largely closed for farming activities by the surrounding communities from the time they were established. Some of the communities had no other forests available. In Rungwe, the main forest was turned into a nature reserve in 2009, implying that use for farming was no longer allowed. It should also be added that there were many trees in the agricultural landscape, including those in the ravines along water streams and rivers, even though, some of these trees were also protected.

In Kondoa, closing off the forests to grazing has been a policy since the 1980s. This was the outcome of the Tanzania government’s effort to rehabilitate the degraded land through the Land Rehabilitation Programme for Dodoma Region known as HADO in Kiswahili, which stands for *Hifadhi Ardhi Dodoma*, and it was launched in 1973 (Garrett and Emmanuel, 2010). The programme was supported financially by the Swedish International Development Co-operation Agency (SIDA) with aim of rehabilitating soils and forest areas in Dodoma. It is, however, clear that we faced under-reporting regarding the use of forest

resources as people were afraid of telling the full story under the present legal situation. This conclusion is based on data derived from the FGDs.

Forest income, as reported in Table 10.1, concerns mainly fuel-wood. The data show that this is the main source of energy in both study sites. Assessment of the most important source(s) of energy for cooking shows that 98 percent of the households in Rungwe used wood as their main source of fuel. It was learned that fuel-wood from tree plots on the households' own land was by far the most significant as 69 percent of the households had this as their primary source of fuel-wood. On the other hand, about 14 percent of the households depended on bought fuel-wood as their major source, whereas 11 percent depended first-of-all on wood collected from forests around the household landscapes and only one percent reported collecting wood from REDD+ pilot forests. The fact that the main forest was a forest reserve turned into a nature reserve is the most plausible explanation behind the low level of reported fuel-wood consumption in the pilot project area.

Also, in Kondoa District, 97 percent of the households used wood as a main source of energy for cooking and lighting. The results show that wood was collected from different sources and that 45 percent of the households collected firewood from the forests in the landscapes around the settlements. The primary source for 24 percent was the REDD+ pilot forests. For 16 percent own tree plots were the most significant whereas nine percent of the respondents depended first-of-all on locally bought firewood. Although fuel-wood dominated heavily as source of energy in both pilots, it was only in Kondoa that the REDD+ forests seemed to play a significant role currently in supplying fuel-wood.

### **3.2 Land Tenure and Rights to Forest Resources**

Land tenure is one of the principal factors affecting the manner in which land is managed and the way accruing benefits are shared. The legal basis for land tenure in Tanzania is derived from two basic laws that were passed in 1999, namely the Land Act No. 4 of 1999 (URT, 1999a) and the Village Land Act No. 5 of 1999 (URT, 1999b). These laws state that all land in Tanzania is public, as it is held in trust for all the citizens by the president. The president delegates the power to designate, adjudicate and modify land tenure status to the Commissioner for Lands (URT, 1999a).

According to the Land Act No 5 of 1999, 'land' includes the surface of the earth and the earth below the surface and all substances, buildings and other structures permanently affixed to land—except minerals and petroleum forming part of or being below the surface. The Village Land Act also adds a claimer that

‘naturally growing things’ are an integral part of the land. Trees are, therefore, regarded by law as fixtures/naturally growing on land surface (URT, 2009). This interconnectedness seems to imply that carbon property rights would correspond closely with land rights.

Although it is a trust-based system, land tenure in Tanzania can best be described by legal pluralism where traditional systems operate in parallel with the formal legal system. People may have informal use rights that sometimes are viewed locally as comparable to a property right. Hence, there is a lot of tenure insecurity. Land tenure insecurity may result into a number of environmental problems, including forest degradation and deforestation (Kissinger *et al.*, 2012; Robinson *et al.*, 2011; Broegaard, 2005). Broegaard (2005) argues that tenure security is vital in determining people’s investment behaviour. Lack of clear land tenure and land use rights may become a critical barrier to REDD+ initiatives and their success (Harvey, 2010).

This issue is magnified by the fact that land is the major asset for households in the study areas. For example, it is a basis for incomes from crops, forests and livestock-keeping. Concerning property and use rights to the land and its resources, there is a clear distinction between land for agriculture and forest land. Even though REDD+ focuses on forests, understanding the overall tenure situation is important.

### 3.2.1 Agricultural Land

In both sites, most of the agricultural land is privately-owned through ‘traditional’ arrangements – see Table 10.2. However, a substantial part of the land is on general land, whereby tenure is not clear, thus creating land tenure insecurity. It was learned that individuals acquire agricultural land mainly through inheritance, buying or through allocation by village governments.

