

# **The dragons and the butterflies in the mountains of Africa**

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## Part I - Introduction

*As cultures came and went, members of declining or defeated minorities, forced to live through the complexities of a marginal existence, would have been better able to see through the simplistic certainties of those who were in the ascendant, though they could not escape their effects (Kingdon 1990).*

### 2.0 The Beginning

The Mountains of High Africa allowed Africans to be Africans long before the struggle for independence. The dynastic kingdoms of the Highlands of Ethiopia prevailed for centuries and it was the only part of Africa that was not really colonized. Not even the scorching sands of the Sahara and its general inhospitality could keep the colonizers out, as did the mountains. More recently, when the sea of the evil of apartheid covered South Africa, both the Highland Kingdoms of Swaziland and Lesotho were symbolic bastions of African-ness. African cultures have left nature and prehistory as monuments of the heritage of human beings.

The mountains in High Africa are extremely significant in physical, ecological, economic and cultural terms. Physically the mighty mountains of Africa capture so much moisture that they have a major impact even thousands of kilometers away- as so well illustrated by the important civilizations along the River Nile. The Highlands of Ethiopia is one of the five major Vavilovian centre for domestic products.

But there is also an anomaly. The High Africa Region also has a very large and a disproportionate share of the poorest countries in the world. Are the mountains responsible for the poverty? The answer at the outset is a categorical - NO. The mountains show evidence of great opportunities. This is the core of this presentation.

To understand the present you must understand the past. The geologic past is full of episodes of cataclysmic activity and fire followed by periods of quiet; the recent past is full of legends, like dragons and dinosaurs but the present reality is about butterflies and human beings. Like the butterfly, the human mind is fragile, beautiful, subtle and powerful.

If you find this symbolism and reality hard to grasp - just think what inspired two of Africa's great leaders. Jomo Kenyetta told us a great deal in Facing Mount Kenya and Julius Nyerere rally cry of hope was that he would light the flame of freedom and plant it on Kilimanjaro! A mountain became a beacon of hope. I might even add that Moses received the two tablets with the Ten Commandments on a mountain and the Prophet also received the message in the highlands of the Arabian Desert.

### *1.1 Scope of this Paper*

As an overview this paper is going to be short. It has five sections. Essentially the backdrop section follows this first brief introductory part. The second part puts the paper in prospective, not so much in geomorphologic or geological terms but in the context of subsequent human responses to the mountains. This part of the paper gives a macro view of High Africa and stops at a few selected areas or features. The third part pays attention to the prehistoric efforts to develop. The fourth part explores the whole issue of identity and the impact of this on people. The fifth component presents an interpretation of the mountains in the over all context of culture and development.

## **Part II - The Setting**

### *2.0 The Mountains of High Africa*

On the eastern side of the African continent, an imaginary line from Angola all the way to the coast of the Red Sea separates High Africa from Low Africa. The latter dominated by the Sahara, lies to the west and north of this diagonal. The

elevation of the former has always been higher if not loftier. Large parts of the Kingdom of Lesotho are over 2000 masl and its average altitude makes it one of the highest countries in the world. Today, the average height of High Africa is more than twice that of Low Africa. There are outcrops in Low Africa, in the Kalahari, the Bie Plateau of Angola and right into the heart of the Sahara.

The whole area has down the geological ages gone through a great deal of changes. For instance, if you fly high over Lake Victoria, you can see the Mount Napak in the north and Rusinga Island in Lake Victoria. At present, these two features are just mere vestiges of mountains in the past, which were once even higher than Mount Kilimanjaro! Similarly, both Mount Mlanje and the Aberdares in Kenya are even older and began to build during the Jurassic period or about 200 million years ago.

The plants and vegetation offer us important clues - for example the vegetation of the Kenya Mountains and Mount Elgon are an anomaly because many of the plant species are more akin to plants from the more distant Zairean rather than with the closer Zanj (Kingdon 1990). Could part of the explanation be that the vegetation in Mount Kenya and others are a remnant of the vegetation from an even higher mountain system?

### *2.1 The Significance of the Mountain of High Africa*

The role of High Africa, in the distribution of the mountain systems has yet to be fully appreciated. The approach used by Kingdon has been used in this presentation. He likened each mountain system to the archipelagos of the "Galapagos Island. Each Mountain differs from every other mountain to a greater or a lesser degree. Each cluster has a distinct species or subspecies, all of its own. "There are five clusters of mountain systems. These centers are:

- Western;
- Central African (Western Rift)
- Eastern (Zanj - Eastern Arc)
- Southern
- Ethiopian

These mountainous centers of High Africa vary a great deal in area from a few hundreds of thousand skms to well over a million skms; and even in their geological characteristic and altitude. Each of the five systems contains both old and young mountains. The hills and mountains of the Eastern Arc are to be found in Kenya, Tanzania and Mozambique. They are actually the remnants of an ancient system with hills in Taita in Kenya and Pugu on the outskirts of Dar es Salaam, including the Uluguru Mountains and the Usambaras and the North and South Pare. Culminating in the north is the youngest and the pride of all - Kilimanjaro - The highest snow capped mountain in Africa.

