

State of Affairs

BARBARUGO – State of Affairs

Dr M.Wolters March 2015

Introduction

Bamboo is a key to a better future. The growing and use of bamboo, especially in tropical and subtropical areas, offer chances to mankind to:

- Protect against the Harmattan on the West-African Savannah;
- Improve the natural environment;
- Offer jobs and income to rural populations;
- Provide a new basis for industrial development;
- Produce cheaper and better commodities in many aspects of life.
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Barbarugo intends to share its knowledge and efforts with partner organizations to further the growing of bamboo in Ghana and to develop and stimulate the use of bamboo in Ghana in a variety of industrial applications. **Barbarugo** is a Dutch foundation (NGO) that wants to stimulate and sponsor the growth and use of bamboo in Ghana. Post address Nessersluis 18d, 3646 AD Waverveen, the Netherlands (chairman Ruud Goedknecht, skype Goedknecht.R (around 8 a.m.), Ruud.Barbarugo@gmail.com ; Ghana representative Dr. Menno Wolters, P.O.Box TL 982, Tamale N/R Ghana, +233 5445 188 38, Menno.Barbarugo@yahoo.com ; technical adviser Solomon Owusu-Amankwaah, Solomon.Barbarugo@yahoo.co.uk , +233 240 915 871).

BARBARUGO initiates to set up bamboo plantations in the Northern sector of Ghana, by providing loans, advice and a network of contacts. There will be contractors on each of the plantations, whether individual entrepreneurs or co-operatives or community groups of small farmers (individual entrepreneurs as well as leaders of community groups will be called *planters* in the sequel). They will be responsible for the good management and quality of labor and produce on the plantations, as far as the growing and harvesting of bamboo is concerned. **Barbarugo** is prepared to pre-finance all costs of the plantations with interest-free loans in Euro (to be paid back from the first harvest sales).

Barbarugo will buy plugs and seedlings and monitor the first growth in a central nursery in Kintampo.

Barbarugo will collect and sell the produced bamboo to interested third parties and in particular on behalf of the projects described below. **INBAR** (The Inter-governmental Network for Bamboo and Rattan) will support **Barbarugo** and its plantations with scientific advice about seedlings, fertilizer, etcetera, as well as feasible use and applications.

Barbarugo will form various task forces with selected partner organizations to develop and advise projects in several corners of Ghana to grow bamboo in an economically and environmentally sound manner and to realize the objectives stated in the first lines of this document. The choice of other partners depends on the nature of the projects. The partners will collect, share and exchange general information among themselves, concerning the growing and use of bamboo in many applications.

Barbarugo will develop various projects to stimulate, introduce or improve the use of bamboo in sustainable ways. **Barbarugo** will select the species growing on the plantations accordingly. **INBAR** will advise and stimulate existing and new projects with political and economical advice by the exchange of knowledge and insight with experts all over the world, in particular regarding the use and application of bamboo in a wide range of products. Partners are sought and invited to provide new, sustainable technologies for the use and application of bamboo.

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BARBARUGO has (as of January, 2015) two plantations in Ghana, where bamboo is growing since June, 2013 (after an early stage in a nursery in Dawhenya) and where BARBARUGO takes charge of buying

seedlings and selling the produce:

- The Chief of Tsoxor (South of Kpando in the Dayi North District in Volta Region) and some of his villagers (contact: Frank Amedson, mobile +233 245 014 924, e-mail Amedson@yahoo.com) have planted 350 pieces of *oxytenanthera abyssinica*, 35 pieces of *bambusa bambos* and 45 pieces of *guaduacamolexifolia* on 1.5 ha (3.75 acres) of land just above Lake Volta. Part-time work is delivered by as many as 10 locals. At least 25 % of the seedlings have died. It is intended to create a co-operative of local farmers who will take over the project. A first little harvest is expected by 2015 (*bambusa bambos*) which will be used for an experiment concerning the proliferation of bamboo by *cuttings*.
- Nana Franklin Fei, a local businessman and opinion leader in the township of Kintampo (mobile +233 242 240 171, e-mail FKanyoke@gmail.com), has planted 350 *oxytenanthera abyssinica*, 40 *bambusa bambos* and 40 *guaduacamolexifolia* on 2 ha (5 acres) in Suamire, a village in the Kintampo South District in Brong Ahafo Region. At least 15% of the seedlings has died. The plantation is run as large-scale farming with four part-time wage-workers from a nearby Dagomba settlement. The plantation is surrounded by a bare stretch of land to prevent bush fires approaching the bamboo. Here, too, an experiment with *cuttings* will be done, both with *Dendrocalamos Asper* and with *Bambusa Bambos*.
- In early 2015 **Barbarugo** is setting up a central nursery in Kintampo to serve all plantations; here seedlings will grow under controlled circumstances until they are mature enough to be re-planted on the various plantations. The first batch of 2400 seedlings is expected to arrive from Indonesia in the first week of April 2015.

