

Södertörn University College | School of Life Sciences

Bachelor's Thesis 15 ECTS | Environmental Science | Spring 2011



# The Joint Forest Management of Ufiome Forest Reserve and Sustainable Development

– A case study in Babati District, Tanzania

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## ABSTRACT

The objective of this Bachelor Thesis is to study the participatory forest management of Ufiome Forest Reserve in Babati, Tanzania. Further the aim is to determine whether the Joint Forest Management of Ufiome can be considered as a part of a sustainable development. The concept of Sustainable Development is discussed in relation to the forest management of Ufiome. Through the method of semi-structured interviews during a 3 week field study in Babati District, Tanzania, came the conclusion that the Joint Forest Management of Ufiome was considered successful in conserving the forest and the ecosystem of which it holds in an effective way. Benefits such as access to water and more fodder and fruits are brought up. However in relation to the concept of the three spheres of Sustainable Development, the ecologic, social and economic, the success was not as apparent. Development of a sustainable character needs to exist in all the spheres. Economically, little to no financial gain or stimulation was evident. Although the social status has gone up in general in the District and in the villages, the process is slow. People are starting to notice a change in the villages due to the forest management. With this in mind the Joint Forest Management of Ufiome, although successful, has its flaws and needs to further develop. Informants for this thesis consist of local villagers in the area of Ufiome forest and District Officials, the majority of which share hope and a strong belief that such conservation strategies as that of the Joint Forest Management of Ufiome is a clear step in the right direction for a sustainable future.

**Keywords:** *Conservation, social empowerment, Kwaraa, Wang'waray*

## ABBREVIATIONS

CBM	Community Based Management
CBFM	Community Based Forest Management
FR	Forest Reserve
JFM	Joint Forest Management
PFM	Participatory Forest Management
SIDA	Swedish International Development Cooperation Agency
VFM	Village Forest Management
VFMA	Village Forest Management Area
LAMP	Land and Agricultural Management Project
TZS	Tanzanian Shilling, the national currency of the country
USD	United States Dollar

## ACKNOWLEDGEMENTS

A special thanks is given to those who made this study possible. Firstly, thanks to all the friendly informants who took time off to participate in interviews, the local people and the officials of Babati District. Special thanks to the villages of Kwaraa and Wang'waray for welcoming us. To the field assistants, who made everything possible through their support and coordination. To my classmates, I'm glad we were able to work together as a group. This study would not have been possible without all of your kind assistance. Last, thanks to my supervisor Kari Lehtilä for all the good support and guidance.

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# 1 INTRODUCTION

In an effort to raise awareness on sustainable management, conservation and a sustainable development of all types of forests in the world, the United Nations General Assembly has declared 2011 as the International Year of Forests. 31 % of the earth's land area is covered in forests and over 1,6 billion people are dependent on the forests for their livelihood (United Nations, 2011). Worldwide, and in Tanzania, forest degradation is increasingly apparent. In order to protect the forests, and the ecosystems which they hold, a more sustainable management is evidently necessary. With an increasing population comes increasing demands for resources. This, unavoidably, enhances the stress on the environment locally and globally. As the forests play a big role in keeping an ecosystem together, a misuse and degradation of the forest can in turn cause damage to the soil; the soil additionally are many people dependent on. Sustainable land management is especially important in areas where most people work in agriculture, as is the case in Tanzania. When enforcing protection in an area one has to consider the local people dependant on the resources and the land. Neglecting and not including the local people has in the past resulted in not only a failure but in some cases even worsening the situation. When working with Participatory Forest Management (PFM), one focuses on the community and the people who often bear the costs and the benefits of the actual conservation (Western, D. Et al. 1994). PFM is the protection of the natural resources or biodiversity by, for and with the local community. Devolution of power and management rights over the resources communities are in direct connection to can help secure a conservation and protection of those resources. Only when the local people have rights they can make a difference. An empowerment of citizens and public participation is of great value for the development of a community. In Tanzania PFM is said to be very successful (A. Rwiza & C. Kavishe, 2011) as the protection and conservation has meant an increase in forest cover and a healthier condition of the forests itself. A Sustainable Development requires a protection of resources and the ecosystems. PFM evidently achieves this requirement in a broad sense, but can a participatory management system where the local communities are empowered ensure a sustainable economic growth and social improvement? With more stress being put on the world's ecosystems every day the question is if a PFM can be of significant enough importance in the strive for a sustainable development, in all aspects.

## 1.1 AIM

The objective of the thesis is to provide an insight to the institution itself and explain what PFM is, more specifically the Joint Forest Management Reserve of Ufiome in Babati District in northern Tanzania. In addition the thesis is to depict some of the existing local attitudes towards the Joint Forest Management Reserve of Ufiome in Babati District by conducting interviews with local people living in the areas and working with the project. Last, the thesis aims to determine whether or not the JFM of Ufiome can be viewed as an implementer of Sustainable Development. This implementation refers to all aspects integrated in the concept of Sustainable Development; the ecological, economical and social. The aim is to clarify if the JFM of Ufiome has succeeded in a protection of the environment by conserving the forest itself. In addition the thesis aims to analyze the economical and social effects of this participatory management system by reviewing the local citizens' interpretations of the changes to the society since the implementation of the Joint Forest Management of Ufiome.

## 1.2 RESEARCH QUESTIONS

- ❖ How is the Ufiome Joint Forest Management Reserve managed in Babati district, Tanzania?
  
- ❖ Does the Ufiome Joint Forest Management Reserve, according to the villagers and the district officials, achieve the ecological, economical and social qualifications towards the concept of a Sustainable Development?

## 2 BACKGROUND

### 2.1 STUDY AREA

The United Republic of Tanzania is located on Africa's east coast. The country consists of around 120 different ethnic groups, none of which constitute more than 10% of the total population of 45 million, making it a very large mixture of ethnical differences. The president of Tanzania is both Head of State and Head of Government and has the implementing power. The country is divided into 26 regions, which all have sub-administrative divisions that serve as local governments (see Fig. 1) (Landguiden, 2011). In all of Tanzania there are 99 Districts. In North-East Tanzania lie five districts which constitute the Manyara region. One of these districts is Babati, covering an area of 6,069 square kilometers. There are two working authorities in the area, Babati District Council and Babati Town Council. Together they hold 7

divisions, 26 wards, 95 villages and last, 387 sub-villages (or hamlets). Babati District Council operates the majority of villages and the biggest area. (Briefing on Babati District, unpublished)

Kwaraa became a village in 2005 and now has a population of 2616 and consists of 390 households. The main livelihood for the villagers is farming, but some keep livestock and have micro-businesses and small shops. The main crops are maize, pigeon peas and sunflower. In the Village Council there are 25 people, 8 out of which are female. In the Village Forest Committee there are 8 people, 2 out of which are female (Interview, Village Forest Committee Kwaraa, 2011). In the village of Wang'waray the main livelihood for the villagers is also farming, where some people keep livestock. The main crops consist of maize, pigeon peas and beans. The Village Forest Committee is bigger than Kwaraa's with 14 members. Seven of these members also have positions in the Village Council (Interview, Village Forest Committee Wang'waray). Both Kwaraa and Wang'waray are bordering villages to the Ufiome Forest Reserve and are a part of the 8 surrounding villages that have managing rights over the national forest reserve (J. Maanga, 2011).

