

## **‘Community-Based Forest Management’ and ‘Joint Forest Management’, some beginnings in the Ulugurus**

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Recent changes in the Forest Policy of Tanzania (1998) and the forthcoming new Forest Act which further operationalises that Policy, have paved the way for several changes in the way that forest conservation might be achieved in Tanzania. These changes also mean alterations in the potential roles of the Forestry Department, the local communities and various conservation NGOs.

Central to these changes is the acceptance that the Government of Tanzania does not have, and will not have sufficient resources to maintain the ‘command and control’ forest policies of the past where people were excluded from forest reserves by law and through a strong policing role by Forestry Division staff. In addition, there is a belief that local communities, as they are present on the ground adjacent to the reserves and with a strong need for their utilisation, might make better long-term guardians than the remote forestry authorities. This belief is enhanced by the fact that the forestry authorities have declined greatly in strength over the past 15 years and now have so few resources and manpower that many of the existing forest reserves effectively go unmanaged. It is only the respect for the past authority by the local people and the village and Ward government structures that have prevented more serious forest loss than at present. Both Community-Based Forest Management (CBFM) and Joint-Forest Management (JFM) (often regarded together as Collaborative Forest Management) approaches are now being advocated as ways of achieving forest conservation through the more active and equitable involvement of local populations.

This paper summarises the experience in the development of CBFM and JFM in the Uluguru Mountains between mid 1999 and early 2001. These interventions were undertaken using DANIDA funding via the Tanzanian NGO 'Wildlife Conservation Society of Tanzania' with the CBFM and JFM practices on the ground being implemented by the Regional and District Natural Resources Departments.

### **Some definitions**

As **Community-Based Forest Management** and **Joint Forest Management** are often used interchangeably in Tanzania, then we will define here our understanding of these terms and how we will be using them.

- 1) Community-based forest management. This is where the communities themselves are the legal owners of the land, or have assumed that responsibility for areas of former Public Land, which under the new Land Act (1999) is now termed General Land.

Here the communities themselves form an agreement, often perhaps mediated by external NGOs, foresters, or others, that a certain area of land will be marked and set aside as a Village Forest Reserve. There are a number of formal steps laid down for the legal recognition of such an area, but the village acceptance and promotion can be very powerful to ensure that the area is respected in the long term. A successful conclusion for such a process is similar to that of a 'sacred forest,' where it is the community who define and protect the area for their own purposes, although for CBFM there may be some legal documentation, which is not the case for sacred forests.

- 2) Joint Forest Management. This is where a legally gazetted forest reserve (under local or central government), currently managed by the Forestry Division following the current Forest Policies and Laws, enters into a process of negotiation with the local communities which surround that forest. This negotiation will seek to establish acceptable user rights for the local communities within the forest, which are offered by the Forestry Division representing the Government of Tanzania, in return for assistance with the protection of the forest by the local communities. The general thinking is that if the local people have rights to do certain activities (rather than perhaps doing them illegally), then they will be more positive towards the forest and its protection than is presently the situation. It also changes the role of the Forestry Division staff from pure policemen of illegal activities, to more facilitators of change and brokers of agreements that are eventually signed and implemented by both parties.

There are some examples of forests where Community-Based and Joint-Forest Management agreements have been worked out and implemented. Those that are working are mainly found in savanna woodland (Miombo) areas of Tanzania where there are relatively large quantities of habitat and relatively low human population densities. The ownership and management of Miombo resources in these areas is seen as a benefit to the local communities as it gives them control over some valuable natural resources (timber, bushmeat and building and thatching materials). The values in terms of biodiversity and water catchment functions per square kilometre of Miombo forests are quite low. This is in contrast with the montane forests of the Eastern Arc Mountains which have high surrounding human population densities, high biodiversity values which are not able to tolerate much disturbance and high national values for water supply to towns, agriculture and to hydroelectricity generation schemes.

Although there are some fundamental ecological differences between Miombo Woodlands and Montane forests efforts to start Community-based or Joint Forest Management are intense, led by Central Government planners and their aid development partners. This is firstly because they see no choice in a time of government austerity and staff reductions, secondly due to a hope of finding a more sustainable conservation option than the present system of reserves, and thirdly due to ideological considerations often termed 'political correctness'.

