



Slow Food Foundation for Biodiversity





Promoting origin-linked quality products in four countries (GTF/RAF/426/ITA)

Mid-term Progress Report

Reporting period: January 2010 – February 2011





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Contents

- 1. Results achieved and difficulties encountered
- 2. Workplan for 2011
- 3. Criteria for the selection of the products
- 4. Interesting products identified in the first phase of the project
- 5. Planning of second field missions
- 6. Short bibliography

Annexes

- I. Mission reports to Guinea Bissau, Mali, Senegal and Sierra Leone
- II. Planning of activities to be implemented in 2011
- III. Model of profile card used for the identification and description of interesting origin-linked quality products
- IV. Document on Criteria for the selection of the future Presidia
- V. List of producers present in the Salone del Gusto 2010
- VI. List of participants to the post Terra Madre Seminar
- VII. Awareness raising material on the project exposed during the Salone del gusto 2010.

1. Results achieved and difficulties encountered

Description of progress towards achievement of activities under Results I to IV.

Result I: Products mapping

i Contacts with partners and	Dono before during and after 1st misson to each of the A countries
stakeholders established	In Sanagal and Mali where Slow Food was already working existing
	in Schegar and Wall, where Slow rood was already working, existing
	For example, in Dakar a contract has been signed with the <i>Institut</i>
	des Technologies Alimentaires (ITA). In Mali a fruitful collaboration
	has been launched with the <i>Institut de Recherche et de Promotion</i>
	des Alternatives en Développement (IRPAD) and the Coordination
	Nationale des Organisations Paysannes (CNOP) au Mali. Other
	interesting contacts have been taken, for example with CIRAD
	(Centre de coopération internationale en recherche agronomigue
	pour le développement) and IER (Institut d'Economie Rurale).
	In Guinea Bissau and Sierra Leone, where Slow Food was not present
	yet new contacts have been made. The most promising are with
	the organization Tininguena in Guinea Bissau (an organization
	whose objectives and philosophy are very similar to those of Slow
	Food) and the COALOO cooperative and the Makeri University and
	NUMOOF Signa Loope (Mordel Wide Opportunities on Opportunities of Opportun
	vvvoor Sierra Leone (wond vvide Opportunities on Organic ranns)
	In Sierra Leone.
	During and after lerra Madre these contacts were reinforced. In
	particular, immediately after Terra Madre, a two days seminar with
	some of our partners of the projects in the 4 countries was hold
	(see annex VI). The seminar allowed us to explain once again to
	our partners the Slow Food philosophy, the project genesis and
	philosophy, the criteria for the products mapping, our working
	methods, the benefits of launching a Presidia, the various steps in
	the implementation of results II and III (producers organization,
	product regulations, marketing). Our partners gave us new data
	on origin-linked quality products in their countries. In Sierra
	Leone, pigeon pea, locust (<i>parkia biglobosa</i>), tolla (a forest rare
	spontaneous plant whose seeds are used as a seasoning) and
	a fruit called <i>black tombla</i> (scientific name not available) were
	mentioned as interesting orphan products. In Seneral, our local
	narthere mentioned 2 medicinal plants (rat. near and berbef) the
	toulousound oil (Carona con) the cosmotic use of the backab black
	touroucouria on (Carapa spp), the cosmetic use of the baobab black
	seeds and truits like <i>mada</i> and <i>ditak</i> . We identified together the
	gaps in the mapping work in Senegal and Sierra Leone and new
	collaborations were launched (with Tininguena for GB, with CNOP
	and IRPAD for Mali, with ITA for Senegal and with WWOOF for SL).
	For more details on contacts with partners, please see mission
	reports (Annex I).

ii. Implementation plan completed	An updated implementation plan was sent in November 2010. It was updated after discussion with Ms. Vandecandelaere (FAO, AGND) in Rome in February 2011 and it is attached to the present document (Annex II).
iii. Database of contacts completed	Done, based on activity i. Continuously updated.
iv. Elaboration of selection criteria for products mapping to become Presidia	When the project idea was discussed between Slow Food and the FAO, it was agreed that Slow Food would implement the project following its usual criteria and working methods, taking into account FAO recommendations. In particular such implementation would have been based on SF's experience with the "Arca del gusto" and the Presidia.
	In the light of our work in Africa in the last years, a specific document on selection criteria in Africa has been prepared by the project team. It defines the criteria to identify interesting Local Quality Products. It is included in Annex IV. Although such criteria present convergences, they do not relate directly to the FAO methodology on identification of origin-linked quality products, which is being tested before its publication. The preliminary version of the FAO document on that methodology was sent to SF after the meeting in Rome for information.
v. Country profiles completed	Information on that regard is being collected in a continuous way, based on our contacts with local NGOs, partners, universities, researchers, The country profiles will not be completed before the end of the project. They will be included in the project final report. Each of the four country profile will be elaborated based on the following outline: 1. Brief description of the main ecosystems 2. General situation of the agricultural biodiversity and main reasons of the loss of agricultural biodiversity 3. General situation of the food biodiversity and evolution of consuming habits. The country profile will give a general overview of these issues, based on data collection, for which FAO collaboration will be sought, as foreseen in the project document. On point 3., data will be collected during the next field missions.

vi. Agro-food biodiversity mapping completed	This activity is still on-going. It started during the first field trips (to each of the 4 countries). The activity is going on through collaboration with various local partners and consultants. The collaboration of FAO field offices will be sought, as foreseen in the project document. After discussion with Ms. Vandecandelaere (FAO, AGND) in Rome in February 2011, it was agreed to postpone the deadline for completion of that activity to the end of 2011, in order to guarantee the best quality of the information collected. Intermediate information collected during the second mission will be sent to the FAO focal point, Ms. Vandecandelaere, after the mission. The agro-food biodiversity mapping for each of the four countries will be presented in the form of a food biodiversity map (one for each of the four countries) and of profile cards describing interesting Local Quality Products. <i>NOTE: In Slow Food approach, the "biodiversity" or "agro-food biodiversity" concept includes not only genetic or agricultural diversity but also diversity related to the specific quality of food products linked to the geographical origin, offering diversity of food diets, diversity of know-how in the production and processing, as well as diversity of use and consume (eating, medicinal, fibre use etc.)</i>
Vii. Profile cards completed	The information collected under vi. is being organised in the form of profile cards. The model of profile cards used for the identification and description of interesting origin-linked quality products was discussed with FAO HQ (Ms. Vandecandelaere (AGND). It is included in Annex III. It was agreed that the filled in profile cards will adequately outline the link with local territory, the local culture, the environmental aspects, the role plaid by the local actors of the production and the local community, possible specific challenges and the importance of production and market. There will be two levels of profile cards: for 20 to 30 products per country, basic information on the products will be provided. For 4 to 6 (per country) particularly interesting products more in depth information will be provided. These last profile cards will serve for the selection of the future Presidia under activities i. and ii. here below. The profile cards will be finalised by the end of 2011, but intermediate information collected during the second mission will be sent to the FAO focal point, Ms. Vandecandelaere, after the mission.

Result II: production organisation and product regulations

i. Origin-linked quality products assessments completed (4 to 6 per country)	This activity is on-going. Along with the data collection on traditional quality products, we are in an on-going dialogue with our local partners and our technical advisors (food specialists) to assess the qualities of the various products studied so far. Some products have been analysed: the salt from Farim (Guinea Bissau), the salt from the Lac Rose (Senegal), the "couscous salé" (Senegal), the palm oil, the Mangroves honey from (Senegal), the Koina pure honey (Musaya association - Kavala, Sierra Leone).
ii. Selection of a product to become Slow Food Presidia completed	Based on collected information, we are preparing a description of 4 to 6 products per country, together with our recommendation on the selection of the Presidia. The information is not yet ready for all products. The available information is contained in point 4 here below. These profile cards will have to be commented and approved by FAO HQ (AGS & AGND) and by the management of the Regional Project GTF/RAF/426/ITA, in view of the selection of the four Presidia.
v. Draft production regulations completed	As regards likely future Presidia, information is being collected in order to define the product specifications in cooperation with the producers and to draw up production regulations. In this exercise, although the major role is left to local producers, specific external expertise (specialists of the category of product, e.g. oil expert, cereal expert) is also being used. Slow Food will discuss with FAO its experience and methodology in this regard.

Result III: Marketing of selected products

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c) v. Participation of producers representatives to Terra Madre	If it had been possible to implement the project according to the initially foreseen timing (January 2009 to December 2010), the final phase (marketing and awareness raising) would have coincided with Terra Madre/Salone del Gusto 2010. Unfortunately, the project started one year later than the foreseen date. However, as far as possible, those two Slow Food major events were exploited to promote the project and West African origin-linked quality products. Several African community representatives participated in Terra Madre and in the Salone del Gusto 2010 (200.000 visitors) and exposed their products. The Presidia or interesting products identified and supported by the project will be presented and promoted during Terra Madre/Salone del Gusto 2012.

Result IV: Awareness raising

d) iii. Communication campaign	During Terra Madre a conference on the project was hold. It was
including events, publications	followed by some dozens of persons with great interest. In addition,
and meetings in order to support	some awareness material on the project was exposed at the Salone
origin-linked quality products, as	del Gusto 2010 (200.000 visitors) . See Annex VII.
well as the official presentation of	During Terra Madre 2012, another workshop will be hold in order to
new Presidia products to the media	present the results of the project and the perspectives for the four
during the Terra Madre event and	Presidia and the other interesting origin-linked products identified.
other national or international	
events finalized.	

Description of difficulties encountered in implementing activities under Results I to IV.

Result I: Products mapping

i.Contacts with partners and stakeholders established	The Letter of Agreement between FAO and SFood and its annexes refer to the duration and timing of the project as if it had started at the beginning of 2009, or even at the end of 2008. But actually, the project eventually started in the first quarter of 2010, as the first financial contribution for the activities implementation was made at the end of 2009. A new timing, coherent with respect of what eventually happened and of the different needs of the four countries involved, was mutually agreed upon, based on the following dates: from 1 January 2010 until 31 December 2011. The launching of the project, the implementation of activities and the making of contacts in Guinea Bissau was somehow difficult and delayed because of the political turbulences in the country in 2010. In addition, relatively few data on agricultural biodiversity exist. The fact that SFood had never worked in Guinea Bissau was another factor of difficulty and delay. In Sierra Leone where SFood was not yet present, it was not easy to make fruitful contacts. The tragic story of the country in the last decades also made it a bit complicated to collect reliable data on biodiversity and traditional cultivars: the only University of the country is only being rebuild now and most of Sierra Leonese intellectuals are either abroad or have been killed. In addition, the local gastronomy is not very developed.
ii. Implementation plan completed	-
iii. Database of contacts completed	-

iv. Elaboration of selection criteria for products mapping to become Presidia	-
v. Country profiles completed	Few reliable data on consuming habits and agricultural biodiversity are available as regards Sierra Leone and Guinea Bissau. The assistance of FAO will be sought for this activity.
vi. Agro-food biodiversity mapping completed	In Senegal and Sierra Leone, our local collaborators had some difficulty in achieving the mapping process. Based on that experience we were more cautious in selecting our collaborators in the other countries. In Mali and Guinea Bissau, the collaboration with our local partners for the mapping process could not be concretised before January 2011. In general, with our local collaborators it is not easy to have our philosophy well understood nor to explain exactly what the mapping process is. This part of the project was much more difficult than foreseen. During our discussion in Rome with Ms. Vandecandelaere (FAO, AGND), we agreed that the project document should maybe have foreseen more room to field presence. For that reason it was proposed to consider adding a third mission of SFood in the four countries. We also agreed to extend the time dedicated to that activity until the end of the project. So far, for the four countries, we only have fragmented information, which will have to be organised and scientifically cleared. In spite of this, very interesting and original data are being collected. As regards Senegal, much of the information is available and needs only to be organised and cleared. Concerning Sierra Leone and Guinea Bissau many informations are available but still need to be supplemented. As regards Mali, there's some delay in the collaboration with our local concerning have the mapping process and the concerning with the collaboration with our local concerning have the concerning have the concerning with the collaboration with our local concerning have the some easy is a supplemented. As regards Mali, there's some delay in the collaboration with our local concerning have the project have the concerning h
vii. Profile cards completed	This part of the work, as well as the activities under Result II, was delayed due to difficulties explained under vi.

2. WORKPLAN FOR 2011

The workplan for 2011 is presented in a table in Annex II.

January to December:

The mapping process will be finalised in all four countries. The mapping process will be presented in the form of a "map of food and agricultural biodiversity" and of a few dozens of profile cards of interesting products. Among these, about twenty remarkable origin-linked quality products will be described more in depth and presented to the FAO, in order to proceed with the selection of one Presidia in each of the four countries. As soon as an agreement on this has been reached, the second missions will be prepared and realised. Each mission will involve an expert of the type of product chosen to become a Presidia. During the mission, data will also be collected to complete the country profiles. The second missions will aim at designing and preparing the various activities under Results II, III and IV of the project. If necessary a third mission will be organised.

March to August:

All activities under Result II ("Producers organisation and products regulation") will be completed in all four countries, namely: the selection of a Presidia Coordinator and the decision on institutional collaborations, the selection of the producers involved in the project, the elaboration of the production regulations, the finalisation of the producers association formalities, the direct support to the producers (logistics, equipment), and the training of the producers on quality. The work will be based on Slow Food long experience with the Presidia, in collaboration with FAO HQ (AGS and AGND) and the FAO field offices.

April to December:

The four country profiles will be completed. The work will be based on existing documents, on data collected at the level of the FAO field offices, and on data collected during the second field missions of SFood. The country profile will be elaborated based on the following outline: 1. Brief description of the main ecosystems 2. General situation of the agricultural biodiversity and main reasons of the loss of agricultural biodiversity 3. General situation of the food biodiversity and evolution of consuming habits.

July to November:

Activities under Result II ("Marketing of selected products") will be completed in all four countries, namely: the elaboration of a marketing strategy, the finalisation of packaging and labelling, the commercial promotion of the products. The work will be realised under the supervision of the Presidia Coordinator, with Slow Food acting as advisor, in collaboration with FAO HQ (AGS and AGND) and FAO field offices.

September to December:

In the last quarter of the year, a consumer education campaign will be designed and conducted in each of the four countries. The campaign will emphasize the importance of preserving the traditional gastronomic heritage and the agricultural biodiversity. It will explain the concept of origin-linked quality products and promote the new Presidia as well as other products identified and studied in other phases of the project. The Presidia Coordinator will be involved but other stakeholders will also be actors of the campaign.

3. CRITERIA FOR THE SELECTION OF THE PRODUCTS

Interesting origin-linked quality products are being identified and selected at two levels.

Twenty to thirty products per country are being identified in accordance with the definition of origin-linke quality products elaborated in the context of the present project (see Annex IV).

Such products will be described according to data available. It is not intended to have an exhaustive list nor a very detailed description of products. The scope is rather to illustrate, with concrete examples of origin-linked quality products, the traditional food diversity and how the gastronomic and agricultural heritage is at risk in today's socio economic context of four West African countries. Basic descriptive elements like name of the products (vernacular and scientific), cultural aspects, link to territory, environmental and social aspects, specific challenges linked to the product, traditional use, nutritional interrest, importance of production and marketing aspects will be provided.

Among these products, a few (4 to 6 per country), identified as especially interesting as a result of the local stakes and importance of their preservation-promotion, will be described and analysed more in depth, following the criteria elaborated (see Annex IV). These products will thus represent possible future Presidia.

4. INTERESTING PRODUCTS IDENTIFIED IN THE FIRST PHASE OF THE PROJECT

As explained above, the description of the interesting products will be done on three levels. For 20 to 30 products per country, basic information on the products will be provided. For 3 to 6 (per country) particularly interesting products, more in depth information will be provided. This information will serve for the selection of the future Presidia. As regards each of the four Presidia (one per country), detailed information on the link with territory, historical and cultural aspects, taste and nutritional characteristics, environmental and social sustainability, and potential to contribute to food sovereignty, will be provided.

The following products have so far been identified as interesting ones. The list reflects the current stage of this mapping effort and cannot be considered final.

GUINEA BISSAU

Traditional palm oil of Cabedù Citrinus local (local citrus varieties) Local traditional lemon vinegar Local little tomato sinho("tomate da terra") Tambacumba (forest plant, interesting use of the fruit and seed) Mancarra do bijacos (local variety of bean from the Arcipelago delle Bijacos) Quiabo local (local variety of gombo, smaller and very tasty) Jacatou local (small local variety of eggplant) Badjiqui (local hibiscus) Local varieties of rice

MALI

Alkama wheat (local variety) Tikomart Touareg cheese Oufer (Touareg jujube bread) Macina sheep (local race) Kram Kram (wild cereal, central place in the Touareg culture and gastronomy)

SENEGAL

Salted millet cuscus of Fadiouth Mangroves honey (Saloum islands) Kinkeliba (herbal tea) Black velvet tamarind powder Sump almonds (Balanites aegyptiaca): seeds oil is particularly interesting Danx (Detarium microcarpum): interesting use of the fruit, seeds and leaves Tol (Landolphia Heudelotii): liana: interesting use of the fruit (beer, dyeing) Kejax: braised dried fish Dimb (cordyla pinnata): fruit, interesting use of unmature fruit as a sustitute to meat Néré (Parkia Biglobosa): fruit used in seasoning, interesting use of the fruit to prepare subtitute of milk for young children Jaxatu (solanum aethiopicum): native eggplant: use of fruit and leaves, interesting processed products Ndur (cassia tora): leafy vegetable, interesting gastronomic use Madd (Saba senegalensis): liana, interesting use of the fruit, interesting processed products Bissap (Hibiscus sabdariffa): interesting use of the leaves as vegetables Ron (Borassus Aethiopium): palm tree, interesting use of the fruit (wine, analcoholic beverage) Ditax (Detarium Senegalensis): interesting use of the fruit and leaves Fonio: minor cereal Sap sap (moringa oleifera): one of the most nutrient leafy vegetables of Africa, interesting use in traditional medicine. Neou (pommier du Cayor) (Neocarya macrophylla): very interesting use of the fruit (processed as a kind of couscous) and of the seed (cosmetic quality oil). Sidem (Jujube) (Zizyphus Mauritaniana): many interesting processed products (flour, beverages, marmalade,...) Thé de Gambie (herbal tea) Xewer (cerisier du Cayor) (aphania senegalensis): interesting use of the seeds as a natural laundry soap **SIERRA LEONE**

Bitter cola nut (originary from Sierra Leone): used in beverage preparation, but also as deying Tea Bush and Bush tea bush (herbal tea) Koinadugu Honey Sounbareh (seasoning based on the locust tree seed) Pigeon pea (legume) Black Ndama ("Waneh"): cattle

The following products can be considered possible future Presidia.

The project document foresees that "the selection process will have to receive technical clearance by the FAO Lead Technical Unit". Slow Food is in close contact with Ms. Vandecandelaere (FAO HQ, AGND) for such exercise.

GUINEA BISSAU

1.Traditional palm oil of Cabedù

The cheapest and most versatile of oils, palm oil has a wide range of uses both industrially and in the kitchen. Worldwide production, estimated at over 45 million tons, continues to grow, pushed by strong global demand. Of

this production, 90 percent is concentrated in Malaysia and Indonesia, where the oil palm is a relatively recent introduction, first cultivated by the British around the middle of the 19th century. The use of palm oil, however, has an ancient history in sub-Saharan Africa, and its extraction is still a common agricultural practice here. While palm oil is extracted and consumed throughout the region, Guinea-Bissau is said to be the country best suited to its production. Guinea-Bissau's palm oil is highly appreciated in Senegal, Sierra Leone, Côte d'Ivoire, Mali and Burkina Faso. The research conducted by Slow Food in Cabedù, in the Tombalì region, has confirmed this reputation. We were very impressed with the level of knowledge among local populations about the quality differences of oils, based not only on sensory characteristics and production variables but also, and above all, different places of origin. Finding such a level of awareness elsewhere in this part of the world is very rare.

The oil palm variety found in Guinea-Bissau is *Elaeis guineensis Jacq.*, a native species (as indicated by its scientific name). A characteristic red oil, a traditional and highly appreciated product, is extracted from the palm fruits. The oil is used to prepare a specific rice dish, known as caldo de Tcheben.

All the communities from the north to the south of Guinea-Bissau, down to the Bijagos islands, produce palm oil from wild palms. The oil is known in Creole as *siti vermelho*.

Traditionally there are four types of oil, according to their geographical origin: *Bijagos siti, Manjaca siti, Biafada siti and Tchon de Nalus siti.* These are differentiated by their quality, their place of origin and the processing techniques used. Each of the ethnic groups has a different knowledge linked to the use of palm oil and processes it in different ways. The Biafada dry the fruits over a fire instead of in the sun. The Manjaca do not boil it twice and do not care if the fruits are fresh or not. The Bijacos have palms that produce fruits with a higher level of carotene, but traditionally they ferment the fruits before boiling them, considerably lowering the oil's quality level.

The oil commonly recognized as the best is the Tchon de Nalus siti. The quality of this oil comes from the skill and care with which it is produced, making it totally different from the other oils.

The Nalus have also maintained the *Mandji*. This traditional rite allows the community to properly manage the forest and its resources and to harvest the palm fruits at the right time. According to tradition, a group of elders gathers together a few weeks before the harvest to decide the exact day it can begin. It is considered very dangerous to venture into the forest without their permission.

We are particularly interested in a small community of producers in the village (*reglado*) of Cabedù, in the south, in Tchon de Nalus. It is made up of 31 people (26 women and 5 men). The harvesters are not organized in any formal grouping. Around two to three men are needed for the harvest. This community is one of the few in which all three ethnic groups are represented. This contributes greatly to the quality of the finished product, as the traditional wisdoms of the three groups complement each other. The Cabedù group produces around 1,200 liters a year. The group does not sell on the local market, but produces only for family use. They only sell some to Tininguena, our local partner, who buys up to 700 liters of oil a year and sell it directly in their store and also in supermarkets like Darling and Bonjour in Bissau. Tininguena buys the oil at 1,000 CFA francs per liter and raises the price by 20 percent for the final consumer.

