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► **To cite this version:**

Anne Cussac. Is there development potential in arid and semi-arid lands (ASALs)?: Notes on a mission carried out in Isiolo, Kenya; 10–11 April 2008. 2008. halshs-01207017

HAL Id: halshs-01207017

<https://shs.hal.science/halshs-01207017>

Submitted on 30 Sep 2015

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MAMBO !

The newsletter of the French Institute for Research in Africa

Volume VII, n° 4; 2008

Is there development potential in arid and semi-arid lands (ASALs)?

Notes on a mission carried out in Isiolo, Kenya; 10-11 April 2008

Arid and semi-arid lands, comprising about 55% of land in Africa and 80% of land in Kenya, are characterised by particularly harsh living conditions with low rainfall of between 100 to 600 millimetres per year. In these regions of a mainly pastoral population, the rate of poverty is often the highest.

Isiolo District in Kenya, one of the 13 districts of the Eastern Province, has such an environment. Bordering Marsabit, Garissa, Tana River, Meru North, Meru Central, Laikipia and Samburu, its largest town, Isiolo, is the doorway to the north. The town is inhabited by several communities but dominated by pastoral populations—Borana, Somali, Turkana—as well as other people groups with a farming tradition, the Meru and Kikuyu. Hot and dry for most of the year, the district has two rainy seasons (short rains, October to November; long rains, March to May), with an average annual rainfall of 580 millimetres. Due to these low rains, the region is susceptible to climate change and is regularly affected by famine. With a population of more than 110 000 inhabitants, the district is poor with a more than 50% of its population living below the poverty line.¹ The area has for a long time been marked by clan fighting or cattle theft, all facilitated by a major sale in light weapons, which creates great security problems. Finally, the lack of infrastructure is a major drawback to economic development. For example, the average distance of a household to the nearest water point is about 5 kilometres, while only 17% of the households within the district have access to piped water, and less

than 4% have electricity.

Strongly affected vicissitudes of the weather and sensitive to recurrent drought, economic activity in this district rests solely on pastoralism, with the rearing of camels, goats, sheep and donkeys. However, the lack of information by local communities on the livestock market and the weak infrastructure also limits the development of its economic potential. This situation is worsened by the lack of tarmac roads which further complicates the transport of livestock as pastoral activities are under the constant threat of insecurity linked to inter-community tension, livestock selling and bandit attacks. Finally, the business sector could be a source of development, but in this case as well, the area's infrastructure would have to be improved, in particular the road network, to make the region attractive to investors.

Due to its high vulnerability to climatic change, Isiolo District and other ASALs need a solution on how the herdsmen could diversify their activities in order to limit their dependence on the environment. In this vein, a few years ago, a programme was launched to encourage the commercialisation of gum-arabic.² Gum-arabic is a natural resin produced by a species of *Acacia* (*Acacia senegal*), which is found in arid areas and is abundant in the northern part of Kenya. The programme, funded by the Eastern and Southern Africa Partnership Program aims at setting up a warehouse for the harvest and sale of gum-arabic and associations for the producers. The ultimate goal of this project is better development for local communities. The

project, involves two local NGOs; Centre for Training and Integrated Research in ASAL Development (CETRAD) and Mandate the Future (MTF). It wound up with the construction of a storage warehouse in the village of Daaba, a few kilometres from Isiolo, where an association of harvesters was also formed at the same time. The two NGOs also established an education and training programme in harvesting, storage and sale of gum-arabic for the local communities in Isiolo and Samburu Districts. The idea behind this initiative rests on the hope of developing an activity that might offer new economic opportunities in the region. Traditionally, the harvest of gum-arabic is more of a leisure activity and is often the preserve of women and children. Hence, it is not really an economic or commercial activity. The development of its sale as a profitable venture could also be considered as a source of wealth for the local communities. This field visit allowed for an evaluation of the functioning, successes and limitations of this pilot project.