Tenure regimes	Percentage (%) of ownership in the pilot areas	
	Rungwe District (N=192)	Kondoa District (N=186)
Private ownership (most on general land)	82	89
Common ownership	16	7
State ownership	2	4
<b>Total</b>	<b>100</b>	<b>100</b>

*Table 10.2: Perceived status of agricultural land ownership in Rungwe and Kondoa districts*  
*Source: Survey Data (2011)*

As emphasized in Section 3.0, agricultural expansion depends at least partly on converting forests into agricultural land. This represents a great challenge for REDD+ as halting this process is rather difficult. Halting such expansion will depend on the acceptance among local communities since influencing agricultural expansion is very difficult if controlled only from outside. Certainly, compensating for lost income opportunities may help. What are needed are substitutes for the 'lost' land. In this regard, money offers a capacity to buy these substitutes or alternatives. It does not, however, by itself ensure the availability of substitutes such as fertilisers, for example. Moreover, fertilisers are also complements to land. Hence, despite effective compensation, the conversion pressure may not be reduced if local communities do not accept that conversion of forests into agricultural land is wrong.

### **3.2.2 Forest Land**

Tanzania Mainland has a total of 33.428 million ha of forest land out of which 16 million ha comprises reserved forests, two million ha are forests in national parks and 15.4 million ha are unprotected forests located in the so-called General Land (URT, 2013). As already indicated, most of the forests in Tanzania are under government ownership through forest reserves and general land institutions. Forest reserves are partly under central and partly under the local governments. Some public forests are also under more strict protection. These include nature reserves and national parks. There are, however, also some forests that are under private and communal ownership as detailed below.

#### **3.2.2.1 Forests under private tenure regime**

Forests under private tenure regime are owned by individuals with rights that exclude others from the use of the forest resources (URT, 1998). The amount of forests under private ownership is small, and dominantly takes the form of woodlots in between agricultural fields. The study shows that 38 percent of the households in the Rungwe pilot project site owned woodlots/forests privately. In Kondoa, the equivalent was only nine percent. The different levels were related to differences in history. In Rungwe, a substantial part of the forests are found in the Mount Rungwe Forest Reserve, currently a Nature Reserve. These changes in status have imposed relatively stricter resource use controls to the surrounding communities. As a result, most of the households have established woodlots in the agricultural landscape as an alternative way of ensuring the availability of the necessary sources of energy. As we shall see later, both the WCS and the district authorities in Rungwe have constantly promoted such a development.

The low number of woodlots in Kondoa, on the other hand, could be attributed to less strict regulations of forest reserves regarding fuel-wood collection and reluctance of the local community to adopt environmental conservation technologies due to bad experiences with the SIDA-initiated HADO (*Hifadhi*

*Ardhi Dodoma*) project interventions in the 1980/90s. The approaches which were adopted by HADO project during the implementation were claimed to be top-down and technocratic, hence resulting into low acceptance by the community because it necessitated the community to reduce their economic activities, for example, reduce livestock, move shifting cultivation, which had a negative impact on their livelihoods (Garrett and Emmanuel, 2010).

Private ownership of forests does not automatically ensure the right-to-use the resources. In Tanzania, the extraction of forest resources even in private forests including timber and poles demands a legal permit from the government. Nevertheless, the majority of the private forest owners (87 % in Rungwe and 93 % in Kondoa, respectively) stated that they had user rights for all resources in the forests they owned. This conflicting understanding of the rights to forests situation is very typical in Tanzania, and it creates a great challenge for REDD+.

### **3.2.2.2 Government forests**

Forests in Rungwe district are mainly under the central and/or local government authorities. According to the District Natural Resources Officer (Mr. Chibwaye, Pers. Comm.), there is a mixture of plantation and natural forests in the district. The plantations include Kiwira, which covers about 2,634 ha, owned by the central government and four other softwood plantations covering an area of 60 ha, each owned by the District Council. There are also numerous privately-owned softwood plantations around the district covering about 46,000 ha. On the side of natural forests, there were seven proposed village forest reserves which covered from about 2-640 ha. These forests were Kinyala, Swaya, Nkunga, Ilima, Milima Mbambo and Kipapa. But none of these forests are found in the study villages. With regard to natural forests owned by the central government, a total of 11 forest reserves ranging from about 45 - 855 ha exist in the district. These include Mount Livingstone, Mount Rungwe, Sawago, Kitweli, Masukulu, Kyejo, Isaka, Nyiru Bamboo and Kyosa-Rungwe reserves.

The findings show that respondents in the study villages had no user rights over the resources in the government forests. Access restrictions were strengthened as the two forests in the area— Mount Rungwe and Livingstone—acquired the status of ‘nature reserves’ which by design have stricter access rules than forest reserves. The contribution of the Mount Rungwe Nature Reserve to the livelihoods of local communities was, thus, heavily constrained by the prevailing state tenure regime and exclusive state management. In other forests with a normal status of a ‘reserve’, access was rather loose. Information from forest officers revealed, for example, that the extraction of forest resources was restricted to particular forest products. These products included dead wood for energy purposes and a variety of non-timber forest products (NTFPs). It was also found that non-destructive activities such as traditional rituals and medicinal plants were also allowed in the nature reserves.