If stored well, the oil can keep its nutritional and sensory characteristics for up to two years. But given the conditions of the African market it is advisable to keep it for no longer than a year. Traditionally it is stored in plastic tubs, reusing and recycling other containers (mayonnaise jars, plastic bottles, vinagre de limão containers). It would be highly recommended to use stainless steel tanks.

A comparative tasting organized during Slow Food's second mission to Sierra Leone by an Italian expert in food oils confirmed the Cabedù palm oil's sensory characteristics.

Additionally, the ethnic heterogeneity and the ecological aspects of this oil's production make it of particular interest as a potential Presidium.

These socio-cultural aspects are joined by the need to raise the level of knowledge of consumers in the North countries about this oil. Not so much about the nutritional and health characteristics of the oil itself (the debate about the effects of palm oil, a saturated fat, on cholesterol levels, has been extensive), but about the environmental impact of the increasing spread of oil palm plantations, which cause serious deforestation. Consumers have little information about these issues. A certification system was set up several years ago to guarantee the provenance of oil from land that has not been deforested, but only 3 million tons of oil are certified out of the total 45 million sold overall.

The idea of launching a Slow Food Presidium that protects and promotes traditional palm oil from Guinea-Bissau (or rather from a specific area of the country, the Tombalì region), would have considerable value in terms of marketing and safeguarding. Of course, the Presidium would primarily aim to protect and promote the work of the women who extract the oil using traditional methods. It must guarantee them access to a more profitable market and help them to introduce some small improvements to the extraction process and oil storage, facilitating the sale of the oil outside the production area. But additionally, making consumers in the North countries aware of the existence of these ancient harvesting and extraction techniques—which, it should be emphasized, use only wild native palms—can improve their understanding of the agroindustrial market for palm oil, one of the commodities with the biggest impact on forest preservation and biodiversity conservation in very sensitive habitats.

2. Small Local Lemon (Limão da Terra)

The category of *citrinos*, local citrus fruits, includes *limão da terra*, *laranja* and *tangerina*. They are mostly grown in the southern Tombali region. The local varieties do not have a scientific name in Guinea-Bissau but are called "da terra" and it seems that they have always been cultivated in the country. The Portuguese brought a variety of *citrinos* called "dalia" or "dania."

The local varieties are all cultivated and the seeds reproduced. Among the *citrinos*, the most productive is the orange, grown both for local consumption and for export to Senegal. It is said to be more flavorful than the oranges from Casamance, in Senegal. The tangerina is most at risk of extinction because the rains have become shorter than they were in the past.

People prefer the *limão da terra* because it is more flavorful and the juice can be kept for longer.

The *limão da terra* is preserved in two ways: 1) the fruits are pressed by hand to extract the juice, which is boiled and bottled; 2) the fruits are pressed by hand and put fresh in a container. These processed products are called "vinagre."

The seeds are preserved by being washed, dried somewhere shady and airy, then stored in a container.

For grafting, they take the most mature part of the branch, tying it with an elastic band and wrapping it with another elastic band so that water cannot enter. To fertilize the soil they use rice husks and beans. These are left to rot in a hole and after three months, when decomposition begins, they are used as a fertilizer. They can also be mixed with animal excrement. The bark of a wild tree (bishilau in Portuguese) is used for protection from pests. The bark is soaked in water; some boil the water and let it cool, while others use it without boiling. This infusion is poured on the soil around the plant and helps protect against termites. Smoking is used to keep fruit flies away: textiles (acidic) are burned around the tree. The traditional lemon is the most resistant to fruit flies, but considering the climate changes and the shortening of the rainy seasons, it struggles to produce unless grafted with stronger and more climate-resistant varieties. The citrinos combine well with cassava, peanuts and beans, which clean and fertilize the soil. Traditionally limão da terra is cultivated in the mato, the forest left high to keep the humidity. They follow a straight line to plant the citrinos.

The *limão* is green when unripe, and yellow when fully ripe. When ripe, it falls naturally to the earth, where it is harvested. It produces fruit continuously, but the period of highest production is during the rainy season (June, July, August, September). The harvest takes place in October.

A lemon tree has a minimum lifespan of 40-45 years. Sometimes it is planted close to houses as protection from sun and wind, thanks to its low, wide shape. The fruits are harvested every two days. The local lemon fruits fall to earth when they are ready to be harvested. The yellow fruits are used to make vinagre and lemon juice. Some communities leave the harvested lemons in the sun for some time before making juice.

The limão is exported to Senegal, Gambia, Mali and Europe (to supply Guineans who have emigrated to Europe). Demand is rising. Restaurants prefer the green lemons, because they last longer and make a better accompaniment to beverages like Coca Cola, Fanta and other sodas.

Every year a plant can produce around 100 liters. Two basins of fruit produce around 20 liters of juice and every basin full of fruit weighs around 25 kilos. The lemon does not produce the same amount of fruit every year. Usually large harvests come every two years, because the tree has a year of rest during which fruit production is lower. The farmer can recognize this phenomenon from the color of the leaves, which appear paler.

Vinagre de limão is used to make a condiment: *sumo de limão* + *malagueta* (hot pepper) + salt. The juice can also be made with sugar. It is recommended to mix lemon with water during cholera epidemics to disinfect the water. It is also used to marinate fish for around 30 minutes before grilling or frying. The lemon sauce is used in *caldo branco* (in Creole), a local dish based on onions, fish, water and *vinagre de limão*.

For the ecological way in which is it cultivated, for its importance in local gastronomy and culture, its commercial potential and its nutritional value, the local limão da terra is a high-quality local product of great interest.

3. Local Cherry Tomato (local name: mentem, sinho in Creole)

The local cherry tomato is primarily found in the south and north of Bissau, in Biombo. In Biombo, the Pepel ethnic group produces this local variety in the greatest quantities. It is customary to construct a natural enclosure of jatropha around the houses, and this indeterminate growth tomato uses the jatropha for support.

In the south, it is the Balanta ethnic group that most commonly cultivates this variety. They tend to grow it during the rainy season together with rice, mixing the seeds together and scattering them in the rice paddies. The rice matures earlier and is harvested after around 60 days, while the cherry tomato, which starts to ripen immediately after the rice harvest, has a cycle of two to three months. In the south, the cherry tomatoes are turned into sauce: they are squeezed by hand, separating the seeds and the skin from the pulp. This pulp is boiled with salt until it becomes concentrated, then stored in jars. Some trained women pour a little olive oil over the top of the preserve before closing the jars. This concentrate is produced from October onwards.

This cherry tomato is still cultivated mostly by these two ethnic groups.

The traditional cherry tomato has a higher yield and is better suited to the environment than the introduced variety. This variety has no need for chemical inputs. It must only be sown and the plants weeded.

The seeds are thrown against the kitchen walls or left to dry on the straw which is later arranged in the kitchen. This allows the smoke and heat from cooking to protect the seeds from various insects. Others mix the seeds with ash, again to protect from insects. It should be noted that ash is often used in vegetable gardens on plants and vegetable leaves to keep insects away.

There is a dish customarily eaten in the *tabanca* (villages) called *contangu de tomate*. This very flavorful dish is based on tomato pulp with *chiob*, *jacatu* and shrimp or dried fish. Depending on preference it can be served with rice.

For the ecological way in which is it cultivated, for its importance in local gastronomy and culture, for its nutritional value and its seed autonomy, the local cherry tomato is a high-quality local product of great interest to Slow Food.

MALI

1. The Macina sheep

The Macina sheep is the only wooled sheep kept by the Fulani pastoralists. Along with the Dongola, it is the only native wooled animal south of the Sahara and belongs to the *Goundoun* (also known as *Doundoun* or *Koundoum*) race. It probably descends from North Africa's wooled thin-tailed sheep and was introduced to its present area of distribution by Moors and Moroccans during the conquest of Timbuktu in the 15th and 16th centuries. It is also believed, probably erroneously, to be descended from Karakul or from various crosses of Merino with Syrian or Barbary sheep in ancient times. Macina is the Fulani word for the Niger River flood zone.

The Macina breed is unique to the Niger Bend in south-central Mali, although a degenerate form called *Goundoun* is found in western Niger. The Macina sheep was developed and maintained mainly by the Macina Fulani tribesmen using seasonal migration practices. This breed is exceptionally hardy and robust, being resistant to extremes of temperature, drought and poor nutrition.

This sheep can be used for milk, wool and meat.

There are very few examples left. The decline in numbers is due primarily to the low value given to the breed's wool, and its small size means that local populations have favored larger breeds with more meat. For this reason and for its specific and exclusive link with the local area, it makes sense to consider the Macina sheep breed as a possible Presidium.

2. Kram kram

The grass *Cenchrus biflorus* produces a edible and highly nutritious grain. People in areas of marginal subsistence regularly collect the seed; elsewhere it is considered a famine food. In the Sahel it is collected as a wild cereal, for example by the Tuareg people, who call it kram-kram. The grains are pounded and eaten raw, made into porridge, or mixed and cooked with other foods. The grain is also made into a drink.

In the past, it was the dominant cereal of both the Sahel and the borderland between the Sahel and the Sahara. Historically it was a more important food than pearl millet, and its grains were milled into flour and used to make a kind of porridge.

Kram-kram grows very well in the sand and needs little water. The grain is rich in protein and has perhaps the highest calorie content of any grain. Today it is only collected when the harvests of other grains are not sufficient to feed the community.

The plant's flaw is that its grain is enclosed in a spiny covering that gets stuck to animal fur and people's clothes, but this has never been perceived negatively by the Tuareg, whose diet is still closely connected to the consumption of kram-kram.

When the fruits (*takanà*) ripen in December, the grains (*wasaille*) fall on the sand. They stick together, and roll into balls as they are pushed by the wind. The women collect the balls with straw or by sweeping them up with rakes made from acacia wood. The seeds are then hulled in a mortar, extracting the white grain from its spiny covering. During the rainy season, the plant can be cut more than once and used for hay when it is spineless, or preserved in traditional silos. In this case the presence of spines does not create problems because fermentation softens them and they can then be digested by animals.

The main reason for the decline of this grain is the significant reduction in suitable land. This factor is also partly linked to the Tuareg's transition from nomadic to semi-nomadic (and almost sedentary) life. Sedentary life encourages localized grazing, which does not allow the plant to produce grains. Another factor can be correlated to the decrease

in importance and strength of the traditional authorities, who were once very mindful of this wild grain.

Encouraging the processing and consumption of this grain (awareness-raising and promotion, technical and marketing support) could have not only an environmental impact, combatting desertification, but also an important cultural aspect (cohesion of the Tuareg community, pride for their gastronomic culture) and be very valuable in terms of food sovereignty.

3. Tikomart

The Tuareg (or more correctly Kel Tamahaq, "those who speak Tamahaq") are an African Berber people who live nomadically or semi-nomadically in the Sahara desert. In Mali, this community is concentrated in the regions of Timbuktu, Gao and Kidal.

They mostly raise livestock, gather wild grains like kram-kram and wild fonio and cultivate a local wheat variety and "river rice." Their traditional dishes are based on meat, butter and grains.

Milk (*akh*) plays an essential role among the Tuareg pastoralists, because it nourishes, refreshes and cures. Also of great importance in their gastronomic culture are dairy products like melted butter (widi) and a dry cheese.

Tikomart is a cheese made from cow or goat's milk, or a mix of the two, which is so dehydrated that it can no longer be chewed. Only a mortar and pestle can be used to break it into pieces so it can be eaten soaked in tea or mixed into millet porridge; this cheese is thus essentially a seasoning. A piece of dried kid's stomach provides the rennet to curdle the milk in a large wooden vat. Using a big ladle, women draw out the curdled milk and place it on a mat to drain. They shape the cheeses by hand before placing them on stems of wild fennel for flavouring.

Milk and milk products are of enormous importance in Tuareg culture.

According to the Tuareg mythology, when the world was created, one camel alone fed the whole human race; she was killed by men.

Milk is the main foodstuff, both for its nutritional quality and symbolic value. Camel milk is preferred for its taste, which varies with the pastures, and the strength it gives. In the evening, after milking, the milk cup is passed around and everyone has a drink of this precious food. *Akh* is the generic terms for all milk, regardless of the quality or the animal it comes from; however, an adjective is used to specify whether the milk is fresh, soured, curdled or diluted. Shepherds make use of a full range of techniques to make sure they keep a sufficient amount of milk for food. The amount of milk in food varies with the seasons, with a maximum after the monsoon and a minimum in the dry, hot season. Milk is the staple food and cereals – millet or wheat – are merely seasonings.

Milk from different animals, its respective production, uses and by-products (rennet, butter, cheese) have a major cultural and symbolic value in pastoral Tuareg society and involve a deep understanding of animal psychology. These elements make tikomart cheese a product to be considered a choice of a Presidia in Mali.

4. Oufer bread

Ziziphus, commonly called *jujube* (sometimes *jujuba*) belongs to the family *Rhamnaceae*. The genus *Ziziphus* has approximately 40 species, including *Ziziphus mauritiana*, ("jujubier nain sauvage" in French).

Ziziphus mauritiana is a spiny, evergreen shrub or small tree up to 15 m high, with trunk 40 cm or more in diameter, spreading crown, stipular spines and many drooping branches. The fruit is of variable shape and size. It can be oval, obovate, oblong or round, and is around 2.5 cm long. The flesh is white and crisp. When slightly underipe, this fruit is a bit juicy and has a pleasant aroma. The fruit's skin is smooth, glossy, thin but tight.

The fruit has a high sugar content and a high level of vitamins A & C, carotene, phosphorus and calcium. The leaves contain 6 % digestible crude protein, which is an excellent source of ascorbic acid and carotenoids. This plan can thus provide food security, due to sustained production of the fruit, irrespective of drought, as the tree is drought and saline tolerant and can grow on poor and degraded land.

The fruit of Ziziphus mauritiana has been consumed by Touaregs populations for millenia.

In some Tuareg tribes in Mali, the flour obtained from the dried pulp of wild jujube is used in the production of "oufer", a type of unleavened bread which keeps throughout the year and is sold in the markets of Gao. Oufer looks like a thick pancake, with a hole in the middle or attached to a forked stick so that it can be hung from a camel saddle with a cord or belt.

This product, because of its place in the Touareg culture, of its esthetic characteristics and because of its risk of extinction in spite of remarquable nutrition properties, is to be considered a possible Presidia.

SENEGAL

1. Salted coucous of Fadiouth

Senegal's food sovereignty is threatened by two major issues: a worrying decline in marine resources and a heavy dependence on imported food, particularly rice. There is no need to dwell here on these well-documented problems. In view of the situation in Senegal, Slow Food has focused its work in the country on reducing food dependence on imports and the sea. We have done this on the one hand by setting up education activities in schools aimed at increasing awareness about local products and their consumption, and on the other by developing projects that can guarantee resources from sources other than the sea.

These projects have been concentrated on the Îles du Saloum national park, where the fishing crisis has been evidenced by the progressive reduction in size of the *Cymbium sea snail*, a gastropod mollusk which represents the area's most important marine resource. The analysis of the local socio-economic situation and successive mapping of typical products, carried out thanks to a collaborative project with the FAO, has allowed us to identify possible alternatives.

Undoubtedly, the abundance of wild fruits can ensure employment and income to the women's cooperatives, who can process them into juices and jams and sell them directly in situ. But another interesting alternative to fishing could center on a specialty identified on the island of Fadiouth, millet couscous salted with seawater.

The product expresses the best of local food production, using grains that have long been cultivated inland on Fadiouth and clearly reflecting a link with the island's surrounding marine habitat. Washing the couscous in seawater is, as far as we know, unique among couscous production techniques from other regions, and gives the product an entirely original flavor and fragrance. The procedure is well known locally and all families know how to make cous cous salè, but none is produced for sale and strangely none of the island's restaurants offer it. Perhaps they think it is too low-class, or too unusual for Western tastes. But our experiences at the 2010 Salone del Gusto in Turin with some of the women from the Fadiouth food community showed the opposite. Curious visitors to the fair loved the dish, thanks also to the sauces prepared by the women which paired well with the briny taste of the couscous.

We believe that this couscous should become a Slow Food Presidium for a number of reasons:

• It offers a fascinating story, which can shed light on an ancient, traditional and original product that links land and sea.

• It can encourage a return to the cultivation of sunna millet, which has decreased significantly in recent years.

• It will motivate the local inhabitants to maintain the health of the marine waters and the cleanliness of the beaches, to guarantee that the couscous is washed hygienically.

• It can encourage a process of increased self-esteem among the women who produce it and the local population; international recognition will facilitate the inclusion of the product on local restaurant and hotel menus, supporting parallel entrepreneurial activities (the creation of sauces, new recipes, new forms of restaurants); and of course it can

represent a small but significant source of income for the island's families.

• It can inspire inhabitants to rediscover other traditional local products and recipes, which could help reduce dependence on imported rice and wheat.

• It will help to establish important relationships with the Saloum delta's tourism industry, which is of interest but has not been properly developed.

2. Mangroves honey (Saloum islands)

Mangrove honey is mainly collected in the Sine-Saloum delta - around 15 km from Dakar, Senegal.

Most of the mangroves in this area, about 60,000 ha, are in the Réserve de Biosphere du delta du Saloum, run by the National Park Authority. The central part, i.e. the National Park, is managed by the state, the Reserve instead by local communities. The Park and the Reserve are situated in the Sine and Saloum delta, a region including several isles, lagoons and the Fathala forest, with the largest part of land covered by mangroves, forests and salt water streams. The dominant mangrove species are *Rhizophora racemosa*, *Rhizophora mangle*, *Rhiziphora harissonni* and *Avicennia nitida*.

These forests are considered as real "honey reserves". Indeed, beekeeping in this area, with the suitable improvements, might be an important activity for its positive impact on the environment: fire reduction, entomophilic pollination, protection of biological biodiversity, safeguarding of bee colonies, etc...Moreover, as the apiaries are located inside the mangrove forest, the bees' aggressiveness is an excellent way to protect the mangroves against overexploitation.

The production of honey in this area in mainly due to the *Apis mellifica adansonii*, a type of bee known for its capacity to produce big quantities of honey, which fiercely defends its colony, reproduces quickly and tends to swarming.

Two exceptional quality honeys are produced in this area:

• Mangrove honey (*Rhizophora racemosa, Rhizophora mangle, Rhiziphora harissonni* and *Avicennia nitida*): the plants grow on a surface of 70,000 ha, with bloom taking place throughout the year, allowing the production of a single-floral honey called "miel de palétuviers". Some studies have shown that the potential yield of this honey could reach 70 tons per year.

• Multifloral or forest honey: on the land there are different types of forests, community reserves, several orchards – mango, citruses and cashew nut – as well as important nectar yielding plants, such as *Combretum glutinosom*, *Cordyla pinnata*, *Zizyphus mauritiana*, *Parkia biglobosa*, *Acacia Seyal*, *Detarium senegalense*, *eucalyptus*, *fromager*, *Santang*,

Traditional beehives, which are gradually disappearing, consist of hollow trunks, mortars and plaited straw. So far, Langstroth has been the main type of modern beehive mainly used. The beehives are usually placed on the beach, next to the mangrove trees or on wooden supports to prevent the water contact. The honey is transferred by using herbs and scented plants (e.g. citronella) or collecting honey with some pieces of wax.

Traditionally, the beekeepers use an inflamed torch to collect honey, without any concern for the bees, the quantity of collected honey, the risks of fire and the anaphylactic shock resulting from the bee stings. In the mangrove area, beekeepers reach the beehives with their pirogues when the tide is low. The honey is kept in plastic jugs by 750gr, 500 and 300gr.

<u>3. Kinkeliba</u>

Kinkeliba is known by the scientific name of *Combretum micranthum* and is part of the large *combretum* family. Its names in local languages are "dute" in Wolof, "sesed" in Serer, "talli" or "tallika" in Fula and "futik" in Jola.

It originates in tropical Africa and is found in a region spreading from the Casamance coast to the Senegal River. Stands of it grow on the Thiès Plateau. It grows around pools in the Sahel, in ravines, the Sudanese forests, the edges of the ferruginous crust, in the Guinean forests; nonetheless, it does not grow in some areas or experiences highly irregular growth.

Kinkeliba is a thick reddish-brown shrub that can reach 4 or 5 metres, sometimes growing closely together as thickets, with the ends of branches intertwining. It can grow up to 15 to 20m by lacing around the branches of trees. The leaves are oval, short and wedge-shaped at the base, acuminated at the top with five pairs of lateral nerves. The leaf blade is covered in reddish scales on the lower side as well as petioles and young shoots. This blade becomes reddish brown as it dries. The flowers are small and white, and grouped in inflorescences. The fruit is winged with 4 membranous wings which are 1.5cm long and 1.5cm wide.

It bears leaves between April and September; they are used in tea.

Kinkeliba is sold in bundles along the road or packaged in sachets of herbal tea.

The leaves are consumed on a daily basis by Senegalese families in extract form (infusion) at breakfast time. Kinkeliba is the herbal tea of communities living in the Sahel. It is the "tea of the Sahel". It is also very popular in urban centres, often consumed with powder milk or fresh milk.

Its therapeutic benefits for illnesses such as malaria, liver diseases and coughs are very well known. Scientific tests show that 32% of dried leaves have antioxidant properties. Kinkeliba contains flavonoids, tannins, organic acids and mineral salts. Tannins give kinkeliba antidiuretic and antibiotic benefits.

When the Arabs and Europeans discovered it, it became the drink of preference of soldiers, priests and missionaries, who called it "the herbal tea of long life".

In traditional medicine, the leaves as an extract or concoction are used as a diuretic to facilitate the secretion of bile and improve digestion, cholagogues and in treating coughs, bronchitis, malaria and hepatobiliary problems such as supplements. It is generally accepted as a very good detoxifier, with cholagogue properties which remove oedemas, toxins and excess weight, without side effects. The leaves contain quite specific properties against black-water fever, an acute and serious illness, which is often fatal. Their reputation is such that kinkeliba has almost become synonymous as a "healing plant".

In the current food context in Senegal, which has been hijacked by industrially-produced poor quality food products, mainly from Asia, this remarkable product deserves to attract the attention of the project GTFS/RAF/426/ITA.