#### 2.1.2 UFIOME FOREST

Kwaraa and Wang'waray are located on Mount Ufiome in Babati and adjoining Ufiome forest. Mount Ufiome rises to 2379 meters above sea level and is located at the heart of Babati town in Tanzania. The mountain has a forest cover and serves as an important watershed, not only for

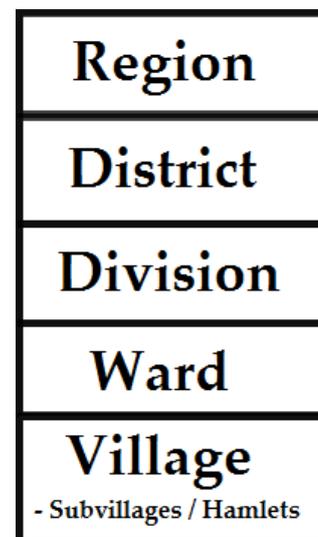


Figure 1 – Chart of the administrative divisions of the united Republic of Tanzania. (L, Hallman 2011, pers comm.)

Babati, but the surrounding villages as well. Due to the high connection between the state of the forest and the water supply for the town and district, Ufiome was made into a central Government Forest Reserve (FR) in 1932. The Reserve stretches over 5000 hectares of land and is today divided into three different zones. Starting at the bottom is the **lower zone** (47% of the FR area), mostly consisting of shrubs and scrub with very little tree coverage. In the **middle zone** (23% of the FR area) you can find more trees of medium height, that is less than 25m, and the **upper zone** (30% of the FR area) consists of trees taller than 25 m. Within the upper zone is also a plateau with two small lakes. (A. Rwiza, 2002)

The over-exploitation of the forest of Ufiome led to a serious degradation which affected the water supply and the state of the forest gravely. At the end of the 1970's the government of Tanzania banned all harvesting of wood products within the Forest Reserve as an effort to try and stop the forest from disappearing completely. (A. Rwiza, 2002)

Along with the National Forest Policy in 1998 came the declaration that villages and people with direct contact and dependence on forests should be encouraged to be included in the management of the forest. The idea of including the community in the management of Forest Reserves received legal support by the means of the new Forest Act passed by the Parliament in 2002. (A. Rwiza, 2002).

In 1998, under the lead, and with the help, of the District Forest Officer of Babati District Council and the Extension Officer from the Forestry & Beekeeping Division, the FR of Ufiome started the process of becoming a Village Forest Management area (VFMA). All the villages bordering the FR were consulted regarding the shift in the management of the Ufiome Reserve and all villages were in favor of taking on the responsibility of the FR of Ufiome. In each village a Planning Team was appointed by the village community to present an action-plan for the management and protection of the VFMA. This plan was later discussed and agreed upon with all members of the community. In addition this Village Forest Management Area Plan had to be formally accepted on a higher political level by the District Forester and the Government Forester. This VFMA plan consisting of the rules was later refined and drafted into a Village By-Law, leaving it more precise than the original plan. The By-Law serves as the ultimate rulebook for the management of the FR. The boundaries between each VFMA are marked out (A. Rwiza, 2002). The villages are, in a way, being donated land they did not have managing rights over before (J. Maanga, 2011). The communities appointed Village Forest Guards and Village Forest Management Committee consisting of around 10-12 people in office for a maximum of three years. The guards are excused from communal work in the village and also entitled to receive 40% of the income from fines imposed on offenders.

Due to the importance of the Ufiome FR as a water catchment it was decided that it always will remain as a reserved and protected area, never to be harvested for wood or for agriculture use. The central Government has the definitive authority over the FR but the management lies with the communities directly bordering to the reserve. The managing villages have the right to control how the forest is used and protected and issuing of special permits for using forest resources is allowed. (A. Rwiza, 2002)

## 2.2 LAND AND AGRICULTURE MANAGEMENT PROJECT - LAMP

In 1992 with support from the Swedish International Development Agency (SIDA) the Land and Agriculture Management Project (LAMP) was initiated. LAMP has four foundational components; *land security, community empowerment, extension services* and *capacity building*. It was through LAMP and mainly the component of community empowerment that the Community Based Forest Management of Duru-Haitemba forests in Babati District was initiated (International Resources Group, USAID/Tanzania, 2000). The difference from before was that now, with LAMP, the approach was working in direct contact with the benefiter. The local citizens were empowered and the communities gain more rights and say over their land and resources. (Kavishe, 2011)

## 2.3 DURU-HAITEMBA

The case of the Duru-Haitemba forest in Babati paved the way for Community Based Forest Management in Tanzania. As the deforestation had become ever more apparent and the state of the forest was declining, concern arose. In order to protect the forest from further damage the central government of Tanzania sought to turn the forest of Duru-Haitemba into a national or local government forest reserve. This would result in limited access to the forest and its resources for the people living in the surrounding villages. Later it would turn out that the efforts to protect the forest be the opposite. In 1990 the government decided to implement the limitations, but the action backfired because the local people considered themselves directly dependant on the products they collected from the forests. People started to collect as much as they could from the forest before the new rules could come into force, causing further damage to the state of the forest. Eventually (in 1993-94) it was decided by the government not to go through with the plans and instead try to find another solution to the problem. The District Council Forestry Officials along with a rural development advisor and the villages surrounding Duru-Haitemba went over the history, the current condition and the use of the forest. The agreed solution was to give the ownership and the management-rights of the forest to the local people in the area. Through village assemblies the whole community came up with a management plan along with rules. This proved to be very

effective and since the villagers became the formal managers of the forest the condition has improved significantly. (Kavishe, C.B. unpubl.)

What started as an experimental initiative in 1994, when the villages surrounding the Duru-Haitemba forest reserve were given the rights to manage the forest themselves, went on to influence and inspire other villages to do the same and also played a part in a fundamental shift in the forest management in Tanzania. In 1998 came the new National Forest Policy and in 2002 a new Forest Act, both of which pay much attention to Village Forest Reserves. The new policies enable communities to set up management plans for new or already established forest reserves (Kavishe, C.B. unpubl.). Here follows a sample some of the main objectives of the Forest Act, 2002;

*(a) ..to promote, to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of natural resources for the benefit of present and future generations;*

*(b) ..to encourage and facilitate the active participation of the citizen in the sustainable planning, management, use and conservation of forest resources through the development of individual and community rights, whether derived from customary law or under this Act, to use and manage forest resources.*

*(Forest Act, 2002, part II)*

## 3 METHOD

In this chapter follows a description, and explanatory statements, of the methods used collecting the data serving as the basis for this thesis. Both advantages and disadvantages of the methods are discussed.

### 3.1 FIELD STUDY

In 2011, during a span of three weeks (16<sup>th</sup> of February to 9<sup>th</sup> of March), a field study in Babati, Tanzania was conducted. The field study was included in the educational course “Environment and Development in the South with field studies in Tanzania” within the educational program “Environment and Development” given at the University of Södertörn. During the field study excursions were made around the area. Mainly, these excursions provided a general view of the study area and consisted of daytrips to villages such as Mamire-Mutuka, Magugu, schools in Dareda and the Minjingu phosphate factory. Although the information gathered during these visits is not directly used in the thesis, they have influenced the outcome of the thesis.

