

For several decades now, the multinationals have been trying, one way or another, to control the way Africa uses its genetic resources, especially its seeds. Among the strategies they have used has been: to introduce chemical inputs, with all the problems these create; to sponsor national and/or regional laws, mostly copied from European models; and to implement programmes such as the US-backed African Growth and Opportunity Act (AGOA) and the Millennium Challenge Account. Local communities, however, are resisting in a calm and dignified manner by transmitting from generation to generation their own cultural practices. Some examples gathered during a trip to south-west Benin show how communities are still able to control their seed use and to manage their genetic resources.

Resisting transnationals

- the experience of farming families in south-west Benin

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JINUKUN, the national network for the sustainable management of natural resources in Benin, is the country's focal point of COPAGEN, West Africa's coalition to protect African genetic resources.

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Women take the lead

Béatrice Sotondji, a farmer from the village of Fongba (Lokossa), has a nursery for traditional oil palm trees, grown from seeds that her father-in-law gave her. She prefers seeds from traditional trees because, even though trees grown from so-called "improved" seeds can produce a lot of oil and help her to get rich, the *sauce-graine* (palm-nut cream) and the oil extracted from traditional palm trees look better, smell better and taste better. Fongba is not an area with native oil palm trees and, about 50 years ago, villagers fetched seedlings from the village of Sè, several dozen kilometres away. Now that Béatrice has developed her nursery, farmers in Fongba can use her seedlings to sow in their fields. She normally makes no charge – giving seeds away is one of the essential

characteristics of peasant agriculture – but, if demand becomes too great, she asks for a small financial contribution.

Béatrice has another field where she has been growing food crops for the last nine years. She does not use chemical fertilisers and always has good yields. The only problem has been flooding (a natural catastrophe that has grown worse as a result of climate change in West Africa), which makes it impossible to use part of the field. Béatrice herself selects the seeds she will sow in the following year and has never bought seeds on the market. The seeds she was given when she started her life as a farmer a dozen years ago still serve her well today. She intercropped maize and cassava, planting them at different times of the year. At harvest she carefully selects the seeds for each crop from the first plants to ripen. She dries these seeds in the sun and then

stores them above her kitchen chimney to prevent them being attacked by weevils. Because of this care all the seeds germinate each year.

“The multinationals condemn us to a slow death”

Not all farmers, however, always save their seeds. Félicien Zonglahoun from Yénawa (Klouékanmè Commune) has, along with other crops, a field of haricot beans and groundnuts. He sometimes selects and conserves seeds for the following season but, if he runs into financial difficulties during the year, he sells his entire harvest, including the next year’s seeds, so he then has to buy more seeds on the market. He uses chemical fertiliser on his crops, saying that the soil on his land is poor and that he needs chemical inputs to get good yields. In neighbouring areas, such as Lalo and Lokossa, where the soils are still fertile, farmers produce two crops of maize per year. But in Klouékanmè, he says, they have only one crop, because of pests and poor soil.

Félicien has an oil palm grove, inherited from his parents, with a nursery of native trees. He uses the oil from these trees for his own consumption and sells any surplus on the market. He sometimes fells the taller trees in order to extract the palm liquid to drink or to make *sodabi*, the local alcoholic drink. He does not use chemical fertilisers or pesticides in his palm grove. He says that nearly all the villagers grow traditional oil palm trees, and that the few peasants who grow palm trees from improved seeds do so because they have more money. He also has a grove of orange trees. He planted the orange trees four years ago and they began to bear fruit

this year. He uses pesticides on his orange trees. He says that there is not enough manure in his village to meet everyone’s needs and he, like many of the men, sometimes uses chemical fertilisers. The women, he says, use just animal manure and they get better harvests. Even though Félicien uses chemical inputs, he is no fan of the multinationals: “they kill us alive”, he says. “They put us in our tombs, condemning us to a slow death.” He is not a member of any peasant organisation and has never heard of GMOs.