4. Oil from the seeds of desert date (sump)

The scientific name of the desert date tree is *Balanites Aegyptia*. Local names are "sump" in Wolof, "muutoki" in Toucouleur, "muurotoki" in Fula, "model" in Serer and "sumpo" in Mandinka.

It is a thorny shrub, around 8 to 9m high with long hardy thorns that are straight and up to 8cm long.

Sump is commonly found in the Sahel due to its resistance to draught and overgrazing.

In Senegal, this species is common throughout the whole Sahel area of Senegal, particularly in Ferlo, the river valley, Jolof, Cayor and Walo up to Baol. It is far less frequently found in the Sudanese area. In Fouladou in Lower Casamance, it is found along major roads, but never in forests, which indicates that it has been introduced to the area by travellers. It is also not found at all in the region of Kedougou. It is a species that has very few requirements with respect to soil type. Nonetheless, the best stocks are found growing in clay soil. In sufficiently humid conditions, the tree is always green and starts to bear fruit at between 5 and 7 years of age.

The desert date tree has remarkable anti-wind erosion properties (dune fixation).

The fruit are green egg-shaped drupes that turn yellow when ripe. They are in the shape of dates which surround an oilseed nut used to produce a vegetable oil.

Fruits called "desert dates" are generally consumed by communities which enjoy them. The pulp tastes of gingerbread, but has a bitter aftertaste.

They are appreciated for their laxative properties and as regulators of arterial hypertension.

Steeping the fruit in water provides a pleasant drink.

The watery extract is also used to suffocate fish and to hunt for them more easily.

Young leaves and flower shoots, removed of their bitterness (through boiling), are eaten as vegetables to accompanies meats or millet. Young shoots and leaves are used to make sauces. The leaves also provide a fodder preferred by animals, particularly goats and camels.

In periods of famine, the fruit are crushed and mixed with cereals to increase their volume.

The seeds of the fruit are oily and have a remarkable oil content: more than 45% fat and 24% protein. The almonds are thus a source of edible oil and proteins. They contain 20-30% crude proteins and 30-60% oil. They have less protein than soya but more than sesame, cotton or sunflower.

The main interest in the nut lies in its oil richness. It provides a clear yellow oil which is comparable to groundnut oil. It is a scentless oil and one without a strong flavour, solidifying below 5°C. The oil has excellent food properties; it remains stable during cooking and does not create smoke quickly. Its traditional culinary use in Senegal is similar to that of buttermilk.

It has a very balanced makeup. Its content of saturated acids ensures it has a particular consistency in temperate climates. As for unsaturated acids, they certainly give this oil good nutritional value. The importance of the nutritional quality of the oil depends on the size of the content of essential fatty acids such as linoleic acid.

It is also used to make soap and has interesting cosmetic benefits. Its epulotic benefits are well known.

In Senegal, the production of oil from the nut has not been developed very much due to the arduousness of the work and the difficulty of extracting it by hand.

The remarkable qualities of desert date tree oil are relatively unknown, even in Senegal, and deserve the full attention of Slow Food and project GTFS/RAF/426/ITA.

SIERRA LEONE

<u>1. Bitter cola nut</u>

It recalls the name of the most globalized drink in the world, but it has little to do with it. Cola is a fruit native of the tropical forests in Western Africa, especially of Sierra Leone and Guinea Bissau, where it can still be found wild.

There are over 140 species of cola, but those identified in Sierra Leone are two: bitter cola and domestic cola.

Cola is brown in colour and contains caffeine, colatin, theobromine and tannin. These are the elements which, for centuries, have associated this fruit to the different and important aspects of daily life: from religious practice, to

sexual or social relationships.

In Sierra Leone, cola has a great symbolic value because it is consumed during rituals or ceremonies, to welcome guests, as the symbol of shared friendship, or to symbolize a reached agreement or the reconciliation between two parties. Cola is said to be the "food to be shared".

In addition, cola has always been used by traditional pharmacopoeia: a piece of cola, chewed after the meal, helps digestion and the caffeine contained in the fruit contributes to keep concentration.

The bitter cola, smaller in size, is traditionally minced and macerated to make a drink for self-consumption.

Domestic cola, instead, is used by Mandingo and Temne ethnic groups as dye. It is powdered and macerated in water to generate a dye applied on clothes which are then dried in the sun.

Three products have been grown for centuries in the south-eastern regions of Sierra Leone (Kenema district and Kailahun district): coffee, cocoa and cola nut. Cola is harvested twice a year, from July to September and from November to December. The pods are cut and opened to take the nut out.

Each pod contains up to 10 nuts. The nuts are stored in big sheds and fermented for 3 or 4 days in a large container, soaked in cold water or closed in a bag or put under banana leaves. After some days, the outer skin peels off and the nuts are washed in cold water. They are dried on the ground in a cool and dry place for one day and then stored inside baskets or bags and covered with the leaves of the same tree. The bags are finally sold to intermediaries who sell them to the capital city or abroad.

The small and bitter cola of Sierra Leone is renowned for its preservability and taste, that is why merchants often come to Kenema from the neighbouring countries (Senegal, Guinea, Mali). The current production involves 100,000 small producers (mainly women and young people), but it would need some technical support to improve sales at local and international level. The civil war, which tragically affected the generation of skilled farmers and caused massive migration, has had an impact on the handing over of traditional knowledge to the next generation.

The Presidium would be created with the purpose of improving the processing of bitter cola and its use for making traditional drinks. Markets in Europe (Italy) have already been explored. Indeed, informing western consumers on the origin of a fruit whose name is exploited by a multinational which produces one of the most consumed drinks all over the world would generate curiosity and draw people's attention on this product and its origin, thus changing the image of a country which, otherwise, would only be associated to the war.

2. Koina pure forest honey

Honey is produced all over Sierra Leone using traditional techniques, and has different characteristics depending on its place of origin.

Koina Pure Forest Honey, identified by the mapping carried out as part of the project, comes from the Koinadugu region, north of Kabala. It is completely different from the honey from other parts of the country, thanks to the richness and diversity of flowers in the forest. The honey is darker, thicker and has a more intense, caramelized flavor. The color is a deep chestnut brown. On the nose, the scent recalls carob, with spiced notes. The carob and spices return in the mouth, along with the sensation that the honey has been cooked. The cooked flavor comes from the honey extraction process, as the producers put the combs in a pan to heat the wax. When the honey separates from the wax, they remove it. Afterwards it is filtered and, for now, sold loose or in plastic containers.

According to our research, this product seems to be very well known and appreciated both within the country and in neighboring countries.

The community of Musaia Pure Forest Honey producers are primarily rice growers, but the community relies greatly on the honey to guarantee a small income. Between May and August, the producers prepare the fields for the cultivation of rice or vegetables, and the honey offers a good source of income during the dry season. The honey is collected between February and April. The beekeepers work at night, smoking out the hives and collecting the combs. They use regular clothes, without special gloves or shoes. The bee colonies are killed every year and the hive is used for two years. Obviously, the risks are high: uncontrolled fires and bee stings are two potentially common problems during the honey gathering. A smoky smell and taste permeate the honey, altering its original flavor.

Thanks to an assistance project run by FAO Sierra Leone, their collection technique has been improved and is now in between the traditional (with cylindrical hives hung from the trees) and modern (with rational hives that separate the area for breeding from the honey production area). The hives have been improved and placed lower, which means the women can also access them. The beekeepers have learned to take better care of the bees and also use the wax. Additionally a press was built so that they can extract the honey without having to heat it.

This product's excellent reputation would justify future activities to support the producers, improving certain steps along the production chain, training the beekeepers about the sensory quality of their product, packaging the honey in glass jars, identifying it with a label describing its contents thanks to a pollen analysis and strengthening the group of beekeepers by also involving some young people.

<u>3. Sounbareh</u>

The *soundbareh* is a traditional seasoning made from the seeds of the African locust bean tree (*Parkia biglobosa*). The plant is called *Néré* in English, *locos* in Krio, *Nereh* in Mandingo and Kuranko, and *Ta bei* in Themne.

The African locust bean is a wild tree commonly found growing in the grasslands of Sierra Leone. It has a broad canopy and can reach a height of 150 feet.

The tree produces long flat pods, around one to two feet long, in the months of November and December. The pods ripen in March or April. The tree is native to the Sahel and Sudanian zones. The roots are able to reach water 60 meters below ground. The seeds of the néré pods are high in nutrients (protein, lipids, glucides, mineral salts and trace elements, vitamins). Néré flour provides all the amino acids essential to the human body, and is rich in iron, vitamin C and iodine (which has given it the reputation of being able to cure problems of goiter).

The locust beans or seeds are used to prepare a seasoning called *sounbareh* in Mandingo or *kainda* in Krio. Krio is the language now most widely spoken by all the tribes in Sierra Leone.

The harvested pods are shelled by hands and the pulp is washed off to leave clean seeds. The seeds are then fermented together with wood ash for at least three to four days to enable the thick mesocarp to decompose, leaving only the brown cotyledon. These are boiled for a whole day over a hot fire, then the boiled seeds are refermented for three more days. The seeds are dried in the sun for several days until they turn a thick black color. They contain very little moisture, which means the product can be kept for months or even years without decomposing. At this stage, the product can be sold, kept or prepared for final consumption as needed. Apart from the harvesting, which is done by men and boys, all of the other activities are carried out by women, generally during the dry season.

During the final processing, the dried black seeds are further roasted in a small pot until they make a cracking sound, then pounded in a mortar together with other ingredients like pepper, fish or salt, and sprinkled on the top of cooked rice. The powder can also be added to green vegetables like spinach and potato or cassava leaves. It can also replace fish or meat in the sauce. The powder can also be used on its own in soup, especially when preparing food like poultry, bush meat or fish for important guests. The sounbareh is eaten by all age groups and is very appreciated in the Mandingo families in particular.

The dried black locust beans are a source of income for the Mandingo women as the product can be kept for months or years after preparation and sold to traders who come from distant regions, especially places where the tree does

not grow well (forested or urban areas). The product is placed in baskets or bags and sold using local measures such as an empty butter container (commonly called "butter cup" in Krio), small plastic bags or any other local container. Some women also moisten the dry seeds so they can be molded into lumps. These are sold at a lower price to customers who cannot afford to buy bigger measures.

Several factors negatively affect the availability and consumption of the ocust beans: indiscriminate harvesting and burning of the trees, increasing demand for the product from all ethnic groups and pressure from local fauna on the plant - monkeys and squirrels compete with the human population to eat the fruit, especially before they dry out.

Sounbareh is interesting from a number of angles. It is an essential product to local Sierra Leonean gastronomy, and is under pressure from various sources. Some of this pressure is contradictory as on the one hand the demand for the product is high among rural populations, but the availability of the plant is in decline, while on the other the urban or semi-urban populations tend to replace it with Maggi cubes. The processing of the seasoning is part of the Mandingo culture and its spread among other ethnic groups is a factor in social cohesion. The product, particularly when compared with the ubiquitous industrial stock cubes, has a significant nutritional content.

4. Tea bush and Bush tea bush

Tea bush (*Ocimum gratissimum, ocimum viride*) and Bush tea bush (*Hyptis Suaevolens*) are two types of herbal tea rather commonly used in Sierra Leone. They are prepared with dried leaves of spontaneous or cultivated plants and are appreciated for their medicinal properties.

In Sierra Leone traditional medicine has been a vital part of health care for centuries and it still addresses the basic medical needs for the majority of the people. However, not much has been achieved in the documentation and evaluation of the vast resource of medicinal plants used by the traditional healers.

The Tea bush is also know in Sierra Leone as the "fever plant". A hot infusion of the leaves can be drunk, like tea, with milk and sugar. A phytochemical analysis conducted by the Royal Botanic Gardens of Kew (United Kingdom) reported the biological activities of the species which contains alkaloids, glycosides, steroids, insecticides and arachnicides. The Ocinum viride has also antibiotic, bactericide, fungistatic and aromatic substances. Antibiotic and fungistatic properties allow the producers to sun dry the leaves and obtain a safe final product immune to fungal and bacterial infections. This species grows spontaneously in Igaia (Koinadugu District) and other northern regions. In Nigeria a study has demonstrated the potential of volatile oil derived from O. viride for use as topical repellent against biting adult Simulium damnosum. This result is very promising in formulating a potent and affordable natural product in the control of Onchocerciasis transmission. Studies in the forest area of Sierra Leone have shown that Onchocerciasis is widespread throughout the country. Onchocerciasis is both a public health hazard and socio-economic problem of considerable magnitude. The blackflies cause itching and disfiguring skin disease, serious eye lesions, and blindness. The habit of S. damnosum, crawling on the skin of the individual constitute an intolerable nuisance, their painful bite lead to blood loss and serve as portal for viruses, bacteria, protozoa, and nematodes which the flies may carry on their bodies. Furthermore, the aqueous leaf extract of Ocimun viride displays remarkable anti-diarrhoeal activity. In Sierra Leone this species grows wild in the forest and its fresh leaves are employed in the traditional medicine to treat intestinal worms and stomachache.

Bush tea-bush is commonly consumed as a refreshing and healthy herbal tea. The taste is delicate and similar to lemongrass.

In Sierra Leone there is a great potential for the commercial exploitation of medicinal plants.

Slow Food is in touch with the women of the Koinadugu Cooperative, who process and sell the dried leaves of Tea bush and Bush tea bush. Some of these women attended Terra Madre and the Salone del Gusto 2010 (Turin, October 2010) where they exposed and sold their products, with great success.

Supporting the Cooperative, the production, processing and commercialisation of the dried leaves of Tea bush and

Bush tea bush would be justified by the reputation of the products in the population, the scientific confirmation of their outstanding medicinal properties and the potentialities in terms of income sources.

5. PLANNING OF SECOND FIELD MISSIONS

The planning of the second field missions in the four countries is as follows:

Guinea Bissau: 20 February - 3 March 2011

Sierra Leone: 17 - 23 April 2011

Senegal: 26 April - 6 May 2011

Mali: 27 April – 4 May 2011

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Annex

I. Mission reports to Guinea Bissau, Mali, Senegal and Sierra Leone





Slow Food Foundation for Biodiversity



"Promoting Origin-Linked Quality Products in Four Countries (Guinea-Bissau, Mali, Senegal and Sierra Leone)"

Guinea-Bissau

Report on the first mission to identify local quality products and their producers (see item b. in Description of the Activities, Terms of Agreement/Project Document).

Mission from June 18 to 26, 2010

MISSION BACKGROUND

This was the first mission within the framework of the project. It was also the first contact the Slow Food Foundation for Biodiversity (SFFB) has had with Guinea-Bissau, as the SFFB has never previously run any activities or projects in the country and it has no Slow Food members. The mission was supposed to have taken place earlier in the year but had to be postponed due to serious political unrest in the country.

TERMS OF REFERENCE

The mission is aimed at:

- identifying as many origin-linked quality products as possible.
- collecting information on food consumption habits in the country.
- collecting relevant information about the communities who produce the above-mentioned products.
- identifying possible partners in the further identification of origin-linked quality products.

EXECUTIVE SUMMARY

The mission included the following people: Serena Milano, Secretary of the Slow Food Foundation for Biodiversity; Velia Lucidi, Slow Food Africa Office (desk officer for Guinea-Bissau); and Cristiana Peano, SFFB technical advisor (Agronomy Faculty of Turin University). They visited various food communities in Guinea-Bissau to understand the context of food consumption and food production and identify some traditional and local products.

Food communities and producers from the regions of Bissau, Oio, Bafatà, Tombali and Quinara were visited.

As a result of this mission, over 15 interesting products have been identified:

Pam-pam rice Mangrove rice Rice, millet and manioc couscous Fonio Bread and sweets Palm oil Cashew nuts Mancagna beans Leafy vegetables: manioc, mancara, sweet potato, baobab, boro-boro, baguitch, candja, Jakatou Bagiki Local cherry tomato Farim salt Local mango varieties (Fernandino, Sierra Leonean, *mango de terra*) Limon de terra Lemon vinegar Chinese banana, São Tomé banana Wild fruits: foroba, baobab fruit (*cabaceira*), tamarind, velludo, foli, manganasia, miseria

We hope to establish a regular collaboration with three organizations working to protect biodiversity and promote the consumption of local products: Tininguena, the COAJOQ cooperative and LVIA.

Palm oil has been identified as a potential Presidium.

INTRODUCTORY INFORMATION ON AGRICULTURAL BIODIVERSITY AND FOOD CONSUMPTION

In terms of climate, Guinea can be divided into three areas: the coastal zone (very large and also including the islands), the north (bordering Senegal) and the east.

The coastal zone is the rainiest (receiving over 2,500 mm a year, concentrated in three months). The north is slightly less wet (between 1,500 and 1,800 mm a year) and the east (pre-Saharan) is more arid (a maximum of 800 mm of rain arrives each year). The coast is the richest in biodiversity.

Agriculturally, the north is influenced by Senegal.

The east is agropastoral and mostly inhabited by the Fula (Peul). Agricultural products are less varied. The primary crops are cotton, peanuts and sweet potatoes.

The land is mainly flat.

The communities' products are sold at the lumo, the weekly village market.

The fragile economy is based mostly on agriculture and fishing, despite the existence of mineral resources (oil, bauxite and phosphates). These are not exploited because of the lack of infrastructure and funds. The economy was hard hit by the 1998-1999 civil war. Currently the economy is stagnant and industry is nonexistent.

Imports: beverages, tobacco, oil products, cars, rice, manufactured goods.

Exports: cashew nuts, fish, crustaceans, peanuts, palm seeds, lumber.

Guinea-Bissau is essentially an agricultural country. Most farming is subsistence, and agricultural technology is rudimentary. 90 % of the population work in agriculture.

The biggest obstacles to promoting and increasing the consumption of quality local products are the following:

1. Limited availability of seeds. Almost no-one saves and reproduces seeds from vegetables. Seeds are bought in Dakar (they are not even found in Bissau) by NGOs and other organizations. More work is done on saving and reproducing seeds for grains, but only at the local community level. This falls within the remit of INPA (the research institute of the Ministry of Agriculture, with four sites), which has the necessary structures and skills for germplasm conservation, setting up seed banks and certifying seeds, but lacks resources. It therefore concentrates its work exclusively on rice and pre-base material.

2. Lack of technical skills among young people. It seems that within INPA there is a problem of generational turnover. There is no Agriculture Faculty in Guinea. The agronomists working today received scholarships to study in Cuba, Russia or Algeria, thanks to exchange programs, but with the new political system, these have been lost.

3. The predominance of cashew nuts. For several months every year, all available labor is dedicated to the cashew harvest, and all other activities (horticulture, for example) are suspended.

4. Marketing problems. Few actors are working in an effective way to market quality local products. Problems include the lack of infrastructure, which hinders any initiative, and the fact that it is difficult to make an impression on the rich and the tiny middle class (present only in the capital). Local products are actually perceived as poor, and consumers with purchasing power tend to favor imports.

5. The state of the roads. These are mostly unpaved and full of holes. People travel on foot or by bicycle. There are no means of transport or infrastructure for them to easily reach markets and the capital.

6. Lack of structures for proper conservation of fresh products (storerooms for vegetables, cold storage for fish, etc.) and their processing (into juices, jams, dried fruit, etc.), with the exception of dried green mango and a few wild-fruit juices, which rarely end up on the market.



PRODUCTS INVESTIGATED DURING THE MISSION

Rice

Annual per capita rice consumption in Guinea-Bissau is among the highest in the world. Until the start of the 1960s, Guinea-Bissau was a rice-exporting country. Currently it has a deficit of between 80,000 and 90,000 tons and imports Asian rice, which has replaced local rice even among people's food preferences.

More than half of all domestic rice is grown in the Tombalì region and covers around 22,000 hectares. Productivity is two and half tons per hectare. Though 106,000 hectares could be used for rice growing, less than half are actually cultivated.

It is hard to identify the traditional varieties: The farmers give the rice the name of the person who brought the seeds, the name of a village, and so on. Identifying synonyms is also complicated, as every ethnic group has its own language and every village uses different names.

There are three types of rice growing:

- 1. Pam-pam or highland rice: An itinerant farming method: every year part of the forest is burned and the rice is grown "dry." Pam-pam rice is the least productive, with yields rarely exceeding one ton per hectare. "Panpan" rice growing is a subsistence farming method that exploits the forest undergrowth or the land used for palm plantations. Before sowing, the land is cleared by burning the scrub, taking care not to damage the plants. "Panpan" rice growing impoverishes the land, which must be dug over, hoed and fertilized after the first harvest. When the land is not worked, it no longer produces rice and the farmers are forced to clear more land, because rice is the staple of their diet and they cannot do without it.
- 2. **Bas-fonds** or freshwater rice: Grown in the classic flooded paddies. One variety is Bani-Malo, and production yields vary from one to two tons per hectare. The field where the rice is grown is called "Iala."

3. Mangrove or saltwater rice: In the mangrove swamps soils are generally more fertile than in other environments as the tidal flooding regularly deposits silt on the land. Successful cultivation of rice in the mangrove swamps depends on the length of the salt-free period, which is the result of the interplay of the volume of fresh water available and the intrusion of salt water from the sea. Mangrove rice is by far the most productive, able to exceed three tons per hectare. One variety grown this way is Kablak.

Mangrove rice growing is widespread. Some of the harvest is saved for family use, while the rest is sold. This technique of cultivation in salty water (mangrove rice, *arroz du bulanhas*) is the most interesting and is closely linked to Guinea's unusual geography (with long saltwater inlets that resemble rivers) and the culture of the Balanta, Guinea-Bissau's main ethnic group. Initially present only in the north, the Balanta moved south in the early 20th century, into an area inhabited by two other ethnic groups (Nalus and Susu or Tanda, present mostly in the northwest of Guinea-Conakry) who only grow dry rice using the pam-pam method (cut and burn). The Balanta taught the technique of growing rice in salty water to these groups.

Specific varieties are grown in the mangroves, different from those grown dry. The most common is Kablac. This is an improved variety based on a local variety (found in Guinea-Conakry and brought by a producer, Bracia, to the island of Kamitongo). Kablac was then selected, creating the pure lines that are used today as the pre-base material for sowing, which spread around the communities 30 years ago.

