A geographic overview of Taita Hills, Kenya

Hazel Salminen

Abstract

The purpose of this study is to create a general picture of the Taita Hills region in southeastern Kenya, through describing its natural environment and its historical as well as its social background. Also, the human impact on this vulnerable environment will be discussed briefly. Not much has been written on the specific area of the Taita Hills apart from scholarly articles or environmental program reports on e.g. biodiversity, so I will have to deal with the problem of limited material. The data used for this paper is not first-hand, e.g. interviews, instead all information is gathered from maps, archival material, and articles from journals or other academic resources. Most information will have to be compiled from more general books and Internet sources on Kenya. The research will be conducted in a geographic context, but the attempt is basically to create a regional overview of the Taita Hills and to touch on a few critical issues concerning the human-environment issues in the area.

Kenya and Taita Hills: a physical geography

Locating and defining the area of research

Kenya is located on the equator in eastern Africa, adjacent to the Indian Ocean. It has five neighbouring countries: Tanzania in the south, Uganda and Sudan in the west, Ethiopia in the north, and Somalia in the east (Figure 1). (World Factbook 2002)

The area of research, Taita Hills (03°20’S, 38°15’E), is located in southeastern Kenya, about 150 km inland from the Indian Ocean (Figure 2). It lies in the Taita-Taveta district, close to the Tanzanian border. The hills cover around 250 km², with a highest peak of around 2200 m (EAWLS 2001, Fleuret & Fleuret 1991:92, LAE 2003a). Defining the research area is quite straightforward in this case, because the Taita Hills area is effectively isolated from the surrounding mountainous areas by the Tsavo plains (altitude 700 m). Further, it is usually divided into three distinct isolates: Dabida, Sagalla, and Mbololo hills (LAE 2003a).

Physical features of Kenya and Taita

Kenya shows a great deal of variation in climate and terrain; from the low-lying, hot and humid coastal regions to the arid central highlands. Parted from these by the Rift Valley, lies the fertile plateau of western Kenya (World Factbook 2002). Most of the country has two wet seasons and two dry seasons yearly, but in general the total rainfall is quite erratic. (Kaplan et al. 1976:vii)

Taita Hills form the northernmost part of the Eastern Arc Mountains, a crescent-shaped geological formation that runs through most of eastern Tanzania and ends in southeastern Kenya (Fieldmuseum 2001, LAE 2003a, Rogo & Oguge 2000:522). The term 'Eastern Arc' was established by Dr. Jon Lovett in the mid 1980’s and is now widely used to describe this stretch of mountains (Schulman 1998). The range consists of crystalline block-faulted mountains, created around 290-180 million years ago and, because of their age, their isolated location, and comparatively stable climatic conditions, they harbour a unique flora and fauna and have a high level of endemic species (Rogo & Oguge 2000:522, Schulman 1998): E.g. 74 endemic vertebrates, 265 endemic invertebrates, and 66 endemic trees have been recorded (LAE 2003b). Together with the East African coastal forests, the Eastern Arc Mountains are acknowledged as one of the 25 biodiversity ‘hotspots’ in the world, and as the "Galapagos Islands of Africa", they have also been proposed to be added to the World Heritage list (Fieldmuseum 2001, LAE 2003b, Rogo & Oguge 2000:522).
Also climatic factors have affected the high biodiversity and specialization of the mountain peaks; as most of the surrounding plains are low, the mountains create the first barrier meeting the moist winds from the Indian Ocean, and thus they receive high amounts of rainfall (on average 1332 – 1910 mm/a). At the same time the air can contain more humidity as the temperatures drop with increasing elevation (EAWLS 2001). The southern and eastern slopes of the hills receive more rainfall than the western and northern slopes. The main features of the Taita Hills are presented in Figure 2.

Looking more closely at the research area, the Taita Hills, too, can be roughly divided into climatic zones according to elevation. Figure 3 shows the elevation profile, where the highest zone of Iparenyi has the most fertile land, the middle hills (Msidunyi) have the more exhausted soils due to a dense population, and the plain level of Bondeni consists of less arable land (Fleuret & Fleuret 1991:92-93).