Unlike Félicien, Gilbert Danglo, a farmer in Yénawa II, is politically active. He is secretary of the Union Communale des Producteurs de Klouékanmè (UCP – Klouékanmè Farmers’ Union), a local peasant organisation belonging to the Fédération des Unions de Producteurs du Bénin (FUPRO – Benin Federation of Farmers’ Unions), which is a founder member of the Réseau des Organisations de Paysans et Producteurs d’Afrique de l’Ouest (ROPPA – the West African Network of Peasant and Producer Organisations). He grows salad vegetables (tomatoes and peppers), haricot beans and oil palm trees. He uses chemical fertilisers on his tomatoes but not on his other crops. Some of his tomatoes are hybrids but few of his other crops are.¹ He has an interesting collection of different varieties of haricot beans and tomatoes in his fields, some of them named after their biological or culinary characteristics. He selects and saves seeds for subsequent crops.

One of the most widely cultivated crops is *pois d’angol* (a legume similar to a pea). Indeed, the name of the commune – Klouékanmè – reflects the farmers’ fondness for this crop: in the local language, *kloue* means *pois d’angol* and *kanme* means a crop that increases the nitrogen in the soil (which is, of course, what a legume like *pois d’angol* does, as it captures nitrogen from the air). *Pois d’angol* is almost always grown in consortium with other crops and sown at the beginning of the first rainy season. Like the other farmers, Gilbert grows cassava because it is used in this region to make tapioca and flour. For their cassava the farmers use cuttings from local varieties or “improved” varieties supplied by the Ministry of Agriculture’s regional services. Sometimes these varieties include ones from the International Institute of Tropical Agriculture (IITA). Farmers have also been given an “improved” variety of maize, DMR² (see Box on page 15), which cannot be stored for as long as local varieties. Gilbert knows what GMOs are and opposes them because of what he has heard about them on the radio. His suspicions were aroused when he heard that farmers and consumers in the developed countries that produce GMOs refuse to

1 A hybrid is a seed that has been improved by crossing two varieties generally belonging to the same species, genus or family. Hybrids are different from GMOs, largely because of the technology used to produce them (hybridisation respects nature by crossing plants or animals that are closely related in nature, while GMOs are the product of genetic engineering that goes to the heart of living things and mixes different species, genera, families and kingdoms.) Hybrids pose fewer problems than GMOs; the problems posed by GMOs are biological, economic, social, cultural and ethical in character.

2 DMR = Downy Mildew Resistant, a maize variety that is resistant to disease. It was created by the International Maize and Wheat Improvement Centre (CIMMYT) in Mexico. CIMMYT forms part of the network of 15 international agriculture research centres that constitute the Consultative Group on International Agricultural Research (CGIAR), which promoted the Green Revolution in the 1970s.



Photo: GRAIN

Leguminous plant commonly known as *Akpakoun* in Klouékanmè (Couffo Department)

Photo: GRAIN



A maize granary in Klouékanmè (Couffo Department)

consume them. He has never heard of “terminator” seeds.

Klouékanmè illustrates the tension that often exists between government policies and those adopted by local village communities. The agronomist Maxime Toklo, who is president of an NGO called the Association pour l’Agriculture et le Développement Durable (A2D – Association for Agriculture and Sustainable Development), and also works for the Klouékanmè commune council, explains what happened. “As part of a consultation, the local people expressed their wish to grow tomato and orange crops. As the council has only limited resources, it decided to support tomato growing and obtained the support of some development agencies for this option.” Maxime said that the experience was an example of how decentralisation can work well in a commune. But then, without consultation, the government declared Klouékanmè to be a cotton-growing area. One of the agencies that agreed to support the council’s tomato-growing initiative is now having second thoughts because of the government’s decision.

Other decisions that greatly affect local people are imposed from even further away. A few months ago, a group of Malaysian businessmen visited West Africa at the request of Benin President Yayi Boni, as part of his dream of turning Benin into an “emerging country”. As a result of this trip, 400,000 hectares are now to be planted with oil palm trees. Although no official statement has been made, it seems likely, in view of the obsession with agrofuels in Benin and in Africa as a whole, that the oil from this plantation will be used to produce agrofuels.