The producers also give the names of other varieties of mangrove rice: Jambarà, Sengeren, Cablack, N'conto Preto, N'conto Branco, Yaca Saw, Yaca (white) or Yaca o Bab, Aninha, Atanhan, Torompass, Tsome, Berenduk and N'dolo Kpok.

Traditionally rice is processed manually in a mortar (*arroz de pilón*). Now the rice is brought to a mill and hulled twice. The waste from the second hulling is finer and used to feed livestock (cows, goats, pigs).

In Guinea-Bissau, communities traditionally make parboiled rice.

Other grains

These are mostly consumed as part of the everyday diet while waiting for the rice harvest.

Millet

Milho Basil (dark red, white or mixed color) and milho spada (brown).

We saw a rice, millet and manioc couscous on the market.

Fonio

Milho fundo. Grown primarily near the Senegalese border.

Sorghum Called *Milho Preto*

Corn *Milho cavalo*

Palm oil

There are two types of palm oil:

- 1. da granja palm (grown from imported seeds)
- 2. wild palm, which gives a better, more refined oil

Wild oil palm forests are found throughout Guinea-Bissau, with the exception of the more arid eastern area (planted mostly with cotton and peanuts and used for livestock farming, Fula/Peul area).

According to experts from the Tininguena organization, there are two areas historically linked to palms, in the north (where the Manjaca ethnic group lives) and in the south, in Cantanhes. For various reasons, including symbolism, history and custom, the southern area is particularly suited to palm growing.

Men cut the fruit bunches from the palms, the women carry them home and the men beat them to get the fruit (orange drupes the size of a grape berry and shaped like an irregular oval). The rest of the processing is then done by the women. The fruits are boiled and pressed to obtain the oil, which is then boiled. The association overseen by Tininguena is one of the few that filters the palm oil, bottles it in labeled glass bottles (to order) and pasteurizes both the empty bottles and the finished oil (to 70°C).

On the islands, the technique is different and does not involve boiling the fruits. Instead they are arranged in a hole in the ground and covered with soil.

The island oil is more acidic and is primarily sold in Senegal for soap production.

Oil is also produced from the seeds ("siti di carruz") in two different ways.

With the first method, the fruit is broken open and the undeveloped seed is extracted. It is dried, hulled and ground into flour. Water is brought to the boil, removed from the fire and the flour is added. The mixture is stirred, more boiling water is added, and it is stirred again. The mixture is then left to rest and the clear yellow oil that separates from the water is collected. This lengthy procedure is only carried out domestically (every family produces at most two liters of oil).

The second technique involves toasting the seeds until oil is obtained.

The palm waste (empty fruit bunches) and the pressed fruits (which still contain some oil) are used to make soap.

Cashew nuts

Introduced by the Portuguese in the 1960s, the crop reached its maximum expansion in the mid-1980s, influencing the country's entire agricultural economy.

Initially the trees were planted on large estates, then when people realized it was a profitable crop, small-scale farmers began to grow cashews as well.

The nuts require little work and produce high earnings.

The commercially valuable part is the seed (dried), but the fruit is also consumed fresh or processed into a compote, juice or wine. A cooperative in the north is making a sparkling cashew wine. The by-product from juice production can be dried and fed to livestock. All the products made from the fruit have a strong smell and an astringent taste and are only consumed in countries that cultivate cashews. Cashew wine is produced exclusively at an artisanal, family level. Cashew juice ferments in a few hours, becoming very alcoholic. Domestic production of this wine has aggravated the problem of alcoholism, common also among young people.

The price of cashews influences the price of rice through a perverse mechanism, linked to the culture of bartering (bartering continues to be at the base of the economy in various villages). Sometimes the families that sell cashews to intermediaries need rice for subsistence and are paid in an equal number of sacks of rice. Sometimes the rice can end up costing more than the cashews.

The majority of the cashews are exported to India. Ships leave for India loaded with cashews and return with Asian rice (particularly from Thailand).

Beans

The most common local variety is Mancagna, a small white cowpea (niebé).

A traditional dish based on Mancagna beans is cansuca (softened rice, beans, pork, palm oil). The beans are eaten both green and dried, but mostly dried.

We also heard about Manjaku beans VELIA (a green bean), Congo beans and Seven Week beans (very small and pale brown).

Vegetables

NB: According to the information collected during the mission, vegetable seeds are rarely stored and reproduced, and only ever for some

vegetables destined only for family consumption.

Bagiki

The local name for hibiscus, whose flowers, rich in vitamin C, are used to made juice. In Guinea-Bissau, it is also said to cure diabetes. With its lemony flavor, bagiki has traditionally been used as a condiment.

Jakatou

A small eggplant known as "garden egg," rich in vitamins A, C and D. In Guinea-Bissau, it is said to cure malaria.

Candja

Okra, a vegetable rich in vitamins A, C and D.

Cherry tomato (tomate da terra)

The local cherry tomato is cultivated and consumed at a family level. A community of "tomate de terra" producers were identified in the Bafata region. They will be visited during the next mission or by one of our local collaborators.

Chili pepper

Tiny, red and very hot.

Seeds are bought for all other vegetables (onions, garlic, lettuce).

Leafy vegetables

The leaves of manioc, mancarra, sweet potato, baobab, boro-boro, baguitch, candja and djagatu are all eaten.

Fruit

Mango

According to the information collected during the mission, the three traditional varieties are Fernandino mango (small as an apple, paleyellow skin, ripens in April and May); Sierra Leonean mango (large, brick-red skin, ripens in May and June); *mango de terra* (the smallest, tennis-ball sized, pale-yellow skin, ripens in June and July).

Only green mangoes are dried, never the ripe fruit.

Mango is found in various traditional dishes: boiled rice with green mango served with different sauces or boiled rice with a mango-based sauce. In these two recipes, the mango can be either fresh or dried (check in cookbook). Sweet mangos are also eaten caramelized.

Lemons

One traditional variety of lemon is very common, particularly along the coast: the very small and fragrant "limon de terra." There are also many introduced varieties, which have taken the name of their place of origin or the person who brought them, like the French lemon and Corsican lemon.

"Agua de limon" (a lemon vinegar made by fermenting the *limon de terra* juice overnight which can keep for up to five years) and lemon juice (based on juice and sugar) are both produced.

Commonly found in the kitchen, the lemon plays the same role as vinegar in European cuisine, and is used to marinate meat and fish and to make accompanying sauces (generally based on lemon, raw onion and chili pepper).

Carob ("alfarroba")

A wild tree that produces bunches of very long pods (up to 40 cm). When dried, they turn dark brown in color. The inside of the pod, pale yellow, sweet and floury, can be pressed into juice (usually mixed with other juices, particularly baobab, lemon and velludo). Some communities use carob juice and leaves as a traditional cure for malaria.

Soap is made by mixing ash from the bark with palm oil (*sabon preto*).

The dried seeds (*netetu*) can be ground and processed into flour ("futi") or into a puree ("kunga") which can be used as a seasoning for rice and meat.

Baobab

Baobab fruits are used to make juices. They are also processed into flour (used among other things for weaning children). The seeds can be toasted, and turned into flour and then a paste similar to peanut paste, which can be added to rice or sweetened.

Velludo

A wild tree, not very large (like the cashew) with small, black pods enclosing irregularly shaped red seeds. The dried seeds can be pressed into a brown juice with an astringent flavor. The tree can also be cultivated.

Foli

The fruit of a wild tree. There are two types: *foli lifan* (oval, large as a tennis ball and with orange pulp) and *foli bajuda* (smaller, with white pulp and more acidic). Symbolically the first is considered a female fruit and the second a male fruit. It is processed into juice by beating the pulp with a spoon and adding salt or sugar. If the juice if left to ferment it becomes "vinaigre de foli."

Manganasia

A wild plant that produces red berries (drupes). Children eat the flesh. The seeds must be soaked in water for six days to remove the hydrogen cyanide. They are then hulled and processed into a flour used to season rice, or eaten fresh.

Miseria

The fruit of a wild tree. The wood is commonly used to build houses, while the juice of the fruit can also be used to make vinegar or wine. The fruit is red and yellow, oval in shape and the size of a walnut. The fresh fruit can also be eaten. It is as acidic as a lemon.

Farim salt

The landscape around Farim is characterized by wide expanses of sand and salt water. When the water from the river (actually a marine inlet) recedes at low tide and the wind blows from the east, a crust of salt forms on the surface of the ground. Around 120 women, members of the Aprosal association (founded in 1994), collect this salt, place it in a cloth, pour over salt water to wash it and then filter it. They then dry it in rectangular pans over a fire, producing around 120 tons of salt a year.

The community of women we meet belong to four ethnic groups: Mandinga, Balanta, Fula and Mancagna (the first three are Muslim, the last Christian). They received the equipment necessary to make iodized salt through a UNICEF-funded project. But the cost is higher and they can no longer manage to sell it.

During the rainy season, from January to May, the women grow vegetables (onions, chili peppers, tomatoes, carrots, lettuce, Savoy cabbage). They buy the seeds in Bissau.

VISITS

FAO Office in Bissau

In Bissau, we met with M. Thierry Ange Ella Ondo, the FAO representative. We explained to him the mission of the Slow Food movement and the objectives of our mission in Guinea-Bissau.

Tininguena office

The Guinean organization, *Tiniguena – Esta Terra é Nossa* (this land is ours) has been working with rural and urban communities for over ten years to strengthen people's efforts to conserve environmental resources and to control their use for the benefit of those who live there. This assistance includes technical advice; credit for community-building projects for schools, health centers and seed storage and support for women's associations. It also involves assistance in documenting fishing practices and acquiring land titles to protect indigenous residents from expropriations. They also organize awareness-raising campaigns on biodiversity issues.

We talk to the director (Augusta Henriques) and a technical expert (Miguel de Barros). The director is very forceful, strongly criticizing international organizations like the WFP, which distributes American products; FAO, which distributes hybrid, sometimes infertile seeds; NGOs that leave projects half-finished; and so on. She states the need for indigenous solutions to indigenous problems. It would be interesting to have support for participatory certification and for the promotion of local products produced by some of the communities they are overseeing (palm oil, lemon vinegar, rice, etc.).

Wetlands office

Wetlands International is a global organization working to sustain and restore wetlands and their resources for people and biodiversity. Based mostly in the developing world, they have 20 regional, national or project offices, in all continents, and a head office in Ede, the Netherlands.

In Guinea-Bissau, they work with Balanta communities who produce mangrove rice in two areas: Mansoa (an important site because it is home to a very beautiful and endangered bird, the grocruado, one of the symbols of the country's biodiversity) and Cassini, in the south, near the border with Guinea-Conakry.

Wetlands raises awareness and trains local communities in managing natural resources with the aim of preserving and protecting them.

IBAP (Istituto da Biodiversidade a das Areas Protegidas)

IBAP is a public government institute, set up in 2004, which works to manage protected areas, defending their flora and fauna and the food security of the people who live in them.

There are six protected area:

- 1. Parque Nacional Marinho João Viera Poilão
- 2. Parque Natural dos Tarrafes do Rio Cacheu
- 3. Parque Natural das Lagoas de Cufada
- 4. Floresta de Cantanhez
- 5. Parque Natural das Ilhas de Orango
- 6. Area Marinha Protegida (UROK)

National Study and Research Institute (INEP)

We met with Daniel Rodrigues and explained the mission of the Slow Food movement and the objectives of our mission in Guinea-Bissau. Mr. Rodrigues gave us a general overview of agriculture in Guinea-Bissau.

Mansoa natural pharmacy (with Suor Angela)

This recently opened pharmacy sells syrups, ointments, dried herbs and creams made from local medicinal plants. Village men are employed to pick and prepare the herbs.

Farim salt producers and Farim fishermen (with Padre Carlo)

See Farim salt above.

Mangrove rice producers (with LVIA)

The Cubumba association of united children and friends (AFAOUC), set up in 1998, brings together 34 men and 9 women and is chaired by a woman.

As well as rice, they grow vegetables and sweet potatoes.

Djaliconda – KAFO office

Farmers' association with a seed bank.

COAJOQ cooperative

Agricultural cooperative of young people in Canciungo (north). Their objectives are food self-sufficiency and diet diversification. Four agronomists, trained in Cuba, work with 35 local associations and produce various processed products: palm oil, lemon vinegar, mango compote and cashew products. These are sold directly from their structure. They also have a community radio station.

Fanhe village schools (with Padre Cossa)

Dugal section, Nhacra sector, Oio region

The nursery and primary schools are attended by children from Fanhe and other nearby villages. They have beautiful vegetable gardens, cultivated between October and March.

The seeds initially arrived from Italy, but now they are bought in Dakar.

CONCLUSIONS AND RECOMMENDATIONS

The mission gave us the opportunity to identify a number of interesting products and contacts. This will allow us to proceed with the mapping of local quality products.

We were particularly impressed by the determination and motivation of organizations like Tininguena and COAJOQ, with whom we hope to build fruitful collaborations.

Palm oil from Guinea-Bissau is considered to be among the best in West Africa. We intend to investigate the product further and organize tastings in order to consider it as a possible Presidium. Tininguena trains and supports some interesting communities of producers, which would facilitate the implementation of the next phases of a palm-oil project.





Slow Food Foundation for Biodiversity



"Promoting Origin-Linked Quality Products in Four Countries (Guinea-Bissau, Mali, Senegal and Sierra Leone)"

Mali

Report on the first mission to identify local quality products and their producers (see item b. in Description of the Activities, Terms of Agreement/Project Document).

Mission from July 23 to August 1, 2010

MISSION BACKGROUND

This was the first mission within the framework of the project. The Slow Food Foundation for Biodiversity has been working with food communities in Mali since 2008. Mali has a rich gastronomic culture and a great variety of ethnic groups and ecosystems. This, as well as the remarkable dynamism of rural communities and civil society, was one of the mission success factors.

Mali can be divided into three main climate zones: the desertic north, the semi-desertic region below the Niger River, and the greener and more horticultural south (Sikasso region, fruit and vegetables, cotton).

Mali has remarkable agricultural potential, thanks to the soil, rainfall and irrigation, particularly in the "Office du Niger" area, located along the Niger River and covering the regions of Koulikoro, Sikasso and Ségou.

Horticultural exports have risen in recent years, despite the country's geographic location. Malian mangoes have appeared on the European market, while shallots and potatoes are exported to nearby countries. Agricultural diversification is also having an effect on local markets. Mali produces local wheat, which is also processed domestically. The aim is to replace costly imports from Europe.

Around ten large companies dominate Mali's food industry (cotton, mineral water, beer, flour). Various small companies are active in processing cottonseed and grains (millet, sorghum, fonio, rice). Despite their dynamism, these smaller companies suffer from a lack of government support and private investment.

Farmers' organizations in Mali are numerous and active at both a political and an operational level (CNOP, OP, COPAGEN, Sexagon, Afrique Verte, AOPP, COFERSA), as are other organizations and research institutes connected to the agricultural sector (IRPAD, IER). There is a concrete and very dynamic commitment to encouraging biodiversity.

Some organizations work to support producers, creating village seed banks to help save Mali's genetic biodiversity, while others work on the processing and marketing of local products.

Local products and Malian brands like "Le Paysan" can be found on supermarket shelves in Bamako.

Shoppers can find local grains like rice, pre-cooked fonio, sorghum and millet, and flours of various kinds (corn, millet, cowpea), rice couscous and some variations of local products (like "riz au fines herbs," etc.). In addition to local produce and processed foods, shoppers can also find many herbs and spices and local brands of syrups (ginger, tamarind, hibiscus) and jams (hibiscus, mango). There is an urban middle class that shops at supermarkets and buys local products as well as European ones.

TERMS OF REFERENCE

This mission is aimed at:

- identifying the highest possible number of origin-linked quality products in the regions of Bamako, Segou, Mopti and the Plateau Dogon.
- collecting relevant information on the communities who produce the above-mentioned products.
- identifying possible partners for the further identification of origin-linked quality products and Presidium.

EXECUTIVE SUMMARY

The first mission to Mali was made in the last week of July by Velia Lucidi, in charge of Slow Food's activities in Mali, and Cristiana Peano, the project technical advisor and a professor of agronomy at the University of Turin.

During their stay in Mali, they met with various farmers' and producers' organizations. The delegation spent several days in Bamako and met with representatives from IER¹, IRPAD², FAO, CIRAD³ and COFERSA⁴, the Chef of the Tuareg community of Toumbouctou and CNOP⁵. The delegation then traveled towards Ségou, where they met the director of Sexagon⁶. The last visit was to Timissa, towards Djenne, where the delegation visited the community where the Sinignesigi Ton⁷ organization works, and to Dogon Country, where they met with P.D.Co.⁸ producers.

Around 20 interesting foods were identified, primarily dairy products, local livestock breeds and local grains.

The most interesting products from a cultural and gastronomic perspective are a local wheat variety cultivated in the Tombouctou region; some varieties of wild grains also from the northern regions, like kram kram and wild fonio; the Tuareg community's dairy products and finally the Macina sheep, a breed at risk of extinction used for wool, meat and milk. This investigative effort will be continued in the latter part of the year.

Possible future collaborations were identified with IRPAD, COFERSA, AOPP⁹, CIRAD, IER and FAO.

DESCRIPTION OF MEETINGS

COFERSA (Convergence des Femmes Rurales pour la Diversité Alimentaire) – Alimata Traoré

The BENKADI Cooperative (a core or "village" cooperative in Sikasso) has 17 members. Cooperative members include both producers and processors (who make dried mango, fonio, chili pepper, soap, shea butter, etc.).

There are 13 members within COFERSA.

The structure is as follows: core cooperative, at a village level – Regional Union – National Union (COFERSA).

Their objective is assisting the community efforts of marketing.

They would like to create a shop in every locality, to sell their products and respond to the needs of the most disadvantaged zones, like those in the north.

IRPAD – Institut de Recherche et de Promotion des Alternatives en Développement

We met with Moussà Malle (from the "Programme de Construction de Compétence pour le Development Local" – PCDL), Assetou Samaké (secretary-general and professor of genetics at the University of Bamako) and Mamadou Goita¹⁰ (executive director).

IRPAD works on two levels: food security and education.

In terms of food security, IRPAD works to promote local products, particularly grains (in collaboration with IER). It also works with local radio stations to inform farmers about issues linked to the use of GMOs and hybrids.

They also work to make legal documents available in local languages (for example those relating to land ownership) and produce recordings for community radio stations. They work with the Agricultural University.

3 Cirad is a French research centre working with developing countries to tackle international agricultural and development issues

¹ Institut d'Economie Rurale du Mali

² Institut de Recherche et de Promotion des Alternatives en Développement

⁴ Convergence des Femmes Rurales pour la Souvenaineté Alimentaire au Mali

⁶ Syndicat des Exploitants Agricoles de l'Office du Niger

Main IRPAD programs:

- 1. Food Sovereignty
- 2. CFCA (Centre de Formation pour Cadres Africains)
- 3. CRPA (Centre de Recherche et de Promotion des Activités Agro-Sylvo-Pastorales)
- 4. PCDL (Programme de Construction des Compétences pour le Development Local)

They emphasize that in promoting local products, it is necessary to be aware of the danger of attracting the attention of companies who want to patent seeds. They explained that when traditional products enter the market, they must be able to maintain the identity of the local communities. Production is limited and it is necessary to produce in a diversified way to maintain this equilibrium. Production is linked to time, space, culture and people. In Mali, explained Assetou, when a product it is valuable, it is produced in large quantities, overexploiting the land.

Meeting with Mohammed el Mehdi Ag Attaher Elansari (Tuareg community, representative)

The Tuareg (or more correctly Kel Tamasheq, "those who speak Tamasheq") are an African Berber people who live nomadically or seminomadically in the Sahara desert. In Mali, this community is concentrated in the regions of Tombouctou, Gao and Kidal.

They mostly raise livestock and collect wild grains like kram kram and wild fonio, though they also cultivate a local wheat variety (*alkama*) and "du fleuve" rice. Their traditional diet is based on meat, butter and grains.

Milk (*akh*) plays an essential role among the Tuareg pastoralists, because it "nourishes, refreshes and cures." Also of great importance in their gastronomic culture are dairy products like melted butter (*widi*) and tikommart cheese, made from sheep's milk and rennet taken directly from a kid goat's intestine and left to dry in the sun. This cheese is primarily used as a seasoning.

Some local foods and beverages:

Achider: a beverage made from hulled kram kram (flour), water, sugar or honey and hulled tikommart.

Takruite ("ball" in Tamasheq): hulled kram kram, hulled tikommart, dried dates and some water. Another version is made with dried meat. Traditionally these balls were distributed to the community when a child began teething as a gesture of protection. Alabadia: rice, meat, butter and a little salt.

Local grains in the Tamashek culture:

<u>Sorghum</u>, locally called *sabba*, is a seasonal grain grown almost everywhere in Mali (Mopti, Sikasso, Ségou, Kayes). In Tombouctou, it is cultivated in the area around Lake Faguibine.

Different preparations for sorghum include in a single dish (tabalatast, soko idjelene, gasso), as a hot beverage and as gruel.

River <u>rice</u> (*emanane* in the local language) is cultivated in areas with clayey soil by sedentary farmers, in swamps or river inlets. "Riz du fleuve," commonly known as "riz flottant" (floating rice) is the most prized by the Tuareg. It is considered almost a luxury product, because of its rarity, fragrance and unique flavor. Another rice variety appreciated by the Tuareg is known as "riz des oiseaux" (rice of the birds). Preparations:

1 - single dish: alabadja, goundey or with various sauces

2 – hot beverages and gruels

3 – pies ("galettes"): alfintta

<u>Wheat</u> (*alkama*) is cultivated by sedentary farmers in the pods around the Niger River, in the Tombouctou region. It is very much appreciated by the nomad and sedentary local population.