The distinct communities that have adjusted to these zones of different elevations will be presented later on in the section concerning the Taita settlement, and they act as an example of how difficult it is to separate the human communities from the physical environment. As the following quote from the homepage of the Kenya Forests Working Group shows, people’s well being cannot be disconnected from the well being of nature:

“Forests occupy about 2-3% of Kenya's land area and yet, they are reservoirs of biological diversity (genes, species and ecosystems). These forests and the biological diversity they carry are important because, it contributes directly to the well being of Kenyans, especially those in the rural areas, and indirectly to the mainly agricultural economy. It is widely accepted that forest resources and associated lands should be managed to meet the social, economic, cultural and spiritual needs of present and future generations. In Kenya, forests provide wood and wood products to over 80% of all households.” (KFWG 2003)

At the regional level of the Taita Hills, the forests are also important, because the annual rainfall there is considerably higher than on the surrounding plains (Kaplan et al. 1976:61). This is reflected e.g. in the previously mentioned difference in fertility of the soils on the hills vs. on the plains. The forests are the sources of major springs and also constitute the catchment areas for several river systems, which are important for the agriculture in the region (Figure 4) (EAWLS 2001).

### Dimensions of human geography in Kenya and Taita

**The history of human settlement**

Eastern Africa is seen as a possible site for the first stages of human evolution, and the area of modern Kenya has been inhabited from before 0 AD. As a result the forests of the Eastern Arc have been inhabited and altered by people for thousands of years (Kaplan et al. 1976:11-12). In the Area Handbook of Kenya, Irving Kaplan (et al. 1976) and his co-authors describe the influx of different population groups into Africa.

They point out that although humans have probably inhabited Africa since the dawn of
The Taita Hills rise from plains at 800 – 1000 m a.s.l. up to mountain peaks over 2000 meters. The soils in the highlands are fertile, while the lowland soils are poor in nutrients.

time, some major ethnic groups only arrived a thousand years ago; like the Arab groups settling on the east coast. Europeans and Asians began settling into Africa only a little more than a century ago.

Having been influenced, dominated and ruled by different ethnic groups and their culture (mainly Arab, Portuguese, and British), Kenya gained independence from the United Kingdom on December 12th, 1963. Today, it is a republic with a rapidly increasing population, now at roughly 31 million (estimate of 2002). The capital, Nairobi (see Figure 1), has more than 2.5 million inhabitants and is also growing at an alarming rate. The demographic and human geographic features of Kenya will be discussed briefly in the following section (Kaplan et al. 1976, Nairobi City 2003, World Factbook 2002).
The first known inhabitants to the Taita region date to around a thousand years ago, when a hunter-gatherer people of unknown origin, referred to as “Dorobo” by the Taita people of today, settled there. Another group, a people of agro-pastoralists migrated to Taita, probably from the Ethiopian highlands, building the area’s first permanent dwellings and displacing the hunter-gatherers by “killing them, driving them off, and gradually absorbing them” (Bravman 1998:28). It is difficult to pinpoint the exact time of arrival for the ancestors of the present population, but it is believed that they came “in many waves, from many directions, over a long period of time”, starting in the mid-sixteenth century with the first immigrants most likely originating in southeast Somalia or northeast Kenya (Bravman 1998:28-29).

Today, the inhabitants of the Taita Hills region are called the Taita people (or WaTaita, as Bravman (1998) refers to them as), speaking a language called “Taita” (also “Dawida”). According to Bill Bravman (1998:28), who studied the Taita communities and their social transformation between 1800 and 1950, this picture of “unity” is partly false. During his interviews and field studies he did not hear of origin stories speaking for all Taita, and rather, he sees the Taita settlement as having multiple “sub-histories”. Until the 20th century, he says, the Taita did not see themselves as “one people”, for which the many immigration waves and origins are an important reason.

The social demographic context

The geographic distribution of the population both in Kenya, in general, and in Taita reflects the climate, in particular the division into zones of adequate and reliable rainfall. Around three out of four Kenyans live in an area that is only 1/10 of the entire area of the country. Most densely populated are, primarily, the southwestern quadrant and, secondarily, the southern half of the coastal zone with a center in Mombasa (see Figure 1). (Kaplan et al. 1976:2)

As mentioned earlier, the physical characteristics and climatic conditions of different regions in Kenya are quite varied. Also the population is diverse, with over 40 ethnic categories (Table 1), of which the largest the Kikuyu, constitutes only a fifth of all Kenyans.