The focus in this study is the forest reserve of Ufiome in Babati District. Two villages adjoining the forest reserve were chosen for the study; the village of Wang’waray and the newly established village of Kwaraa. The choice of the two was based on the fact that there had been few prior studies conducted in these particular villages. This would hopefully mean that the villagers would have been less influenced by outside factors. The same reason is adaptable for the choice of the Ufiome forest, as well.

### 3.2 PRIMARY SOURCES

This thesis is of a qualitative character and is partly based on semi-structured interviews conducted through a group of three students with the help of two different field assistants. All together 11 interviews, with a total of 19 informants, were conducted during a span of 8 days. Two of the interviews were conducted in English (Rwiza and Maanga) while the rest required an interpreter.

In the village of Wang’waray, five members of the village Natural Resource and Environmental Committee (Formerly called, and also referred to as, the Forest Committee) were interviewed as a group, where the chairman addressed the majority of the questions asked. In addition two male and two female inhabitants of Wang’waray were interviewed. These interviews were in groups of two and two, with male and respectively female informants together. In the village of Kwaraa, three

members of the village Natural Resources and Environmental Committee (Forest Committee) were interviewed as a group. Two male and two female inhabitants of Kwaraa were interviewed individually. The villagers, both in Kwaraa and Wang'waray, were chosen with help from the Forest Committee from each village. No members of the Forest Committee were however allowed to be present during the interviews. The choice was made to interview as many male villagers as females. All informants interviewed, with the exception of the District officials, are anonymous in this thesis.

A couple general questions regarding each subject of interest were prepared beforehand, but the aim of each interview was to take shape of an informal relaxed discussion. This is the signature of a semi-structured interview, a guided interview session where most questions take shape during the interview and are based on the predetermined theme or study subject (J, A. McCracken, 1988). The questions were prepared in a group of three students (the author of the thesis included) with similar study subjects. For each interview a main moderator asking the questions was chosen and the other two students took notes, however they were of course allowed to partake with extra questions when felt needed.

The choice of working with semi-structured interviews is motivated by the qualitative character of the thesis. More formal interviews with set questions would have proven less useful as more thought-out and elaborate answers were in the interest of the author. The semi-structured interviews allowed for a more open conversation regarding the subject of the thesis. The idea of one moderator and two persons taking notes during each interview was of great value and lift the quality of the interviews. The interviews were non-stressful, because there was always someone taking notes and in addition someone who took back-up notes. The moderator could thus give her full attention to the interviewee and ask more thought-out questions. Another upside to this method of interviewing was the belief that the interviewee could focus more on the questions being asked if there was only one person asking the questions.

The fact that the author is Swedish and that the Swedish Aid, SIDA, has been involved in the development of the Babati District for a long time could have affected the outcome of the interviews either in a positive or negative way depending on the interviewee's perspective on Sweden. Furthermore the author of the thesis is also a white, young of age, female which could also have influenced the answers given in the interviews. In addition the author recognizes the present linguistic barrier. The questions for the interviews were prepared in English, by people with a Swedish mother tongue, later to be translated into Swahili, again, by a person who does not have English as their first language and then translated back again. This inevitably causes a loss or a twist

of information in the translation. The interviews fully conducted in English also had a downside, because the interviewee seemed to give shorter answers when speaking only in English. This could be explained by the fact that a person speaking not in their first language has difficulties depicting something more thoroughly. Of course, the interviewer always plays his or her part in influencing the outcome of the study and what one can do is to be aware of this affect and know that the conclusions made never can be objective. This is not considered a negative matter, as the author cannot avoid influencing her own work and thus her work will always be partial with respect to her own views. It is only important to try to be as objective as possible and acknowledge your own contribution.

The interviewed females seemed less inclined to discuss and often only provided short answers. This could have something to do with cultural differences and the gender perspective of the country. This could also be explained by the fact that the interpreters were male. If this would be the case, to avoid it one would have needed additional female interpreters for those interviews. This was however not considered during the field study.

The fact that the interviewed villagers were hand-picked by the Forest Committee itself could have had an effect on the outcome, as they could have chosen informants who would speak in their favor. The author recognizes this fact but feels it not to have necessarily been the case. The members of the Forest Committee were not allowed to listen-in on the interviews and the results show that not all informants were happy with the Committee and their work.

The University of Södertörns prior involvement in the study area could have influenced the information gathered during the field study, this mainly concerning the officials.

### 3.3 SECONDARY SOURCES

The second part of the basis for this thesis is a qualitative literature study. The literature studied for the thesis is primarily that of articles and papers gathered from electronic sources. Some general information was collected before the field study in order to get a better understanding of the study area. Also to get a better view of the study area, aerial photographs were studied beforehand. The photographs were provided by the supervisor of this thesis, Kari Lehtilä and served as background material for the thesis and has not been used in the analysis.

Some of the data used in this thesis was retrieved during the fieldtrip. With the help of A. Rwiza the Forest Act of 2002 and a report on the guidelines for Community Based Forest Management were copied and used in this thesis. Additionally other articles, published and unpublished were

also retrieved, courtesy of the District Council of Babati. After the field study, started a more in-depth literature study with a focus on the concept of Sustainable Development and Participatory Forest Management.

Using additional secondary sources for the thesis is necessary to further depict the effects of a Participatory Management system. Using only information gathered from the conducted interviews would not be sufficient in this aspect. The material provided by the district itself could be considered somewhat partial and only portraying one side of the situation. However, partial or not, the information gathered from the District serves as just *that*; information from the District and is therefore of value. The interviews from the villages are sought to portray the other side of the situation.

### 3.4 DELIMITATION

When studying the ecological, social and economical affects of the Joint Forest Management system of Ufiome forest focus has been in the answers given by the villagers, officials and forest officers. No practical ecological research has been made to determine if the condition of the forest has improved or not, this because the study is of a qualitative character and serves to depict the views of the people in direct contact with the forest. In accordance, no official statistical data regarding the economical state of each village is used. The factors for an improvement in a social, economical or ecological aspect are those depicted by the local villagers themselves. To get a more in-depth description of how the Joint Forest Management of the Ufiome forest is working, all the adjoining villages would have to be investigated. This study, being briefer in character, therefore only consists of two villages. The author recognizes that Elinor Ostroms' eight design principles for a stable management of common property resources could have very well been used in this thesis to identify the success or failure of the forest management system (E, Ostrom, 1990, p.90). However the delimitation has been made to analyze the result only with respect to the concept of Sustainable Development.

## 4 THEORETICAL FRAMEWORK

### 4.1 SUSTAINABLE DEVELOPMENT

When discussing Sustainable Development, this thesis refers to the definitions made in the United Nations document “Our Common Future: Report of the World Commission on the Environment and Development”, or in layman’s terms the Brundtland report. Broadly speaking the definition is as follows:

*Sustainable Development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*

(Direct quote Our Common Future, 1987)

Sustainable Development lies within two key concepts; one of them is the idea of a limited impact by the state of technology and social organization on the environment’s ability to meet present and future needs. The other is “the concept of “needs”, in particular the essential needs of the worlds’ poor, to which overriding priority should be given” (UN document 1987). The development is not only to meet the basic needs of all but also making sure all have the opportunity to satisfy their own aspirations for a better quality in life. Laws and regulations must be in favor of encouraging local citizens to achieve their aspirations. In order for this to be possible of course an economic growth is also essential. But as economic growth and development affects the ecosystems it is important that the growth remains sustainable and equitable. The growth must serve to improve the distribution of income and at the same time reduce the vulnerability to economic crises. Also, economic growth must be in harmony with the productive potential of the ecosystem and not override the capacity of ecosystems. It is said that a slow growth is more easily sustainable in a long term perspective and is therefore of greater importance (UN document 1987).