Preparations: various types of bread: tacoula, toucassou, alfitati single dishes: tabalatast, du idjelen, katta (vermicelli) gruels: serye, aliwa fin

takawit: used like an appetiser

<u>Kram kram</u>, or dune grass (*Cenchrus biflorus*), is (was) the primary grain of the southern Sahara. In the past it was the dominant crop in the Sahel and in regions between the Sahara desert and the Sahel. It grows very well in sandy soil and needs little water. In the past it was more important than millet (pearl millet) and its grains were ground into flour, commonly used to prepare a kind of porridge. Kram kram grain is rich in protein and has perhaps the highest calorie content of any other grain. Today this grain is only collected when the harvests of other grains are not sufficient to feed the community.

7 The "Sinignesigi Ton" organization, whose name means "we predict the future" in Bambara, brings together producers in 27 villages in the Timissa municipality, in the Ségou region, to promote many activities, relating to literacy for women and young people, mother and child health, the production of seeds and the processing, marketing and sustainable management of natural resources.

8 Promotion pour le Développement Communautaire de Bandiagara 9 Association des Organisations Professionnelles Paysannes Mali

10 Mamadou GOÏTA is a development socio-economist and a specialist in education and training systems from Mali (West Africa). He is currently the Executive Director of the Institute for Research and the Promotion of Alternatives in Development (IRPAD), Bamako, Mali. He is a member of the regional coordinating group of the "Coalition pour la Protection du Patrimoine Génétique Africain" (COPAGEN) (Coalition to Protect African Genetic Heritage), which operates in West Africa.

The plant's flaw is that its grain is enclosed in a spiny covering that gets stuck to animal fur and people's clothes, but this has never been perceived negatively by the Tuareg, whose diet is still closely connected to the consumption of this grain.

When the fruits (*takanà*) ripen in December, the grains (*wasaille*) fall on the sand. They stick together, and roll into balls as they are pushed by the wind, which the women collect with straw or by sweeping them up with rakes made from acacia wood. They are then hulled in a mortar, removing the white grain from its spiny covering. During the rainy season, the plant can be cut more than once and used for hay when it is spineless, or preserved in traditional silos. In this case the presence of spines does not create problems because fermentation softens them and they can then be digested by animals.

The main reason for the decline of this grain is the significant reduction in suitable land. This factor is also partly linked to the Tuareg's transition from nomadic to semi-nomadic (and almost sedentary) life. Sedentary life encourages localized grazing, which does not allow the plant to produce grains. Another factor can be correlated to the decrease in importance and strength of the traditional authorities, who were once very mindful of this wild grain.

<u>Afasou</u>: A harder grass than kram kram, it grows on the dunes, particularly in the desert, and is used mostly as feed for horses and to construct supports for tents and granaries. During times of famine it is also eaten by the community.

<u>Wild fonio</u> (*Panicum laetum*): Harvested by the community for local consumption and also to feed animals. Its grains are hulled and cooked into a kind of porridge. An annual plant, it grows in clayey soil subject to seasonal flooding.

There is also a variety of <u>local wheat</u> (cultivated in the north in the Goundam and Dire area, in the Tombouctou region), which is also cooked into a kind of polenta and eaten with meat and melted butter.

Millet (saba) and sorghum (enele) are also cultivated.

CEMAPI (Centre Malien de la Propriété Industrielle) – M. Mamadou Cheickné (director)

The center is working to have the following "Malian" products given a denomination of origin:

- Kati green beans
- Iafuli mangoes (Kent variety)
- Gum arabic
- Sikasso peas
- Kati potatoes

The director is interested in Slow Food and would like to be involved. He told us about several interesting dishes from when he was a child. *Dish based on cottonseed:* The cotton fruit was split open and oil was extracted, some of which was used to make soap and some used to make a sauce with onions.

Nhenhenki: Dish based on millet, prepared with peanut sauce and tomatoes.

Degé: A semi-alcoholic beverage based on millet.

Fakoi: The Soreille ethnic group prepares this leaf in a sauce and serves it with rice. A typical dish from the Tombouctou region. *Doloh:* Local beer made from sorghum and millet.

CIRAD – Christian Corniaux

Christian Corniaux (responsible for dairy at CIRAD) can give us other contacts for the country profile (evolution of the consumption of milk and dairy products and local products).

In Mali, artisanal businesses that collect and process milk have increased considerably since the 1990s. Thanks to numerous development projects, these businesses have served as tools to dynamize the production and supply chain of locally produced milk and to fight rural poverty.

Milk production was traditionally the area of expertise of the Peul, located on the edges of cities or moving seasonally between them. These farmers sell fresh milk, curdled milk and butter. The traditional Peul dairy sector is based on a very hierarchical domestic organization and on partnerships between farmers and Peul pastoralists, for example milk delivery contracts or contracts for the use of leftover milk.

Under the influence of the new commercial prospects offered by dairies and because of increasing pressure on land, these traditional agreements are being reexamined.

At the same time, the diversification of agricultural systems has led to the appearance of new farmers who use new types of contract for the supply of inputs and for keeping and selling milk. At this level, the various projects for small dairies and milk collecting centers have proven to be essential in establishing commercial rules.

Centers have been developed for milk collection, supplied with tanks and the equipment necessary for transporting milk.

The collection and processing units are in the cities of Bamako, Kayes, Sikasso, Ségou, Mopti, Tombouctou, Gao and Kidal (for camel's milk). The Kasséla dairy, 50 km from Bamako on the road to Ségou, has had great success both commercially as well as in terms of hygiene and quality.

In an area with high production potential, this farmers' cooperative has formed itself into an association so that it can sell its milk and have the communities benefit directly from the resources coming from the milk. With the help of proper equipment, farmers can store the evening milk until the next morning and sell it on the market for the same price as that morning's milk. The cooperative collects 1,600 liters a day.


The milk is then distributed every morning to various kiosks in Bamako, where Kasséla milk has a very good reputation.

More local responses have also come from two industrial companies, Yoplait and Mali Lait, who collect local milk to make "fromage blancs" and yogurt.

Sirimé (melted butter, a typical Peul product) is a traditional product that has found its way onto the urban market (supermarkets, boutique shops, etc.) as a quality product. In Bamako, a small dairy has specialized in this product, which is generally sold at 250 CFA francs per liter. Dairy products, like mozzarella or other pizza cheese, are imported from Brazil.

Other traditional milk-based products:

<u>Deghé</u>: millet porridge, prepared with fresh or curdled milk or enriched with cream Fené: curdled milk enriched with cream

FAO

Present at the meeting: Cheick Bathily – Assistant to the FAO representative Mme Cissé Safiatou Dirarra Mme Mariko – PISA coordinator Ahmed S.T. Camara – FAO livestock farming representative

The objectives of the mission and Slow Food's work in Africa were explained, and possible areas of collaboration were discussed.

Products indicated by the FAO office:

- <u>Bozo dried fish</u>: The Bozo live along the Niger River. The men fish and row pirogues, while the women prepare dried fish. Fresh fish
- is laid out on straw, then a low fire is lit. The fish is left to dry in the sun, before being arranged in large straw baskets.
- <u>Fakhoi</u>: A leaf used to prepare sauces based on Sirimé (melted butter).
- <u>Deghé</u>: Millet porridge, prepared with fresh or curdled milk or curdled milk enriched with cream.

• <u>Macina sheep</u>: Goundoun (Doundoun, Koundoum) breed. Macina sheep are the only wooled sheep kept by the Fulani pastoralists, and along with the Dongola, the only native wooled animals south of the Sahara. Probably descended from the wooled thin-tailed sheep of North Africa and introduced to the present area of distribution by Moors and Moroccans during the conquest of Timbuktu in the 15th and 16th centuries. Also considered, probably erroneously, to be descended from Karakul or from various crosses of Merino with Syrian or Barbary sheep in ancient times. Macina is the Fulani word for the Niger River flood zone. The Macina breed is unique to the Niger Bend in south-central Mali, although a degenerate form called Goundoun is found in western Niger. The Macina sheep was developed and maintained mainly by the Macina Fulani tribesmen under transhumance management practices. This breed is exceptionally hardy and robust; it is resistant to extremes of temperature, drought and poor nutrition.

Description: Medium size 60-80 cm. Weight: male 40 kg; female 30 kg. Horns: well developed with deep grooves in males (65 percent), classic spiral "ram's horn" in shape, 0.5 percent have multiple horns (4.0 percent reported to have multiple horns in early 20th century); 8 percent females carry weak horns or scurs. Ears medium length (12 cm), wide, pendulous. Toggles (apparently absent in original stock) in 15 percent of animals. Neck short. Chest narrow and shallow. Prominent withers. Back straight. Croup tucked and thinly fleshed. Legs long and lightly fleshed. Tail thin, descends to below hocks. Color generally white, variously spotted with black and red particularly around eyes and ears. Coat of coarse wool mixed with hair, to forehead and knees and hocks but underside bare.

The sheep provides milk, wool and meat.

There are very few examples left. The decline in numbers is due primarily to the low value given to the breed's wool, and its small size means that local populations have favored larger breeds with more meat.

IER (Institut d'Economie Rurale)

We met with Director-General Aly Couriba and Amadou Sidibé, responsible for grains.

The IER does an excellent job of classifying local seeds, providing the pre-base seeds to Malian communities. They could be involved on the

research side. They are very knowledgeable about local varieties.

There are over 50 local varieties of fonio. Some local examples:

- 1. Tioi Hanekui/Tominian origin (90 days)
- 2. Peazo Sariekuy/Tominian origin (90 days)
- 3. Tama Tioi Sariekuy/Tominian origin (90 days)
- There are other African varieties of fonio:
- 4. Niatia Guinea Conakry origin (95 days)
- 5. Yokountre Guinea Conakry origin (90 days)

They confirm that the "riz du fleuve" from the Gao, Ségou, Mopti and Tombouctou regions that the elderly leader of the Tuareg community talked to us about is *Oryza glaberrima* rice, and that it has a better flavor.

Other local varieties of cereal they tell us about:

- Kram kram (in the north, Tombouctou region)
- Nenuifa (aquatic species): the grain is eaten
- Korkorus (fafacueilli): leaves used in the north, in the Tombouctou region, to make a sauce
- Pastèque sauvage (moussa moussa melon): the seeds are also used to make a sauce
- Wild amaranth (niuku)
- Wild sesame white sesame (used in sauces)
- Wild millet
- Pois bambarà (Wanzoo) (in the north, Tombouctou region)
- Courcourus (legume)
- Alkama wheat (in the north, Tombouctou region: arrived in 1490 with the Moroccan empire, in the north in Tombouctou
- Sorgo de Mar (under-utilized sorghum variety)
- Sorgo de Decru (under-utilized sorghum variety)

CNOP – Diakaridia Diarra (Platteforme des Organisations Paysannes du Mali)

Around 185 associations and cooperatives form the Platteforme des Organisations Paysannes du Mali (PFOPM), which works throughout the country. The associations are united by the commitment to participate responsibly in the drawing up of agricultural policies and in the sustainable management of rural resources for development in harmony with nature. In particular, the PFOPM builds the capacity of member associations to lobby on issues like food security and rural development, and supports them by facilitating their access to national and international production factors.

SEXAGON – Faliry Boly

Sexagon is a federation of rice-producing cooperatives in the Niono region. They buy the pre-base seeds from the IER every three years. Interesting cooperative situation in Mali.

They will be invited to Terra Madre.

Sinignesigi Ton - Bacary Fofana

The "Sinignesigi Ton" organization, whose name means "we predict the future" in Bambara, brings together producers in 27 villages in the Timissa municipality, in the Ségou region, to promote many activities, relating to literacy for women and young people, mother and child health, the production of seeds and the processing, marketing and sustainable management of natural resources. Sinignesigi Ton also supports a community radio station, whose frequency reaches into Burkina Faso, Côte d'Ivoire and Guinea Conakry. The radio station's aim is to inform and promote food sovereignty in Africa, inviting producers to describe the positive experiences they have had with the support of the Sinignesigi Ton organization.

Dogon Country

We meet the Cooperative of Young Bandiagarà Processors (supported by the Re.Te NGO) They are all part of the P.D.Co. (Projet de Developpement Communautaire) NGO, chaired by Mamadou Guindo.

This cooperative has eight members and processes the following products:

- Liane: African andolfia or zabà in Bambara
- Tamarind
- Hibiscus
- Baobab
- Wild raisins
- Ronier

They also tell us about the rock honey from the Touppere village. This honey is obtained from natural hives found inside a cave. The day when the honey is collected is decided by the oldest inhabitant of the village. The honey is also used for curative purposes.

PROBLEMS FACED AND ENVISAGED SOLUTIONS: The only problem during the mission was the impossibility of traveling north to the Tombouctou region because of security measures imposed by foreign embassies on their citizens. As a result we could not visit grain producers, and the visits will be postponed until January.

CONCLUSIONS AND RECOMMENDATIONS: Following the mission to Mali, it is clear that there is a strong interest in all the agriculture-related programs in the country. The desire to develop the agricultural sector is probably partly due to the scarcity of mineral resources in Mali compared to neighboring countries.

What emerged during the various meetings is the desire of all the actors to develop "Malian" production and distribution chains, even for products like cotton that are inevitably destined for export. It its worth emphasizing that the issue of typical, local products and their presence within city sales networks (markets, shops, supermarkets) is growing in importance. In fact it is possible to find fresh produce and particularly processed products (flours, jams, grains) as well as culinary and medicinal herbs packaged and labeled by local businesses. This highlights the existence of Malian and expatriate consumers interested in buying local products.

Additionally, apart from the contingent political problems in the north, tourism routes are currently being developed throughout the country which can easily complement the issues of local production.

In light of these brief considerations, it is possible to affirm that there are many projects that could find a raison d'être in Mali, in partnership with local farmers' associations, formal and informal groups of producers and processors and universities.

Further discussions and analysis will be necessary to select a product that could become a Presidium. At this stage we suggest the following shortlist: Tuareg dairy products, minor grains and derivatives, Macina sheep.

Milk and Dairy

We do not currently have in-depth information, but from various meetings it would seem to be interesting to evaluate a project linked to the traditional use of milk and dairy products by the Tuareg community. These include milk, curdled milk, butter, fresh cheeses and long-life products (a bar of "dried milk"), from cow's or goat's milk. In such a case, the project could be focused primarily on historical and cultural aspects rather than taste and gastronomy. It could be a good departure point for telling the story of one aspect of Tuareg culture and in some ways also the story of Mali through certain traditional products. Such an approach could be amply "exploited" as part of the on-going tourism development of the Tuareg area.

Currently CIRAD and the local actors work mostly on the large-scale production of cow's milk, its processing into commercial fresh cheeses and its distribution (in association with large businesses in Bamako). However we should exclude their involvement in local supply chains or their role as sources of information on the milk production and distribution chain in Mali.

In terms of selecting communities of farmers to work with, another mission to the area will be necessary, as will the support of the Tuareg community and the FAO office.

In this category, the establishment of a Presidium could be interesting primarily in terms of cultural aspects.

Minor Grains

As in other African countries, the issue of reviving and promoting minor grains seems to be very interesting. As already mentioned, some projects already exist, for example for fonio, and it is possible to find this grain in shops and markets in Bamako and elsewhere. Mali's graingrowing region is in the north (Tombouctou region), where it seems that alongside sorghum, millet, fonio and kram kram there was also a significant production of wheat during colonial times (in fact the area is remembered as the granary of Mali). Aspects of particular interest are the possible presence of local eco-types (to be verified) and especially the preparation of breads and sweets based on wheat flour.

If it is necessary to do a planning evaluation for minor grains, taking into consideration their presence in other Saharan and sub-Saharan countries, in terms of wheat it could be very interesting to acquire more information and carry out a site visit to speak with the local communities.

In addition to groups of producers, IER, CIRAD (perhaps only for fonio), IRPAD and Mali's FAO delegation could serve as local contacts for information support.

For wheat, there is the possibility of establishing a Presidium for the historical, varietal and processing aspects.

Meat/Wool

During various meetings, the Macina sheep was indicated as a breed at risk of extinction. It seems that this breed has been gradually replaced by other non-local breeds because of the small size of the animals, and above all because of the prevailing belief that the production of wool does not have a significant market. So the sheep is used for its meat and milk, but with much lower yields than other breeds in the country. Both the FAO Mali delegation and CIRAD cited in-depth studies on the current worth of the breed and it seems that projects have also been proposed which are not currently funded.

It could be very interesting to acquire more information and to carry out a site visit to speak with the local communities.

The possibility of establishing a Presidium should be considered because the breed is at risk of extinction, even though prevailing attitudes (wool) still need to be clarified and possibly also the quality of the meat.

While waiting to verify the information, it could be interesting to think about involving farmers within the wool network (Slow Food Italy project).





Slow Food Foundation for Biodiversity



"Promoting origin-linked quality products in four countries (Guinea Bissau, Mali, Senegal and Sierra Leone)"

Senegal

Report on the first mission to identify local quality products and their producers (see item b. in Description of the Activities, Terms of Agreement/Project Document).

Mission from 5th to 13th March 2010

BACKGROUND OF THE MISSION

The mission was the first in the framework of the project. The Slow Food Foundation for Biodiversity has been working with food communities in Senegal for some years. Both members of the mission¹ had some knowledge of the gastronomic culture of the country, as well as of the background of local agricultural biodiversity. Senegal has a rich gastronomic culture; the great variety of ethnic groups and ecosystems contributes to such diversity. This, as well as the remarkable dynamism of rural communities and civil society, was one of the mission success factors.

TERMS OF REFERENCE:

The mission aimed at identifying the highest possible number of origin-linked quality products in the regions of Lough, Dakar, Natick and Tambacounda;

collecting relevant information on the communities who produce the above mentioned products;

identifying possible partners for the further identification of origin-linked quality products;

meeting the Coordinator of the FAO regional project GTFS/RAF/426/ITA ("Inter-country Coordination for West Africa Food Security Projects")

EXECUTIVE SUMMARY

The first mission in Senegal took place on the second week of March and involved Piero Sardo, the President of the Slow Food Foundation for Biodiversity, and Velia Lucidi, Slow Food desk officer for activities in Senegal. Ezio Giraudo, agronomist and technical advisor of the project, should have joined the delegation on March 8th in Dakar, but due to delays of TAP – the airline he was flying with – he could not participate in the mission.

During the stay in Senegal, the producer and processor communities identified during the first phase of the project (desk research: see item a) in Description of the Activities, Terms of Agreement/Project Document) were visited. The delegation went north, to Louga, where it met the person in charge of FONGS² in Louga, the representatives of the Farmers' Association FAPAL³, and the farmers responsible for the three agricultural-economic areas in the Louga region. The delegation then moved south of Dakar, to the Province of Joal Fadiouth, where it met the community of women who produce the salted cous cous from Fadiouth Island, and to the Saloum Islands, to Dionewar, where it met the communities of women gatherers of shells from the three villages of Falia, Dionewar and Niodior. The delegation finally travelled to southeast Senegal, to the regions of Tambacounda and Kedougou, where it met the Bassari community, which produces fonio.

About 25 interesting products - vegetable varieties, local animal breeds and honeys - have been identified: local cereals, such as sounà millet, fonio and countless varieties of rice, a few legumes, such as the niebé bean, some local and chicken breeds, several spontaneous fruits and finally mangrove honey.

 Piero Sardo, President of the Slow Food Foundation for Biodiversity and Velia Lucidi, Slow Food desk officer for Senegal, participated in the mission.
 Fédération des ONG du Sénégal
 Fédération des Associations Paysannes de LOUGA A few processed products also seem interesting, such as the "liquid butter" of Peul or processed products derived from niebé, such as thiakry or niebé cous cous, the salted cous cous from the Saolum Islands or some traditional coffee based drinks.

Given the high quantity of typical and traditional products in Senegal, the possibility to continue the search to identify traditional products with two local experts⁴ who possess a deep knowledge of the local gastronomic and agricultural culture and can help us deepen our work has been explored.

The products and the respective producer communities visited during the mission which seem to be the most relevant for the purposes of the project are the following: salted cous cous from the Island of Fadiouth, mangrove honey from the Island of Falia, Bassarì fonio, niebé bean and several spontaneous fruits from the Saloum Islands. However, we reserve the right to change and widen this list, as the research work, as well as the tasting and analysis of samples are still under way.

Possible future partners have been identified: the Farmers> Associations met – such as FONGS - FAPAL, the NGO Wula Nafaa, Fenagie Peche and Roppa.

DESCRIPTION OF MEETINGS

Saturday 6th March

Dakar Arrival in Dakar, 3.00 am.

10.00 am Meeting with Madieng Seck, of the monthly magazine Agri Infos and founding member of the Syfia International Agency, a press and communication agency on the rural world. Mr Seck coordinated our visit to Senegal.

11.00 am Visit to the two most important markets in Dakar: marché Karmel (called "marché des blancs" by the Senegalese) and marché Sandaga. The aim of these visits is to analyse the type and origin of products sold at the most important markets in the capital city. Several Asian products are sold (rice, peas, lentils, spices and various canned products) and even large quantities of fresh vegetables come from China (such as cabbage, turnips, courgettes and potatoes). There are also products imported from Europe: Spanish tomatoes, 00 wheat flour, Italian oranges and pasta, Dutch onions and powdered milk and French butter and potatoes.

Among local products, there are several varieties of niebé beans (white, black and grey), a local millet variety (Sounà), Jub Jub (Wolof name for a wild fruit) and especially many herbs for the preparation of infusions used in traditional medicine (such as Nguerr and Moruboff – these are Wolof names).

12.00 am Lunch at Le Point d'Interrogation I. This restaurant serves typical Senegalese dishes of high quality and it was opened by a lady who is a cook of the Terra Madre network.

2.00 pm Departure for Louga, in the north of Senegal

4.00 pm We stop in Thies to visit the Organic Exhibition

The exhibition includes 15 stands which sell organic fertilizers, vegetables, fruit, cereals (rice and millet) and local seeds.

We meet the **Groupement Bio Seel Seelal Ak Defar Djiko**, **Keuri kao**. This is one of the main groups of organic producers in the province of Thies. Their stand is clean and well presented and includes several products, such as:

Seurap, a vegetable which belongs to the turnip family, but with a stronger flavour

Cous cous of red niebé Mouracke (red husked niebé and sugar) Banthe "coffee" (manioc coffee) Sounà millet Sorghum

This is a very interesting organisation which may be interested in Terra Madre and in the Slow Food network in Senegal.