Table 1. Ethnic groups in Kenya (World Factbook 2002).

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Kikuyu</td>
<td>22%</td>
</tr>
<tr>
<td>Luhya</td>
<td>14%</td>
</tr>
<tr>
<td>Luo</td>
<td>13%</td>
</tr>
<tr>
<td>Kalenjin</td>
<td>12%</td>
</tr>
<tr>
<td>Kamba</td>
<td>11%</td>
</tr>
<tr>
<td>Kisii</td>
<td>6%</td>
</tr>
<tr>
<td>Meru</td>
<td>6%</td>
</tr>
<tr>
<td>other African</td>
<td>15%</td>
</tr>
<tr>
<td>non-African (Asian, European, and Arab)</td>
<td>1%</td>
</tr>
</tbody>
</table>
In the following section, the peoples of Kenya will be presented with reference to ethnic groups, languages, and religions. Also, the Taita people and their communities will be described.

**Ethnic groups, languages, and religion in Kenya**

Although the Kenyans are physically quite heterogeneous, they consist of numerous ethnic groups, of which none constitutes an absolute majority. As stated above, the Kikuyu people (Table 1) make up somewhat more than a fifth of the population. The three largest groups - Kikuyu, Luhya and Luo - constitute almost half of the African-descendant population (Kaplan et al. 1976:3).

In general, each ethnic group is found in one primary area and before the colonial era, the interactions between groups were quite limited. A reason for this was that the groups were too far apart, so there was no considerable competition for territory. Usually, they had also adapted to the physical characteristics and limits of their region, which meant that their ways of life were too different to create conflicts. However, some mixing of ethnic groups exists in border areas, in large cities and towns, and in other areas of new settlement. (Kaplan et al. 1976:3)

The official languages in Kenya are English and Kiswahili (also Swahili; a Bantu language used as a lingua franca/trade language in East Africa), but there are also more than 30 other distinct indigenous languages and dialects. They belong to four major language groups: Bantu, Cushitic, Nilotic and Paranilotic (Kaplan et al. 1976:vii,14, World Factbook 2002). When it comes to the proportion of the population belonging to different religious groups, the estimates vary widely, but the large majority (almost 80%) of Kenyans are Christians (Table 2).

**The Taita people**

The Taita (Dawida) people are concentrated in the Taita-Taveta district, particularly in the Taita Hills area (Fleuret & Fleuret 1991:92). They constitute a separate ethnic group, divided into six different clans, and according to local information, the total population is today around 250,000 people (Taita People 2003). In an earlier census from 1969, the number of the Taita was only 108,000, about one % of the Kenyan population. A small minority of 6,500, the Taveta people, was also acknowledged in the census. (Kaplan et al. 1976:86)

The Taita people speak a language called Taita (or Dabida, according to local sources), which belongs to the Bantu languages. Many also speak Swahili, the official language of Kenya and the widespread trade language of East Africa, which is similar in structure to Taita (Taita FAQ 2003).

Like in Kenya in general, at least 80 % of the Taita people are Christians while a small, although growing, share belongs to other world religions. A traditional Taita religion still exists, which a few continue to believe in, most of them belonging to the Taveta minority (Taita People 2003).

Most Taita live on small farms on the hills of Dabida, Sagalla, and Kasigau, between 1,000 and 1,700 metres above sea level. The hills have more rainfall than the surrounding semi-arid plains and are more favourable in soils and temperature (see section on the physical features of Taita). (Fleuret & Fleuret 1991:92, Taita People 2003)

Many live close to their extended families, and during planting and harvest times the whole family helps out with the chores on the farm (Figure 5). Kinship and neighbourhood networks are important not only when they help with the physical work on the farm. When there isn’t enough seed for planting at the beginning
Table 2. Religious groups in Kenya (World Factbook 2002).