Development at minimum should *not* endanger natural systems that support life on Earth, such as water, soils or forests. The general view is that renewable resources are to be managed in a way that lies within the limits of regeneration and natural growth. To meet all human needs, societies have to increase the productive potential and make sure the opportunities are equitable for all. Policies and laws must work towards an increase in opportunities for people to earn a sustainable livelihood. Scientific assessments of land capacity need to serve as a basis for the use of resources. (UN document 1987)

*A Sustainable Development is a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development; and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.*

(Direct quote, chapter 2, point 15. UN document, 1987)

Socially, to ensure a sustainable development, the idea of ‘common interest’ is necessary. As ecological effects are trans-boundary and pay no attention to political jurisdictions or land ownerships, there is need for unification in strive for common goals; a local and global understanding of the interdependence we all share. In addition a shift in laws and political structures which empowers local communities and enforces devolution of power plays a big part. Only people with rights can make a difference in the environment they live in. An empowerment of communities enhances the public participation in decision-making processes. By a decentralization of the management and authority rights common resources, a better protection of those resources can be achieved. The idea of common interest is difficult to implement because the costs and benefits are not always equally distributed, and as such the conditions are not the same for all people. Globally the industrialized countries are better equipped to deal with effects of possible climate change than countries in the Third World which do not share the financial or technological abilities. (UN document 1987)

An economic and social development should go hand in hand as they are interdependent, financial support towards education and health institution can greatly improve the quality of life for many people. A healthier population of course has a positive effect on the economy of a nation. In addition economy and ecology are also intertwined as conservation and protection of the environment can for example reduce economical costs (UN document 1987). That said of course there are costs to conserving as well. One has to take all the aspects of benefits in conserving a forest into account when determining if the protection is profitable or not.

Of course Sustainable Development is not something that can be achieved by simply focusing on one issue at hand. The problems of environmental degradation, poverty and the ever expanding population are inextricably intertwined and efforts need to be taken in all of the areas. Accordingly the Brundtland report is divided into subsections where each subject is dealt with more specifically. Part of the problems faced is related to the increasing population growth. With this growth the pressure and stress on the Earth’s ecosystems rises and in turn the living standards of the most affected areas are getting worse. In addition there is an increase in the pressure on resources and ecosystems when people lack alternatives. Of course this is not entirely due to the size of the population but is also related to the distribution of the resources. Development as such tends to lead to a decline in the diversity of species in ecosystems, and therefore a Sustainable Development

requires a conservation of plant and animal species. (UN documents, 1987) The following objectives are critical for the environmental and development policies within the concept Sustainable Development: 1) Reviving growth, 2) Changing the quality of growth, 3) Meeting essential needs for jobs, food, energy, water, and sanitation, 4) Ensuring a sustainable level of population, 5) Conserving and enhancing the resource base, 6) Reorienting technology and managing risk and 7) Merging environment and economics in decision making (UN document, 1987, point 28). No specific definition as to what economic or social aspects of development are stated in the report. Instead different objectives regarding social, economical or ecological aspects are lifted throughout the report.

## 4.2 PARTICIPATORY FOREST MANAGEMENT

Participatory Forest Management is a generic term for development strategies regarding the management or co-management of forest and woodland resources by local communities who have a direct connection to, and stake in the forest resources. The objective is to help reduce poverty and improve the rural livelihoods by devolution of power. In PFM the local forest communities assume power and rights over the management and decision-making processes concerning the forest resources. This is thought to help communities protect the forests and woodlands from degradation and overuse. There are two different main types of PFM; Community Based Forest Management (CBFM) and Joint Forest Management (JFM) (DANIDA, 2002). When the government has ownership over the land, and the forest is already a national forest reserve, it is called a Joint Forest Management and in a CBFM the forest is on village land. There are also Group Forest Reserves, where the ownership is mutual between the government and the village, and Private Forest Reserves where the land is privately own by one stakeholder (both are included in the term CBFM). The general idea in all of the different management strategies is that the main authority and decision-making power over the forest resources lies within the direct concerned party (Rwiza, 2011). The focus is on a shift to decentralization and devolution of governmental power down to a district and local level. This action is thought to help against weak governance and in addition empower rural communities. With weak governance, one refers to the presence of corruption and the recognition that the government alone is not able to manage or protect the forest resources in a sustainable way. Therefore devolution of power would decrease the possibility of a big scale corruption and also simplify the decision-making processes regarding forest management. The authority to protect and conserve the forest resources would be that of the community (Hamza and Kimwer, 2007). One important part in the strategy of PFM is the idea to not create new institutions but build upon those which already exists, namely the village. The village for instance already has the power to elect its own government, the Village Council. The right to establish village by-laws (rules and regulations

specific to each village with the full weight of a formal law) already exists (A. Tango, 2007). This already existing village framework makes the process of establishing a CBFM less challenging and there is no need for completely new institutions. Another important part of PFM is the change the Forest Act of 2002 brought with it. The District Forest Officers now had a role of partners to the villagers and had to “assist villagers identify, survey and manage” their own forest (A. Tango, 2007 p.3). Before the new Forest Act came into force the job descriptions of the District Forest Officers were more in the shape of restriction and exclusion of villagers from the forest itself and the management of it. (A. Tango, 2007)

When working with PFM there are four levels of rules guided by the management plan:

- 1) **Free users** - Uses that do no harm in the forest and can therefore continue to be allowed, eg. collecting mushrooms, herbs and firewood. For private and domestic use only.
- 2) **Controlled uses** – Uses that have to be permitted on a sub-village level, ex. cutting down trees for building polls.
- 3) **Permit and pay** - Collecting resources and intending to profit from them, ex. local brew or medicine. For these uses a permit is needed and you have to pay a fee.
- 4) **Banned activities** - Cutting big trees, charcoal, grazing near water sources.

Each village specify their own rules and by-laws to better suit their forest resources and the condition the forest is in. If anyone breaks the rules there is a fee or penalty accordingly (Rwiza, 2011). Table 1 shows a selection of rules and penalty fees from the Ufiome Joint Forest Management Reserve.

Table 1 – A selection of rules and penalty fees in Ufiome Joint Forest Management Reserve, Wang'waray Village. 1USD ~1500 TZS.

Ufiome Joint Forest Management Reserve	
Rules	Fee
Cutting down trees	50 000 TZS
Cow found in the forest	35 000 TZS
Goat found in the forest	25 000 TZS
Trespassing	20 000 TZS
Digging	5 000 TZS
Carrying a panga (large knife)	3 500 TZS

## 5 RESULTS AND ANALYSIS

### 5.1 INTERVIEWS WITH OFFICIALS

#### 5.1.1 ANATOLY A. RWIZA - DISTRICT NATURAL RESOURCE AND ENVIRONMENTAL OFFICER

Rwiza has worked in the District Office of Babati for over 20 years and is in charge of coordinating different natural resources such as wildlife, forest, beekeeping and environmental fieldwork.