Recent initiatives

Barbarugo is developing a number of other locations to grow and use bamboo, all of them in the Northern sector of Ghana. The following planters have had their plantations inspected and accepted and are now preparing their land for the first plants to arrive in June or July 2015.

Around Tamale, a number of plantations are now expecting their first plants in April or May:

- Salley (Salifu) Issifu (mobile +233 242 386 245, e-mail SalleyMaasu@gmail.com) has prepared 2.5 acres in the uninhabited community of Gbilugu, just South of Walewale in the West Mamprusi District in the Mamprugo traditional area. The site is to expand to 100 acres (40 hectares) or more.
- CPYWD (Community Program for Youth and Women Development), a Ghanaian NGO (contacts: Jacob Iddrisu, mobile +233 244 041 808, e-mail YacubuNasung@yahoo.com; Peter Seidu, mobile +233 246 568 699) with Dutch sponsorship from SPG (Stichting Partnerschap Ghana, contact: Maartje Bos, mobile +31 619 039 645, e-mail Maartje_Bos@hotmail.com), serving a number of communities North-Northwest of Tamale with education-related projects, seeks to become self-sustaining by growing and selling bamboo. CPYWD has prepared 2.5 acres in Dallung in Kumbungu District N/R in the Dagbon traditional area.
- Fatawu Gado Mohammed (mobile +233 20 888 1097, e-mail Jatogh@yahoo.com) is preparing 2.5 acres in his home town Tichelli in the Savelugu-Nanton District N/R in the Dagbon traditional area. The plantation may grow to 250 acres (100 hectares) in due time. The local chief and Fatawu are interested in providing electricity in a sustainable way to Tamale.
- The local chief of Kumbungu, Bawa Mohammed (mobile +233 201 666 852) and his cousin Abdulai Abubakar plan to prepare 2.5 acres of their family land in Kumbungu. They and their neighbors possess a vast stretch of land alongside a water stream that enables the plantation to grow to 250 acres (100 hectares). The planters may be contacted through Fatawu Gado Mohammed, +233 20 888 1097, e-mail Jatogh@yahoo.com.
- The local chief of Gugpanarigu, Yakubu Yussif (mobile +233 243 241 786) plans to prepare 2.5 acres of community land for bamboo. The chief does not speak English, but may be contacted through

Fatawu Gado Mohammed, +233 20 888 1097, e-mail Jatogh@yahoo.com . There is about 200 acres (80 hectare) of land available as a single stretch between a water stream and the road from Gugpanarigu to Katariga. As the metropolitan area of Tamale (and suburbs) is growing fast, this land must be secured well at Lands Office.

- CPYWD has also selected a location near Nabogu in the Savelugu-Nanton District in the Dagbon traditional area. A recent decision of the Board of Barbarugo not to develop fertile farmland for bamboo plantations may, however, affect this site. CPYWD has been advised to find another location instead.