This is a fast moving and complex area, which needs discussion and examples to better illustrate the theory and practice and provide guidance to others starting-up, or trying to complete JFM exercises which bring added benefits over the existing system of Forest Reserves. We here use some of the current experience from the Uluguru Mountains to illustrate some important themes in the current debate.

### **JFM and CBFM in the Uluguru Mountains**

The Uluguru Mountains are found about 200 km inland of Dar es Salaam, and have a moderate sized town at their base (Morogoro, population 117,593 in 1988). There are 4 government forestry staff with responsibility for 13 Forest Reserves on the Ulugurus, containing over 200 sq km of forest. The tops of the large mountain peaks are found in 2 large Catchment Forest Reserves (Uluguru North and South) that were established in 1909 by the German colonial administration, and are now managed by the Catchment Forestry Project under the central government Forestry Division. There are also Catchment Forest Reserves on the lower slopes of these mountains, and a few smaller forest reserves owned by the local authority and managed by the District Forest Officer through the District Council. During the gazettelement process the colonial forest officers in discussion with local Chiefs of the Waluguru left relatively large areas of forest outside the borders of the reserves for the use of the local populations, and for traditional management. Much of the forest on General (formerly Public) Land has now been cleared. However, there are still many small patches of sacred forest on the mountains, some of which are believed to have persisted almost unchanged over probably thousands of years. Forest support programmes with funding from NORAD and DANIDA assist the conservation of several of these reserves and provide an additional 4 forest staff. The distribution of the forest cover in 2000 (Figure 1) and the distribution of government forest reserves in the Ulugurus (Figure 1) shows that evergreen tropical forests are largely found within the reserves, with only small patches outside the reserves.

It is within this general framework that attempts have been made to start up, Community-Based Forest Management and Joint Forest Management in the Ulugurus. Over the past 3 years the following stages have been passed which might provide some guidance to other seeking engagement in this kind of activity.

- The first phase of DANIDA support to the Ulugurus proposed the establishment of Joint Forest Management agreements for the Uluguru North and Uluguru South Catchment Forest Reserves (see Figure 1). This proposal caused some concern at national Forestry Division level in Dar es Salaam, where it was pointed out that these two reserves were the most important source of water in the country as they supplied water to Dar es Salaam and also held globally important biodiversity values. They urged caution for a system that was not yet fully proven, fearing that the changes could be seen as a handing over of responsibilities from the Government to the local communities who would then decide how the forest should be managed. As the Luguru communities would be most likely to decide land use preferences based on their perceptions of local need, then the nationally important water supply and the globally important biodiversity functions might be undervalued in this process.

- Catchment pointed out that due to these fears, but also in recognition of their own willingness to adapt and change, they were testing out some of the Joint Forest Management ideas in the Kimboza Catchment Forest reserve at the lower altitude portions of the Ulugurus (see Figure 1).
- As a consequence the project changed its focus to work and pursued a somewhat different strategy as outlined below:
  - a) *Uluguru North and South Catchment Reserves.* For these two reserves the project acknowledges that they have global and national values that should be carefully considered in any JFM exercise (see Burgess, 2001; Moshi *et al.*, 2001). Here the project has been collecting data relevant to planning future JFM interventions. This has included surveying the forest boundaries to check the actual situation on the ground, mapping the Divisions, Wards and Village boundaries around the reserves (Figure 2), assessing population densities, conducting livelihood, policy and village land use surveys (this with CARE Tanzania), investigating forest user groups and their relationship to the forest, looking at where the forest is most degraded and why etc. These data show that there are 19 forest adjacent Wards and 50 forest adjacent villages around Uluguru North and South reserves (Figure 2). The villages of the Uluguru Mountains (not all forest adjacent) supported 400,000 people in 1988. The people are around the average poverty for Tanzania, but food security is not normally a problem. Infrastructure, education and marketing opportunities are declining in remote areas, leading to resurgence of traditional values and norms. In areas with better roads the influence of the market economy and of Christianity and Islam have degraded traditional management authorities. Full JFM for these reserves would require separate agreements with each of the 50 villages bordering the forest. As some of these villages are 8 hours hard walking from the nearest track, this is a considerable undertaking.
  - b) *Smaller Catchment and District Forest Reserves.* For these reserves the project has investigated their biodiversity values and their values to the local communities (see Doggart *et al.* 2001). Some of the reserves have been shown to possess globally important biodiversity values (Mkungwe, Kimboza and Ruvu in particular), and hence the project considers that particular care needs to be taken over the development of JFM agreements in them. Others, however, have lower values for water catchment and for biodiversity, and most of these had long been unmanaged and unvisited by the underfunded District Forest Office staff. Some were now managed by the villages, or partly encroached by local farmers and converted wholly or partly to agriculture. It was hence considered that these are good places to test methodologies and approaches before turning to the larger and more important Catchment Reserves (especially Uluguru North and South).
  - c) *Public Land forests (now General land).* Satellite images, aerial photographs and ground surveys have been used to map as many of the remaining forests on Public Lands as possible (Figure 3). The largest area of Public Land forest shown on the 1977 topographical maps was a northern extension to the Uluguru North Catchment Forest Reserve. Field visits in 2000 showed that these forests were greatly reduced in area since the aerial photographs taken in 1977. Visits to the