#### **Ecology**

Since the establishment of the Village Forest Reserve of Ufiome the condition of the forest has improved greatly. The forest is healthier and the water conditions are said to have improved significantly and the communities alongside the mountain and the forest have access to more fodder and fruits. The soil fertility and production has also improved thanks to the conservation of the forest.

#### **Social aspects**

The District believes the success from working with a Participatory Forest Management has simplified the introduction of new social projects concerning forest management. These new projects consist of beekeeping, butterfly farming, ecotourism and matte weaving and the ambition is to potentially uplift the communities and help them to financially benefit from the forests. Furthermore, people living in the communities express an empowerment through the responsibilities and authorities shared in connection to working with a PFM. The villages are given more power and new positions are being implemented in the communities. Therefore Rwiza believes that PFM is a part of Sustainable Development and that the villages definitely are affected in a positive way.

#### **Economy**

The problems this type of management faces is mainly of a financial character. There are difficulties in producing enough benefits for the community itself, and it is apparent that the communities are still suffering from poverty. The funding also plays a big part in the success or failure of the management. At the present, in order to further develop and in some aspects maintain the Community Based Management a continuation of external and internal funding is necessary. The projects often are able to start with help of the funding but there are little resources to maintain monthly or even yearly revisions and check-ups. The people involved in the Natural Resource and Environmental Committees don't receive a salary but are excused from different community

activities such as building schools or roads. However these types of activities are not very frequent. If someone breaks any rule, the members of the Committee and Patrolling Officers receive a share of the penalty paid. If this too is not very frequent, the members and the Patrolling Officers at least get more access to the forest than others in terms of resources. Rwiza is however clear on the benefits from working with CBM and refers to the potential development of new financially-stimulating projects, such as beekeeping, butterfly farming or ecotourism. Also a participation in community work is of great value and status. The people directly involved in the forest management are consequently given more power and additionally have more say in any matter of the community. Rwiza is hopeful for the future and considers PFM as a very effective way of conserving the forest.

It seems the overall perception of a participatory forest management system is positive and the benefits are clear, but the economical benefits all lay in the future. Today, the communities cannot expect to see a change in the economical aspects of the society or the management. They can only hope that the ambitions and desires of the District to expand and establish new financially stimulating institutions will bring the change they want.

#### 5.1.2 CALYST KAVISHE - RETIRED DISTRICT FOREST OFFICER, LAMP-PROJECT AND SIDA.

Kavishe has been a forester for over 15 years and was during a period of time employed by the District Council of Babati. He also used to be involved in the LAMP project and has worked for SIDA.

#### **Ecology**

The indirect benefits in conserving the forest are better air and water conditions, and the Ufiome forest is of great importance to Babati as the town depends on it. The local people are never to use the forest as it is a catchment to store water and without the mountain and the Babati Lake, the town would not exist. The microclimate is also benefitting from forest conservation.

Regionally there is a big problem with the livestock getting too big and people have started to sell livestock or shift to the northern zone instead. The conditions are not the same in all of Tanzania, as there are some areas which are good for grazing. Kavishe addresses the issue of discontent from people relying on grazing and again emphasizes that Ufiome forest is a catchment forest for water and is to be protected from all degrading activities. People relying on grazing of course experience

problems with this, but they are said to be getting used to it, and in this particular area (Ufiome forest) there has not been a tradition of a lot of grazing animals in comparison to other areas. There are however different zones, areas that are fully protected and areas where some grazing is allowed. In these zones there is always a regulation on the number of livestock allowed to graze.

### **Social aspects**

Kavishe believes the contribution to the livelihood of the local people is not beneficiary enough and that the support from the district is not sufficient either.

### **Economy**

There is a governmental budget for the management of the forest but this budget never reaches the communities. The government is aware of this and should manage the budget in a way so that the communities are included. The only financial income the villages are getting is from a few visitor fees. The structure of the system is good with the policies and acts, but the lack of support and follow-up from the District and other donors creates problems.

### **Future aspects**

The issue of corruption is not a big problem in these types of management. It does exist but it is at a small scale level and often brought to light. Kavishe argues that people breaking the rules are being reported and cannot hide like the big fish do.

The PFM has been successful and could be called sustainable. The reason for success, according to Kavishe, is the local trust and the strong social capital in the area. The existence of traditional forest reserves has also played an important part, as the conservation of certain trees and the forest has always been apparent and a part of the culture. The mixture of different ethnic groups and the opportunity for development is also important for the success. Everyone is trying to get up and innovations are booming. The Swedish aid, SIDA has been a great supporter and is a part of the success as well. Now CBFM or VFR could be called trendsetters as Participatory Management boomed into other natural resources because of their success. In 2001 came the new Land act, Forest act and Wildlife act, all of this could be said to have paved a way for by the prosperity of CBFM and VFR or PFM.

Kavishe brings up the underlying factors that make the management successful, such as the strong social capital, the mixture of ethnic groups, the help from funding and the lack of big scale

corruption. However, the support and the funding is not enough to help the communities and the local people obviously need more assistance. Also, the fact that corruption does exist and is on a small scale now, does not necessarily mean the corruption will not get worse. As Kavishe mentions there is supposed to be a governmental budget for the forest management projects but the villagers see no money from this. This would strongly suggest that there *is* a big scale corruption involved in the PFM.

## 5.2 WANG'WARAY

In this section follows a summary from the interview with the Natural Resources and Environmental Committee of Wang'waray Village and from the interviews with two female and two male villagers.

### 5.2.1 VILLAGE FOREST COMMITTEE

The Committee consists of 14 people, both female and male, although the number of females or males is not specified. Seven of the members of the Committee have positions in the Village Council as well. One female and four male informants partook in the summarized interview presented in this chapter; the Chairman of the Committee, the Security Officer, the Village Council Chairman, one member of the Committee and the Secretary of the Committee.

#### **Ecology**

Before the start of the project with the Joint Forest Management of Ufiome the local people had acknowledged the bad condition of the forest and demanded a change. It was particularly during the rain-season that the villagers realized there was a serious problem, mainly due to less rainfall than usual. The benefits from the project are now clear, more wild animals live in the forest and the access to water has increased. The forest is healthier in that sense, and the local attitude is positive because the villagers understand the importance of preserving the forest. The overall condition of the forest is considered to be healthier now than before. The focus of the project is just conservation and it doesn't include any plantation of new trees.

#### **Social aspects**

The people who in the beginning felt upset with the new rules have switched their livelihoods to better suit the new way of living according to the regulations. Since the start with the new type of management and rules, the chairman of the Committee mentions, that three persons have been sent

to jail for six months. This only happens if a person violates the rules and doesn't pay the fee. The regional court then decides on the punishment to be given. People now generally follow the rules and it is said that there hasn't been any problems with illegal cutting of trees.

Women are included in the Village Forest Committee, mainly for the reason that one woman can arrest another woman. A man cannot arrest a woman breaking any regulation because she could then later claim that it wasn't the case and he was doing something bad to her. The credibility is lost, thus men are not allowed to arrest a woman cutting a tree. Often it is the woman of the household who collects firewood so she is inevitably expected to be in the forest. The committee emphasizes that women have been included from the start of the project.