<table>
<thead>
<tr>
<th>Religious Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protestant</td>
<td>45%</td>
</tr>
<tr>
<td>Roman Catholic</td>
<td>33%</td>
</tr>
<tr>
<td>Indigenous beliefs</td>
<td>10%</td>
</tr>
<tr>
<td>Muslim</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
</tbody>
</table>

The Taita Hills show a high level of ecological diversity and change in elevation, which means that a broad range of different kinds of agricultural production is possible. However, the primary staple foods (maize and beans) are the most important products and the cultivation of other products is more varied from one part of the hills to the next or from one household to the other. Other staples that are produced include rice, potatoes, yams, bananas etc (Fleuret & Fleuret 1991:92-93).

Commercial crops have been more widely grown only since the 1940s, and different crops are grown on different elevations: The Iparenyi Community (see Figure 3) in the upland fertile area produces coffee and exotic vegetables. The middle slopes where the Msiduny i community lives, is a long-settled area with high population densities and exhausted soils. Agricultural production is not as profitable as higher up, and many men have emigrated to find work outside the community. On the low plains, the main crops are chillies, castor and cotton, and the community, Bondeni, mostly consists of people who haven’t been able to find proper cultivable land in the hills (Fleuret & Fleuret 1991:92-94).

In addition to relying on agriculture for food, having one or a couple of milk cows, goats and chickens is quite common. Some Taita work for the government or have their own businesses, as waged employment often is the third strategy for generating income to the households. The earnings serve as a buffer against occasional food shortages and is invested in household necessities, extra agricultural labour from the outside, and education for the children (Fleuret & Fleuret 1991:94, Taita FAQ 2003).

Human impact on the natural environment: deforestation in Taita

The high level of biodiversity in the Eastern Arc Mountains does not automatically mean that the area is extremely sensitive. However, during the last 200 years, the EAM forests areas have received increasing pressure because of rapid growth of the human population (Newmark 1998:4). Using recent maps of different kinds, W.D. Newmark (1998:1) has estimated the maximum areas of natural forest on the Eastern Arc Mountains to be 5340 km², highly fragmented. Comparing to the prehistoric forest cover, Newmark (1998) states that around 77% of the original cover has disappeared during the last 2000 years.

Proportionally, the greatest loss of forest has taken place in the Taita Hills. As of now, Taita has six km² of natural forest and four km² of closed forest, which means a 98% loss compared to 2000 years ago. It is alarming that compared to the other forests in the Eastern Arc Mountains the Taita Hills forests are quite small, between one hectares up to 168 hectares. On one hand this means that they generate little in an economic sense, and therefore receive little national or international attention (EAWLS 2001). On the other hand, the small size means that they are more prone to loss in biodiversity.

Due to a lack of regulations to govern the use of resources in the area, the forests are now only fragments, “embedded in a mosaic of human settlements, small-holder cultivation plots and exotic plantations” (LAE 2003a, Rogo & Oguge 2000:522). However, the future does not necessarily need to be gloomy. A few conservation projects have been launched in Taita, as well as in the EAM region, and local actors work together with e.g. foreign co-operation and development projects, governments and organisations (EAWLS 2001, Nature Kenya 2003). Only time will tell if they succeed in reversing the development of deforestation and biodiversity loss.
Summary

Taita Hills is located on the plains of SE Kenya and is the northernmost part of the unique geological formation of the Eastern Arc Mountains, which is rich in biodiversity. The Taita Hills host a people called Taita, who live on the hills and make use of the varying climate by cultivating the land. The highest hills are very fertile and enable the production of coffee and vegetable crops, but the middle slopes are densely populated and, thus, the soil is too exhausted for extensive agriculture. The low plains are semi-arid but are still the centre for e.g. cotton production.

The combination of the vulnerable natural environment of the Taita Hills region and a growing human population, dependent on agriculture and using the land, is problematic. The Taita Hills have been almost completely deforested during the past 2000 years, largely due to human actions. The forests that are left are very fragmented, and thus cannot sustain the high levels of biodiversity that is still prevalent. Due to limits to regulating the use of resources, the attempts to conserve the precious forest areas have not been very successful, but new projects have been started to deal with the problem of the disappearing Taita forests, activating not only foreign governments and organisations, but also local actors. Thus, In the future we may hope to see some results and a brighter future for the Taita region as a whole, as the locals grow more aware of the importance of their environments and can make their living in a sustainable way, with the support of the local and perhaps even national authorities.
References