area confirmed that not only was the area greatly reduced, but that most of what remained was underplanted with banana and other crops and that clearance of the remaining patches was rapidly proceeding. Discussions with elders revealed that this area used to be the Chiefs forest, but that the village leadership had taken over that power, and allocated the land for farming. Some good forests did, however, remain in this area and hence these were perceived as a priority for CBFM interventions.

### **Selection of a focal area**

The Uluguru Mountains cover a huge area of rugged terrain rising to over 2500 m a.s.l. located within parts of 6 Political Divisions. On consideration of this and the above factors, the project chose a focal area in Mkuyuni Division that contained part of the Uluguru North Catchment Forest Reserve, the largest (former) area of General Land forest and some Local Authority Reserves. As these forest areas are (or were) contiguous with the forests of the Uluguru North Catchment Forest reserve they are hence ecologically similar and surrounded by people practising similar lifestyles, and it was believed that they could provide a good test area for involving local people in forest management. There are 4 target forests found with the lands of 6 villages in the target area of 10 villages (Moshi *et al.*, 2001; Figure 3).

### **Activities**

Outlined below are the activities that have been carried out in the General Lands (CBFM) and Local Authority Reserves (JFM) in the focal area.

#### Initial Stages

The Tanzanian Forest Policy (1998) provided the basis for project activities. This document was complemented with draft copies of the New Forest Act (prepared to replace the existing 1953 Act), and draft guidelines on the development of Community-Based and Joint Forest Management in Tanzania.

When the work was about to start up project staff paid courtesy visits to government leaders in the project area and became introduced to them. In addition, the objectives of the project were also introduced. Leaders visited included Mkuyuni Divisional Secretary, Kinole and Tegetero Ward Executive Officers and all Village leaders in 10 villages. They also attended and discussed with the Tegetero and Kinole ward development committees.

One of the first activities was a workshop on Joint Forest Management was conducted that involved all village leaders. This workshop aimed to create awareness in these leaders on environmental conservation and issues pertaining to the new vision for forest management contained in the 1998 forest policy.

#### Exchange visits

As all people in the project (both government and village) were new to the concepts of JFM and CBFM then visits were made to other parts of Tanzania where there are working examples of these management systems. All Village Chairpersons from villages in Kinole and Tegetero Wards were taken to visit Duru-Haitemba and Lushoto to get more exposure on JFM. Three project staff and District and Regional Natural Resource Officers accompanied them. Three project staff visited another DANIDA funded project in Iringa (MEMA Projects) to learn more on JFM issues. An exchange visit was also held to the Ulugurus when farmers from Dar es Salaam and Coast regions visited the Ulugurus sponsored by the CARE Tanzania/WCST/TFCG Misitu Yetu Project. All of these visits have proven extremely valuable for the participants.

#### Identification of remaining forest in the focal area

Use of aerial photographs and field surveys enabled the forest cover to be mapped in the project area. Four forested areas were located as trial CBFM/JFM sites (Figure 3).

##### *Kitundu (Kitumbaku) General Land forest*

A survey of Kitundu forest revealed that formerly extensive forest on the General Lands has been mainly deforested and remaining trees underplanted with bananas (Hymas, 2000). Six villages, namely Tandai, Amini, Kiroka, Bamba, Vituli and Bohomela, surround this forest area. It was also observed that the cleared land and some of the forest patches already belonged to individuals, and that clearing was continuing. Efforts were quickly made to meet with relevant village councils to stabilise the situation before all the forest areas were cleared. These efforts seem to be effective as new cutting declined greatly afterwards.