### *2.1.1 The Volcanoes*

Between each cluster of the five mountain systems, the earth's crust split again creating conical and not so conical mountains. Some of the volcanoes have been flattened out. In many of these former vents stretching from Johannesburg to the plains of Mwadui - there are diamonds. Other dead volcanoes retain their shape or are modified. Ngorongoro Crater is in fact a collapsed peak of some 12 kms in diameter and is the world's largest unbreached calderas! It is spectacular - parts of the wall, from the floor to the rim are more than 500 metres high.

There are varying degrees of rifting and volcanic dynamism in the formation of the high mountains of Africa. At the one extreme in the highlands created in the Western Rift valley we have the still active and volatile Virunga volcanoes. The Virunga of the Congo, with its two dead cones, Mikeno and Karisimbi, are all reminders that the cataclysmic processes are still going on<sup>2</sup>. Africa's highest mountain, Kilimanjaro is in a dormant or resting phase but its neighbour Lengai is active. Much further north is Mount Kenya. It is a dead volcano.

Less well known is Mount Rungwe a major volcano in Southern Tanzania. It is in an area where the meeting of the eastern forms a volcanic knot, consisting of the eastern, western and southern mountain systems and radiating in different directions. The volcanic activity, the splintering of the earth's crust due to the rifting and the resulting great altitudinal differentials is reflected in the hydrology and the steep climatic gradients of the area. Parts of Rungwe that get more rain in one day than do parts of the semi arid areas in a whole year - but in contrast the areas in the rain shadow, like the Rukwa and Usangu plains which are drier. The diverse affinities of the mountains are reflected in an explosion of some 3000 species being found in the forests and montane grasslands (see Box 2.1 ).

The mountains of today, in a geological context give birth to the plains of tomorrow. It is in this very wide context of geological time, when dinosaurs actually roamed our earth<sup>3</sup>, to the prehistoric time to the recent past, that we must look for the some of the clues of opportunities.

### *2.1.2 The Great Rift Valley*

It is impossible to talk about the Mountains of High Africa, without mentioning the greatest Rift Valley on our planet. The super continent of Gondwanaland splintered and separated the continents. The Great Rift Valley, which is over 7000 kms in length, came later created the Red Sea and separated Africa from Arabia. The Rifts need to be studied more. Between the Red Sea and the Ethiopian Highlands is the Afar depression, the northern part of which is below the sea level and the rest is hot, dry and prone to volcanism. We know very

little about this desolate area and the rift system is associated with volcanic activity.

Box 2.1 "Bustani Ya Mungu" \*

".... but it is the more extensive montane grasslands that put on one of the great floral spectacles of the world. Between December and May the Kipengere range and especially in the Central Kitulo plateau, become covered in flowers: ground orchids, red-hot poker, everlasting flowers, geraniums, asters and many more - "Bustani Ya Mungu" \* say the locals, God's Garden."

Source: Kingdon (1990) p. 172

But closer to our region in East Africa, Mount Langai is still active but the white specks on its classical volcanic profile, is not snow, but unusually for volcanoes consists of explosive outpourings of sodium carbonate. There have been more than 12 eruptions in the last 120 years. There are many other extinct volcanoes associated with the active ones. Langai has; Gelai, Kitumbeine and Empaakai with its perfect crater lake.

In line with the Langai, are two of the world's largest soda lakes, Natron and Manyara. The life forms in this and other lakes, including the flamingoes, add to the colour and beauty of the countryside. The lava and the ashes have not only captured pre-history but given us other invaluable mixtures from the molten.

### *2.1.3. Mountains and Their Neighbourhood As Reservoirs of Hidden Wealth*

The mountains of High Africa hold some of the richest endemic biodiversity. The unassuming Usambaras covering less than 4,000 skm probably have as much diversity as the whole Congo Basin, which is hundreds of times larger. Similarly the biological wealth of the Cape is priceless because of its location and antiquity.

Less well known are the other reservoirs. These comprise of meerachaum<sup>4</sup> from which smoking pipes are manufactured, incredibly light and strong building materials and also include tanzanite - a unique precious stone found no where else on the earth.

### *2.2 The Unity and Diversity In Mountains*

Even within the same mountains there can be incredible diversity in rock types and arrangements, in temperature variation and in the tapestry of vegetation. The lines of division can be precipitous or gradual. There are three

fundamental and all pervasive factors that determine life forms in the mountains. These are:

- The altitude/location: height and whether east or west or north or south facing;
- The age of the mountains - the older the mountain, the greater the diversity.
- The third is related to the position of the mountains in relation to the biology of the continent.

Yet all these compositions are in time united in many ways by the mountain system and the people who live in them.

Mountains have the capacity to confound mortals. If one wanted to see and touch snow, one would have to travel for thousands of kilometers. But if one lived in the vicinity of Mount Kilimanjaro a day's walk would give one the experience. Mountains have the capacity to compress latitudes and many other characteristics follow.

Mountains not only compress the latitudes, they reach out to the skies and condense the moisture from the mountains long before it gets to the plains and thus giving it a new kind of flora and fauna. Agriculturally, the mountains enable humans to get a greater variety of food and other crops thus adding to the diversity and security. It is time to see how human beings used the mountains.