### **Economy**

Every year a report of the status and progress of the management is written on behalf of the District Council. The members of the Committee feel the communication with the District Council is not enough, or good even, and they would like to see more connection and follow-up from the District's side. They say the relationship between the two was better in the beginning of the project. There is a wish for an increase of financial support and mainly boots and equipment from the Security Officers as the biggest problem is said to be the financial issue and the non-existing income.

### **Future aspects**

There are no conflicts between the villages and it is said that the villages surrounding the Ufiome forest share a "love" and trust between each other. The conservation is a mutual goal and they work together to achieve it. There is an understanding among the villages that what one does affects another. As an example of the trust they share the security, guards are allowed to arrest an intruder even if it isn't their territory. No care is taken to difference in religion, norm or traditions when it comes to preserving the forest. Although some traditions have influenced the forest management, in the Ufiome tribe there is a history of preserving certain trees; Mringa mringa, Mkumuu and Mrumba. Ancestors of the tribe still live in the area and are keeping the traditions alive. The old tradition said that when caught cutting the holy trees you had to sacrifice one cow and one sheep.

The interview ended with the comment that the goal of the project is to preserve the forest for generations to come and the Committee agrees upon that they would keep doing it in the future still - without any profit. The impression of the Committee was mixed, some of their answers felt a bit thought-out, like they thought they knew what we wanted to hear and answered accordingly. The

fact that the members of the committee also were involved in the Village Council was also questionable. The Forest Committee is supposed to answer to the Village Council, but as some members are involved in both institutions there is a high chance of there being a conflict of interest in matters regarding the forest management. As such, to avoid any chance of corruption in the village of Kwaraa, the two institutions (the Village council and the Village Forest Committee) are separate, and involvement in both is strictly forbidden.

## 5.2.2 VILLAGERS

Both males are farmers with main crops such as maize and beans. They have lived in the village since 1982 and 1975. The two have never been directly involved in the management of the forest except for when there has been a fire and all the people of the village help out. They do not spend a lot of time at all inside the forest. Both females are also farmers and have lived in the village for over 20 years. They have been involved in the Committee as informants reporting back when there is someone breaking the rules. The forest is not a part of their everyday life and the firewood they need can be collected elsewhere.

### **Ecology**

Before the start of the project there was a tradition in the area to preserve certain trees close to water sources, as such the protection of the forest was not entirely new to the village. But there seemed to be no specific management and little implementation, so when Ufiome was established as a JFM there was a great change in the area. Today they have regulations and no one is allowed to be in the forest. You are, though, allowed to collect firewood, which is now more abundant than before and sometimes the villagers are allowed to cut certain grass to be used for rooftops. The changes they see are improvements in the environment and specifically the increasing availability of water and grass. The rules are thus good as the environment has improved as an affect of them. What's more, no one cuts the trees anymore as they are not allowed to and the forest cover has increased because of this. The microclimate is different now from before and there is an increase in rainfall. Although the forest cover has increased and the condition of the forest is now better, the informants mention that a future in harvesting is not an option because it would be too difficult to control. Ecologically the project has been very successful as the climate and condition of the forest has improved greatly since the start. The informants agree that all the villagers are equally benefited by the ecological improvements of the forest. For the future they hope to see the forest in the good condition it is today, if not even better.

## **Social aspects**

Socially the villagers of Wang'waray have received more power and are strengthened by this type of PFM. There is a sense of connection and the relationship between villagers is good. The empowerment is apparent amongst the members of the Committee as well as they have more power in the decision-making in the village now. The social status has gone up but there is no change in the economic sphere. Even though the informants feel everyone in the village are equally benefitted from the conservation of the forest they express a concern that there is a chance the District or the Village Council get more benefits than the villagers but they are not sure as to what those benefits might be. One hope for the future is a secondary school.

## **Economy**

Today, economically, there are no direct benefits for the community and no financial support is given to the people working with the forest. This is the biggest problem of, and threat to, the JFM of Ufiome. If the village would get more assistance from the District they could develop even more and maybe in the future they could have a market place where they can sell products and in that way fuel the economy in the village. The villagers also express a desire to see places where they can grow or plant trees all in an effort to further help preserve the forest.

## **Future aspects**

The Joint Forest Management has empowered the villagers now consider it their duty to preserve the forest. In the future, however, they would like to be able to cut down some trees if the forest had recovered fully.

The informants feel they get enough information through meetings held, although they point out that the frequency of the meetings have declined and what used to be held every month can now take up to three months to be held. This is thought to be caused by problems in management.

The people that do not follow the rules are caught by the patrolling Security Officers. Corruption is not visible but when someone is caught in the woods and is fined, some of the informants believe the money sometimes goes directly to the members of the Committee. This evidently causes distrust amongst the villagers. Another view is that the system is completely free from corruption and that the only conflict, if any at all, is when someone who is caught breaking the rules doesn't pay the fine. The communication and cooperation between the villages surrounding the Ufiome forest is on the other hand good and there has never been any conflict between or concerning the borders. The

informants agree that PFM is a part of the development in the village, but would like to see more support from the government in order to move forward. The success can be entitled to the good cooperation between villagers and villages and they want to see a continuation of the management in the future.

The villagers of Wang'waray had many views on what could be done to help boost the economy in the village. Their influential power however seemed somewhat vague. An increase in the empowerment of the villagers is desirable for the further social development of Wang'waray.

## 5.3 KWARAA

In this section follows a summary from the interview with the Village Forest Committee of Kwaraa and from the interviews with two female and two male villagers.

### 5.3.1 VILLAGE FOREST COMMITTEE

The village of Kwaraa started working with JFM in 2000, then as a subvillage within Endakiso.

The Village Forest Committee consists of eight people representing the whole village, six of which are male and two female. Three male informants partook in the summarized interview presented in this chapter; the Chairman of the Committee, one member of the Committee and the Secretary of the Committee. All three have been involved in the Committee since 2009.

#### **Ecology**

Before the start of the JFM of Ufiome the Committee says the forest was pretty much non-existing and there was very little water. The forest is considered healthier now that they started conserving it. Signs of this are an increase in species and wild animals, and access to water. Each sub-village now has at least three water taps which increases the state of livelihood of many in the village and thus the social status has gone up. In addition the access to traditional medical care has increased.

To allow fires would not be a good idea because it would kill everything and it would take too long for the forest to regenerate. They do however recognize that the fire can be good for the environment but it would be too hard to control and therefore end up being bad. With grazing, they point out that it is not allowed in the rules but also recognize that it can be good for the ecology to some extent and under controlled circumstances.

The reason for the success with the JFM of Ufiome could be that the villagers all trust each other and also the fact that the Committee works with education and awareness of the benefits.

### **Social aspects**

Socially the livelihoods have improved in the village mostly due to the fact that they now have more water sources and everyone in the village has access to water. They have also built schools and, as mentioned, have more access to traditional medical care. There is an increase in beekeeping which can be a source of income and help develop the village more.

### **Economy**

The operation is supposed to be financed from the fines they give out but this does not happen very often. As so, the Committee would like some financial support from the Village Council, but seeing as the village is newly established they do not think they can afford it.