##### *Hugulo traditional forest*

The Hugulo traditional forest of Tegetero is estimated to be 3 hectares in extent and was said to be intact in the past when it was under *Wanyani* clan. Presently the boundary cannot clearly be identified and marked because of encroachment. People have opened farms inside the forest and planted perennial crops like coffee. Most of the forest is open and some trees already have their bark peeled off to kill them so they can be later cut for firewood.

After discussion with the village leaders, it was agreed that the destructive activities should stop and the forest boundary resurveyed back to its position before encroachment took place. It was also agreed that all farmers bordering the forest should be asked to respect the forest boundaries and that gaps inside the forest should be planted with indigenous tree species, especially *Khaya anthotheca* and "*Mbalazi*". A group formed at the meeting VIJANA MLAMKE-TEGETERO would do these activities.

##### *Mlawilila Local Authority Reserve*

A survey of Mlawilila Local Authority Reserve in Mifulu village in Tegetero Ward showed considerable forest disturbance. Valuable timber species, e.g. *Milicia excelsa*, *Khaya anthotheca* and *Newtonia buchananii* were being cut for timber and some villagers had been clearing the forest for farms.

### *Mangara Local Authority Reserve*

A survey was also completed of Mangara Local Authority Reserve in Ludewa village. This forest has some protection from the communities as a sacred site where they believe that large pythons (snakes) live. However, tree and pole cutting and encroachment for farmland were also observed.

### Village Meetings

The project held a total of 18 village meetings in the project area during 2000 (Table 1). In all meetings the project staff informed participants on the environmental importance of the Uluguru Mountains, and the new changes in Forest Policy which would allow them more control over forested land in their village lands (through Village Forest Reserves - CBFM), and also allowed them opportunities for discussing with the government on user rights for Forest Reserves (JFM agreements). The attitude of the people towards establishment of Village Forest Reserves in their village lands was positive almost everywhere.

Table 1. Village meetings relating to CBFM and JFM held in the project area during 2000.

<b>Village</b>	<b>Village council meeting</b>	<b>Village assembly meeting.</b>	<b>Total</b>
Amini	2	-	2
Tandai	1	2	3
Kalundwa	1	1	2
Bagilo	1	-	1
Mifulu	2	-	2
Lung'ara	1	-	1
Ludewa	1	1	2
Hewe	1	-	1
Tegetero	1	1	2
Kiroka	2	-	2
Total	13	5	18

In these meetings, it was noted that altitude of people towards conservation was positive and village forest committees (VFC) were formed on the spot. Most of the people also showed an interest in planting trees. Nevertheless, there was some resistance, for example villagers in Tegetero village seemed to oppose the notion of establishment of the community forest reserve without giving reasons why they were against the idea.

### Development of local management authorities

It is regarded as important for the long-term success of CBFM and JFM that appropriate local administrative structures exist at village level. A survey by the project and others (Hartley and Kaare, 2001) found that such bodies do not exist in the project area, and

hence it was concluded that they needed to be established. The route chosen by this project is to establish the management authorities under the village governments, although for some of the traditional forests some linkage to the traditional management authorities will still be needed. For example, the elders of the *Wanyani* clan manage the Hugulo traditional forest in Tegetero, and the Kitundu/Kitumbaku forest still theoretically falls under the authority of Chief Kingalu. To date four villages –Kalundwa, Amini, Mifulu and Ludewa- have formed a forest management committee. We anticipate formulating three more forest committees in Tandai, Kiroka and Bamba before the end of June 2001. These will then cover all the villages containing the pilot CBFM and JFM areas.

#### Progress towards demarcating Village Forest Reserves

During 2000 and into early 2001 the project team worked alongside villagers to demarcate one of the proposed Village Forest Reserves, and to partly demarcate another one. Two remaining areas need to be demarcated in collaboration with the relevant village/clan authorities.

It was relatively easy to demarcate the smaller Mlawilila forest because it fell entirely within the land of one village and only one village management authority had to be consulted. This was completed during late 2000.

It proved more difficult to demarcate the Kitundu/Kitumbaku area because the boundaries of six villages (Tandai, Amini, Kiroka, Bamba, Vituli and Bohomela) met within the area of the proposed Village Forest Reserve. The village boundaries were not clear because the forested area was General land and the village boundaries had not been surveyed. Boundary demarcation was started in November 2000, with the agreement of Tandai and Amini villages. When the marking was proceeding some people from Kiroka and Bamba villages were found cultivating inside the forest. They were asked to abandon cultivation because the area was set aside as a Village Forest Reserve but they refused and said that the land belonged to their villages and not Tandai or Amini. It was agreed that representatives from all surrounding villages would sit together and resolve the boundary issues before the remainder of the Village Forest Reserve boundary was surveyed. This process is still going on. This experience is relevant to attempts to start JFM in the large Uluguru North and South reserves, as portions of forest for use by different villages would have to be agreed and marked.