## **Part III Prehistoric Efforts At Development**

### *3.0 The Dawn of Civilization*

When many of the volcanoes were active in High Africa, there were human beings already in existence by over a million years. Thanks to Olduvai, we know that our ancestors learnt to walk up right more than 3,750,000 years ago. In places like the Ngorongoro, they did not have to travel very far to obtain water and a variety of fruits and animals. There was a congruence of resources which had a very large impact on the communities living in the area.

They learnt to hunt to form social groups and perhaps even to use fire. There was fire and sources of fire all around them. Mount Kilimanjaro was most active some 36,000 years ago, its most recent eruptions probably took place about 200 years ago - many centuries after human beings had already established themselves. Whether in Ethiopia, Kenya or in Tanzania, the mountains provide evidence of human beings learning crafts. The stone bowls and the other tools found in the burial mounds of the Ngorongoro are the same as those found around Nakuru. ( Leakey 1966). There was both continuity and change at the same time. The rallying point for a whole lot of different people

could be the legends in Africa around the rulers - like the Lion of Judah. Some of the legends were partially and symbolically true, but others remain as legends to ponder upon (Box 3.1).

#### Box 3.1 Where is King Solomon's Mines?

Legends abound, but the fact remains, and nobody knows this better than the Kenyans, that Mount Kilimanjaro, has the capacity to draw attention and pull the crowds. It has formed the backdrop for so many the movies, the arts and crafts and the literature produced outside Tanzania and Africa.

But to the people of the Kilimanjaro, the Wachaggas, it is central to their oral tradition, religion, art and above all to their culture and to their security. Part of the success and the wealth of the people has been their ability to craft their agriculture and their knowledge system to current pressures as they merged.

Threat from the marauding Maasai in the plains and lower slopes meant that the Wachagga had to stall-feed their livestock, had to intensify land use, had to learn to use manure and control water through irrigation - all these efforts to increase productivity. All these practices were to stand in good stead when the time came to transform.

Was Tanzanite one of the precious stones in Queen Sheba's adornments?

### *3.1 Misconceptions About The Use of The Mountains*

The historian Ogot, in his plea to his colleagues not to make the assumption that the environment directly "determines" human behaviour, that the environment was passive and offered options through technology, attitudes and social relationships. Indeed change was about the perceptions of people: Why did the Nilotic people, prefer the poor soil around Lake Victoria? Was it because of their assumed fondness for fish? He lamented that Africans still regarded, archaeology, architecture and anthropology as studies of the neo-colonialists (Ogot 1979).

But while historians were rethinking their role in scientific studies, Malthusian thinking has been entrenched. Most recent studies on African ecology tend to have a negative view of the African population. In these perspectives the pristine vegetation of mountains has in recent years been assailed and demolished by hoards of rural people. These views are being challenged on a broad front. For instance the pressure on mountain vegetation is not recent. Periodically the environment and certain resources have been under localized



pressure for generations going back to the early ironage (See Box 3.2). Still another more broad critique on conservation is provided by historians (Anderson and Grove 1987). More important, population increase does not automatically equate to automatic land degradation. The classical recent study indicates that the greater the population pressure the greater the efforts to innovate (Tiffen, Mortimore and Gichuki 1994).

**Box 3.2 Misconceptions About Population Pressure In The Mountains**

"One of the foremost misconceptions in contemporary thinking about the forests of East Africa is that the present, well watered montane forests have only recently come under pressure and severe attack from human population. This is an unproven assumption, which increasingly seems to be disputed by archaeological evidence ..... in Rwanda, Burundi, Kenya and Tanzania indicates that Early Iron Age (EIA) peoples encroached upon the East African forest between 500 bc and 500 a.d. and that their environmental impact can only be characterized as severe" (p. 75 Schmitd 1989)

### *3.2 The Evidence of Technology*

In rapid motion, in Usambara and the Pare Mountains there is sufficient data that human beings knew about different soil and rock properties to make pottery, other utensils and decorative items including paints. There is evidence of mountain dwellers making iron tools nearly two thousand years ago. There is archaeological evidence that following the Early Iron Age in the Usambara montane environment, there were subsequent "periodic, localized, but intensive exploitation during three periods: 100-400 A.D; 900 -1100 a.d; and probably 1600 or 1700 a.d.- to the present." (Schmidt 1989).

In the Ngorongoro burial mounds the items buried included, several bowls made of volcanic rock, pestle rubbers (11 specimens), grindstones. These remains were similar to those found in the Njoro River Cave near Nakuru, The ornaments included 800 beads. There were pendants made from opal, agate, green quartz, amazon stone etc (Leakey 1966). Interestingly, the workmanship of the shell and bone ornaments were crude compared to the intractable materials of the former which were polished and properly drilled. This suggests a more skilled people (Leakey 1966 referring to Reck).

### *3.3 The Mountains And Food Production*

The early inhabitants probably ate various root crops, vegetables and fruits. Neither the banana nor cassava or maize had been introduced. Significantly too human beings living in the mountains and hills from the Nubian Mountains to the Pare tried to increase the amount of agricultural land that was available

and so terrace cultivation was started (Maghimbi 1998). We are uncertain whether these terraces developed in situ or whether they represent migration and transfer of technology.

