

VITRI / ETRN / IUFRO –SPDC WORKSHOP

**Trees, Agroforestry and Climate change in Dryland Africa (TACCDA),
Hyytiälä, Finland, 29 June – 4 July 2003 ¹.
(after slides presentation)**

Mr Chairman, Ladies and Gentlemen,

Please, give me just five or six minutes to conclude. Between 1970 and the end of 1985, I spent nearly 16 years in different semi-arid countries of Africa. The last one was Burkina Faso. In the beginning of the eighties, we created the National Centre of Forest Seed in Burkina Faso, with some colleagues from this country, particularly with my friend Abdou Salam Ouedraogo, unfortunately deceased. He was also very interested in vegetative propagation, but at that time, we were not yet aware of *Natural Vegetative Propagation (or NVP)*. When I came back to France, I was in charge of the Seed Laboratory of Cirad-Forêt too. So I think I have some knowledge in seeds. Between 1986 up to now, I've been working mainly for *tropical dry countries* at Cirad-forêt in France and I made short missions in dry Africa mainly.

Like most of my foresters colleagues in the world, all the lectures we've attended to in the sector of silviculture, forest management, tree felling, genetic dealt with seeds, seedlings, plantation, enrichment by plantation, sexual reproduction. This "lobby" is powerful. It is difficult to convince people like engineers, researchers, financial partners, national donors to use NVP methods because of the habits : it's difficult to get rid of them. When the woody vegetation cover of a degraded site is to be improved on large areas to provide co-products (wood, medicines, food), plantation is the best method *only in some cases*. So there *is an other alternative for some regions : the NVP method*, especially if financial donors are rare, if dry seasons are long, if local populations are poor, if there are no nurseries and very few workers.

For seven years, I have worked occasionally on NVP and I have collected more than 200 articles, dealing mainly with temperate species. Two years ago in May 2001, I organised in France the first national meeting dealing with NVP. In the whole country, I can only find 18 specialists, who may help us. I can't find any experts in root-suckering and air-layering. They are specialized in root system, tree architecture, and some of them are specialists in artificial VP (in vitro culture, grafting, etc.). Two weeks before this meeting, I sent them the main questions dealing with suckers that I'm trying to solve. Nobody was able to give any answer to these 48 questions. The meeting was nevertheless of great benefit. A short summary of 16 pages, in French, was edited with new assertions and questions. I assure you that a lot of thesis could be undertaken with these questions and hypothesis. But research is not the only thing we need. *In Eastern and Southern Africa, it is necessary to start small development projects* based on inquiries, on local know-how, on traditional knowledge on ligneous plants NVP, excavations and field observations, trials in rehabilitation of degraded lands with induction at low cost of layering and suckering, trials with root-cutting, and if we can find a little more money, with specific and costly analyses, like reserved carbohydrates annual variations, etc... If so, selection of non root-suckering clones to be used in plantation in the agricultural landscape could be done too.

¹ Website <http://www.etfrn.org/etfrn> or <http://honeybee.helsinki.fi/tropic>

Studies have started (or should) in Niger, Togo, Mayotte, Senegal, North Cameroon and Morocco. I would like to obtain the collaboration of Eastern- or Southern- African or European Professors who want to supervise some Masters of Science or PhD. These studies can be undertaken with only a very small number of pilot-species, which show this ability, particularly those that become independent of the mother tree. If we find small budget, these English and French speaking students could spend 2 or 3 months with me in Montpellier, South of France, after having consulted the local grey literature (thesis, confidential reports,...) in their country. In Montpellier, they could read all the articles and publications I have collected for 7 years they could buy new ones and at last they could summarize all this information on species from temperate zones.

When compared with sexual propagation, the socio-economic advantages of NVP are important (please see slide number 42). So we can not remain sceptical more longer!

What do we need now?

1/ take this questioning in hand in the context of dry land rehabilitation (hyper-semi and arid zones);

2/ manage to convince planters and financial donors;

3/ reduce the resistance against innovation that we all have more or less and start thinking differently;

4/ find time and budget to achieve a NVP book that I started writing last year, with your cooperation if you are interested;

5/ plan an international meeting (if possible with interpreters in 2005), in order to improve information and transfer technologies in favor of english and french speaking foresters.

NVP is not the only way, but locally it could be an interesting alternative at low cost: have now a new look on this phenomenon!

I thank you very much for your attention.

Ronald Bellefontaine

Hyytiälä (Finland),

July 2003.