When considering a Sustainable Development the village is still average in the economical aspect and nothing has really changed in that department since the start of the JFM.

### **Future aspects**

The goal of the JFM is to preserve the forest as it is, a good source for water and in addition, timber to build schools or hospitals. In the start of the JFM of Ufiome, people were skeptic and a bit negative, but as they came to see the positive effects of conserving the forest they became more positive. The relationship and the communication between the different villages adjoining the forest are good and there is a co-management with all the villages. The members of the Committee are happy with this JFM and are pleased that the forest now is their property and not the government's. They feel they have more power and authority and they do not always have to include the District Officers and instead can make decisions on their own. The biggest problem they face is that people continue to cut down trees, but this is not very common.

For the future there is no apparent plan other than continuing the conservation. There probably will not be a possibility of harvesting again. If there would be it would only be approved in the case of the construction of schools, hospitals or other buildings of such nature.

First they were not sure if they get the support they need from the district but after thinking about it they say that they do because a Forest Officer is provided. However for improvements they say they would like more training and awareness from the District Office to the Committee and in addition tools and equipment for the patrolling Security Officers.

The boundaries were there before and there have been no conflict concerning this. They relooked the boundaries in 2005 after Kwaraa became an own village, but there were still no conflicts.

The absence of conflicts is obviously of great importance for the success of the JFM, and also to the development of the village. Although no formal plan for the future is manifested and development does not seem to be of first priority it is still there. It is allowed to cut down trees in order to build schools and hospitals. This is of great importance for the social development, and unavoidably the economic state of the village. The emphasis on working with information and awareness could be considered as a part of social empowerment as people that way are involved more and have more knowledge on the subject.

### 5.3.2 VILLAGERS

Both males are farmers who also keep livestock. They moved here in 1970 and 1974. One of them have been a member of the Committee from 2005 to 2010, the other have had no involvement in the Committee or as a Security Officer. Both female informants are farmers and one of them keeps some livestock. They moved here in 1972 and 1985. They collect firewood from the forest and are in that way directly dependant on the forest. One of the female informants is currently a member of the Village Council but none of them have been involved in the Village Forest Committee.

#### **Ecology**

Speaking for the whole community the informants feel that people are specifically happy with the increase of water. All the villagers are benefiting from the new management as the whole village borders the forest and the water sources are protected and more firewood can be collected. Although it is believed that the villagers benefit equally from the JFM and the improved condition of the forest, one of the informants expressed a concern. She believed that the villagers who keep animals were causing more destruction compared to people with no animals. This would mean that the same people indirectly were to gain more from the benefits as they were not sacrificing as much as the other villagers who were not causing destruction.

The destruction was very big during the 1980-90's but now the tree-cover has increased and the JFM has been a success. Elders of the village always have informal, traditional gatherings, where holy trees are worshiped. These trees are not to be cut down according to the tradition so the idea of preserving the forest is not entirely new. The condition was however very bad and in the past the majority of the local people did not have any knowledge or education in forest management. Now at

least there is awareness and people know that if you cut trees there will be no water or food and they see the connection. Also, the forest management goes hand in hand with good agricultural practices and an improvement in either of them affects the other. The schools in the village give out ecological education which is good, but it needs to be more practical because it could potentially be a very important part in the development of the village.

All in all there are many benefits to this type of management, such as increased rainfall, access to firewood and good air. Ecologically the villagers recognize that some grazing would be good but they mention that the activity would be difficult to restrict and control. In the same sense fires should not be allowed at all as it would be merely impossible to retain.

### **Social and Economical aspects**

Socially the quality of the life of the people in Kwaraa has improved mainly because now everyone has access to water. The lives of many people have changed as they now are not allowed to cut down trees for timber. Some of the villagers have started to plant their own trees with the hopes of being self-sufficient in the future. People are also starting to build better and more modern houses and there is less grazing in the area. Despite social differences in the village the relationship is good and there is a trust amongst the villagers. Everyone can benefit from the possibility to build schools from timber collected in the forest. This lifts the social standard in the village and the social structure is now improved. The Village Forest Committee is a big part of the villagers' lives as it is the biggest Committee in the village.

In the beginning of the project each household was told to plant 20 trees but there was no financial support from the government to implement this.

### **Future aspects**

Since the PFM started in the area there is less people and more space, it is believed that this has to do with the fact that the people directly dependent on grazing have moved. The decision to change the management system was that of the whole village and therefore the general attitude is positive.

One of the informants, on his own initiative, started planting trees and now he can use his own trees for timber. By doing this he is not dependent on the forest and he feels more people should follow his example. He informs his neighbors and spreads the knowledge of tree planting and he believes these activities are connected with the management. If the village had not started with JFM, he

would have not developed this micro-business and would still have been dependant on his livestock fully. One year he paid 300 000 shilling in fines, and now he keeps his cattle indoor.

Corruption is hard to prove that it exists or does not exist. You can never be absolutely sure about the members of the Committee or the Security Officers; it can be as simple as a friends' favor. What can be said is that if corruption exists, it is small scale and mainly concerning the implementation of the fines when someone has broken a rule. To some extent people are still breaking the rules. The biggest reason for this is thought to be that the fines are not high enough which causes people to still break the rules. There needs to be a higher and tougher punishment for breaking the rules. Also, the co-management between the villagers and the District is not sufficient. The village has more or less been left to handle everything on their own.

The female informant from the Village Council does not want to see any particular change, she is happy with the terms today allowing her to collect firewood. She does add that Security Officers from the District would be better than local ones seeing as there is a higher change of corruption if people know the Officer. She believes the new system to be good but that there are some Forest Officers breaking the rules. She knows that destruction is taking place but the Committee does not seem to bring people in to the Village Council. What is needed, are more strict rules and more educational empowerment. The education she feels can encourage people to make the change and push for more strict rules and an improvement of security. It is difficult for her to say what the general attitude of the village is towards the JFM but she believes it to be positive. She adds that the management is slowly getting better in terms of strictness.

The educational work the Village Forest Committee works with seems to have paid off. The villagers of Kwaraa are clear on what is working and what is not. The local awareness is evidently a big pillar in the JFM and the development of the village. In Kwaraa, villagers have started their own micro-businesses and the social empowerment is widespread.

## 6 DISCUSSION

As stated in Our Common Future, it is only the people who have rights that can make a difference in their environment. There is a belief that one can achieve greater protection and conservation by devolution of power (UN documents, 1987). It is apparent that the decentralization and devolution of power in the case of Ufiome JFM in Kwaraa and Wang'waray has proved successful. The villages have enough power to be able to protect Ufiome Forest from degradation and illegal harvesting. The results from the case study all indicate an improvement in the condition of the forest and an increase in the forest cover. In addition the biodiversity is said to have increased. In this sense the concept of Sustainable Development is met and the solution was as stated in the Bruntland report to empower the local citizens of the villages surrounding and in direct connection to the area that needs to be conserved. (UN documents, 1987)

There is however an evident problem with providing financial support and generating financial income for the villages in question. Although no direct economical income can be connected to the JFM there is of course something to be gained by protecting the forest. As the forest cover has increased, there is less damage to the villages by landslides or floods during heavy rain and the groundwater level has risen. The cost that usually had to be covered in such events is now reduced, and thus an economical gain can be said to exist. It is merely a case of differing in the definition of economical gain. Is income mainly monetary income or can there be another way of measuring the financial profits? The fact that all villagers in Kwaraa now have access to water is something that can be considered a financial gain, as it has a direct connection to the quality of life, and health. A healthier community costs less and is thus an indirect financial income from working with JFM. As mentioned in chapter 3.1 a slow development is thought to easier be sustainable in a long term perspective (UN documents 1987). According to the statements by villagers and officials the development, at least socially and economically, is slow, because although the forest-cover and the biodiversity have increased the villages roughly remain the same in social and economical status. Differences are apparent but the benefits are not sufficient enough to provide the communities with the means to lift them out of poverty. So the process is slow, but hopes for the future all sound the same; a continuation with JFM and the belief that changes will come and that this management system is just the start. The JFM system will in the future open doors for other participatory management projects that can stimulate the economics and social issues of the villages.