Most important was the agricultural change and the growth of knowledge in this respect. There were cycles of innovation and change and periods of stability, followed by struggles to make the land produce more and accommodate more. Land use intensification, through seed selection, mimicking nature in the manner in which root crops, shrubs and trees were planted all meant that the time required to procure food was reduced. Water sources were seldom too far from the homes even if these were caves. All this meant that human beings in the mountains had more time to ponder over their health, develop skills in painting, decorations and in simply observing nature. In this process they moved from the animal kingdom to the dawn of civilization.

## Part IV The Mountains And Cultural Identity

### *4.0 Mountains and Identity*

In Africa, where oral tradition is very strong, one does not need "title deeds" to establish one's ownership to land. But land is more than property. It is the history of many generations. It is intimate knowledge and experience of the usable part of the environment and natural resources; it is the location and the identity of the individual and of the group. It is language and culture.

When the land is in the mountains, the feelings are magnified many times more. So in Kenya, when land was taken by European settlers it was inevitable that there would be outbreak of violence like in the Mau-Mau rising. Attachment to land takes many forms even if it is not violent. It has been noted that many Highland communities tend to specialize: good clay in parts of the Pare and the Usambara Mountains, iron here and salt there, food during periods of scarcity in other localities and scarcity in the plains. (See Box 4.1). At the same time, trade was a good reason for congregating and socializing. So there is need to pay attention to the implications of early trading practices.

#### Box 4.1 Trade and Specialization in the Mountains

The resources available in the plains and the mountains were different or available differentially. During periods of drought, trade increased for food. But resources like, iron, clay and salt are found in site specific areas. Iron in the region was only available in the Pare and the Wafinanga produced iron ingots, the Washana lineages specialized in forging.

In Kilimanjaro, the new volcanic base material did not produce good clays. Thus even though clay was found in Machame and

Usseri, the pots were thick, therefore heavy and took long to cook. The clay from the Usambara and the Pare was good.

There were local markets and regional markets. The latter were in the transition zones between the plains and the mountains. At the Gonja settlement in the Para, they not only sold iron and tools but also antelope skins needed for rituals by the Sambaa. In the Usambara, there was a string of markets, many of them periodic. The market at Makunuyi was important, because since the Zigua and the Sambaa in the mountains had different agricultural calendars, they could trade in seeds and food.

Source: Isaria Kimambo 1996).

#### *4.1 The Rise of Trade and Exchange and its Implications*

What is the implication of this trade and exchange? First certain standards of exchange had to be established. Secondly items exchanged over a large area became commodities: livestock, iron slabs, shells etc. Thirdly, people had to specialize thus leading to traders (Kimambo 1996). In this respect, traders from the Usambara but much more the people of the nyika, the Akamba and the Wazigua, who specialized in long distance trade. But more than this trade and exchange among people meant some sort of stability among people and communities. For instance, the Wameru and the Wachaggas traded with the Maasai and there were market places for these exchanges.

Does this have any bearing to the present day? Yes both in tangible as well as in intangible ways. For instance, the Sambaa, with their propensity to have periodic markets, has meant that some actually had to produce for the market and others had to find the markets. Following this culture, within the last two decades they grow many new varieties of fruits and vegetables and these are marketed all the way to Tanga, Dar es Salaam, Mombasa, Arusha and even Nairobi (Mascarenhas 2001). This means even more specialization - transporters, financiers, agents etc. There are intangibles also; for instance, - the Wachagga from the slopes of Kilimanjaro - literally have a ritualistic annual Christmas get-together and in this way there is a perpetuation of culture, family and community tradition. But more than this, they have a social network which is so critical for information sharing and trading!

#### *4.2 The Need For Tropical Mountains to be Culturally Reconstructed*

Basically terms like "mountain ecology" "tropical highlands" are all considered apolitical, scientific and precise. But basically ecology is a human construct. To this extent, the images that flesh in our minds when we hear the word ecology are probably the rain forests, nature lovers, and scientists. We have even given

Ecology a colour - "green"! Yet, we ignore the role of human beings in the ecological dimensions. There is a bias in many of the "sciences" in particular and a shirking of responsibility, that looks down on traditional knowledge and proposing options that are against the interests of the ordinary people. For instance, ecologists who like to grieve on the degradation wrought by people, particularly the pastoralists. Yet when wildebeest herds increase to hundreds of thousand creatures or when elephants uproot trees and change vegetation - there is professional silence. They ignore an important aspect of change - human beings like other creatures can alter the landscape.

There has been a refrain for generations by the "conservationists" that Africans destroy the environment and there is no recovery from this spiral of degradation. Like the Reverend Malthus, the Tanzania Forest Action Plan even predicted that the last tree would be cut in Tanzania by 2000. For a short while the only known Rhinos in Tanzania, were those in the Ngorongoro Crater and Highlands. Yet there was a clamour for the banishing of the Maasai !