Farmers grow citrus fruits as well as subsistence crops

Davi Kouassivi planted an orange grove ten years ago in the village of Davihoué. He bought the young

trees from orange tree breeders and he now grows them together with groundnuts. The latter grow in furrows that retain water, which then penetrates under the orange trees and promotes better yields. To start with, he bought local groundnut seeds at the market and now keeps seeds from one harvest to another. As the soil was poor, he used chemical fertilisers around the orange trees but not on the groundnuts. He sells the produce from both these crops. He also has a field of traditional oil palm seedlings that he received as gifts from friends or took from the wild. He never applies chemical fertilisers to the palm trees that he will be using to produce palm-nut cream and oil for home consumption. (Davi’s behaviour here is typical: all the peasants we met recognised that chemical fertilisers can help to increase yields, but most did not use them on crops that they were intending to consume at home, preferring to use organic fertilisers on them.) Davi knows about GMOs because he attended a conference organised by Klouékanmè council. He has also heard of “terminator” seeds.

Brother Edmond Adjoglo is both pastor and farmer, with a field of just under one hectare. Like other “landless” peasants, he rents his field. Landless



Photo: GRAIN

The peasant-pastor with the baobab fruits harvested near his field

“Improved” seeds in Benin

Most crops grown in Benin, and the rest of Africa, either come from wild plants that have been domesticated over thousands of years, such as oil palm tree, yam and sorghum, or have been introduced from other countries in recent centuries – for example, maize, cassava and mango. Many varieties have also been “improved” by national or international agricultural research. In other words, they have been intensively bred to improve yields. As there is generally an inverse relationship between quality (such as taste, texture and aroma) and yields, local farmers often choose not to eat “improved” varieties, even if they are cultivating them. It is not surprising perhaps that in Benin the communities that exercise social control over local seeds often have a complex attitude towards the “improved” varieties: if they agree to cultivate them, they also resist introducing them into their own social, cultural or spiritual practices. It is in day-to-day life that one finds the strongest resistance to market forces and globalisation.

One example is yams. Yams are used in rituals during the annual community celebrations from Nigeria to Guinea. People in these communities never eat new varieties of yam during these ceremonies. This kind of custom, along with traditional farming practices, ensures the sustainable use of African genetic resources. In the 1970s, agricultural research introduced another variety of yam, known as *florido*, from Puerto Rico to the Côte d’Ivoire and then to other countries in the region, including Togo and Benin. Although this variety is easier to propagate than local varieties, it is used only as a cash crop; farmers very rarely use it for domestic consumption.

The Benin Agricultural Research Institute (INRAB) works with peasant communities to provide them with improved seeds. A number of improved varieties, mainly of maize, have been widely distributed. One of these is DMR maize (see note 2 on page 13), which is more resistant to drought than local varieties. It has a cycle of 60–70 days. At the end of its cycle, the grains can no longer be consumed fresh because they become very hard, almost like glass, so neither farmers nor consumers like it. Production in Benin is mainly in the south.

This variety was produced by researchers to increase yields, but it has brought only adversity and desolation. It is attacked in the fields by weevils and by the greater grain borer brought to Benin by food aid. This pest is called the “shredder” because of the damage it causes. The variety is difficult to conserve because the shucks do not entirely cover the ear. After four months’ storage in traditional granaries, DMR turns into 80 per cent powder. The flour obtained from milling is more like semolina, because the seeds are difficult to grind. Millers therefore strongly dislike this variety. Consumers do not like the paste produced from it. Food processors, however, like it, because it produces a greater quantity of cornmeal and so there is more to sell. Another improved variety is the Pozanika, which is hardy, has very starchy large seeds, and a cycle of 120 days. Unlike DMR, Pozanika is tender, but it is also difficult to store. Indeed, successful storage of improved varieties requires the use of highly poisonous chemical products (actelic super, cypercil and so on). This is particularly dangerous for peasant farmers, because they have not been trained in the use of toxic products.

peasants include outsiders and local people whose parents did not leave them any land when they died. This situation has not, however, engendered the kind of social struggle mounted by landless peasants in Brazil. When he began farming some eight years ago, Brother Edmond bought local seeds at the village market. Since then, he has saved seeds at each harvest for use in the next season. Like other people in the village, he sometimes exchanges seeds. He grows maize, pepper, tomatoes and cassava.