In the Chumburung traditional area in Kpandai District N/R, Barbarugo has three plantations:

- Mabefam Sherif Tinab (mobile +233 209 503 920 or +233 246 207 663, e-mail SherifTinab@yahoo.com) and Daniel Chechedu (mobile +233 248 764 878, e-mail ChecheduDaniel@yahoo.com), natives from Ekumdepe, a Chumburung village in the west of Kpandai District in Northern Region, are developing more than 100 acres (40 hectares) of land along the river Daka as a bamboo plantation, employing 6 inhabitants incidentally. They have finished clearing 2.5 acres and digging holes filled with cow dung and are now preparing for intercropping.
- Kwabena Emmanuel (mobile +233 265 912 945, e-mail EmmanuelMan96@gmail.com) is in the process of preparing 2 acres in the community of Wiae. The site may grow to 100 acres (40 hectares), but has clayey soil, so that a few bamboo species only may grow there successfully. Various species will be tested in the course of 2015 and 2016. It is intended to create a co-operative of farmers who will take over the project.
- Kennedy Nsure (mobile +233 245 083 784, RichBaafiUS@yahoo.com) has announced to prepare 2.5 acres of land near Bankamba. The site may grow to 100 acres or more. It is intended to create a co-operative of local farmers who will take over the project.
- Also in the Kpandai District, in various communities such as Bandae, Kpandae (town) and Wiae, bamboo of the vulgaris species has been growing for a number of years, but the interest among farmers has diminished because of lack of sales. A proposal to organize a course for locals to learn how to make handicrafts, has not yet prompted an attempt to do so.

Barbarugo has two plantations in the East of Northern Region, but expects to find more:

- In Sheini, a Basra town in the Tatale District N/R on the Togolese border, where iron ore is mined, Muzamilu Salifu plans to farm bamboo on very fertile ground. Although there is abundant forest, more than 100 acres (40 hectares) of land for bamboo can be found. The planter is the son of the local Dagomba chief Shaliwu Fusini and has the support of the local Basra chief and land owner Chamaya Puadi. The Ghanaian Basra king resides in Tatale, but is supervised by the Dagomba Yaa Naa in Yendi.
- In Sabare, a large village in Zabzugu District in the Dagbon traditional area, Mutala Alhassan (mobile +233 246 773 132, e-mail AlhassanMutalaWakaso@gmail.com), also known as Chiefchief, envisages to prepare 2.5 acres of land soon. He is the grandson of the local chief Sulemana Abubakar. The site is slightly sloping land, with the lower side offering water sources and the higher grounds big enough for a plantation of up to 250 acres (100 hectares) of bamboo and firebelts.

Barbarugo has a waiting list for further locations:

Members of royal families in Bimbilla, Bolgatanga, Dabogni, Fumbisi, Navrongo, Salaga and Sandeman have expressed their interest in having bamboo plantations in their areas. Because of lack of means and plants and because of the need to grow in a controlled way, Barbarugo has placed them on a waiting list.

Intentions

Barbarugo intends to grow bamboo in the Northern half of Ghana and to develop projects for the industrial application of bamboo. **Barbarugo** commits itself to develop at least the following projects:

1 The supply of sustainable charcoal and burners to the mine in Sheini.

Sheini is a location where iron ore has been found. Emmaland, a daughter company of Cardero Mining Company, has completed successful explorations and is now preparing for their operations.

Barbarugo is looking for partners in the western world who have the – as yet experimental – technology to upgrade the traditional ore melting process (which is based on an inefficient large-scale use of charcoal) to a nearly sustainable level. Local project partners should be the two local chiefs, perhaps represented by the bamboo planter who is the son of the Dagomba chief. The mine should be invited to be a partner to the project and, as the final customer, to finance the project.

2 The supply of sustainable energy from Tichelli to Tamale.

As the chief and community of Tichelli want to engage themselves in supplying Tamale with electricity in a sustainable way – either with solar cells or with biomass energy – **Barbarugo** will attempt to find partners and work out a cost-effective plan for bamboo-based production of electricity. The chief and community of Tichelli should be project partners, probably represented by Fatawu Gado Mohammed, son of the chief and charged with attracting investors to develop the community. Other project partners might be INBAR (the Intergovernmental Network for Bamboo and Rattan), VRA (the Volta River Authority, the present provider of electricity to Tamale), GRID (the owning and managing company of the electricity network in Ghana) and one or more investors in the Netherlands or elsewhere.