In the Usambara's and in the Uluguru's, the same song has been chanted. Yet the population within the last hundred years or so has nearly increased eight fold. The population of Morogoro District (where the Ulugurus are located) grew rapidly because of the migrants who moved into the plantations and settled and natural population increase in the mountains. Probably with less than 80,000 persons at the end of World War I, by 1931 it was 155,000, growing to 230,000 in 1948; 264,000 in 1957; 337,023 in 1978; and is now estimated to be over 600,000.

In the Usambara, the average population density in some of the wards of the semi-arid plains is today probably higher than it was at the turn of the century in the mountains. Landlessness is on the increase and has been since the 1930's. But for many people who have opted to get out of subsistence agriculture, the spiral has not been into poverty - not even for the people in the plains. (Mascarenhas 2001)

#### *4.3 What is Mediterranean About The Cape of Good Hope?*

We are so accustomed to retain so much of what we learnt in school. The Southern tip of Africa is described as having a Mediterranean climate and environment. Within the scope of this presentation this is a compounded simplification. "Sadly, the Mediterranean simile has become more and more justified as vineyards, farms and villages elbow the indigenous vegetation into ever smaller enclaves" (Kingdon 1990 p 32). Compared to the colourful, fantastic and unique flora and fauna of the Cape, the Mediterranean is pall.

Table Mountains and the associated landscape of the Cape of Good Hope is many ways unique. Compared to the normal North to South alignment of most of the mountains and the Rift Valley in High Africa, Table Mountain has an East

to West alignment. Almost abruptly the moist, equatorial Mozambique current gives way to the icy Antarctic waters of the Benguela current - giving a pattern of cold dry from the west, moist warmth from the east and winter rain in the south. The massive glaciers, which Europe experienced, are absent in the South African tip. The desiccating summer winds mean that many plants have to be adapted to the hazards of fire. The breaking up of the mountains leads to an incredible array of plants and organisms that are different from the north and yet which related by age. ...such as the cycad (See Box 4.2 ).

In the landscape of the Cape, in an area no larger than Wales there is an incredible profusion of 7000 species of plant life more than half that are endemic. These include Protea which have roots that are able absorb moisture from cool infertile slopes, a bark to insulate them from extreme temperatures and dense low thickets that reduce evaporation, temperature and run off. In the relatively stable environmental pattern of the Cape, plants and organisms have to specialize creating even more diversity of tortoises, frogs, butterflies, insects, birds, animals and even people. From the Cape to the Equator, the mountains have preserved relict flora and fauna.

This flora and fauna, have been a source of wonder to our ancestors. Efforts must now be made to retain this primeval human trait. It cuts across all levels of education but must be encouraged all the way from primary schools to the Universities. It is the one thing that African countries can do to help themselves.

#### Box 4.2 What Can We Learn From The Cycad ?

The cycads, which are like small ferns (Stangeria) or large and palm-like (Encephalartos) are gymnosperms, or seed producing plants which were dominant forms of plants 300 - 200 million years ago. In High Africa they are found all the way from the equator to the mountains in South Africa. In many ways they are a remarkable plant noted for their long longevity and resistance to cold drought and fire. A specimen of the Natal has rootstock estimated to be 1,000 years old and significant genetic changes can take millions of years to evolve.

In contrast to the unimpressive Encephalartos which is no longer found in the wild, in the misty valley of the Letaba River, there is a grove of spectacular sized Modjadji cycad. Their survival for the last two hundred years is due to the prohibitions imposed by the Rain Queen of the Venda people. What can we learn from this? Basically that even Africans conserve.

The Cape has attracted European settlers in great numbers since Vasco da Game rounded the Cape. It has been attractive to farmers who planted edible

or financially rewarding crops. The unrecorded extinction is a matter for conjecture; the recorded extinction was so great - it included the Chochoqua people. Rich and powerful people have probably played more even more havoc as poor people up north who are merely trying to make a living. Can anything be done to save us from these destructive courses?

#### *4.4 The Message of Resistance From The Mountains.*

Threats to mountain lands more than any other features evoke powerful messages. In Ethiopia, in the late 19th century Emperor Menelik resisted the Italian invasion of the Highlands. His successor with the help of the British eventually drove out the fascist occupiers of his Kingdom. In the Southern Africa, the Basotho rallied around Moshoeshoe I. Sensibly, with the help of the British, the commandos from the Orange Free State were repulsed. However, there was little development under British rule and the country was used largely as a labour reserve. The pre-capitalistic social structure did ensure that the returning migrants had some social security but little else.

##### *4.4.1 The Meru Land Case*

In a landmark case the Wameru, the indigenous occupiers of Mount Meru, within the vicinity of Kilimanjaro, after several years of complaints to the British Administration, appealed to United Nations. Colonial settlers had taken the best land and hemmed them against the mountain. They argued that the 13 new settlers, who were to be allotted estates, would cut their access and that of their livestock, from the extensive plains. Furthermore, when there were more than 5,000 residents who did not have land - this whole process was discriminatory and unjust. On behalf of his people, Kirilo Japhet and Earle Seaton a Bermudan lawyer went, with their dispute, since then known as the Meru Land Case, to the United Nations in New York. In his plea, Kirilo Japhet pointedly asked:

"Who is in control of Tanganyika?" and in his final plea added, "I must discourage my people against resorting to the means of force and anarchy now employed by some Africans in Kenya. But in doing this, I should like you to tell me what I should tell my people." (Wright Ian M. p143 TNR)

The land issue united the people of Meru. The first major battle against colonial land annexation was eventually won several years later and in a sense thousands of lives were saved.