In Kondoa, 50 percent of the respondents reported to have user rights to resources in government forests of Salanga, which is under the central government, and Isabe, which belongs to the District Council. Together these forests covered an area of about 18,000 ha which were under the management of the REDD+ pilot project. These forests were managed through the Joint Forest Management (JFM) system. This system involved local communities in the management and use of government forest resources. According to the feasibility studies for REDD+ interventions in the area (CAMCO, 2010), there was a possibility of the pilot project to cover up to 22,000ha of land. This would include state-owned forest reserves, community forests and private forests.

Though being more exhaustive than in Rungwe, the user rights in government forests were here also restricted to some products. This was because in government forests under the JFM regime, the government retained most of the managerial responsibilities either through exclusive control, or by granting limited user rights. The rights include non-commercial use rights and permits to hunt and gather dead wood and NTFPs. Monela *et al.* (2000) reported that lack of property rights for the local communities residing around forest reserves in Tanzania was a major obstacle to the extraction of forest resources, which discouraged them to get involved in forest conservation in the longer run. This observation is relevant to the current situation in both study sites.

On the other hand, studies have shown that JFM may offer improvement in forest management as compared with exclusive state management. Kajembe *et al.* (2003), for example, argue that JFM is likely to improve livelihoods of forest adjacent communities through the introduction of alternative income generating activities. Furthermore, a comparative study carried out by Blomley *et al.* (2008) in six forests under JFM and six under exclusive state management found that JFM forests had better forest conditions than the state-managed forests. Because of the positive impacts that are being seen regarding livelihoods as well as emission reductions, there is growing interest in using participatory approaches as an institutional framework for REDD+ in Tanzania (Zahabu, 2008).

### **3.2.2.3 Community forests**

Results of the study also show that there are community or village forests in both study areas. A substantial part of these forests were under Community-Based Forest Management (CBFM). However, no data existed on the size of these forests. In the case of Kondoa site, five villages (Kisese Sauna, Mitati, Mkurumuzi, Kikore and Madege) out of 21 under the pilot project had community forests under CBFM, meaning that most communities still depended on the state-owned forests for their energy supply. Analysis of user rights for villages with forests under village land but not on CBFM status show that nearly every household had access to these forests provided they followed proper procedures of securing

access permission from relevant authorities. Such authorities included the Village Natural Resources Committees.

The autonomy of local communities' in the management of forest resources had increased accessibility to resources and improved forest conditions. Hence, the majority of the households (76% and 80% in Rungwe and Kondoa sites, respectively) were satisfied with the rules that governed the use and management of the community forests. This could be attributed to the fact that the local communities were involved in making the rules that govern and manage the forests, including the perceived appropriateness of conflict resolution mechanisms.

The general perceptions of the forest managers in the study sites was that greater tenure security and institutional autonomy of forests under CBFM contributed to more effective management. This observation tallies well with findings from elsewhere in Tanzania. For example, a study by Persha and Blomley (2009) in the forests of Usambara Mountains in Tanzania found fewer incidences of disturbance in forests under CBFM than those under JFM which were better than those under exclusive state management. Moreover, the study by Zahabu (2008) conducted on strategies to involve forest communities in global climate policy found that community forests were more effective in ensuring carbon storage and sequestration than unmanaged forests, which supports the view that CBFM could be a good strategy for REDD+.

### **3.3 Piloting REDD+**

Communities in both pilot projects were aware that climate was varying and changing. Many of the people could tie the changes to the rise in temperatures, unpredictable precipitation patterns, as well as increased crop and livestock diseases. The results further show that most of the people understood the role that forests play in regulating micro climates as well the overall global climate. However, it was surprising to note that 72 percent and 68 percent of community members in Kondoa and Rungwe, respectively, considered REDD+ as 'business as usual' initiative concerning forest management. The negative perception of REDD in the two study sites was historically determined through the previous forest conservation initiatives and land tenure situation in Tanzania. For example, in Kondoa district the past negative experiences from HADO have made people to equate REDD initiatives with being pushed away from their land. It was further revealed that communities participating in REDD+ activities were sceptical about positive social benefits from the initiative. On the other hand, the Mount Rungwe pilot project negative experience to the people on the way the forest was upgraded to Nature Reserve (NR). It is clear that the upgrading of Mount Rungwe to nature NR was an effort from WCS who are the key implementers of REDD+ project. In the process of gazetting

the NR, some people lost pieces of land and access to the resource which they used to have prior to the gazette-ment. In addition, in the Mt Rungwe pilot area it was quite clear that people were scared of REDD+ initiatives believing that it was administered by the Tanzania National Parks (TANAPA), which is unpopular among the local people in the project site.