According to Sam Makali of CETRAD, although the gum-arabic sector was promising in the 1990s, its development failed in Kenya. The progress of the sector was limited in Isiolo, as the region had been heavily affected by the various drought periods in 2000. Indeed, a major limitation of gum-arabic is that apart from its periodic sale, its production suffers from a heavy dependence on the climate. The harvest peaks after

the rainy season, but is concentrated on a very short duration, between June and August. It is therefore an economic activity that is limited to certain months and which is insufficient to guarantee an income throughout the year. Additionally, during periods of drought, a scourge that regularly afflicts the region, its production is low. This limits the revenue accruing from the sale of this resource. The construction of a warehouse would therefore allow the harvest to be stocked in its periods of abundance such that its sale can



continue throughout the year, as gum-arabic is not a perishable product. The gum-arabic project therefore involved the training of local communities on the raw materiel with one of the main objectives being the formation of an association of producers. The communities therefore had to be given more weight in the market and to better informed on the potential and modalities of commercialisation of the resource. As it is, the communities still do not know at what price their gum should be sold, all the more so as the price keeps fluctuating.

One kilogramme of gum sells for between Ksh 20 – 30. In the export market, it goes for a maximum of US \$ 3, depending on its quality. One of the initial ambitions had been to educate the populations on the diverse qualities of the gum and on the importance of selecting it according to its various calibres, although more often than not, the local harvesters sold it in bulk, without sorting according to quality. Despite a training course for the diverse communities, Sam Makali seemed reticent about the development potential of gum-arabic.

According to him, the resource could be an alternative but it does not generate sufficient income to be anything other than a complementary source in addition to other commercial activities. Its production is too closely linked to the climate, specifically amount of rainfall, to have the region's development based on it. An investment in livestock would be more profitable. The populations in the area are for the most part pastoralists and own

numerous head of cattle. If the sector is not sufficiently developed due to the lack of a road infrastructure and markets for negotiation, an investment in this field would probably be more worthwhile in the long term, and also less risky due to its low dependence on climatic changes.

Going by the testimonies of the Daaba association members, despite the difficulties experienced, the project could be considered a success. In their locality, a warehouse was built for storing the gum, which led to the

formation of an association of harvesters. The association has 78 members who pay a monthly membership fee. Before this group was established, each person harvested and sold gum on his own account. But in order to do so, they were obliged to go to Isiolo, translating to a loss of time and increase in costs. Now, with the setting up of the association warehouse, their activity can be more profitable by rationalising the costs of travel for the sale of their product. During the harvest period, the association members combine their produce and sell it as one. After the sale, the profits are divided among the members. In 2007, sold three bags of 90 kgs each were sold at Ksh 50 per kg using this system. Some members emphasise that the market price is currently not profitable and that for two or three years, the harvests have been poor due to lack of rain. Therefore other types of activities such as woodwork or the sale of charcoal were developed. Apart from this, the warehouse not only serves as storage for the gum but

a shop was also set up where the villagers can exchange small amounts of gum for basic products such as sugar or milk. The construction of a warehouse here thus brought about a degree of improvement for the inhabitants, especially because the locals had been informed of the function of the warehouse from the very beginning, and had received training on gum-arabic.

Gum-arabic is today considered as a resource which is not sufficiently exploited, although it is not likely to suffice on its own for the development of arid and semi-arid regions. In the case of Isiolo, other potentials exist which can be combined to guarantee a regular revenue for the community. Among these is the sale of camel milk or honey. Some programmes in these latter do exist but they have not received much attention so far. Above all, one of the main problems affecting Isiolo District and the Kenya's ASALs is the difficulty of access, which renders the area expensive and unable to attract

initiatives for developing new economic activity. Finally, although the arid and semi-arid lands appear to elicit some interest in research, few programmes currently exist to attempt to promote their natural resources and economic activities.

Anne Cussac
April 2008

Notes

¹ Figures taken from Action Aid International Kenya, Isiolo District Profile, May 2006. *A summary of secondary data on Isiolo District* by ActionAid International Kenya, April 2006.

² See Marion Chrétin, Embassy of France in Kenya, Coopération and Cultural Action Office (SCAC), *Gum-arabic production and collection in Kenya: market and feasibility study*, March 2007.

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