Brother Edmond has also acquired a range of different varieties of haricot bean, all of them local. He produces his own hybrids, carefully crossing different varieties to obtain the required characteristics. When he is producing his hybrids, he is careful to consider all the characteristics of the parent plants, including the length of their flowering cycle. When planting them, he also takes into account the direction of the wind, so that the

pollen will be distributed well. He does not use chemical fertilisers because, he says, they give a bad taste to the crops and make them deteriorate more quickly. Some of his produce is consumed at home (particularly the maize) and some is sold at the market (especially the haricot beans). He has no difficulty selling his beans: consumers like them because of their unusual colour, the size of the grains, and the way they taste and smell.

Fishing at Grand-Popo

As with almost every activity in agriculture, there are two kinds of fishing: traditional fishing, often called artisanal fishing, as widely practised in local communities; and “modern” or industrial fishing. For the purposes of this article, we shall concentrate on artisanal fishing, which plays an important role in the subsistence strategy of some communities by the coast.



The group we interviewed was led by Mr Agbobli Ayikoue, known as Hounnonvio (son of the fetisher), from the fishing community of Ewécondji-Plage in Grand-Popo in the department of Mono. They fish to feed themselves and to sell on the market. They are local people, but there are other fishing communities composed of outsiders, including Ghanaians, in the region. Agbobli Ayikoue said that *bobi* fish were available in the sea only between October and December, but most of the other fish they caught were found almost all year round. As the years have gone by, the size of the fish has decreased. People say that this is because the old custom of taking only big fish is no longer respected. The fry used to be allowed to grow, but today the nets catch all the fish, big and small.

Internal conflicts have also led to people giving up the traditional ceremonies that used to protect the fish. The community used to consult the “FA” (a traditional divinity) after which they made sacrifices (known as “Sanvo”) so that fish would be plentiful. Avlékété Kpanou believes that several *vodouns* (local divinities) need annual sacrifices of particular animals: oxen, sheep, turkeys, ducks and chickens. Each *vodoun* prefers a particular animal. All owners of fishing equipment used to contribute towards the organisation of these ceremonies. These days, however, there are disagreements about who should pay what. And, say the fishermen, these conflicts between human beings have also led to conflicts between the *vodouns*. For instance, the ox has to be placed in a canoe and put out to sea several kilometres from the shore as a sacrifice. In the past, the canoe was swept out to sea but in recent years the canoe has returned to dry land, signalling that the ceremony has failed. Mr Alowodo Mensah,

however, has other explanations for the scarcity of fish: pollution of the sea by phosphates coming from Togo; the use of motorboats rather than line fishing; the presence of menstruating women at sea; and the dumping of waste in the sea.

Some ceremonies, such as *Glatin*, are still respected. *Glatin* forbids fishing on every fifth day, the day of rest for the *vodouns* who make the fish plentiful. Mr Joachim Danhouan, who lives in the Kindjinhoué (Ewécondji) neighbourhood and is the representative of the Union Nationale des Pêcheurs Marins et Assimilés du Bénin (UNAPEMAB – the National Union of Fisherfolk and Associated Workers of Benin), agrees with his colleagues that some rituals are still respected, but he points out that there used to be a lot more trees and bushes in the mangrove swamps. He links this to the decrease in the practice of certain ancestral ceremonies, such as consulting the “FA”, and to the introduction of Christianity.

Conclusion

Like most peasants in developing countries, the farmers of south-west Benin have been quietly perpetuating their ancestral agricultural practices, exchanging seeds without reference to any intellectual property rights used by transnational companies to control seeds. By promoting these practices, farmers are contributing to achieving food sovereignty in their communities and their country. There is no doubt that cultural diversity, combined with the agro-ecological diversity that characterises all countries, constitutes the basis for guaranteeing the rights of local communities over their genetic resources.



Fisherfolk at Grand Popo (Mono department)

Photo: GRAIN