#### *4.5 De-Europeanizing The Mountains*

Most tropical Highlands were considered suitable for European settlements. For a long time this mind set influenced a lot of decision making. The possibility

that the inhabitants of these mountains would have their own views and aspiration were seldom seriously considered. There is need to unravel a great deal. But a biased mind in "ecology" was not the only human construct. Apart from "ecology" there are two other fundamental human constructs - Sparks has elegantly described these as follows:

"...the environment is, comprising as it does the natural order, the economic means by which the people exploit that order and the social and political means by which they organize that exploitation. Given that all these elements are socially constructed - 'not least ideas concerning 'nature', 'order' and 'economy' - they are also deeply embedded in cultural values and beliefs which, in turn, make them appear natural. (Spear 1996, in Maddox et. al.)

Basically, it is necessary in a cultural sense not only to be thinking about ecology, economics and social and political dimensions but also the ideas about them. They have to be put in an African context both in spirit and in a scientific sense.

#### *4.6 The Constraint of Tradition*

The persistence of tradition alone is not enough. It cannot bring development. In Lesotho vassalage persisted and the "depressed classes like the Mekhoba and Mohlanka provided serf-like labour at the base of society". (Prah 1989). The Kwena lineage had a dynasty of more than 1086 chiefs who have the power to allocate land. In a Kingdom of 30,335 skm, there were 22 Principal Chiefs, 1200 ordinary chiefs and senior headmen and 5000 village heads. It was not until the 1970's that it was slowly accepted that the land and its degradation had causal factors that had their origins in the social processes.

More and more able-bodied men moved to work in the mines. The once thriving surplus grain trade of Lesotho collapsed and increasingly the country began to rely on food aid. But the resources of the mountains of the country do provide relief and hope (Box 4.3). The high mountain ranges mean that they trap a great deal of moisture and even moisture as snow. As one moves west into the plains of South Africa and Namibia the amount of water is sharply reduced. Lesotho has many times more water than it can use. The industrial belt around Johannesburg needs water both for its population and agriculture.

#### *4.7 The Constraints of The Present*

We have many surprises ahead. This study and others in Africa have to strive for new grounds. The challenges require super-beings. One of the combatants in the ever present civil wars, succinctly noted:

"As for sharing of power and national resources, it is easier to acknowledge past inequalities and agree on the need for remedial justice than it is to find practical ways of addressing the problem. Present inequities are part of the value-institutional structures and processes that permeate the whole system. There can be no easy way of effectively addressing them without undermining the system and endangering the vested interests at all level of the political and economic hierarchies" (Deng Francis M 1996)

However there is a growing alienation between people and government officials and international bodies that try to marginalize the ancestors of the mountain people. The annexation of land by governments without adequate compensation or in not keeping promises that were made, in the belief that people do not value their resources, is creating a great deal of resentment. The use of raw power and greed do not augur well. As was perceptively noted:

The realities of power are exactly the opposite to those perceived by most of the participants in this struggle, because the long term future of Africa's Centres of Endemism lies with local peasantries rather more than transient governments or enthusiastic conservationists ... (Kingdon 1990 p 246)

#### Box 4.3 The White Gold of Lesotho

A major resource of Lesotho is its "white gold" or water. It is available in abundance in the Mountain Kingdom. From the Maluti Ranges, streams create the Senqu-Orange River, mostly flowing westwards through South Africa, before discharging into the Atlantic more than 1500 kms away. Half of the total flow of the water comes from the Lesotho. The Lesotho Highlands Water Project (LHWP) is an agreement between Lesotho and the RSA to build dams, generate HEP, redirect the water in parts of the RSA where it is most needed. The RSA agrees to purchase the water.

Until the mid 1990's, Lesotho imported nearly 95% of its electricity from the Electricity Supply Commission of South Africa. This despite the very large potential estimated to be 1,300 gWh per annum from HEP from numerous sites in the highlands.

The commissioning of the First Phase of LHWP in the 1998 with a capacity of 73 MW to be followed by another expansion of 110 MW means that the country is now a net exporter rather than an importer of energy. The sale of water, as part of the project, nets about US \$ 60 million pa or nearly 25 % of the GDP !

LHWP has its share of controversy but most of it seems to come



from outside the country. It is a fact that 2600 households were affected in Phase I and 2,300 ha. of land was lost, that the influx of workers increased the incidence of AIDs - but this is probably no higher than those returning from the mines in the RSA. The food and compensation for those displaced has been slow in coming. The water in Lesotho finds, its way to the RSA whether the Republic buys it or not. - the project does not jeopardize the water requirements of the people.

Ultimately difficult choices have to be made. The main question is who are the main beneficiaries ?

Based on: Steve Rothert +TED Case Studies

There is a desperate need to divest power so that much more can be achieved in future than in the recent past.