We meet the **Federation Woobin of Keur Moussa** (17 km away from Thies, it includes 37 villages). This federation was founded to promote sustainable development within the Keur Moussa communities. One of its main activities is the promotion of a local chicken breed (called sekh in the local language) through a vaccination and feed improvement programme.

Breeds are distinguished according to the colour of plumage.

Wolof names of local breeds:

- Red chicken: Sekh Tirr (Tirr is the name used to indicate the red colour of palm oil)
- White and black chicken: Sekh Petaw (this is the term used to indicate the colour of kouri shells)
- All white or all black chickens: Sekh Benu Mello (which means "one colour"), these are the chickens used in ritual sacrifices to ask for the help of spirits.

⁴ The two people are respectively Malik Sow, representative of FAPAL in Louga who will follow the research in the north of Senegal, in the regions of Louga and Saint Louis, and Bineta Coly, who is responsible for some programmes of MPNBRLA/USAID Programme Agriculture Gestion des Ressources Naturelles "Wula Nafaa II" and who will follow the research in the regions of Tambacounda and Casamance.

We meet a **Group of women who grow local rice varieties (in Ndof, Fatick region)**, represented by Assane Gueye (coordinator of the programme who works for the NGO Agricole).

This group of women is supported by the PROFEIS programme (Promoting farmer experimentation and innovation in Sahel), funded by the German non-profit organisation Misereor which works in Senegal and Mali.

The programme supports these rice producers with the aim of recovering the seeds of local varieties. To date, they have identified 11 varieties for which the group is autonomous and able to reproduce seeds.

- Here are a few: • Singtang
 - SingtangoBacaunda Ball
 - Bacaunda Ban
 Saliou Ndiongar
 - Merthete
 - Merthete
 Helctere
 - Helectere Precoce
 - Bacounda Yeekh
 - Merthete Precoce

This seems a very interesting experience to involve in the project, so we decide to take note of their contact details and our local contact, Mr Madieng Seck, will visit them in the following months, during the harvesting season, to gather more information on the programme and the rice varieties grown.

We meet Mr Doudou Diop (president of FE.N.A.B. – the National Federation for Organic Agriculture) who explains how, in his opinion, the main problem for small producers are multinationals who want to have access to the seeds of local varieties in order to patent them, while they belong to village communities. He explains that the Copagem⁵ Federation works to help farmers protect their seeds.

8.00 pm Arrival in Louga.

Sunday 7th March

Louga

10.00 am Meeting with Malik Sow, contact person of Fapal. Fapal (Federation des Associations Paysannes de LOUGA) is a farmers' association

which belongs to FONGS, a federation of 31 farmers' organisations throughout Senegal which also includes Cncr⁶, Roppa⁷ and Copagem. Mr. Sow may be the person who will help us identify local products in the north of the country. He knows Slow food and Terra Madre and is very knowledgeable in topics related to agriculture and animal farming.

The Louga Region is divided into 3 areas: one area devoted to agriculture, one area devoted to animal farming and one area devoted to the production of peanuts and beans. The three main ethnic groups are the Peul, the Wolof and the Mor.

We visit a Peul cattle farmer while his animals are grazing. Senegalese cows can be subdivided into three categories called – in the Wolof language – **Goubra** (big-sized, with long horns), **Ndame**, (small-sized) and **Pourndame** (medium-sized). Black cows come from Mauritania and for this reason they are called **Mauré**. Some cows are also imported from Brazil; these are farmed for meat consumption. Senegalese cows are used mainly for milk production. Milk is drunk fresh or used to prepare a few traditional dishes (such as a typical dessert called thiakry, or to cook "couscous et sanglé"). A product derived from milk is milk oil: a liquid butter used as condiment on rice or to cook. When old, cows are butchered for meat consumption. "Before, they used to live until they were 20, now – due to a decrease in the quality and quantity of their diet – they live about 12-15 years", the cattle farmer explains. During the day, cows graze freely and at night they sleep outdoors, in the same place. Males are kept in the herds, and they are considered prestigious animals for cultural reasons. A census of all heads of cattle in the Louga farming area has never been carried out. There are some official figures, but they do not match reality. As for milk production, during the rainy season – which in recent years has only lasted about 2 months – cows produce a maximum of 4 litres a day and are milked only once a day, in the morning. In the summer, milk production drops to about 1,5 litres a day.

The fat content of milk has never been measured, but about 30-35 litres of milk give about 2 litres of butter. We can therefore assume that milk has a 7% fat content. Butter is produced all year round, with a production peak in the rainy season.

11.00 am Meeting with Fapal

5 Copagem means " Coalition Pour la Sauvegarde Du Patrimoine Génétique Africain" and is a coalition promoted by Inades, Accord Sahel, Grain and other organisations of civil society. Its mission is to safeguard and sustainably manage the vegetable genetic resources of Africa. It promotes actions to ensure that vegetable genetic resources become the property both of the State and of local communities and are used for the benefit of everyone, current and future generations. Its goal is to protect the diversity of African flora - especially the species used by man as food – from the speculation of agricultural-industrial multinationals. In particular, Copagen works to raise awareness in the African rural world on the dangers related to the introduction of GMOs in the national agriculture. A tool used by Copagen is the lobbying campaign with African political institutions, so as to help government leaders adopt and implement laws that safeguard the African genetic heritage and support the strategic interests of local communities.

6 Conseil National de Concertation et de Coopération des Ruraux 7 Network of Western African farmers' and producers' organisations Moussa Ndiaye, the president of Fapal, and the representatives of the three agricultural, wood and animal farming areas were present at the meeting (the complete list of all participants is provided in the Annex).

We are explained that the rainy season in Louga lasts 2 months, so farmers are trying to improve seeds and adapt them to short cycles – traditional seeds sometimes do not have enough time to reach maturation. There is underground water, but there is no infrastructure to pump and use it.

As for sowing, in the past seeds were often mixed for the majority of vegetables and cereals, while today the only mixed cultivation is that of peanuts (50 kg) with niebè (2-3 kg). These are the two most abundant productions in the Louga region. As far as associated crops are concerned, millet and niebé are associated, although in general – given the difficult harvest – there is usually one plot for each product. In the past seeds were selected and reproduced at local level. Today, the most productive varieties are bought from a research centre in the city of Bambey. Nevertheless, old varieties are still considered nutritionally richer and superior in terms of organoleptic features. Unfortunately, the increase of desertification barely allows for these cultivations as they need at least 3-4 months of rain (rainy season in July, August and September). Local cereal varieties (such as millet and sorghum), niebé and cassava are mainly eaten by the families who grow them and, in case of surplus, sold at local markets. Both long-cycle and short-cycle sorghum varieties are grown. The yield of sorghum is about 600 kg per hectare and it is mainly used to feed animals. Endemic varieties are selected by choosing the thickest spikes, with the highest number of grains. Most of the fruit and vegetables area is devoted to the production of onions. The two varieties grown are the so called "Violet de Galmi" and the "Rouge d'Amposta" (red onion). Seeds are bought from Tropical Sem and Shim and are modified varieties. All products derived from niebé – such as niebé cous cous and niebé thiakry - are interesting for the project purposes, as they are strictly connected to the territory and to Senegalese gastronomic culture.

3.30 pm Departure for Dakar

9.00 pm Arrival in Dakar

Monday 8th March

Dakar

10.00 am Meeting with ITA (Institut de Technologie alimentaire).

Piero Sardo, Velia Lucidi, Madieng Seck, Amadou Wade⁸, Modou Mbaye⁹ and Oumar Dieme¹⁰ participate in the meeting.

With ITA, a likely partner for future projects in Senegal, we discuss a possible cooperation in the field of basic hygiene training in food production and processing.

ITA could provide training on:

- Packing and transport
- Processing methods to obtain standard products
- Good production and food hygiene practices (ASEO, risk prevention)

In order to ensure a successful training, it should be aimed at a maximum of 10 people.

3.00 pm Meeting with Senegalese Slow Food convivium leaders at the Mermoz Sacre Coeur.

Slow Food convivium leaders have been informed of the FAO project and its objectives. Slow Food members in Senegal will therefore contribute to the collection of information in their communities, also involving the elderly, with the aim of identifying traditional products relevant for local gastronomy and culture.

9.00 pm Dinner with Moustapha Ndiaye¹¹

Tuesday 9th March

Dakar

10.00 am Meeting with Mr. Amadou Ouattara (FAOSN). Daniele Salvini¹², Madieng Seck, Piero Sardo and Velia Lucidi participate in the meeting. Mr. Ouattara is explained the mission of the Slow Food movement and the objectives of our mission in Senegal. He is also given a detailed report of the first three days spent in Senegal.

1.00 pm Departure for the Saloum Islands

4.00 pm Meeting with the community of Joal Fadiout (Petite Cote), women producers of salted cous cous.

9 Ancar operator (Agence Nationale Conseil Agricole et Rural)

⁸ Coordinator of the Technical Support Section – Fenagie Peche (Federation of the fishing EIGs in Senegal)

¹⁰ Head of the fruit and vegetable section at ITA (Institut de Technologie Alimentaire)

¹¹ Special Councillor to the President, economist, inspector for large projects of the State, coordinator of the Supervision Sector for Large Projects and member of the President task force

¹² Inter Country Coordinator GTFS/RAF/426/ITA



Fadiout is located on an island made entirely of shells and can be reached from Joal through a long wooden bridge. The inhabitants of Joal Fadiout are very proud of their religious tolerance, as Christians and Muslims live peacefully with one another. The mayor of Fadiouth Mr **Jacques Ndong**, and the various EIGs of the island (the list is provided in the Annex) participate in the meeting. The typical product of this island is "salted cous cous". This is a millet cous cous and is called "salted" because grains are first washed in sea water. This operation gives the cous cous a strong smell and taste of sea and sea salt. This is a typical hand processing method followed by the women of Fadiouth Island. The millet is husked and decorticated, the grains are then washed in sea water and finally steamed. In the past, women walked to the ocean to wash their cous cous is a perfect accompaniment for fish. It is a local excellent product and has all the features to become a Presidium. It would be necessary to carry out a few tests to assess the purity of the sea water where the cous cous is washed. We take a sample which we will have analysed by the Chamber of Commerce of Turin.

For these women, we may envisage a processing laboratory which would ensure the production of a higher quality product. There are some premises in the village which could be used as processing areas. Slow Food may assist with marketing and sales. We taste two local recipes: Mbambou – Hane, a dish made with mangrove fruit and peanut butter and Neveday, prepared with mangrove leaves.

9.00 pm Arrival in Djifer.

Wednesday 10th March

Saloum Islands – Dionewar 9.00 am Meeting with the three villages of Falia, Ndiour and Dionewar.

In Dionewar Island, located in the Saloum delta, there are three communities/villages (**Dionewar, Falia and Niodior**) where women gather and process shellfish as well as the island wild fruits.

The main problem is the more and more evident reduction of sea resources, due to industrial exploitation and the change in the ecosystem caused by the breaking of the Pointe de Sangomar, which led to an increase in the water salinity, an increase in population and the difficulty to improve and differentiate local productions. On the Islands there is great abundance of wild fruits, such as roselle, baobab fruit, ginger, tamarind, ditakh and new, which are gathered by women to make very tasty and vitamin rich syrups and jams.

The Slow Food Foudation for Biodiversity – in cooperation with a local agronomist – has developed a descriptive study of edible fruits which are economically interesting for the local population and can be processed. Descriptions are based on a questionnaire filled out during interviews with people in the Soloum Islands and Dakar and at focus groups organised by the EIG of the women who live in the villages. The study highlights a rather diversified vegetation and flora on the Saloum Islands, linked to the geomorphology and pedology of the area. Two large groups of plant formations can be found: plants which cover underwater areas and their edges and those which cover land areas.

The mangrove is the most important plant formation of the fist type, while the interior of the islands is characterised by vegetation typical of Soudan: <u>Detarium senegalense (ditakh)</u>, <u>Parinari macrophylla</u> (new tree), <u>Tamarindis indica</u> (tamarind tree), <u>Ceiba pentandra</u> (ceiba tree), <u>Eleis guineensis</u> (oil palm), <u>Cocos nucifera</u> (coconut palm) etc.

Among typical products, the women of the Islands highlighted the following:

- 1. Mangrove honey (Falia)
- 2. Palm oil (they have problems with harvesting and processing)
- 3. New this is the name of the fruit of a local wild tree, whose almond is eaten. It is eaten similarly to peanut butter or fresh peanuts. An oil called "rich", used as a condiment, is obtained from the grain.

We notice that women are not well aware of the products of the island, so it would be necessary to promote and raise awareness on local products, involving the groups of local women and – for instance – schools.

Mangrove honey¹³ could be an interesting product for the purposes of the project.

4.00 pm Departure for Tambacounda

10.00 pm Arrival in Tambacounda. We sleep in the house of Bineta Coly, a Terra Madre cook and employee at Wulanafaa, a Senegalese ONG supported by an USAID programme. Bineta could help us identify the products and the producers in the Tambacounda and Kedougou areas, as well as in the Casamance region, where she originally comes from.

Thursday 11th March

Tambacounda 9.00 am Departure for Kedougou

10.00 Meeting with the Bassari community, the main fonio producers.

Local cereals exist, are varied, nutritious and appreciated, but in large cities many are losing the skills to use them. Only the elderly in cities and women in villages preserve this knowledge. Among local cereals, the most important are sorghum, millet, fonio and local or ancient rice varieties. We may also take lotus seeds into account, although this is only a marginal crop. Fonio can be found throughout Western Africa, but it is particularly typical in Senegal. Fonio was traditionally grown by women, as an additional food reserve before millet would mature. It is an ancient cereal in Africa and is particularly important for the prestige it gives the producer who grows it. It is often used as a dowry for daughters and is mainly eaten on festive occasions.

The Bassarì¹⁴ communities are the main fonio producers and processors. In the past, fonio was widely eaten by African farmers and citizens, but with the arrival of new cereals it began being considered as a less valuable cereal and its cultivation became marginal. As a matter of fact, it has a strong cultural value for Bassarì, especially on occasions such as weddings.

All seeds are bought in the village. Today fonio is becoming more important due to its nutritional properties. Market demand is growing, but production lacks behind.

Fonio fibres are used for massages and its powder to treat chickenpox.

ASPROF (Kolda): Senegalese association for the promotion of fonio, the president is Sherif Aidara (+221 776585447 - +221 766699242). ISRA is carrying out a study on the different fonio varieties in Senegal.

During the meeting with the women from the community, many other interesting products and processed products are mentioned, such as:

- Bouillie de Mangue (kedougou in Etiolo, village of Bassari)
- Fonio, 3 varieties: white (momokò, fast, three months), black (youckokou, slow, 4 months) and grey. Fonio is produced in the Kolda, Kedougou, Tamba and Seyu regions.
- Ussé fruit: it is black and its taste is similar to potatoes
- Tubercule Cape (Peul dialect), a tuber used to produce BUCAI (millet and tuber drink)
- White corn
- Etuvé rice (barabarà in Peular)
- Ognana
- Baobab coffee (made with baobab grains), rural community of Bala, Tambacounda road. Grains are roasted and the husked.

Due to still existing conflicts, we did not manage to visit Casamance. However, Bineta Coly highlighted a few products for that region.

- Ceiba tree honey (ceiba pentandra); ceiba is a wild tree whose wood is used to build pirogues and therefore is overexploited along the coasts of Senegal. It is a very clear honey.
- Leung (Wolof): wild fruit, bigger than an olive and very sweet
- Touloukauna oil
- A produced who makes cheese in Sediouh
- Fruit Madd, eaten fresh but also used for the preparation of a juice and syrup.

Friday 12th March

10.00 am Return to Dakar

Saturday 13th March

2.45 am Departure for Italy

PROBLEMS FACED ANVISAGED SOLUTIONS: The only problem encountered during the mission was the lack of the agronomist who should have travelled with the delegation. This absence was caused by the constant delays of TAP, the airline used by the delegation to travel.

13 The mangrove of Sine Saloum covers a surface of about 80,000 ha in the natural park of the Saloum Delta, in an intertropical area south of Dakar. Beekeeping, once improved, could be considered a profit making activity for this area, as well as an important factor for the safeguard of the environmental biological diversity.

14 Bassarì are one of the most ancient ethnic groups in Senegal. They are ancient hunters and live in south-east Senegal.

CONCLUSIONS AND RECOMMANDATIONS: The mission gave us the opportunity to identify many interesting products and contacts. This will allow us to proceed with the mapping of products in the regions of Louga, Saint Louis, Dakar, Fatck, Tambacounda and Casamance. In particular, we are signing a cooperation contract for this project with Madieng Seck, Malick Sow and Bineta Coly.

It is necessary to deepen our knowledge of eating habits – and their changes in recent years –, specially in the capital city. Madieng Seck will probably be our interlocutor for this aspect of the research.

An analysis of the water where the salted cous cous of the Solum Islands is washed will be carried out.

The descriptive sheets for the 25 products identified during the missions will be prepared, but the mapping work will continue in cooperation with the above mentioned people.

To date, the following products are shortlisted for the selection of the next Senegalese Presidium: mangrove honey, salted cous cous, niebé, and fonio.

Velia Lucidi, the Slow Food desk officer for Senegal, in cooperation with the coordinator of the project at the office of the Slow Food Foundation for Biodiversity in Bra, Michèle Yperman, and the scientific advisor for Senegal, Professor Ezio Giraudo, will write a first draft of a comprehensive descriptive document covering all these products (including producing communities, quality of the product, link with the territory, nutritional aspects, anthropological aspects linked to consumption, commercial issues, etc.).

A list of interlocutors/representatives of rural communities to be invited at Terra Madre will be prepared. We are currently looking into the possibility to let the most interesting interlocutors met in the 4 project countries – and who will come to Terra Madre - stay one or two extra day in Turin after the 4 Terra Madre days.





Slow Food Foundation for Biodiversity



"Promoting origin-linked quality products in four countries (Guinea Bissau, Mali, Senegal and Sierra Leone)"

Sierra Leone

Report on the first mission for the identification of origin-linked products and their producers (see item b. in the Description of the Activities, Terms of Agreement/Project Document)

Mission from 22nd February to 1st March 2010

BACKGROUNG OF THE MISSION

The mission was the first one in the framework of the project. It was also the first contact of the Slow Food Foundation for Biodiversity (SFFB) in Sierra Leone, as the Foundation, so far, has never had any activities or projects in that country; nor are there any Slow Food members.

The Slow Food delegation was assisted in the days before and during the mission in the country by the FAO office in Sierra Leone through the FAO Representative Mr Kevin Gallagher and his assistant Mr Fulvio Cenci.

The list of the people contacted before the mission is the following:

- FAO Sierra Leone

(Visited communities: Koinadugu Vegetables Farmers (Kabala) - MUSAYA HONEY BEES ASSOCIATION)

- ENGIM internazionale (Giuseppini del Murialdo National Organization) Turin, Italy.

Contact person in Italy: Paolo Daghero Contact person in Sierra Leone: Maurizio Boa Visited communities: Kent fishermen School of Agriculture of Padri Giuseppini del Murialdo

- FEDERCOOPESCA, Rome, Italy

Contact person in Italy: Luca Coccia Contact person in Sierra Leone: COTTON TREE FOUNDATION (Michael Momodu Kamara) Indicated community: Songo and Bumbuna ginger producers

SLAFU (Sierra Leone Artisanal Fishermen Union)

Contact person in Sierra Leone: Thomas Spencer Visited community: Tombo fishermen

– SLAAH (Sierra Leone Alliance Against Hunger)

Contact person in Sierra Leone: Francis Webber Visited communities: Rice producers' community from Mokundi, Moyamba (south) Rice producers' community from Jaima or Talu Bongor chiefdom, Bo district Gbotima Women's Organization

in collaboration with Ndegbomei Development Association

- FRIENDS OF THE EARTH Sierra Leone

Contact person: Olatunde Johnson

– CESTAS (Centre for Health Education and Appropriate Health Technologies)

University of Makeni, meeting with the agronomist Joseph Tholley

- MICROCAMMINO

Contact person in Sierra Leone: Peter Bayuku Konteh

- COOPI (International Cooperation)

Contact person in Sierra Leone: Marco Serena Visited community: Gloucester gardens community

– WWOOF Sierra Leone (World Wide Opportunities on Organic Farms)

Contact person in Sierra Leone: Shed Jah

TERMS OF REFERENCE

The mission aimed at

- identifying as many as possible origin-linked quality products in the regions of Freetown, Koinadugu, Bombali and Bo,
- collecting information on food consumption habits in the country,
- collecting relevant information on the communities who produce the above-mentioned products and
- identifying possible partners in the further identification of origin-linked quality products.

EXECUTIVE SUMMARY

The mission included the following persons: Serena Milano, Secretary of the Slow Food Foundation for Biodiversity, Michela Lenta, Slow Food Africa Office (desk officer for Sierra Leone) and Cristiana Peano, technical advisor of the SFFB (Agronomy Faculty of Turin University). They visited various food communities in Sierra Leone to understand the context of food consumption and food production and identify some traditional and local products.

The visited communities are those of producers and processors identified in the first stage of the project (desk research: see item a. in the *Description of the Activities, Terms of Agreement/Project Document*). Two small communities of local fishermen were visited in the surroundings of Freetown: the Hope of Kent association and the SLAFU association (Sierra Leone Artisanal Fishermen Union). During the second phase of the mission, two rice producers' communities were visited in the rural area of Bo, in the Southern Province: the community of rice producers from Mokundi, Moyamba, and the community of rice producers from Jaima, in Talu Bongor chiefdom. Eventually, the delegation moved to the northern region of Sierra Leone, to Kabala, in the province of Koinadugu, where the communities indicated by FAO SL were visited, i.e. the community of Koinadugu Vegetables Farmers, producing Tea Bush, and the MUSAYA HONEY BEES ASSOCIATION. Other visits were also scheduled in the province of Kenema (south-eastern part of the country) to meet coffee and cocoa producers, but both for a lack of time and for the product poor quality (especially coffee, grown at insignificant heights, therefore considered of scarce quality), it was decided to cancel the visit, but to include the products in the research.