Barbarugo and **INBAR** have the knowledge to select and grow the right species for this project. They also have access to the required knowledge of advanced or experimental technology for the conversion of biomass into electricity. They also have the necessary contacts with GRID, VRA and the Government of Ghana. **Barbarugo** has contacts with investors, both in Ghana and in the Netherlands and elsewhere.

3 The making of bamboo bicycles in Tamale.

A specific example of product renewal by the introduction of bamboo, are bicycles, as already produced in Kumasi. Tamale and Northern Ghana offer a far better bicycle market than mountainous Kumasi and Ashanti Region. The Kumasi bamboo bicycle industry may be asked to set up a branch in or near Tamale, or a different company may be stimulated to come in as a competitor. **Barbarugo** and **INBAR** have of course the required know-how to select and grow the right bamboo species for this application. Setting up a factory of bamboo bicycles may be a pilot project for the industrial development of the metropolitan area of Tamale and Sagnarigu. **Barbarugo** is looking for interested foreign investors for such a project.

4 The development of bamboo-based wood industry in Tamale.

Tamale is the sole metropolitan district in the North of Ghana. Together with the split-off district of Sagnarigu, it has an estimated half million inhabitants. Good tar roads link the area with Kumasi, Wa, Bolgatanga and Burkina Faso, whilst some of the nearby provincial towns are also connected by paved roads (e.g. Daboya, Yendi) or partially paved roads (Dallung, Kumbungu, Salaga, etcetera). It is the best base for a large-scale industrial development in the North, offering both a good labor market, a good consumer market, and good transport facilities. This is why **Barbarugo** wishes to develop a bamboo using industry in the metropolis, which will be fed by a cluster of bamboo plantations on the deforested grounds around the metropolitan area. First attempts should be directed toward the fabrication of panel products and their applications (boards and logs, walls, ceilings, roofs, beds, closets and other furniture), handicrafts and sticks. **Barbarugo** is looking for investors and wood processing partners in Europe for these developments.

Barbarugo and **INBAR** have the know-how to select and grow the best bamboo species for the various industrial applications. **INBAR** has the knowledge and overseas contacts to find and promote applications and products that are new for Ghana. Possible project partners may be found among local and foreign investors and among the local wood industry. Bamboo sticks are already sold in Abuabu Timber Market in Tamale, mainly for construction purposes.

5 Charcoal pellets and efficient cookstoves in Northern Ghana.

All over Ghana, coalpots are used in (almost all) households and small and medium-sized businesses, especially in the road-side food industry. **INBAR** and **SNV** (Dutch consultants for development co-operation) have developed the technology to turn bamboo into charcoal pellets, and to burn these in more efficient cookstoves than the traditional coalpot. Large-scale introduction of these sustainable cookstoves should go hand-in-hand with setting up production units for charcoal pellets around the bamboo plantations of **Barbarugo**.

Once again, **Barbarugo** and **INBAR** have the know-how and contacts to select and grow the best species for this application. **INBAR** and **SNV** have the know-how to (assist to) set up factories to make cookstoves of high quality, and workshops to make the pellets. **SNV** has the skills and experience in successfully marketing the cookstoves and pellets among illiterate entrepreneurs. Attention should be paid to the fact that the charcoal industry is a source of income for illiterates of low status and incomes at subsistence level. Where possible, they should be involved in the renewal of their technology or offered other sources of income, e.g. in the bamboo forestry and the work involved in intercropping. This category of workers does not have the capital to invest in any kind of enterprise, such as buying seeds for farming, and deserves special attention in the project.

6 Making handicrafts in Chumburung.

The remote traditional area of Chumburung, where **Barbarugo** is setting up three plantations, should preferably use its bamboo for local applications. Charcoal pellets are an important example, as are sticks for construction purposes and use in the household. On top of these, **Barbarugo** and **INBAR** may offer courses and practicals to interested locals to teach them how to make handicrafts which improve their way of life. A surplus of these handicrafts may then be sold on markets in the region (Banda, Bimbilla, Kpandae, Salaga, Wulensi and maybe as far as Damba and Kete-Krachi).

See <http://barbarugo.wordpress.com>