## **Part V Change and Development In The Mountains From A Cultural Perspective**

### *5.0 Giving The Descendants Of The Original Proprietors A Chance*

It is the ability of human capacity to refine knowledge (including indigenous/traditional), communicate, exchange and to rise above the other living creatures - the culture thing - that frees people from the constraints and the problems of their environment. This must be the focus of attention because it is an impetus to reach for higher goals even when the resources are seemingly not there. This is important because:

Over many centuries the complaints of the dispossessed have been drowned out by the clamour and the claims of the new proprietors

Against, conventional ideas, it is not the culture of the people that makes them poor, it is the structure and the processes, including aspects of globalization, lack of transparency, corruption, the greed of those in power etc, that are responsible for the poverty. There is need for a great deal of clarification. There is enough evidence that the people in the mountains spearheaded their own development for millennia. Must they fail now?

### *5.1 The "Thing" Called Culture*

As discussed earlier, "culture" is a human construct. It exists in the human mind and not in the ground. Like the butterfly, it can soar to great heights and alight on ideas and pollinate thoughts. Culture starts in the mind and transforms into the tangibles and intangibles. When the human mind mimics nature to produce

food we call this agriculture, when sounds are imitated and rearranged in harmony we call it music. This presentation is about the human capacity to transform the mental and physical environment in which they live. It incorporates three basics:

- That all Nature, in its own right is a fundamental legacy;
- The Environment is the setting for all human actions including thoughts and ideas;
- That development is about focusing on local differences, cultural links, understanding the constraints and exploring the various options for change.

Nature has given High Africa major opportunities for development and change. There is no reason to believe that the opportunities used by people throughout the ages, at all levels of human development, hominids, the stone age, the iron ages, have now dried up. Briefly it is worth exploring some of the constraints, before exploring the new opportunities because the nineteenth and twentieth centuries actually brought new factors in play.

### *5.2 Change and Development From A Cultural Perspective*

Because high mountains in Africa, seemed so much like the temperate zones, it was assumed that not only were they suitable for European settlement but this became an excuse for the wanton destruction of the environment. For instance in Zimbabwe it was noted that:

The settlers introduced European principles of resource management. For 40 years settlers took for granted the 'inexhaustible fertility of the rich red soils until the evidence of severe soil erosion had become so great that a conservation unit was formed in the Division of Agriculture and Lands in 1929. However, surveys conducted in 1930's indicated that soil loss from commercial farms had continued unabated (Moyo, O'Keefe, Sills 1993, p 308)

The economic depression of the late 1920/1930's in America coincided with the dust bowl making its presence felt from coast to coast. Suddenly from Southern Rhodesia to Tanganyika, the panic buttons were pushed. Dramatically the cattle that people owned became an indicator of land degradation and obstacle to wildlife conservation. But there were a few others who were more cautious ( See Box 5.1). They did realize for instance that cattle played a vital social, economic and indeed a role in maintaining soil fertility.

#### **Box 5.1 Perhaps There Is Merit In Keeping Cattle !**

During British rule (1918-1960) of Tanzania, conservation measures were taken at various times. In the early 1930s they sought to

conserve soils, water and vegetation. The tentative and even inconsistent nature of the identification of problems meant there was little agreement about the suitable course of action. Was it population pressure, the presence of cattle, the cultivation of steep slopes? The preamble to the Staples Report stresses on the need for compromise in conservation efforts:

"...an increasing human cattle population is bringing about a serious state of affairs on many of the steep slopes of this mountain block...it would not be advisable to prohibit the grazing of cattle as it seems that the future welfare of the people lies in the development of mixed farming (emphasis mine)..but the conservation measures need to be unusually and thoroughly well planned." (Quoted in Watson 1972, p 223)

Soon after independence in 1961, in an effort to foster egalitarian development, some of the conservation issues including restriction on encroachment into forested areas were not enforced, land holding transactions on the other hand were severely curtailed and the priorities of development shifted into food-security, nationalization of estate etc. The real beneficiaries were not the indigenous inheritors of the land.

For generations agricultural extension officers, expounded on the virtues of planting in straight rows and promoted mono cropping. In many mountain areas we now know better. The people in the mountains lead the way in the infusion of traditional culture and knowledge and linking it with modern science and development practices. The GTZ sponsored agroforestry project found so much in common between traditional practices and what they were advocating ((Johannsson 2001). There was still so much to learn so that people could benefit from knowledge and understanding.<sup>5</sup>

### *5.3 Recapturing Ancient Tradition Through Ethical Commerce*

Wild races of coffee are found on the slopes of Kilimanjaro, in Kagera, Burundi and Rwanda and in Uganda. In Ethiopia, wild races of the coffee plant literally formed forest in the Province of Kaffa. The berry was traditionally processed and drunk as a stimulant for nearly 2000 years. It was not known in London during the reign of Queen Elizabeth I but less than a generation later, there were thousands of coffee house in London. Presently, Germany is one of the world's largest exporter of processed coffee, the United States is one of the world's largest importers as are France and many other European countries. While coffee producers periodically wallow in poverty, the coffee trade is worth billions of dollars. Very little of this money flows back to Africa. Is it possible to have ethical commerce in coffee, kola, and bananas? Better still -

when will the African countries begin to add value to their own products? Not if the coco cola mentality is allowed to dominate the mind set!

