

Dryland Networks Programme

ISSUES PAPER

***Zooforé: friend or
enemy of the forests?***

***The viewpoint of the son
of a Malian peasant***

Youssouf Sanogo

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Youssouf Sanogo is an engineer working with the Malian NGO, GRAT (Group for Research and Applied Technology), BP 2502, Bamako, Mali.

"Zooforé": friend or enemy of the forests?

A largely Saharan country, Mali has for many years faced persistent droughts causing an advance of the desert and a worsening food crisis. In this situation, positive measures have been taken by the Malian authorities to combat desertification. This paper considers four principal areas in which action has been taken, namely:

- the campaign against bushfires;
- preservation of the natural forests;
- reforestation, and
- agroforestry.

1. The campaign against bushfires

This long-standing campaign is trying hard but not producing much in the way of results, even though one can begin to find zones that have not been burned out. The failure of this effort, which is hard to explain, may be attributable basically to the character of the principal executing agency, the Water and Forests Service, and to the rigid application of inappropriate measures. [In French, the Water and Forests Service is 'Eaux et Forêts', which becomes contracted by the

rural people to 'Zooforé'.]

Let us begin with the second point and conclude with the first. So what, in fact, happens? The people of the Sudano-Sahelian zone consider bushfires the ideal way to restore nature and safeguard the security of its human inhabitants. In this part of the world, someone of the older generation will not hesitate to say: "Without bushfires the karité tree does not produce nuts, the animals graze poorly and grow thin, the villages are invaded by wild creatures such as snakes, and at the slightest false step all the land is liable to catch fire and get burned out".

This is the sad reality which the technical departments of government know only too well, but for which a remedy still has to be found.

The farmers are not reluctant to put forward their ideas: "People must be told to set their fires early, at the end of the winter season before the grass is completely dry". It is their strongly-held conviction that bushfires do little harm to the environment, and they are in favour of them.

What would be the situation today if Sahelian governments in general, and Mali in particular, had followed the farmers' recommendations? I believe the situation would be better than it is today because switching from one system to another is not easy and adaptation is difficult. A transitional period, as

long as possible, would make it possible to educate the farmers about the damage caused by bushfires. During this period a deadline would be fixed for halting bushfires altogether. Perhaps it is necessary to take one pace backwards to prepare for a forward leap. But it is a hard decision to take without some in-depth study of the actual state of things.

Turning to the Water & Forests Service, it has to be said that farmers regard the 'zooforé' officials not as defenders of nature but as money-grabbers. This brand image is the most basic factor in the failure of the attempts to put an end to bush burning. A heavy fine is the penalty for those found guilty of starting bushfires. They generally get no receipt for their money and no explanation beyond "you set fire to the bush and it's against the law". A traumatic experience of this kind leaves little room for a genuine understanding of the problem.

What is more serious is that rural people have caught Zooforé agents setting fire to the land themselves in order to exact fines from a nearby village. Isn't this one more factor to confirm the farmers in their negative view of these official services?

Let us consider the following tale from a village in the south of Mali. An old lady, shouldering a bundle of wood, suddenly sees a "man in uniform". Should she hide or run away? As it happens, there have always been rumours in this part of

Mali that some "zooforé" agents start fires to extract money from the "bushmen". The old woman hides, while watching the agent, who indeed starts a fire.

She then picks up her bundle of wood, returns home and informs the village chief of what she has seen. Two or three days later the official comes to see the village chief, declaring "I have just checked your land and found traces of fire, so your village must pay a fine of X francs."

A special meeting of the village council is convened. In the course of discussions, the old lady is summoned and tells the official that she saw him starting a fire. Consequently, says the village chief, there is no question of their paying a fine. After trying unsuccessfully to deny the evidence, the official begs the villagers to consider the matter closed.

Fairytale or reality? And is this a solitary case? I believe not, even if the claims of farmers cannot always be taken at face value. Ignorance, fear and a lack of mutual understanding make us the victims of our own actions and those of others. Since a farmer rarely gets the better of an argument with a government official, our rural cousins are disinclined to lodge complaints, believing that the officials connive with each other in order to 'suck dry' those who cannot read or write.

Awareness-raising on a participatory basis should take priority over the blind punishment of fines. Only in this way will it be possible to change the attitudes of the rural people.

2. Preservation of the natural forests

This seems to be the best response in the struggle against the advance of the desert, at least in the wooded regions of the country (South, Centre and West). Unfortunately, this approach is given little consideration by the authorities and the technicians involved. By way of example, one can point to the vast plantations of Monts Manding and La Faiya, now planted with exotic species. These have replaced indigenous species which were razed to the ground. One gets the impression that Water and Forests officials select the most thickly wooded zones to install their new plantations; thus one sees a process of deforestation followed by reafforestation, giving rise to a denaturalisation of the area in question.

How can a lover of nature explain the deforestation of the zones of Monts Manding for the sake of planting exotic species? In what way can this be construed as an action to combat

deforestation and the desert's advance? This case is one among so many, including La Faiya in the south of Mali, that I shall say no more. I believe that what the humid and sub-humid zones of the country really require is the protection of the flora in order to develop forests - if the people of Mali so wish - but not deforestation for reafforestation.