On the aspect of the present tenure situation in Tanzania, where poor people have limited access and ownership to land, the findings show that people were worried that the REDD+ initiatives might increase tenure insecurity, hence making poor local people vulnerable to dispossession of land. This was attributed to the probability of increasing land values due to a growing carbon market. This might also create a conflict of interest on the priority use of land by prioritising tree-planting over food production. Given the shortage of land facing most of communities in the pilot sites, landless people were worried about not being able to hire land or borrowing land in near future since all the land would be planted with trees.

Apart from concerns raised on the individual/private lands, the study also revealed related concerns about local use rights in government forests, both in general land and forest reserves. This challenge was raised in the Mount Rungwe pilot project site since in this site the REDD+ pilot project was implemented in the National Park/Nature Reserve where there is no access and user rights at all. If these lands were set aside/protected for carbon storage according to REDD+, who should be the beneficiary of the compensation? Is it the owner (the state) or the communities surrounding the Forests? A detailed discussion on these challenges will be provided in the subsequent sections.

### **3.3.1 Implementation Status**

Both piloting NGOs—the AWF in Kondoa and the WCS in Rungwe—have their main experiences in wildlife conservation. REDD+ as a new concept presents a big challenge for both when it comes to the issue of competence. In this regard, we note that the pilot projects are oriented and organised quite differently as discussed below.

#### **3.3.1.1 *The Kondoa REDD+ pilot project***

As informed by AWF (Matilya, pers. comm.), the establishment of the project started with a launching in Kondoa town in 2010 whereby village and ward leaders and officials from the District Council and representatives of NGOs that operate in the area attended. In all, 21 villages that surround Kolo Hill Forest Reserves were invited to join the REDD+ project. Of these, 19 villages agreed to participate whereas two declined. Several others hesitated at the beginning but later agreed to jump onto the bandwagon. Scepticisms arose from several issues, including fear over land grabbing and exclusion from the use of forests, especially for grazing (Matilya, pers. comm.). The pilot focused on establishing

alternative livelihoods and the necessary institutions and organisations to make REDD+ initiatives feasible. In so doing, AWF engaged with the District Council, the communities (through their village councils) and consultants.

A core component of this pilot project was the establishment of land use plans (LUPs) for the participating villages. LUPs<sup>3</sup> were expected to specify borders between villages and define uses for different land uses, including setting aside land for productive and protective purposes. According to the Land Use Planning Act (URT, 2007), land use planning at the village level should be done in accordance with the Participatory Village Land Use Planning (PVLUP) guidelines of 2010 (URT, 2010).

The Enactment of the Land Act Cap 113 (1998a) and the Village Land Act Cap 114 (1999a) and Regulations form a basis of land administration and management whereas the Enactment of the Environmental Management Act Cap 191 (2004) and the Land Use Planning Act Cap 116 (2007) are the basis for the harmonisation towards effective planning and management of land and its natural resources. Following this harmonisation, Village Councils may divide village lands into three categories: communal land, which is shared by a large number of individuals within the village and may include pastures, forests or other areas with natural resources; occupied land, which is used for housing, cultivation and businesses, and managed by individuals or families; and future land, which is set aside for future use by individuals of the community. The Act further allows village governments to enter into agreements with enterprises that invest in and provide resources for improving the well-being of villagers.

AWF argued that they did not have the necessary land use planning competence and, hence, they engaged the National Land Use Commission to undertake land use planning. The discussions with the DNRO for Kondoa (Mr. Mvungi, pers. comm.) revealed that LUP was going rather slowly due to the necessarily rigorous process involved in the preparation and approvals at different levels. This lengthy process delayed the implementation of subsequent activities, including the introduction of PFM initiatives. By the end of 2013, however, all 19 villages involved had finished the process of making their land use plans. The plans were by then at different levels of approval, though. Thirteen out of 19 villages were participating in the Joint Forest Management programmes of their surrounding state-owned forests. These forests included Salanga and Isabe Forest Reserve. The villages benefiting from this arrangement included Bereko, Bukulu, Filimo, Humai, Itundwi, Kandaga, Kolo, Kwadinu, Mapinduzi, Masange, Masawi, Mnenia and Salanka.

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3 The importance of land use planning for village land management has been emphasised in the Village Land Act No 5 of 1999 such that it is now obligatory for every village to prepare a land use plan. The land use planning Act No 6 of 2007 further elaborates that obligation by establishing the village council as the planning authority.