#### *5.4 The Children Who Ran In The Mountains*

The small children who ran barefooted in the mountains of Kenya and Ethiopia either for fun, or tending their livestock or just going to school first entered the Olympic Games a few years after independence. A decade later, they began to topple one record after another. In the mid 1990's African women from Kenya and Ethiopia, began to participate and to win. These achievements were not only at the Olympics, once every four years, but also annually in the marathons held in Boston, London, Tokyo and other centers.

True, the skills, sweat and the endurance have frequently been exploited by bureaucrats and second and third parties. Culturally, the rights of the runners need to be protected. The role of these athletes for promoting their countries should not be forgotten because they gave their respective countries a very different positive image. This is something priceless.

Is there room for basketball players to emerge from the highlands of Rwanda, Burundi and Nubia ? Would it not be a better way to make their countries famous rather than infamous?

#### *5.5 From The Security of The Mountains To The Security In The Nation*

The history of High Africa provides us with numerous examples of groups that fled from the plains and moved into the mountains for security. Mountain environments can accommodate many different groups to co-exist. There is a remarkable degree of tolerance, accommodation and the ability to adjust. In doing so their very own lives and livelihood were radically and substantially changed. For instance the Mbugu pastoralist, fleeing from the Maasai, moved into the forests in the Usambara (Conte 1995). They used the glades and by selective use of fire provided pasture for their livestock. Slowly they took to agriculture.

#### *5.6 Moving Away From "The Island" To The Radiative Approach*

In a symbolic sense we should learn from the mountains. The mountains capture water in all its forms, the clouds, the mist, the snow and rain. But in a real sense the mountains are not islands. The water it captures, rushes out or oozes out, as farmers have found after replanting the forests in the Usambara. Water penetrates through the heart of the deserts and semi arid areas. The impact of the mountains should not be "island-like" but should radiate in all directions.

With more knowledge we learn to use hidden resources, whether it is to generate electricity or use genes. As we consciously realize that trickle-down-approach has not worked we should look to the mountains. Mountains have an amazing capacity to integrate. As part of the integrative effort we need to pay attention to the traditional and the modern and balance between our needs and the options and what nature can give.

But mountains and the plains around them cannot be looked as two separate worlds. There is an enriching process when the two are looked as a continuum.

## Conclusion

Skeptics among you will wonder what all this has to do with modern development. As a matter of fact quite a bit. Consider for a moment the whole story of rice in the Asian countries. Small farmers produce millions of tons, specialized varieties command premium prices and the rice trade is worth billions of dollars. India consumes most of its own tea, salt, cashew, cotton, hides and skins. Africa's trade is still colonial and indeed re-imports many of the products at exorbitant prices. The trade between the mountains and the plains is ancient in Africa. We could turn a new leaf and see how it could fit into our contemporary world. In a way it has started ... tea and coffee from the mountains is consumed all over East Africa.

Partly it is a mind-set. For instance consider the economic, social and the practical dimension within the cultural context, of the Chinese or Indian approach to herbal/traditional medicine and the situation in Africa. Can we honestly say that there is no room in Africa for local/traditional medicine and healthcare? The reality proves otherwise. In Africa with the western bias for health treatment only the rich and the powerful can be treated in metropolitan capitals.

During much of the colonial period - environmental/resource problems were defined by the "perspectives of different cultures", frequently to suit their own vested interest. The influence of the international financial institutions has only slightly departed from the colonial legacy. As a result there are dual economies evolving everywhere in Africa - the globalized one is heavily tilted in favour of corporate interest. A people centred sustainable development requires a different approach.

Merely thinking of the Mountains of High Africa, in terms of brute force, like the dragons and the dinosaurs is not enough. It is a sure reminder of extinction. The butterfly is both subtle, powerful and beautiful. It is like human culture. Africa is so often portrayed as a Dark Continent. But when one puts all the colours from the landscapes of the Cape of Good Hope to the Bustani ya Mungu in Rungwe - the Mountains of Africa give it colour to the whole continent. It is part of our heritage. It should be cherished and supported.

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## Endnotes

<sup>1</sup>Professor Adolfo Mascarenhas, The African Link, Dar es Salaam.

<sup>2</sup>In the early part of 2002, the Virunga erupted with slow but devastating impact when lava from the mountains, flattened the town of Goma.

<sup>3</sup>Few appreciate that one of the earliest dinosaurs skeletons to be exhibited in the Museums of Europe was assembled in Berlin from remains taken from Lindi.

<sup>4</sup>Meerachau is hydrous magnesium silicate. It is a soft, white, foamy like substance which is highly heat resistant and is therefore used for making smoking pipes.

<sup>5</sup>As the environment improved, the ox-peckers returned and the pests could be controlled more naturally. The trees planted on the ridges meant that farmers could benefit from springs in the mid slopes and the planting season were prolonged etc The conservation demands on labour were high but the traditional rotating "kiwili" working parties for a catchment area, meant that the burden of work among women was made more manageable and the work was completed etc (Johannsson 2001)

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## Notes to readers

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