It is very difficult to classify a strategy of JFM as a Sustainable Development or not. This is not only an issue of JFM but the concept of Sustainable Development itself. Is it reasonable to determine one specific type of development strategy that should be implementable all over the world? Is it even possible to achieve a development which involves all three spheres, economy, ecology and social? These questions are of course relevant, but it is not the author's intention to answer these, but merely to provide an insight to the thought. Working within the realms of a concept makes it easier to make comparisons and to find similarities. Also an internationally known concept, such as Sustainable Development, makes the process of achieving what the concept intends easier. If there is a globally agreed upon concept of development that is desirable, all countries have some sort of framework to guide their progress. As such the concept of Sustainable Development need not be perfect and flawless, as long as it provides a framework applicable internationally. As the concept of Sustainable Development is included in the Forest Act (Forest Act 2002) and serves as a basis for the JFM of Ufiome, it proves helpful with an applicable framework.

The idea of ensuring a common interest seems to have been no problem between the villages of Kwaraa and Wang'waray. The tradition of working together over village boundaries has been there always, and there have been no conflicts between villages. The belief that they share a "love" with each other strengthens the social capital. It is important to point out that these harmonious depictions are according to the villagers interviewed in respect to this thesis. Of course, it is possible that all villagers do not share the same view. That said the villages seem to work together with a common interest in mind to protect the forest. That they share a common goal plays a big part in the success of conservation. Socially this is an important pillar in working towards a Sustainable Development (UN documents, 1987). One of which the adjoining villages of Ufiome Forest Reserve seem to have mastered. Without a common interest, there could be difficulties encouraging villagers in making necessary changes in order for the JFM to work.

Another requirement for Sustainable Development is that of using natural resources in such a way the environment has time to recover and regenerate (UN documents, 1987). According to depictions by informants the forest now has had time to regenerate and is in a much better condition than before when the authority and management of the forest was in the hands of the government completely. Now the communities are using the forest resources in a sustainable way with regards to the capacity of the forests' ecosystem.

Education and information regarding the benefits and the processes is something that is of great value and could potentially lift the quality of the outcome of the JFM. An investment in educational

programs would help to lift the social status and the empowerment of the villagers further. Looking at the village of Kwaraa, it is apparent that the awareness of the ecological benefits and the management system has helped the community greatly. The people are more involved in the process of protecting the forest and some even start their own conservation projects. They plant trees on their own initiatives and with the help of the district and try to become less and less directly dependent on the forest of Ufiome. This is a big part of a Sustainable Development, a change in attitude and livelihoods towards a more sustainable way.

The management system building upon already existing institutions seems to work fine, and did probably ease the implementation of the Village Forest Committee. However, there seems to be different agreements and rules regarding the involvement in both the Village Council and the Village Forest Committee between the two villages observed. In Kwaraa the trust for the Committee was greater than in the village of Wang'waray. This could have something to do with the fact that the Village Forest Committee also had influence in the Village Council. A thing of this matter obviously creates doubts and concern towards the transparency and validity of the Village Forest Committee *and* the Village Council. If villagers cannot trust the authorities in the village, what is there to say they will comply with regulations given by them? Accordingly the development in Kwaraa, although not perfect, seems more successful than that of Wang'waray.

Many informants stated the lack of financial support and income from the Joint Forest Management strategy as the biggest problem. Some informants, however, claimed that the main objective of the project was to conserve the forest and that there was no financial profit to be made. Some said that although with no financial profit being made now or in the future that they would continue conserving the forest. There seem to be a conflict here, the villagers want to and see it as their duty to protect the forest from degradation and deforestation but claim no economical benefits of their own for their efforts. At the same time, complaints are being forwarded that the financial benefits are not sufficient and that the economical support is too low. The contradiction here could be that the informants want to ensure visitors that the Joint Forest Management and conservation of Ufiome is done for the "right" reasons. Namely that of, to protect and conserve the forest for future generations to come. Could it be the villagers are first and foremost encouraged to operate this sort of management with respect to the environment and the ecology of the matter? It seems there is a fear pointing out the flaws in this type of management, as it is successful. The success is clearly visible from Babati town, mount Ufiome is covered in forest and this is a sight many claim not to have always been the case. But what benefits are there really for the communities? It seems the villagers are not entitled to ask for more. They should be, and are, happy with the bettering environmental conditions on the mountain.

The initiatives are there, in the form of planting trees and finding new livelihoods and support systems. People are educating each other and gaining more and more power. The social status has gone up, partly due to the forest management and the increased access to water. Also, the District of Babati as a whole has developed a lot in the past few years, economically and socially. This obviously has an effect on the villages too. In addition local people are getting involved to a greater extent. What is missing is financial support and incentives for the communities to be able to implement and maintain their conservation work. It seems odd no one in the villages mentions the supposed governmental budget intended for the Village Forest Committee and their work with the forest management. It seems everything is going as good as it can with the resources available, and what it all comes down to is a lack of support and equipment. If the governmental budget intended for the communities were to actually reach the communities the JFM of Ufiome would surely, depending on the amount, be classified as a Sustainable Development. Why? Because: the Committees would have more resources to patrol the forests making the rules and regulations more strict and efficient; they could invest in more educational programs and awareness projects in the villages and the schools, further empowering the local people; and people involved in the management could potentially receive a paycheck, another step in the financial boost of the JFM. The biggest problems with JFM in Ufiome, stated by the informants, would be solved.

## 7 CONCLUSION

- ❖ In respect to this thesis it can be concluded that the Joint Forest Management of Ufiome in Babati District is not an implementer of Sustainable Development as it today does not fulfill the criteria for the economical development. However Joint Forest Management can hopefully in the future with more help and support, mainly financial, from the Government and the District of Babati and NGO's, be considered as a useful implementer of Sustainable Development.
- ❖ Ecologically the JFM of Ufiome Forest Reserve in Babati District does qualify as an implementer of Sustainable Development as the use of the resources is not overexploiting but holds a sustainable idea of management.
- ❖ Socially the JFM of Ufiome Forest Reserve in Babati District has increased the quality of life for many villagers in the adjoining villages.
- ❖ There is no apparent, formal, "development" plan in the actual work with Joint Forest Management in the villages consulted in this thesis. The aim is merely conservation and protection with no intention or strive for profit. That said, the development is still there and potentially prosperous.

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