The other six villages operated CBFM on forests earmarked during land use plans. These villages included Madege, Kikore, Mkurumizi, Mitati and Kisee Sauna. According to Matilya (pers. comm.), most processes for completing the management of the forests under JFM arrangements were had been the final stages of approval by the end of 2014. For example, a joint Committee on Environmental Management in the two responsible divisions of Bereko and Kolo had developed bye-laws which had been approved by all village governments and, subsequently, by the District Council. With regard to the CBFM process, three villages out of six had approved their forest management plans by end of 2013 and subjected them to different stages of approval at the district level. The other three villages were working on finishing their management plans which were expected to be finalise and subsequently approved by the end of 2014 (Matilya, pers. comm.).

### **3.3.1.2 The Rungwe REDD+ pilot**

The pilot project in Rungwe less focused on engaging villagers. Instead, it was primarily concerned with four outputs: a) establishment of baseline estimates for carbon; b) participatory monitoring and capacity-building; c) development of a leakage remedial and monitoring framework; and d) improvement of livelihoods, including fuel-wood availability for local people (Chibwaye pers. comm.). on the basis of this orientation, the Rungwe pilot project can be described as ‘conservation without compensation’. Although there was some focus on livelihoods, for example, supporting communities in bee-keeping and establishment of woodlots, these interventions were not directly linked to the REDD+ project which exclusively concentrated on the Mount. Rungwe Nature Reserve. Here measuring carbon and building monitoring capacity were the core elements. Parallel to this, it was observed that the WCS avoided raising unnecessary expectations among the local communities due to uncertainties surrounding the REDD+ payment mechanisms. Moreover, their strategy towards communities was mainly concerned with raising awareness on the perceived conservation benefits. It should be noted here that WCS’ main capacity lay in the natural sciences where it believed that sustainable forest conservation should be done by facilitating non-forestry livelihood pathways and not through compensatory payments. Hence, land use planning was not an integral part of the strategy for this pilot area (Mpunga, pers. comm.).

Regardless of the WCS’ downplaying of the component of compensation to the communities, it was learned that people were informed through various sources that REDD+ in a way meant ‘payments for foregone opportunities’ (Chibwaye, pers. comm.). This might have serious negative implications in future if the WCS went on to stick to the ‘don’t pay’ approaches as they could lose trust among the local communities. After all, village representatives had been following up the matter informally with the district authorities

and other stakeholders regarding the issue for compensation for various effects stemming from such a project. On the other hand, if payment were to be effected during the pilot project and then cease thereafter for whatever reason, the future of conservation could also be compromised. Either way, some clear path ought to be charted with clear community participation.

### 3.3.2 Emerging conflicts in the pilot sites

#### 3.3.2.1 *Emerging conflicts in the Kondoa site*

The main conflict in Kondoa district concerned future access to forest resources pertains especially for grazing land. People in Kondoa had negative past experiences from the HADO project whereby one of the measures was destocking. People with large herds of livestock were forced to reduce the number of animals, which forced some households to migrate to other areas (displacement) to look for grazing land. In this regard, the FGDs revealed substantial dissatisfaction with HADO. People did not sympathise with the aims of the project as they strongly believed it simply invited opposition. As a result of the HADO experience, many people in some parts of the Kondoa project area tended to equate REDD+ initiatives with being again pushed away from their land. Furthermore, the FGDs revealed that many people saw little prospects for positive social benefits accruing from the latest initiative.

The situation varied quite considerably across the villages, though. First, it was noted that while the AWF tried to involve 21 villages in the pilot project, two of these villages (Kisesedisa and Itololo) were quite negative from the onset and decided not to endorse REDD+. None of these villages had village forests, for example, they depended solely on adjoining government forests for resources, including pastures. The issue was also rather tense even in villages beyond these two, especially those with community forests that could be incorporated into the CBFM regime, as it constituted a new management regime. As a result, Mitati village decided not to approve the land use plan and was, therefore, automatically removed from the project as land use was one of the participation criteria. The village simply opposed inclusion of their village forest into REDD+. During a meeting with village representatives at Bereko-including representatives from the village council, land use and environmental committees-it was observed that there were quite distinct differences in views among the participants.<sup>4</sup> Whereas the secretary of the Environmental Committee strongly advocated for conservation, including destocking, others voiced that REDD+ would result into greater problems not least regarding restricted access to pastures. Again it was noted that all the forests surrounding the village were government forests.

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<sup>4</sup> For the evaluation of the text, note that this village was not among the three villages hesitating to endorse REDD+.

Hence, many villagers emphasised the issue of land scarcity and the fact that they had no forests on their own whose use they could control.

The negative experience with the HADO project was again emphasized. It was noted, though, that REDD+ was better in that it engaged local communities. It was also further observed that REDD+ rules being developed for this village seemed to include some rights to grazing in government forests. Hence, rule formulation was sensitive to local needs whereas the limits imposed were sensitive to the carrying capacity of the forests, implying tentatively five herds per household. Some herders had many more, some as many as 20-30 animals.