As a result of this mission, around twenty products - vegetal and several local varieties of rice and honey - have been identified:

Towawa bean Konsho bean Eyed pea Chilli pepper (variety identified by COOPI) Cola (wild and cultivated). Sorghum (Sorghum magaritiferum) Millet (Pennisetum sp) Cassava (Manihot sp) Ginger (local) Mango (two varieties: Loti and Cherry, the first in the area of Lunsar and the second in the area of Kabala). Oranges Groundnuts Moringa Local varieties of rice: (several red/brown belonging to the O. Glaberrima variety) Gbengbe

- 'Ngetech Nduliwa Ngoloyumbu
- Maika

Jumukui Wusuì Jbonguè (grown dry, white and red) Cotubonguè (grown in water) Jewulé (grown dry, white and red) Patè (grown in water) Doboguì (grown dry, red) Jabassì (grown both dry and in water) Salè (grown dry)

Ocimum basilicum (patmanji) Basella alba (broad bologi) Crassocephalum biafrae (bologi)

Bush Tea Bush (Hyptis Suaveolens) Tea Bush (also known as Fever Plant - Ocimum Gratissimum, Occimum Americanum, Ocimum viride) Kabala forest honey Tciu Tciu, type of local vegetable grown in the gardens (green, same size of a pepper) Tola (powdered okra) Ginger drink, ginger beer

Considering the difficulty to gather information on traditional cultivars¹ and to find a developed gastronomy, we believe it is necessary to carry on with this product survey in collaboration with two local experts² who have a wide knowledge of local producers, local gastronomy and farming culture.

The products and the respective communities of producers visited during the mission which we think to be most relevant to the project are: honey and Bush Tea Bush of Kabala producers, cola and some local bean varieties. However, we wish to further change and enlarge this list, considering that the research, tasting and analysis of the samples are still in progress.

In addition, possible future partners have been identified, such as NGOs and Italian or international associations willing to collaborate with us in this process:

ENGIM internazionale (Giuseppini del Murialdo National Organization), COOPI (International Cooperation), FEDERCOOPESCA, CESTAS (Centre for Health Education and Appropriate Health Technologies), WWOOF Sierra Leone (World Wide Opportunities on Organic Farms), MICROCAMMINO.

DESCRIPTION OF THE VARIOUS MEETINGS

1. Visits to the markets

The purpose of these visits was to analyze the type and origin of the products sold in the most important markets of the capital. We found several Asian products (rice – especially from Brazil, Vietnam, and Pakistan – apples from China as well as a lot of canned food). Supermarkets and markets also sell several products from Europe and the USA: stewed pork knuckles, milk from the Netherlands and Ireland, mayonnaise from the USA and UK, beans, jams from Belgium and the UK, tuna fish from Thailand, honey from Germany, etc.

Markets visited in Freetown

- Kinjimny terraced market, overlooking the sea, wooden facility
- P2 Area market, on the roadside

Markets visited outside Freetown

^{1 &}quot;Old cultivars or landraces of crops held by local farmers and maintained from one cropping season to another, were still in use in this country up to the end of the 1980s. But due to the disruption of the farming system, burning of villages and forced migration of the rural population to the larger urban centres by the rebel incursions (1991 to now), there is no guarantee for the widespread existence of old cultivars and landraces. Although limited information is available on the use of traditional varieties of food crops, yet some agriculturists in this country are knowledgeable of important landraces of staple food and cash crops, maintained by farmers in specific areas in the country." Sierra Leone: Country report to the FAO International Technical Conference Plant Genetic Resource, Freetown, June 1995

² The two experts are: Mr. Joseph Tholley, agronomist at the University of Makeny who will follow the researc in the northern area of Sierra Leone, in the regions of Bombali and Koinadugu, and Mr. Shed Jah, responsible for WWOOF SL in the south-eastern part of the country.



- market in Bo district, near Njala University
- Kabala market

These are mainly retailing markets.

The second market sells above all imported industrial products, such as soup cube, chicken broth, and powdered milk.

Of the locally grown/harvested/prepared products we stress the following:

Groundnuts (also in paste, sold in small plastic bags) Eyed beans (small, white, with a black eye) Big and flat beans (like broad beans) of different colours (white, brown, reddish, black) Pidgin or konsho beans (small, round, dark pink) Ginger (smaller variety) Cassava (manioc) and potato leaves; fresh, in small bunches. The women chop the leaves with a knife. While in the second market, the leaves are cut by men with a machine (also used to make groundnut paste). Cassava Yam Mint Cultivated cola, round and flat fruits with an irregular shape, same size of a walnut husk, with the skin ranging from white to pink and burgundy red. Wild cola, smaller, with brown skin, white inside, much more bitter Fruit: pineapples, bananas, platans, mangos, oranges, limes Fresh fish (sometimes preserved in ice) and smoked fish Live poultry (hens, ducks in cages) Tombi: orange balls made with tamarind seeds, very sweet. Kneaded and made directly at the market by women and children. Black Tomble: wild plant. Small dry bushes with small black fruits (the pod is black and velvety. What is eaten is the pulp between the pod and the seed, rich in vitamin C). Radish Onions and garlic (hybrid) Eggplants: purple (imported or cultivated) and white or yellow, small size (local variety). Different types of chilli peppers, small, red and green. Consho bean: this type of bean is grown especially in the north and needs a lot of water. Crain crain: horseradish seeds, black and tiny. Boaboi (Africa almond- Tarrietia utilis) wild nut, very sweet. Fufu: cooked cassava balls eaten with a sauce.

Not many spices. A little corn. No millet. No flours.

2. Kent fishermen community (Freetown peninsula)

Situated along the southern border of Freetown peninsula, the Kent fishermen community consists of 700 people.

They are supported by a project developed by the religious association of Padri Giuseppini del Murialdo (ENGIM Internazionale), managed by Father Maurizio Boa.

The established association is called "Hope of Kent" led by a woman, Christiana Sesay.

The community, made up of 30 fishermen, owns 6 boats (narrow wooden boats, long and pointed), with five fishermen per boat. Each year they allocate a sum of money to be put in the bank as fund for the whole association.

The catch mainly includes: mackerel, barracuda, lobster, red snapper, herding.

They have common premises and recently they have also purchased a new cold room (thanks to a fund by the Region of Sicily, Italy). The fish is also sold to two restaurants in Freetown (Florence's restaurant, managed by an Italian, and a second Lebanese restaurant).

3. School for Agriculture of Padri Giuseppini del Murialdo

In Lunsar, the association Padri Giuseppini del Murialdo manages a vocational agricultural school and projects with 7 villages. This learning centre is considered one of the best in the country. In particular, the laboratory for water, soil and food analysis deserves special mention. The project promoted by the Fathers in the villages is very interesting as their goal is to involve young people in the farming sector, to convince them to stay in the villages and improve the territory. One of the projects is about the creation of rice warehouses, so that the sales of this cereal will be managed by village associations and not by single farmers and producers will be able to fetch a higher price.

The Fathers also point out the several problems affecting farmers, especially the so-called *landgrabbing*, i.e. the land selling off to European companies and multinationals. For example, a Swiss firm, Addax, has purchased ten thousand hectares of land in Makeny district to produce biofuel.

4. Tombo fishermen community, Western Area

The Sierra Leone Artisanal Fishermen's Union (SLAFU) consists of seven associations (fishermen, boat manufacturers, fish sellers, basket producers, mechanics, boat owners, fish women processors). Fishermen sell fresh and smoked (by women) fish locally. There are no alternative processing techniques (salting, drying up...). The products are not sold by the association, each person sells and processes on his/her own. There is no laboratory.

The catch consists of: barracuda, red snapper, squive (extremely valuable), sardinella, grey mullet and many others. Apparently, in the Sierra Leonean sea it is possible to find over 200 edible species.

The SLAFU representative pointed out *trichecus senegalensis*, the African sea cow, as an endangered species. Once all the mangroves are cut, this big water mammal has no barriers, and so many specimen reach rice fields and eat up hundreds of kilos of rice. For this reason, they are often killed by farmers and eaten (their meat is said to be really delicious). *Trichecus senegalensis* is considered at international level as an endangered species.

The fishermen making up this association are also farmers who grow different types of fruit, but do not process it.

Recommendations and operational decisions:

These communities reported the support given to fishermen by FEDERCOOPESCA, and so we contacted them for a possible collaboration and to exchange information.

When FEDERCOOPESCA learned about the mapping carried out by the Slow Food Foundation for Biodiversity, it pointed out the importance of ginger, a product on which it has been working in collaboration with the Cotton Tree Foundation in the area of Songo and Bumbuna. The local ginger was much diffused between the years 1950-70 and known in the international market as "ginger Sierra Leone". Almost abandoned between 1990 and 2002 because of the civil war, today it is cultivated in small scale in the villages and the attempts to be revived for exportation have no aftermath, because a more productive cultivation is looked for.

We also asked FEDERCOOPECSCA for the list of the identified fish species both in Krio language and in English.

5. Mokundi rice producers' community, Moyamaba (south)

The Moually Association is on the way to Bo (capital of the Southern Province), in the territory of 'Njala University.

This community is based near the University, but it does not receive any technical assistance. The University canteen mainly consumes imported rice and no rice is purchased from local producers. During the war, Njala University moved to Freetown and has recently come back to Njala, only six months ago. The library, full of interesting books, is still in Freetown. In Njala, the experimental fields and the cattlesheds have not been restored yet and the University is not completely operating. The community consists of one hundred rice producers, on average each family owns three acres of land (or a little more). On the whole, there are around 400 acres.

The identified local varieties are the following:

Gbengbe

'Ngetech

Nduliwa

Ngoloyumbu (one of the 2 most productive local varieties grown dry. This variety is highly appreciated for its sweetness and softness, tasty also with no dressing).

Maika (one of the 2 most productive local varieties grown dry). Jumukui (very small and dry grains, producing less than 8 bushels³ per acre). Wusuì (one of the most productive local varieties grown in water).

The improved varieties, grown by local producers, are the following: Nerica 1 and 2 (introduced in 2007, whose seeds are given for free by the government). Rok 1, 2, 3, 17. Rockiamp⁴ (the most widespread variety: producers do not like it very much because it tends to get hard guickly and to lose sweetness).

The yield changes according to the grown variety. Here are some examples: Maika and Wusui produce 20 bushels per acre, the other local varieties 16 bushels per acre. Rockiamp produces 22 kilos per acre.

Normally, one bushel per acre is sown.

Producers say that the improved varieties have a better yield, but they prefer the taste of local varieties.

Rice is usually boiled and eaten with sauces (made with cassava leaves, potato leaves, okra, meat or fish)

Banana bread and rice pies made with rice flour, ripe banana and palm oil are also prepared for children.

Part of the crop is used to make seeds, a part is eaten and a part is sold.

Products are sold only when there is a surplus.

6. Jaima rice producers' community near Talu Bongor chiefdom, Bo district, Gbotima Women's organization, assisted by Ndegbomei Development Association

The person in charge of this association is Francess Kallon.

The association is made up of 64 members, especially women.

The products mainly grown by the community are the following: rice (grown dry or in water), cassava, groundnuts, okra, eggplants, potatoes, yam, eyed peas, oil palm, sesame, sorghum, millet, bananas, mangos, oranges, and pineapples.

The local varieties of rice are the following: jbonguè (grown dry, white and red) cotubonguè (grown in water) jewulé (grown dry, white and red) patè (grown in water) doboguì (grown dry, red) jabassì (grown dry and in water) salè (grown dry)

The cultivation of cereals such as sorghum, millet and rice is obtained by mixing seeds. Only rice is grown in water (transplanted) and locals consider it as the most valuable product. Instead white sorghum is mainly used to prepare baby food. The women producers told us that sorghum and millet are important for food sovereignty as they are harvested in different times of the year compared to rice and are used especially for domestic consumption. They also told us how these cereals are cooked: sorghum and rice together (2 cups of rice and 3 cups of sorghum), or rice and millet.

7. Koinadugu Vegetables Farmers, Kabala (Koinadugu Region, Northern Sierra Leone)

The community promoter is Miss Bridget Kamara, while the head of the community is called Hadja Sundu. The meeting was also attended by two herbalists: Mr. Pabala e Mr. Fofana. The FAO representative for this project is Mr. Richard Goba, expert in add value.

Koinadugu farmers grow rice, cassava, groundnuts, and different types of fruit, but above all many vegetables, both hybrid and local (carrots, purple and yellow eggplants, lettuce, cabbage, cauliflower, potatoes, onions, tomatoes...). There is no processed food, not even tomato sauce because, they told us, the machine did not arrive. They produce rice for the World Food Programme (specifically for the P4P programme, Purchase for Progress) according to which rice is purchased locally and then distributed in the country. Traditionally, farmers not only thresh, dry and husk rice, but they also prepare a sort of parboiled by cooking rough rice and Bush in hot water boilers for an entire day (it shall boil in the last hours) and then drying it up. They usually prefer the taste of normally processed rice (richer in amid).

Bush Tea Bush and Tea Bush

FAO has been working on the production chain of Bush Tea Bush and Tea Bush (*Fever Plant*), two wild plants which are dried up and then used for infusion. The Tea Bush (*Occimum Viride*, *Occimum Americanum*, *Occimum Gratissimum*) is a real medicinal herb. It is very bitter and some people even told us it is used to have an abortion.

The Bush Tea Bush (*Hyptis Suaveolens*) is used to make very scented herbal teas (citrus aromas) and has various healing properties (in particular it is used to calm stomachache). This plant is found wild, but now they are trying to cultivate it.

Only the leaves are gathered to make the herbal infusion, put in big wicker baskets and traditionally carried on the head. Then they are laid on a piece of plastic material and left to dry up in the sun for some days (at night the leaves shall be withdrawn because of humidity). Finally, they are packed in small bags and sold.

The price is quite high (500 Leones in Kabala, 1000 in Freetown).

Other indigenous plants for consumption: moringa (Miss Bridget Kamara says it is mainly found and used in Bo district), locos (the seeds are fermented and crushed into powder and then used to make a sauce together with pepper, salt and onion), lemon grass.

This community is involved in several projects (at least seven), including the one with the World Food Programme (for rice).

The Bush Tea Bush will be included in the list of selected products for the purpose of the project.

FAO representatives Mr. Paolo Lucci Chiarissi and Mr. Fulvio Cenci also suggested involving Dr. Laura Marini, FAO International Consultant in Gender and Biodiversity, who has worked on the Tea Bush production chain and mapped medicinal herbs in the north of the country.

8. Musaya Honey Bees Association (Forest honey – Koina Pure Honey)

This community of beekeepers called MUSAYA HONEY BEES ASSOCIATION (Kabala, indicated by FAO) was created in 2007; it consists of 25 members and owns 400 traditional cylindrical beehives made with dried grass and 7 wooden beehives.

Up to sometime ago, traditional beehives were positioned on very high tree branches. Thanks to FAO assistance, traditional beehives have been placed at lower level and changed, thus separating the brooding area from the honey production area. This new position also allows women to take part in honey harvest, usually carried out from April to August, with a total annual production of around 340 litres. After harvesting, honey is filtered, placed in small plastic tanks and sold by measure. In addition to honey, handicrafts are also made with the wax taken from the beehives (around 150 litres), such as candles. Moreover, China's South-South Cooperation present in that area up to 2009, also provided the association with a honey extractor, an instrument which has allowed producers to considerably improve their product.

The community head is a beekeeper and farmer, Mr. Pastor John Kamara. He mainly produces rice, but he also relies on honey to increase his income.

Mr Kwame Aidoo, a Ghana professor involved in the FAO project, taught local producers to look after bees which were often killed by an unsuitable use of smoke. Now beekeepers water bees, something which was never done before. They have also started to use wax (which was thrown away) to make different handicrafts.

Honey, according to the community head, is very good and completely different from that of other areas of the country, thanks to the blooming season richness and variety: dark honey has a more intense (and caramelized) taste.

Mr. Pastor John Kamara is particularly interested in getting help to package and label honey. Mr. Fulvio Cenci, Assistant of the Inter Country Coordinator of FAO SL, has some doubts about it, anyway he told us that the women are willing to help the community improve production and packaging.

It needs to be stressed that that Koina honey has been known for quite a while also in the surrounding countries, up to the point that middlemen from Liberia and Guinea Conakry cross the borders to purchase it. In addition, for every New Year celebration, many people from Freetown and abroad come to walk on the Bintumani and on the Wara Wara Mountain and spend one week in Koinadugu District. Usually the demand for honey is very high at that time because Koinadugu honey is considered one of the best produce at national level. Unfortunately, in that period honey groups have already sold all their production. At that time is possible to find the honey purchased by the middlemen that benefit from this event.

This honey is surely one of the best identified products.

9. Gloucester gardens community

COOPI, an Italian NGO based in Milan, has been working on a project of community gardens in Sierra Leone. This project also involves FUPAP, Freetown Urban and Periurban Agriculture Platform.

We decided to visit the Gloucester community, particularly interesting for their traditional products. North of Freetown, Gloucester is one of the most ancient settlements in that area. It is an extraordinarily tidy and clean village overlooking a valley of wonderful gardens. Here the tradition of terraced gardens dates back to the 19th century. Dry-stone walls are well kept and the gardens include the three levels envisaged

by agroecology: short-cycle crops (herbs, salad, spring onions, eggplants, beans...), bushes and small trees (bananas...) and forest trees (mango...). The water is gathered in streams or wells and carried by hand in watering cans. Different types of pesticides are used, but they have recently started adopting natural remedies (such as neem oil, a natural pesticide non-toxic for human beings). Vegetables are sold to intermediaries. However, they would be interested in direct sale and told us they could get organized to go to Freetown and sell their products. The real problem is not time or labour, but rather transport. For some vegetables they buy the seeds, while for others, seeds are produced locally. We saw different seed fields (e.g. lettuce). We asked them about traditional products: they mentioned basil (patamanji), yellow and white eggplants, bread-tree fruit (usually boiled or fried) and then a strange type of vegetable (the name sounds like "tciu tciu") with a green skin and the shape similar to that of pepper. Other local varieties are: Apun, a pink fruit, eaten fresh, but a bit mouth puckering. Bologi, a broad leaf vegetable, similar to spinach, used to cook Fufu soup, made with cassava and bologi, and Palava sauce made with bologi. There is also a local variety of eggplants called Mokabi. Different products are also grown for Chinese consumers (in particular some cabbage varieties).

10. Restaurants

For a complete mapping, we also visited some restaurants where local dishes are made. The three Freetown restaurants that we found particularly interesting are the following: Madame Posseh's (in Babadorie Posseh suburbs in Freetown), Balmaya and Florence and Franco's restaurant (Sussex).

In Balmaya we purchased one of the few Sierra Leonean cook books ("What's cooking today- Sierra Leonean Favourites" - Muriel Emekunle Davies, specialized in Foods and Nutrition, Reffo Printing - Kissy-2001).

At Florence's we were told about the only ethnic groups of shepherds, Fula. Fula (or Peul in the French transposition) are nomads making up 5% of the overall country population. They raise the local cattle breed, N'DAMA, and produce milk and fermented milk. Usually milking is mainly a women's task.

Cooks and restaurants can be useful to understand "elitist" food consumption in Sierra Leone and are identified as possible purchasers of local products which will be mapped later on.

PROBLEMS FACED AND ENVISAGED SOLUTION

One of the problems is that Slow Food had never worked in Sierra Leone before and so did not have a network of contacts.

The solution was to start collaborating with the University of Makeny and the agronomist Mr Joseph Tholley, in partnership with CESTAS, an Italian NGO from Bologna.

Mr. Joseph Tholley, in collaboration with the office of Slow Food in Italy, will map local quality products in the two southern regions of Bombali and Koinadugu.

This work carries on also thanks to the WWOOF coordinator in Sierra Leone, Mr Shed Jah, who has been mapping the community of producers present in the WWOOF network. His work is mainly focused on the southern regions, in Bo and Kenema districts.

As a result of this mission, we met NGOs, associations and subjects with goals similar to Slow Food's or who have already started projects with small farmers or fishermen, trying to enhance their products and improve their quality.

Further collaborations have been taken into consideration, for example with Prof. Paul Richards⁵ and Sierra Leone agriculture bodies (e.g. SLARI- Sierra Leone Agriculture Research Institute, Institute of Agricultural Research, National Farmers Association of Sierra Leone).

RECOMMENDATIONS

For Kent fishermen community:

Once back to Italy, get in contact with their person in Turin, Paolo Daghero, to examine possible developments.

For Gloucester garden community:

5 Professor of Technology and Agrarian Development, Wageningen University, The Netherlands. He has worked in Sierra Leone for over thirty years, conducting ethnographic studies on Mende village rice farming systems and forest conservation on the Liberian border. After the region became affected by the Sierra Leonean civil war (1992-2002), he turned to the analysis of that conflict and has written more widely on the anthropology of armed conflicts. Get in contact with FUPAP, Freetown Urban and Periurban Agriculture Platform.

It would be useful to have their contacts (the person in charge of this project in the Cities Farming for the Future is Pamela Konneh).

For the community of beekeepers (Koina Pure Honey):

Have samples of forest honey analyzed.

We need more accurate pollen analyses and an adaptation of glass jars for packaging.

Collaboration with Saint Gobain Vetri, a leading glass company: it expressed its intention to send experts to understand any technical problems and to consider the possibility of starting up small businesses in this sector.

In general:

The desk officer of FSFB for Sierra Leone, Michela Lenta, in collaboration with the project coordinator in Bra, Michèle Yperman and the scientific advisor for Sierra Leone, Dr. Cristiana Peano, will draw up a first version of a document describing all the most interesting identified products.

With a view to *Terra Madre* event (Turin, 21st - 25th October 2010), a list of the invited contact people/representatives of rural communities will be made.

We are considering the possibility to have the delegates relevant to the projects stay for two more days after the end of the Terra Madre event.