#### Progress towards production of management agreements

##### *Forest Management Plans.*

The project envisages that there will be two levels of management agreement for Village Forest Reserves/Local Authority Reserves in the project area. The first level is the development of an agreed management plan at village level. The project translated an example text for a Village Forest Reserve into Kiswahili and has used this in subsequent discussions with the villages. One method for writing the management plan has been

proposed by the DANIDA funded MEMA project in Iringa. Here the existing forest management committees will establish a temporary working group that will be facilitated by the project staff to write the management plan. Ideally very minimal facilitation will be provided so that the plan is truly owned by the local communities. After drafting then a process of village consultation will be needed before it can be accepted finally. These management plans would provide the guidance for management of the areas by the local communities. In the Local Authority Reserves they would require some handing over of responsibility from the District Forest Officer (who in any case has virtually no staff and no operational budget) to the local communities. In the case of the forests on the General Lands then the management plans would be internal within the villages.

#### *Local bye-laws*

Another important stage in the establishment of Village Forest Reserves is the creation of legally binding bye-laws. A model bye law from the Morogoro Rural District Council has been discussed at village level in the project area. Village Environmental Committee members requested both the project and the District Forest Officer to speed up facilitation of village bye-law preparation in order to save remaining patches of forest, including Village Forest Reserves, Catchment areas, sacred places etc. Their commitment and interest provides an opportunity to complete this process, at least at village level, more quickly than was originally envisaged. Once completed at village level then the draft bye-law needs to be followed through the system to the District Council in Morogoro where it can be finally agreed as law.

## **CONCLUSIONS AND RECOMMENDATIONS**

The work on Community-Based and Joint Forest Management in Mkuyuni Division of the Uluguru Mountains is still at an early stage, but since it has been initiated all means and efforts should be made to make it a success. Presently most effort is being put into getting the remaining Kitumbaku forest reserve declared as Village Forest Reserves for management by 6 different villages. Part of the boundary is already surveyed and all 4 villages have accepted the need for the reserve to protect their water sources through the creation of a Village Forest Reserve.

Through these efforts around 5-7 sq km of natural forest, mostly on the Kitumbaku/Kitundu Hills, will be put under Village Forest Reserve status. This is a small area compared to the more than 200 sq km of forest that is found in the Uluguru North and South Catchment Reserves. However, it will be a major achievement to stop the last of the forests on the Kitumbaku/Kitundu Hills being converted into banana plantations, and to also safeguard the drinking water supplies for the 6 surrounding villages.

The lessons we have learnt in the General forest lands and Local Authority Forest Reserves on the slopes of the Ulugurus have a direct bearing on the development of

future JFM in the Uluguru North and Uluguru South Catchment Forest Reserves, as well as other areas.

- Firstly the most important forest areas on the Ulugurus are under the authority of Catchment Forestry who have a mandate to protect the nationally important water catchment functions for Dar es Salaam and Morogoro towns, and the globally important biodiversity values in the forests. They have a legitimate concern that these global and national values will not be adequately considered if these reserves are subjected to planning at the local level where local concerns (agricultural land and poverty alleviation) will be overriding. We therefore see the need for considerable care and skilful facilitating in any JFM negotiations in these areas in order to balance the local, national, global management issues.
- Secondly we have noted the lack of information available to design and then implement JFM in the Ulugurus. Up-to-date and reliable data are lacking on most issues that need to be well understood in order to make JFM agreements that will work. In 10 villages in one Division we have managed to gather sufficient data to move CBFM and JFM forwards over a period of 3 years. However, we are not sure that we truly understand the land ownership patterns sufficiently to ensure that the agreements made with village governments will be respected by Luguru clan groups, or other land ownership and management bodies on the Ulugurus.
- Mapping of Ward and Village boundaries, which itself is a considerable undertaking, has shown that 50 villages border the two large Catchment Reserves within 19 Wards and 6 Divisions. The villages on the Uluguru Mountain slopes and adjacent lowlands contained a total population of around 400,000 people in 1988, and probably somewhat more than that now. Formulation of agreements with each village, some of which are very remote is a considerable undertaking that take time and money to achieve. Our experience of defining village use zones for 6 villages within a single piece of forest on the General land indicates that defining boundaries for 50 villages within the Uluguru North and South Forest Reserves will take considerable time to negotiate successfully. Methods for marking these boundaries also need to be devised.
- Finally we have been struck by the positive attitude of some local people who would like to have forest areas under their own management, to better protect the forests and especially their water supplies (and also for their ancestors to live in). However, there are also power struggles within each village between elements of village government who would like to allocate forest land for farming, and the newly created forest committees who would like to establish management systems for those forests. As converting the forest to banana plantations earns money, and forest conservation does not, then these tensions are likely to remain.