In another village—Mnenia—the views concerning REDD+ were quite different. From the meeting representatives from the same committees as in Bereko it was evident that there was clearly less land scarcity, and that the village had its own forest. In the process of endorsing REDD+, some worries were nevertheless voiced even here. However, when people learned that they could get permits for collection of fuel-wood and building materials, the villagers accepted to participate. Nevertheless, two strategies were under development to reduce dependence on forests—these were tree planting/wood lot creation and zero grazing. A tree planting group run by women was established and it had set up a tree nursery and a wood lot demonstration plot. Concerning grazing, the villagers planned to close forests for grazing and establish a grazing area to be used in the rainy season. In the dry season, plant residues would be used. It was generally noted that there was no clear pressure to keep forests open for grazing and that the REDD+ rules for this village did not include rights to a certain level of grazing in forests.

During a discussion with key informants at the district level it was established that the district authority was worried about the long-term sustainability of the Kondoa REDD+ project. They noted that it was run by an NGO and using a lot of external consultants in establishing the pilot. The study noted also that there could be some validity to the argument based on the criteria required to make the project sustainable. To ensure the long-term sustainability of the REDD+ piloted project and to restore the lost hope of the local communities on the sustainability of the donor-funded project, involvement of key actors in the whole process of project design and implementation becomes important within the district, particularly at the grassroots level.

### **3.3.2.2 *Emerging conflicts in the Rungwe site***

A major issue in Rungwe was the relationship between the local communities and the Nature Reserve (NR). The NR was established on the basis of an initiative by WCS. In gazettement of the NR, some people lost pieces of land and access to the resources which they used to have prior to the gazette-ment. Although the

laws, especially the Wildlife Conservation Act No. 5<sup>5</sup> (URT, 2009b), Wildlife Policy (URT, 1998b) and the Resettlement Policy Framework (URT, 2003) grant local communities the right to be compensated for losses following increased protection status, in practice these compensations are typically low. They do not acknowledge all prior uses and sometimes the affected people are not even paid. As the REDD+ project focused exclusively on carbon sequestration in the NR, local communities had no way of linking this to the recourse and demand their part of the potential compensation that would exclusively go to the state.

Two things were observed, however, which could be done to handle the matter fruitfully and reveal the best practices for REDD+ implementation. First, the establishment of JFM could be a way to include local communities in the REDD+ endeavour. This could be accompanied by compensation and introduction of new income opportunities to re-address (some of) what may be seen as injustices made when establishing the NR. It was clear that some households had to give up their potential areas for expanding farming activities which were included into the forest boundaries. Although WCS management acknowledged the proposed solution during key informant discussions with the project team, they indicated that they had neither the legal competence nor the practical experience to engage in this matter. In a way the proposed solutions were contrary to their philosophy of conservation. Their interest lay in having total conservation without compensation. The findings illustrate that organising REDD+ pilot projects via conservation NGOs in Tanzania restricts the establishment of a true image regarding how the matter should be handled, since the kind of issues to be implemented in the pilot project to test for best practices might be overlooked or completely ignored by concerns and interests of NGO.

Secondly, the way the issue of compensation in relation to government forests/protected areas is treated, may be very important for the legitimacy of REDD+ both nationally and internationally. Focusing on the latter, it may be problematic for REDD+ if national distribution of internationally-created REDD+ resources is not based on rules that are acceptable. Hence, Tanzania needs to urgently start a process on how to handle compensation issues in the case of forest reserves and protected areas. At the same time, if the international community demands that payments should only be for additional carbon sequestered, compensation

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5 According to the Act No.5 Cap. VIII Section 71.-(1), the Minister may in public interest and after consultation with the Minister responsible for finance, make regulations specifying the amount of money to be paid as a consolation to a person or groups of persons who have suffered loss of life, livestock, crops or injury caused by dangerous animals: whereas subsection (2) stipulates: 'Without prejudice to the provisions of subsection (1), the Minister shall make regulations prescribing the payment of consolation money to any person for injury sustained, death or destruction of his crops caused by dangerous animals, provided that in relation to destruction of crops, no payment shall be made in excess of five acres'.

to local communities for losses incurred before REDD+, may not be accepted. These issues demand clarification also at the international level.

Given the form of the Rungwe pilot project, the involvement of local communities was minimal. The villages in the area had established environmental committees a few years before the REDD+ project started. In a meeting with such a committee at Ndala, it was confirmed that though the committee was established by the village council, the WCS was influential in promoting for increased conservation. The study observed that members of the committee also advocated for the goal of environmental protection in a broader sense, for example not only to emphasise on water conservation but also to address climate issues.

At the same time, it was clear that some of the strategies adopted by the environmental committee created frosty relationships with other community members. For example, the protection of forests in ravines and along streams created rifts. In this regard, the study observed the development of a schism between the committee and 'ordinary' villagers. 'What is really in it for us?' the villagers asked. They emphasized the fact that those who gained from what they did were mostly downstream energy plants.