This latter action can only be a triple loss for our country and its environment. Firstly, it loses a part of its plant population, creating a natural imbalance for years (three to 10 years for the new plantings to be confirmed as mature). Secondly, there is a double expense for felling the natural tree cover and then replanting. And thirdly, one denatures the environment, creating another imbalance. Of course, one does not irrigate to maintain the new planting, but it would cost less to protect the zone's natural growth and produce a better result than with the present 'classified forests'. Is this not again hostile behaviour by the Water and Forests authorities towards the natural resources which they purport to be protecting?

It would be better to leave things as they are or to concentrate on reafforestation where it is necessary (the Sahel and Saharan zones, where the need is most pressing). Certainly, other zones of the country have denuded areas which need to be reafforested, but that requirement cannot be met by

the measures currently being taken. Conservation of these bare areas would effectively transform them into 'classified forests' even without new planting, solely through the phenomenon of natural regeneration. In these zones it would be possible to encourage agro-forestry, protection of the flora and the afforestation of cultivable areas left fallow or abandoned.

3. Reafforestation

As pointed out above, the major projects of reafforestation take place in the humid and sub-humid zones where the local flora is destroyed to make way for forests of exotic species. As for the Sahel and Saharan zone, the precarious conditions prevailing there do not permit satisfactory results on a significant scale with very limited means. The famous Green Belt project was a courageous initiative to be applauded, even if the results to date are little known or insignificant. This belt, as defined by the Malian authorities, should be located in the Sahelo-Saharan transition zone in order to protect the rest of the country from the desert's advance. This project requires major investment (permanent water points, materials and equipment for irrigating the young trees, etc).

A better way to make a success of reafforestation would be to develop permanent water points in the arid zones, around which the people would settle. In return, the people would be required to plant trees in the habitable and cultivable zones. This, surely, would contribute to the search for solutions to three different problems: the sedentarisation of the nomadic population, the struggle against desertification, and efforts to combat famine and malnutrition.

These actions, together with a rational harvesting and utilisation of rain water for agriculture by reducing run-off, would surely help to regenerate the flora in the arid zones.

In the humid and sub-humid regions, reafforestation should concentrate on arable land left fallow or abandoned, on zones of habitation and those where the earth is bare. The development and intensification of agro-forestry would be a major contribution to this.

4. Agroforestry

Although hardly known in Mali in the guise of modern agricultural technology, nevertheless agroforestry has been practiced by the country's farmers for a long time. They have

kept certain tree species in their fields for reasons both of economy and nutrition.

Agroforestry techniques will have more chance of success in the struggle against desertification if an appropriate policy of grassroots training is put in place. For this, it is important that the farmers themselves should choose which species of trees to adopt. Species which can give them a financial return will be better accepted than those which have only an ecological interest or which, in the more humid zones, produce only firewood. The spirit of curiosity would lead more people to a better acceptance of local species offering a financial interest, rather than exotic species. For trees which have only an ecological value (preservation and improvement of soils, etc), an intensive and lengthy campaign is needed to convince the people of their benefits.

A more advantageous way of winning the struggle, in my opinion, should be to undertake multiple planting in agricultural and non-agricultural spaces for afforestation - that is to say, utilising different forest species with different and/or multiple interests. This also has the advantage of multiplying the chances of preserving the soil: soil becomes more quickly impoverished if the same nutritive elements are taken from it over an extended period as a result of over-concentration on a single plant species.

Research into indigenous varieties is needed if the battle is to be won without denaturing our ecological milieu. Recent initiatives by the Hydrobiological and Forestry Research Division (DRHF) of the National Institute of Zootechnical, Hydrobiological and Forestry Research (INRZHF) of Sotuba/Bamako, along these lines, are giving rise to seeds of hope which have been so long awaited. With regard to exotic varieties, this service had seemed to me to be straying from one of its principal objectives, namely research into indigenous trees, their improvement and the promotion of their planting.

5. Conclusion

A programme to sensitise the people to the problems of the environment - on a participatory basis - is essential for the success of the different actions envisaged here. This sensitisation should be accompanied by appropriate procedures for the campaign against bushfires to replace the ineffective system of financial penalties.

The adoption of an appropriate policy in respect of forest conservation and reforestation is a first necessity in the fight for a green and prosperous Sahel. The development and

introduction of appropriate technology will be an important contribution.

As for agroforestry, its success is dependent on an effective, large-scale information campaign on the subject of tree species of economic interest.

Finally, much remains to be done to translate the idea of a green Sahel into reality. A general raising of awareness, a permanent mobilisation of human, material and financial resources, and the undertaking of courageous but realistic programmes - these will be the price-tag of success.

The reflections presented in this paper are not claimed to be discovering or drawing attention to an unknown problem. Nor is it the intention to bring discredit on the Water and Forests services. The paper does, however, aim to stimulate self-criticism within these services about their different activities. It also hopes to arouse a spirit of analysis among other parties concerned, so that the Water and Forests authorities may gain assistance from all sides in the very valuable struggle they are carrying on.

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