

## **ERITREA: Problems and Prospects in Agriculture**

By  
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Eritrea, like most other third world countries, is basically a rural society. About 80% of the population live outside the cities and depend exclusively on farming and/or animal husbandry for their livelihood. Due to its climate, a wide variety of food and cash crops can be grown in this country. Following is some relevant information split by topic and graphics to help the reader get a picture of what the country looks like and what it contains. In addition this article will give background information to fertility problems and the prospects that exist for improved production.

### **The Country**

Eritrea lies on the coast of the Red Sea and is bound north west by the Sudan, south west by Djibouti and south by Ethiopia. Total area including the islands is 47,876 square miles.

### **Physical Features**

In spite of its small size Eritrea has a very wide range of different ecological zones depending on the altitude above sea level. The country can be divided into 3 main climatological areas. The highlands, the eastern lowlands and the western lowlands. The core of the territory is the north west tip of the Eritrean highlands, a plateau at altitudes between 6000 to 8000 ft above sea level. The western half of the table land inclines slightly toward the Sudan and the eastern part is tilted toward the Red Sea. Then there is the narrow strip of land, known as the green belt, running between the eastern lowlands and the highlands. It consists mainly of steep slopes, though the soils are fertile.

### **Cultivation**

Land is cultivated using ploughs and hoes. Animal traction is common with farmers using locally made wooden rigid beam plough that have spear or spade iron blades. Ploughs are drawn mostly by camel in the lowlands and by oxen in the highlands.

### **Weeding**

This is seldom practiced in the lowlands. In the highlands, it is carried out by hand. Weeds are pulled out by hand or cut with a sickle. It is mostly the women who do the weeding.

### **Harvesting**

Cereal crops are harvested by hand. Sometimes only the head is cut, sometimes the entire plant is removed, depending on the type of crop and the agricultural region. Threshing is done by hand or with animals. Grain is stored in cylindrical granaries made from mud.

### **Crop rotation**

Crop rotation is seldom practiced in the lowlands. Instead an area of land is cultivated until it becomes exhausted and is then left fallow. In the highlands, where terraces are widespread, crop rotation including

legumes is the established practice. In most parts of the highland, fields are cultivated for only 3 years in succession and left fallow for 2 years.

### **Level of production**

Production of cereals by the peasant population has seldom reached surplus margin. But certain regions within the country do produce surplus and even export fruits, vegetables as far as Europe. These are modern farms owned and run by Italian industrialists and located in western lowlands. Any surplus production by the peasants would only satisfy the demand of the urban communities. In bad harvest import of cereals is made from the northern part of Ethiopia and the eastern part of the Sudan.

### **Livestock**

No definite number of livestock for the whole of the country is available. But Eritrean veterinaries estimate that they very much outnumber the population which is believed to be around 4 million. Raising livestock is a very important activity in Eritrea and in many instances the wealth of a man is measured by the number of heads of animals owned. In the western and eastern lowlands, farming is less important than raising livestock. Cattle, sheep, goats are raised every where, while camels are confined to the lowlands where they are utilized for milk, transport and sometimes for meat. In general livestock productivity is low. The major diseases affecting cattle are rinderpest, anthrax and trypanosomiasis.

### **Constraints on agricultural production**

Cultivation by the plough has fundamentally influenced the land position. The deforestation of the cultivated zones is in large measure due to the use of the plough which, unlike the hoe, demands a field clear of trees. Thus before starting cultivation on a fallow or a virgin field, the cultivator cuts and burns down all the trees and growing plants.

### **Soil erosion**

Virtually all the original forest cover has been removed by the population for firewood and timber, or cleared for cultivation. Shrub and grass groundcover has been greatly decreased by excessive grazing of uncontrolled livestock. In addition, the traditional feudal land tenure system which remained unchanged until the later half of the 1970's have left the dependant farmer with little incentive to husband his natural resources. This led to erosion taking place on excessive scale.

### **Lack of input**

It has always been the policy of the colonizers to deny basic inputs to boost production. Therefore farmers lack basic inputs such as seed, fertilizer, tool and pesticides which could have substantially improved agricultural production and the well being of the peasantry. Figures available show that yields of sorghum in the lowlands are ca.0.4 tone per hectar, maiz in the green belt ca. 0.7 t/ha and wheat in the highlands ca, 0.4 t/ha. For example lack of insecticide contribute so much to the failure of crops. Limited supplies of raw materials restrict the number of hand tools and ploughs that can be manufactured locally. Most are today made from scrap metal. Lack of vaccine no doubt mean the livestock are exposed to diseases.

### **The drought**

Although drought is not new to Eritrea, the drought that persistently hit the region from 1981 to 1985 has affected the lives of the entire rural population. So has it claimed many lives of the animal population. Because of the unending military aggression by the Ethiopian leaders, even in time of hunger, the impact was compounded that the people of Eritrea were quite unable to handle the effects of drought.

### **The war**

Of all the constraints, the war has been the most devastating. The war has been going for 26 years, has disrupted agricultural production. It has been an open policy of the Ethiopian authority to control the country by first killing it economically. Consequently the people, by and large the farmers have fled Eritrea and have become refugees. Others are displaced within their own country. Whatever is produced by the farmers in the Ethiopian controlled areas is vulnerable to confiscation or burning.

### **Areas of need**

While it is well organized and possesses some basic infrastructure, the agricultural department has very limited resources. As noted earlier basic inputs for distribution to farmer are lacking. Since 1975 the EPLF has carried out comprehensive program of land reform. But to develop the land the farmers need financial and technical help for cooperative ventures which are essential if production levels and the situation of the poorer peasants is to improve.

To mention some of the needs, provision and introduction of alternative sources of energy would ensure the success of any reforestation work. Both organic and inorganic fertilizers are unknown and beyond the buying power of the peasant but very essential to check the physical and chemical degradation of the soil. Introduction of new varieties and development of new techniques for producing food crops could lay the basis for transforming the socio-economic of the rural population. Cross-breeding of the Eritrean dairy with high milk yielding types can improve the quality both for the production of meat and reproduction purposes. Provision of irrigation tools, compressors, water pumps, and insecticides to combat carriers of disease are always in need.

The needs are enormous. Consequently any amount of input by a donor has great significance. All records show that donors have not only seen the results of their donation but have always expressed admiration at the level of motivation and competence of the Agricultural department, which is run by highly educated personnel. The department's technical capability was clearly demonstrated when, in the middle of the 1984 drought, it managed to cultivate through systematic drilling and irrigation an area more than 2000 hectare in Ali Gder. As much as 300 tones of sorghum was expected to be harvested. But after the strategic withdrawal by EPLF from the area the harvest fell into the hands of the Ethiopian soldiers. Since the Eritrean people are victims of both military aggression and natural disaster any assistance given to them has, beyond everything, a moral value.

The challenge facing Eritrea today is not only to produce enough food for its population but also to preserve the already scarce land and water resources for the future. Expansion of the Sahara desert, erosion, death of forests and overgrazing all these contribute to the ecological change in the region. But given the chance of peace and freedom, the Eritreans can no doubt meet the challenge.

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