Annex

II. Planning of activities to be implemented in 2011

Activities	2011												
	1	2	3	4	5	6	7	8	9	10	11	12	
GUINEA BISSAU													
R. I - Activity 1 : Elaboration of selection criteria													
R. I - Activity 2 : Products mapping													
R. I - Activity 3: Completion of country profiles													
R. II - Activity 4 : Preselection of Presidio													
R. II - Activity 5 : FAO clearance for selection of Presidio													
R. II - Activity 6: Mission aiming at launching activities related to Presidio													
R.II – Activity 7: Selection of coordinator and defining institutional collaborations													
R. II - Activity 8 : Selection of producers													
R. II - Activity 9 : Elaboration of production regulations													
R. II - Activity 10 : Finalising producers association													
R. II – Activity 11 : Direct support to producers (logistics, equipment,)													
R. II - Activity 12 : Training producers on quality													
R. III - Activity 13 : Defining marketing strategy													
R. III - Activity 14 : Defining packaging and labelling													
R. III - Activity 15 : Commercial promotion of product													
R. IV - Activity 16 : Consumers education campaign													

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Activities	2011												
	1	2	3	4	5	6	7	8	9	10	11	12	
MALI													
R. I - Activity 1 : Elaboration of selection criteria													
R. I - Activity 2 : Products mapping													
R. I - Activity 3: Completion of country profiles													
R. II - Activity 4 : Preselection of Presidio													
R. II - Activity 5 : FAO clearance for selection of Presidio													
R. II - Activity 6: Mission aiming at launching activities related to Presidio													
R.II – Activity 7: Selection of coordinator and defining institutional collaborations													
R. II - Activity 8 : Selection of producers													
R. II - Activity 9 : Elaboration of production regulations													
R. II - Activity 10 : Finalising producers association													
R. II – Activity 11 : Direct support to producers (logistics, equipment,)													
R. II - Activity 12 : Training producers on quality													
R. III - Activity 13 : Defining marketing strategy													
R. III - Activity 14 : Defining packaging and labelling													
R. III - Activity 15 : Commercial promotion of product													
R. IV - Activity 16 : Consumers education campaign													

Activities		2011												
	1	2	3	4	5	6	7	8	9	10	11	12		
SENEGAL														
R. I - Activity 1 : Elaboration of selection criteria														
R. I - Activity 2 : Products mapping														
R. I - Activity 3: Completion of country profiles														
R. II - Activity 4 : Preselection of Presidio														
R. II - Activity 5 : FAO clearance for selection of Presidio														
R. II - Activity 6: Mission aiming at launching activities related to Presidio														
R.II – Activity 7: Selection of coordinator and defining institutional collaborations														
R. II - Activity 8 : Selection of producers														
R. II - Activity 9 : Elaboration of production regulations														
R. II - Activity 10 : Finalising producers association														
R. II – Activity 11 : Direct support to producers (logistics, equipment,)														
R. II - Activity 12 : Training producers on quality														
R. III - Activity 13 : Defining marketing strategy														
R. III - Activity 14 : Defining packaging and labelling														
R. III - Activity 15 : Commercial promotion of product														
R. IV - Activity 16 : Consumers education campaign														

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Activities	2011												
	1	2	3	4	5	6	7	8	9	10	11	12	
SIERRA LEONE													
R. I - Activity 1 : Elaboration of selection criteria													
R. I - Activity 2 : Products mapping													
R. I - Activity 3: Completion of country profiles													
R. II - Activity 4 : Preselection of Presidio													
R. II - Activity 5 : FAO clearance for selection of Presidio													
R. II - Activity 6: Mission aiming at launching activities related to Presidio													
R.II – Activity 7: Selection of coordinator and defining institutional collaborations													
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R. II - Activity 12 : Training producers on quality													
R. III - Activity 13 : Defining marketing strategy													
R. III - Activity 14 : Defining packaging and labelling													
R. III - Activity 15 : Commercial promotion of product													
R. IV - Activity 16 : Consumers education campaign													

Annex

III. Model of profile card used for the identification and description of interesting origin-linked quality products

Product Description Form

1. Product name

Product name in English:

Product name in local language or dialect :

Latin scientific name :

Synonyms (if applicable) :

2. Product description

Shape and size :

Color :

Sensory qualities (texture, taste, aroma) :

Habitat, origin, links with the territory:

Cultivation (or farming or fishing) techniques:

Ways in which the product is consumed and description of transformed products:

Nutritional aspects (and any demonstrated curative properties):

Social and cultural aspects:

Is the product at risk of neglect or extinction?

Is the product offered for sale ? If yes, how and where ?

Contact details for further information:

Annex

IV. Criteria for indexing quality local products in West Africa

In Slow Food's philosophy and the spirit of the GTFS/RAF/426/ITA project, Quality Local Products can be described and indexed based on the criteria developed below. In general, they are understood to be **edible products** (or non-edible agricultural or pastoral products) **that form an integral part, from an environmental, historical, social and cultural perspective, of regional or local African ecosystems and have the untapped and undeveloped potential to contribute to food sovereignty**.

CRITERIA FOR IDENTIFYING AND DESCRIBING QUALITY LOCAL PRODUCTS

What is quality for Slow Food: the concept of "narrated quality"

Before listing individual criteria, it is necessary to explain more generally what the concept of quality means to Slow Food.

This complex and innovative concept derives from two decades of experience in the field, working directly with hundreds of communities of small-scale food producers around the world, and was further refined within the African context between 2000 and 2010.

Quality in food is often identified with chemical and physical analyses, tasting panels and measurable and defined parameters. This technical approach is valid within a comparative, objective context. However, it does not take into consideration everything that lies behind a local product, everything that has developed over centuries of history.

In the Slow Food meaning, the quality of a food product is a narrative.

It starts from the origin of the product (depending on the case, it could be the place a species was domesticated or diversified, the place where a variety or a breed adapted or evolved naturally or the place where a cultivation or processing technique was developed) and then takes into account the characteristics of the environment, local community knowledge, the fame enjoyed locally by that product, processing techniques, recipes, conservation and marketing techniques, environmental sustainability and, of course, sensory and nutritional characteristics.

Different tools are used to construct the most exhaustive and detailed narrative possible.

• The collection of information and **oral accounts** from **directly involved actors** (farmers, herders, fishers, cooks), with a particular focus on women and the elderly. Through their memories and their own direct experiences, these actors can communicate the most significant elements that can define the meaning of a product within a community and its relationship with the environment. Obviously it is important to evaluate the truthfulness and reliability of these accounts.

• **Tasting**—possibly comparative—is an invaluable tool for evaluating the quality of products, but it is very important to bear in mind its relative nature. Every tasting is always conditioned by the habits and personal culture of the taster.

• The involvement of experts, researchers and scientific institutes and the consultation of specialized literature.

Selection criterion I – The link with PLACE: what is meant by "local".

The link with place is a key criterion in work to identify Quality Local Products.

An indigenous plant variety or animal breed can reach its best potential in the place where it has acclimatized over the course of the centuries thanks to the work of humans.

"Place" is meant not only as a geographic space with a specific climate and environment, but also a cultural and historical milieu. Therefore we are not talking simply about "where" but also "how," a concept that embraces the physical space and the specific nature of the climate and soil but always locates them within a cultural space, where traditions, community customs, spiritual and religious aspects



and culinary preparation play a fundamental and dominant role. All this once again brings us to the concept of narrative as a basic element in the definition of quality.

In defining a place we do not consider political borders, which have little link to local cultures, but rather specific environmental conditions and the history of the local people.

Depending on the case, the pertinent area can be extremely circumscribed (a region, an island, the course of a river, etc.) or it can be transnational, covering two or more modern states.

To define the link with place, we can start with two macro-categories: products originally from Africa and products originally from other parts of the world but which have traditionally been found in Africa

1 - Products originally from Africa

Among the thousands of edible plant species that have fed Africa over the past few centuries, some originate from this continent, strictly speaking.

The high plateaus of Ethiopia and Yemen gave us coffee. Tropical West Africa is the home of African rice (oryza glaberrima), palm oil, yams, cowpeas, Bambara groundnuts, black tamarind, etc. Watermelons may have originated in the Kalahari Desert (where they still grow naturally, as well as in Botswana, South Africa and Lesotho). It has been recorded as having been grown in Ancient Egypt more than 5000 years ago.

It is important to note that, once again, we are not simply interested in the type and the species. Instead we want to investigate further and understand how they differentiated themselves into varieties and ecotypes following selection and characterization processes, their adaptation to the place and different cultivation, farming and processing techniques.

Local variety: plant populations, generally genetically heterogeneous, normally developed through traditional agriculture over many years (or even centuries) by being selected by farmers and adapted specifically to local conditions.

2 - Products originally from other parts of the world but which have traditionally been found in Africa

Some products which originate from other parts of the world (Asia, Latin America, etc.) have traditionally been grown in Africa and are of interest when considering several of the criteria linked to quality. Products brought in such as maize, cocoa, cassava, bananas and ginger have sometimes become an integral part of the local ecosystem and Africa has some interesting secondary biodiversity centers for some of them.

The products introduced successively to Africa through complex and extremely influential historical phenomena (migration of people, the slave trade, colonialism, etc.) become interesting when they take on their own phenotypical and genotypical characteristics, linked to particular places, as the result of adaptation processes of varying duration. Thanks to local environmental and anthropic pressure, these products have created specific breeds, populations and ecotypes, closely linked to the local culture of the indigenous people.

Taking these two categories as a starting point, it is possible to identify a local product and define its link with the land only by interweaving environmental aspects with the historical, cultural and social values indicated below.

Selection criterion II – HISTORY and CULTURE: how a product was created or arrived, what cultural links it has to the local communities and how it can reinforce social cohesion.

Quality local products are an integral part of the history and culture of communities.

As a result they play a role in local gastronomy and crafts, in rituals and in language.

It is therefore fundamental to analyze all of these aspects: to identify and describe the traditional cultivation, farming, fishing or processing techniques; to collect traditional recipes; to understand the meaning of the products within the spiritual and cultural life of the community (feasts, rites, ceremonies, fables, myths, etc.); and to collect the different names for the product and objects linked to it (containers, utensils, etc.).

According to Dogon mythology, Amma, the creature of the universe, created it through the explosion of a grain of fonio inside an «egg of the world».

It is generally easier to identify a circumscribed production area in cases involving a historical and traditional food product that undergoes processing.

Some examples: salted millet couscous from Fadiouth Island in Senegal; Koinadugu honey from the forested region in northern Sierra Leone; white Wukro honey in Ethiopia, whose particular sensory characteristics are linked to the flowers that grow in the arid and rocky Tigray region; reed salt from the 'Nzoia River in Kenya; the Touareg cheese tchikomart from Mali.

For many years Slow Food has been uncovering the link between food, agriculture, culture, **social cohesion and conviviality**. The consumption of local products and maintaining traditional farming expertise has a strong social dimension that contributes to the unity of a community. Work on indetifying quality local products should highlight this aspect.

Example: Small-scale processing of shea butter in West Africa and argan in Morocco is long and hard work carried out by women. The whole process is done to the rhythm of the songs these women sing handed down from generation to generation. The rhythm of the work is one with that of the music.

Selection criterion III – TASTE and NUTRITIONAL CHARACTERISTICS

Taste

One criterion that can explain the quality of a product is its sensory properties: an interesting product from a quality aspect is a product that consumers consider to be "good". The sensory properties of a food product are defined by its:

- appearance
- color
- texture (liquid, solid, crunchy, juicy, tender, greasy)
- smell
- taste (sweet, salty, bitter, acidic)

In West Africa, local varieties of rice, even when they are less productive than improved varieties or imported varieties such as Asian rice, are often preferred by consumers who find them better or that the texture is better adapted to their traditional recipes. In many rural communities, even when the improved varieties are grown for commercial purposes, local varieties continue to be cultivated for domestic consumption.

The comparative tasting of different samples of palm oil from Guinea-Bissau (conducted by local and international tasters) revealed an extraordinary range of different colors, consistencies, flavors, aromas and fragrances. The colors of the oil samples tasted ranged from red to orange, and they showed a considerable olfactory complexity, releasing scents that recalled tomato puree and exotic fruit as well as more refined notes of spices and bitter sauce. In the mouth, the oils showed a fine delicacy and sweetness with a slight tendency towards bitter or smoky and with notes of cacao. These differences come from different factors: production area, palm variety, ripeness of the kernels, processing times and techniques, etc.

Nutritional characteristic

Many traditional African products have considerable nutritional properties.

Agricultural policies in many African countries (mostly imposed by international financial organizations), geared towards cash crops and the import of foodstuffs, have led to standardized eating behavior and impoverished diets, particularly in urban areas. In many African countries, poor quality I"French baguette", Chinese fruit juice full of sugar and additives, broken American rice, European pasta made with refined flour, Asian chicken raised on hormones and antibiotics, etc. are slowly replacing the wonderful dishes based on local cereals, vegetables, fruit, meat and fish. This phenomenon, tied into a particular economic context, is also promoted by the fascination with particular western cultural models; this fascination results in traditional products being associated with being "backwards". Contrary to many of the stereotypes portrayed about Africa, inhabitants of urban areas could thus be at greater risk of malnutrition and nutritional deficiencies than those living rural and forest areas. It has been shown that diabetes, obesity and heart diseases are constantly growing in urban areas in developing countries.

Many African cereals, vegetables and fruit have a high protein, vitamin and mineral content.

One hundred grams of moringa contains the same amount of protein as a glass of milk or an egg, more iron than 100g of beef and as much vitamin C as an orange. Fonio is known for its high essential amino acids content (methionine and cysteine). Kernels from the fruit of Balanites aegyptiaca, a tree present from Senegal to Sudan, have a 20 to 30% protein content and 30 to 60% of oils rich in essential fatty acids. Cowpeas, eaten in sauce, contain more than 200% of the recommended daily dose of vitamin A.

Other phyto-elements with **anti-oxidant**, **antiviral**, **anti-inflammatory**, **fungicidal properties**, etc. have also been identified in many traditional African products.

Selection criterion IV – ENVIRONMENTAL SUSTAINABILITY: vocation of land, sustainability of farming techniques.

In identifying quality local products, it is important to consider their environmental value.

Farming techniques must preserve **soil fertility** and hydrographic ecosystems, avoiding as much as possible the use of chemical substances and maintaining traditional agrarian landscapes. Agricultural systems and processing sites must safeguard the **agricultural landscape** and traditional architecture. Intensive monocultures (even when applied to traditional varieties and ecotypes) are excluded, as are intensive animal farming, unsustainable fishing techniques and, as mentioned above, industrial and genetically modified products.

It is worthwhile listing local varieties and stocks as large **genetic diversity** ensures the resilience of these varieties in the long term, particularly to diseases and environmental pressures such as hostile climate conditions.

Fonio, one of the oldest indigenous cereals in West Africa grows easily in eroded lateritic soil and provides a "fall back" for many community before the harvest of the main crops (rice, millet, etc.).

Selection criterion V – SOCIAL SUSTAINABILITY: the role of local populations and the ethicality of the production and distribution system.

One criterion for selecting products is linked to **social fairness**.

The products being considered must be made by communities of small-scale producers. Individual producers must have an active role in running the farm or business. We do not take into consideration hired farmers or herders. Producers must be open to collaboration, either organized (associations, cooperatives, consortia) or informal. The community of producers must avoid forms of discrimination linked to social position, nationality, gender, political and religious belief and ethnic origins. The exploitation of child labor is not allowed.

Selection criterion VI – Untapped and undeveloped POTENTIAL to contribute to FOOD SOVEREIGNTY

Quality products should be understood as those which have an untapped and undeveloped potential to contribute to the food sovereignty of a country, region or community.

Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. This concept supplements that of food security which, according to the FAO, exists "when all people at all times have physical and economic access to sufficient, safe, nutritious food to meet their energy needs and food preferences to maintain a healthy and active life."

Africa is rich in food products which could support a food sovereignty strategy which combines biodiversity, social cohesion and health. Nonetheless, this potential is not only underestimated in public health policies but is becoming increasingly **at risk** due to the phenomena of cultural integration, the invasion of poor-quality food products imported at low prices, and sometimes armed conflict. When indexing these products, such risk should be identified and described.

Néré seeds (*parkia biglobosa*) are boiled, fermented and used, mixed with okra (*hibiscus esculentus*) to make a very popular seasoning in many West African counties called *soumbala. Parkia biglobosa* is an indigenous tree in sahelian and sudanian areas. It contains many high-quality nutrients (proteins, fats, carbohydrates, iodine, various vitamins). All the same, soumbala is currently threatened by the invasion of Maggi stock cubes, produced by Nestlé.

In Sierra Leone, the war put an end to the expert skill of nearly a whole generation of people who could prepare cola nuts, which originate in this country.

PRODUCTS CATEGORIES

• Indexed products could include fruit, vegetables, cereals, meat (livestock), fish, medicinal plants or even scented plants and spices.

Africa has a large share of different domestic animals. It is home to the most prevalent domestic species (cows, sheep, goats, pigs, horses, donkeys, camels) without forgetting poultry (chicken, guinea fowl, ducks, turkey, geese) and some rodents (rabbits and grass-cutters). There are some 400 species of known domestic animals in Africa. Some of these species have been studied but many have only been the subject of very little investigation.

• This concerns both products taken directly from the savannah, forests, lakes, rivers and seas, and products that have been cultivated or bred (livestock).

Wild resources (herbs, leaves, berries, fruits, honey, fish) still play an important role in the everyday diet in Africa and have contributed to the development of populations and the traditions that still characterize them today. Spontaneously growing plants such as wild cereals have represented and still today may represent a notable contribution to the diversity and food sovereignty of a community. On the outskirts of the Sahara Desert, cram cram (Cenchrus biflorus), a thorny graminaceous plant containing a grain rich in protein, produces real harvests and is very appreciated by the Tuaregs.

• There is interest in products which are consumed in their raw form as well as products which have been transformed (such as cowpea couscous).

Processing techniques are a heritage of inestimable value to local communities. They are the result of wisdom passed down from generation to generation, developed to preserve foods (milk, fruits, leaves, flowers). Artisanal processing of food gives the raw materials an important added value because it results in the production of particular products that can narrate a local culture, and because it makes producers less dependent on seasonal cycles and market fluctuations. Often it is possible to protect local ecotypes and breeds only if domestic consumption can be joined by the marketing of food products suited to trade (local and national) and able to bring in a small income.

There are two issues particularly linked to processed food products in Africa. On the one hand, it is essential to recuperate, safeguard and promote existing traditional techniques. On the other, it is necessary to encourage the processing of raw materials, even when the procedure is not part of traditional custom. Throughout the African continent food is traditionally collected and cooked or sold fresh, and the presence of processed food products (usually produced to store foods for longer, transport them more easily and sell them) is still marginal. As in vast parts of Asia, the habit of cooking and selling ready-made food to eat on the street is considerably more common.

It has been widely observed that urbanization has caused the uprooting of many families from their rural zones of origin, with a resulting partial detachment from the preparation techniques linked to traditional food cultures. Instead there has been a shift to the consumption of low-quality industrial products. Many cities are also home to people of a higher socio economic status who buy quality processed food products produced in the West. Even when the raw materials are African (argan, cacao, peanuts, etc.), often the processing is done elsewhere, especially in Europe. It is very important to both safeguard traditional products and promote the local production of new products using local raw materials. Additionally, some processing techniques (such as pre-cooking grains, slicing leaves, drying and processing fruits and vegetables, e.g. Dogon onions) can facilitate and safeguard the consumption of products that would otherwise require long and complex preparation.

When no traditional processed food product is found during the mapping work, it is necessary to have a lengthy discussion with producers to understand what products would be the most useful and easy to produce, package and sell on the local and national market.

Kenya's Lare pumpkin is an interesting ecotype because of its hardiness, and above all its versatility. The flesh can be used to make a flour, which when mixed with wheat flour can be used to prepare flatbreads called chapati, donut-like mandazi and a juice. The seeds are good toasted or boiled, and once dried they can be ground and used to make porridge and some medicines. This whole family of products means that this pumpkin not only plays an important role in domestic consumption, but also that it can be an interesting source of income for the women, who can sell the various products year-round in nearby towns or to schools.

• There may be interest in the whole product or a part of it. For example, watermelon leaves, which are consumed in some countries, should be considered. Cowpea leaves with their high calcium content are another example.

• Industrially-produced, genetically modified, imported or recently (a few decades) introduced produced are not considered.

FINAL NOTE

As is clear from this document, the Slow Food approach to quality is complex and multilayered, the result of a constant exchange of information with numerous local actors (producers, cooks, experts, researchers, journalists, etc.). None of the criteria listed above can be given priority over the others.

Annex

V. List of producers present in the Salone del Gusto 2010

SENEGAL

Malick Sow (agronomist, Fédération des Associations Paysannes de Louga) Jacques Ndong, Mamadou Sarr, Anna Ndiaye (productors of salted coucous)

GUINEA **B**ISSAU

Cristina Na Fala (palm oil artisan) Leandro Pinto Junior (agronomist COAJOQ) Orlando Vaz (horticulturist)

Mali

Diacaridia DIarra (President Confédération Nationale des Organisations Paysannes) Almahdi Alansari (Touareg herder)

SIERRA LEONE

Haja Sundu Marrah (Bush Tea Bush producer) Abu Bakerr Kanu (Bush Tea Bush producer) John Kamar (beekeepeer)

Annex

VI. List of participants to the post Terra Madre Seminar
SENEGAL

Madieng Seck (journalist specialised in food issues) Oumar DIeme (Institut des Technologies Alimentaires) Malick Sow (agronomist, Fédération des Associations Paysannes de Louga)

GUINEA **B**ISSAU

Miguel de Barros (researcher Tininguena) Nelson Veira Tavares (agronomist Tininguena) Cristina Na Fala (palm oil artisan) Leandro Pinto Junior (agronomist COAJOQ) Orlando Vaz (horticulturist)

Mali

Moussa Btoma Malle (IRPAD) Diacaridia DIarra (President Confédération Nationale des Organisations Paysannes)

SIERRA LEONE

Peter Bayuku Konteh (Governor) Joseph Tholley (University professor, agronomist) Shed Jah (President World Wide Opportunities on Organic Farms Sierra Leone)

Annex

VII. Awareness raising material on the project exposed during the Salone del gusto 2010



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