Finally, in the Mount Rungwe pilot area it was clear that people were also scared of REDD+ initiatives as they misconceived it to be administered by the Tanzania National Parks (TANAPA) operating with fully armed patrols. This misunderstanding could be attributed to the fact that the Kitulo National Park under TANAPA surveillance is rather close to the Mount. Rungwe pilot project area. Although that TANAPA is only responsible for the management of the national park, conservation activities in nature/forest reserves are also conducted in collaboration between TANAPA and forest officers. Furthermore, forest patrolling is conducted outside the reserves where it is difficult to distinguish sources of forest resource extraction. It was reported that any person caught by TANAPA harvesting valuable forest resources, including timber and poles, from Rungwe Nature Reserve was fined up to Tsh 50, 000. Logs and all working gears were also confiscated.

Discussions with the Katumba village chairperson (Mkomwa, pers. comm.), disclosed that TANAPA restricted villagers not only from extracting forest resources but also from accessing the parks for cultural activities. As a matter of fact, local people noted that TANAPA had two faces—a friendly one emphasising co-operation with communities and a draconian one rigidly enforcing laws. Although law enforcement is the primary role of this authority, many people thought it sent out mixed signals to the communities. Moreover, TANAPA was a very centralised institution far-removed from participatory method that REDD+ is supposed to engender. As a result, it was very unpopular among local communities in this area.

It was observed that the introduction of tea and coffee plantations since the

colonial era was a major cause of land inadequacy in the Rungwe district<sup>6</sup>. Discussions with the villagers revealed that before independence, tea was produced in estates which were owned by foreigners and all tea-related matters were handled by the then Tanganyika Tea Board. Smallholder tea farming began during the 1960s. In 1968, the Tanzania government initiated a full-fledged smallholder tea development programme whereby the Tea Ordinance Act (Cap 291) was amended and the Tanganyika Tea Board was replaced by the Tanzania Tea Authority. Under this ordinance farmers were not allowed to change tea estates into other land uses such as replacing tea with other crops with higher market demand. This situation has obstructed the diversification of land uses in the area. It has also created uncertainty on the adoption of the REDD+ due to potential loss of tenure security.

### 3.3.3 Community perceptions on trial payments

The study also explored the villagers' views on payments/compensations. The data show that most of the people would consider stopping deforestation and forest degradation on condition they received compensation relative to the losses of income they would encounter. According to Figures 10.2 and 10.3, the responses in this regard were quite similar in both areas: Villagers preferred actions through the community rather than payments to individual households.

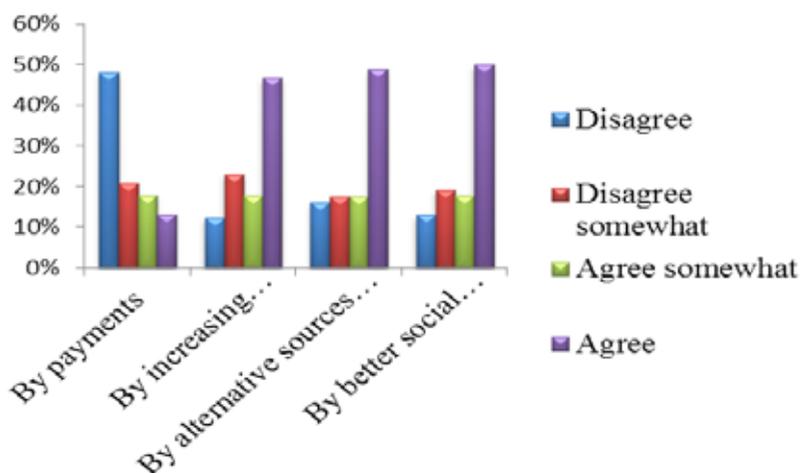


Figure 10.2: Types of compensation that people prefer for them to stop forest clearing in Rungwe District (N = 130)  
Source: Survey Data (2011)

6 Tea was introduced in Tanzania by German settlers at the Agricultural Research Station at Amani, Tanga, in 1902. It was introduced at Kyimbila in Rungwe District, Mbeya region in 1904. Commercial production began in 1926 and increased considerably after World War II, when the British took over tea plantations.