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Figure 1. Geographical distribution of Wards (thick lines) and Villages (thin line) in relation to the forest cover on the Uluguru Mountains in 2000. Note that the Morogoro Municipal area does not contain villages, and that its borders overlap with Uluguru North Forest Reserve, with the Municipal boundaries inside the reserve borders.

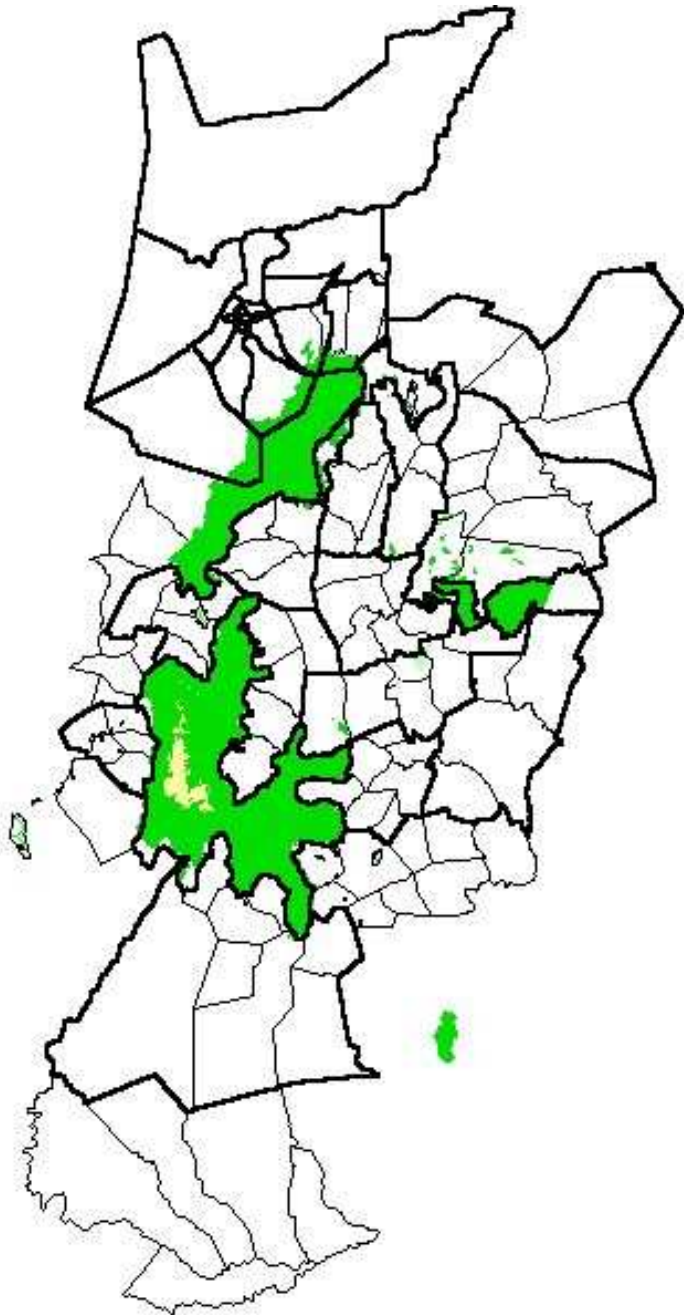




Figure 1. Map of Forest Cover on the Uluguru Mountains in 2000 (left), in comparison to the Forest Reserves of the area (right). The road network around the Ulugurus is also shown. Some of the variation is caused by difficulties of mapping the reserves from small scale District Maps of 1974, and actually the match is even better than shown.