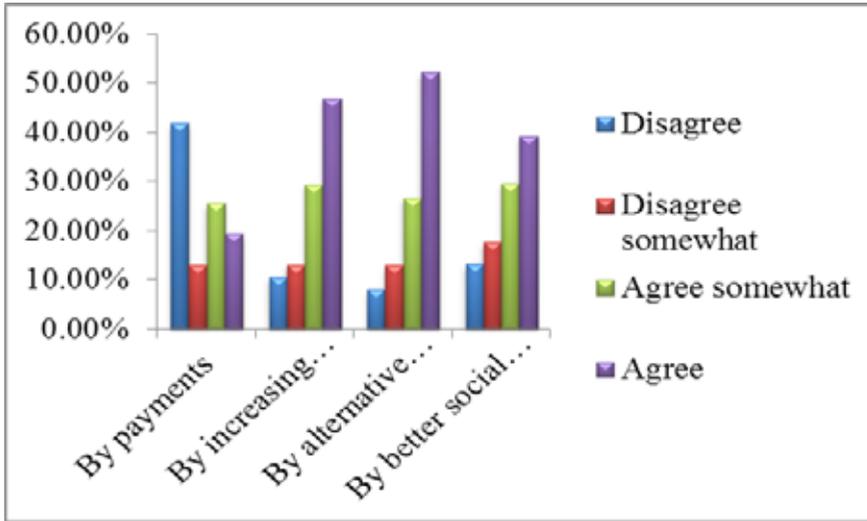


Figure 10.3: Types of compensation that people prefer for them to stop forest clearing in Kondoa District (N= 158)  
Source: Survey Data (2011)

Looking at what explains the variation in distributions, the ordered probit regressions model was adopted for each payment option and site. The predictors variables were 'sex', 'age', 'education level', 'the individual's level of trust in other people in the village', 'distance to nearest forest', 'family income' and 'family size'. The aim was to check the most important predictors of the payment options reported by the respondents. From these analyses, one factor stands clearly out in all cases. That is 'trust'. High levels of trust in co-villagers reduced systematically the probability of high score on 'individual payments' whereas it was opposite for all community actions. The variable was highly significant with – P values ranging from 0.000 - 0.002 in most options except one where P was somewhat higher (0.04). This result implies that without a high level of trust even the proposed community compensation might not benefit every individual. The latter is concerned with 'individual payments' in Rungwe.

The results show that in Kondoa, 'distance to nearest forests', 'family income', being 'female' and 'education level' all influenced positively the probability of scoring high on 'individual payments'<sup>7</sup> 'Education level' also influenced positively the probability of supporting the solution 'alternative sources of livelihoods' in Kondoa (P=0.05). In Rungwe, 'family income' influenced negatively the probability of scoring high both on 'alternative sources of income' and 'better social services in the community' (P values being 0.01 in both cases). Hence, higher income seems to point towards wanting individual payments (Kondoa)

7 Variables are ordered with increasing P values – P=0.002 in the case of distance till nearest forest till P=0.087 in the case of education level.

or not favouring community action (Rungwe). Otherwise there was no clear picture that emerged in the analysis regarding this aspect. On the other hand, there was variation in the views for both districts. Hence, whatever measures are undertaken, some conflicts should be anticipated.

#### **4.0 Conclusion and Recommendations**

Experience from REDD+ pilot projects reveals that there is a very high level dependency on forest resources by the communities surrounding them. However, the level of dependency in Kondoa was higher than in Rungwe primarily because most of the households in Rungwe own some woodlots through which they can access some products for fuel and timber. Although some households in Rungwe still depended on natural ecosystems for earning their living, the transformation of two forest reserves into nature reserves and the upgrading of Kitulo Game Reserve into a national park both signified imposition of restrictions on community access to some forest products that they hitherto used to get. In this regard, the local believe that the introduction of REDD+ would further increase resource scarcity in the area. The general assessment shows that land ownership in both study areas was mainly private.

The introduction of REDD+ seems to depend largely on the completion of land use plans, especially in Kondoa where AWF had set it as a criteria for inclusion of a village into REDD+. However, the process was rather slow due to its long approval processes. As a result, it delayed the implementation of some REDD+ activities such as setting up of REDD+ forests, implementation of trial payments and the implementation of participatory resource assessments. Although REDD+ piloting is based on the community sensitisation and promotion of private engagement in conservation, the situation in Kondoa is more on the PFM mode of arrangement. The assessment has shown that tenure security and institutional autonomy of the CBFM are prerequisites in securing community livelihoods, especially now when the tenure of carbon is uncertain.

Based on the early experiences from the study sites, it can be concluded that for successful REDD+ projects, both social and environmental benefits should be considered during the designing and implementation of the projects. The study further suggests that promoting successful REDD+ initiatives entails early engagement of the communities and their political figures from establishment and subsequent implementation is equally important.

As the Rungwe pilot project involved a relatively higher status level of protected forests, it is important that community management programmes are introduced to ensure that community livelihoods are not compromised in the name of environmental conservation. Actually, the Rungwe project could be used as a 'test ground' for how carbon projects in protected areas could be designed so that

they can ensure poverty alleviation. Currently, there is no strategy developed in Tanzania on how income from carbon credits from government-owned forest lands should be distributed. As a result, most of the NGOs piloting REDD+ have decided to exclude reserved forests to maximise community incentives through village/community forests.

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