



AGRO-INDUSTRIAL PROJECTS
LOCAL PROCESSING OF LOCALLY PRODUCED FOOD & JATROPHA FOR BIO-ENERGY
OVERVIEW & LIST
OF
THE INTERRELATED PROJECTS OF ACTION PROGRAMME 3
aiming at the creation of important surplus values by local industrial processing of local staple foods, spices and Jatropha harvests

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The contents of a selection of important plans, project descriptions and progress reports can be consulted on the **DOWNLOADS** section of our website www.tomoka-togo.com
This document is one of them

1 SUMMARY OF ALL PROGRAMS

By necessity, this summarizing, descriptive overview of **interrelated projects** often refers to Projects which are listed in the other four Action Programmes. Together, they form a comprehensive cluster of interventions which will realize Tomoka's Main Objective: organising, supporting and facilitating the extremely poor, multi-ethnic population of the Target Area in such a way that sustainable rural social-economic developments will result in more well-being and prosperity for all.

All development activities are being conceived, planned and implemented in the form of Projects within **five interdependent Action Programmes**. Each project and each program has links to the others. They mutually impact on each other.

Agriculture (Program 1) lies at the basis of our development method – a method which aims at the production of staple crops and other food stuffs in conjunction with *Jatropha Curcas* which delivers oil for bio-energy for cooking, light, and diesel engines in trucks, industries and generators for rural electrification. All *Jatropha* harvests and a large share of the food crops will be processed in local, small scale **Agro-industries** (Program 3) which create important economic surplus values and higher levels of entrepreneurial activities within the Target Area itself. All this will only be possible if we are able to stop the ongoing degradation and deforestation of our Canton's natural environment. That is why Tomoka has conceived some **Environment Protection and Rehabilitation** Projects (Program 2). And the remaining two programmes are even more important for a sustainable development because they deal with the people themselves: the **Social Projects** of Program 4 aim at community development and the creation & improvement of social infrastructures like health care, education, safe drinking water, sanitation and things like finance, telecommunication and rural roads. And last but not least: Program 5 aims at the creation and reinforcement of the **Local Organisations** which will unite the members of the Target Group in order to realize the concrete development projects within the four previous programmes. A strong non-profit organisation like Tomoka will translate itself in a fair and profitable representation and cooperation between the local Chieftaincy, the multi-ethnic Farmers, Women Groups, and GuKam (Tomoka's initiator and important economic motor within this development project).

The above **hybrid form of the well-known *Jatropha* System** is explained into more detail in the section <Our Project> of our website.

A list of ALL Projects in each Action Programme: see the Content Table in the section *DOWNLOADS* of our website www.tomoka-togo.com

2 OVERVIEW OF ACTION PROGRAM 3:

LOCAL AGRO-INDUSTRIAL PROCESSING OF LOCAL CROPS (food – spices – *Jatropha* for Bio-Energy)

Tomoka has observed that the farmers of our extremely poor Target Group are getting much lower prices for their crops than is the case with colleagues elsewhere in the Plateaux Region. Wholesalers from cities like Lomé have all decision power and **abuse their monopolistic buyer-position**. They are the only ones who possess heavy trucks which are able to reach our farms. But bad roads and lacking infrastructures are not the only cause of abusive price policies. The most important factor causing extremely low incomes from farming, is the **absence of farmer organizations** which should store crops for an extensive period of time (when prices go up), and which will bargain collectively with buyers. a Project 805 (organizing farmers and women groups) and Project 507-8 (construction and management of silos) will improve the situation considerably. Special attention will be given to the question how associations will be composed and managed, because our Target Area contains several ethnic groups and cultures who hardly speak each other's language.

Tomoka's Agro-Industrial Projects will raise local revenues even much more by creating important surplus values. Local crops do not necessarily have to be transported to the cities if **crops can be turned into much more valuable products** by local, small-scale ateliers and industries. Normally, this would not be possible because our rural areas do not possess electricity or other forms of affordable energy for small or larger industrial machines. However, Tomoka's Programmes have **overcome this energy constraint**. Small-scale Oil Presses managed by women groups (Project 703) and a larger Oil Mill managed by GuKam (Project 710) will press the *Jatropha* seeds produced by *Jatropha* Hedge Growers (Project 506), the New Farms which are being created by Insertion Project 505, and by the growing GuKam Plantation (Project 510). The expected large volumes

of **Jatropha Oil** which local harvests will provide have been published in Table 12 of our Production Scenarios. They can be consulted elsewhere in the Download Section of our website, and show that there will be plenty of locally produced, affordable Jatropha Oil (Pure Plant Oil / PPO) available as bio-energy and as raw material for other products. An attractive and high-energy by-product of oil pressing will be Jatropha *Briquettes* (Project 716). They are cheaply produced by compressing the Jatropha seed cake (press residues) into small tablets for cooking. They are more client friendly than charcoal because of their regular size, high energy, less volume to carry) and they do not require the cutting of trees.

The local production of **Jatropha based Handmade Natural Soaps** is conceived as an important way of creating surplus values with *local* produce. By adding locally grown or collected fruits, herbs, flowers and other ingredients (Projects 508 and 606) --for colour, fragrance and better saponification-- to the locally produced Jatropha Oil (Projects 508 and 606), Tomoka intends to maximize the benefits of local agricultural production. GuKam (Tomoka's initiator and 'economic motor') has prepared a special product development project which will create a series of affordable high quality soaps and washing powders (Project 715) which will be produced by small Soap Ateliers of women groups (Projects 705 and 707) and GuKam itself. The company (GuKam) will manage a larger Savonnerie (Project 714) which intends to produce luxury, handmade natural soaps for Western counties. These soaps will qualify for certification labels like <Ecomark, Natural Ingredients, and Fair Trade>. Such quality standards will facilitate the international marketing and sales and will fetch higher prices.

Another very important series of agro-industrial processing initiatives will start with the **production of easy-to-prepare food** based on a combination of several locally produced staple crops. Several types of Nutritious Child and Baby Food (Project 711) will need maize, beans, soy, and groundnuts for example. Children and women in particular, will benefit from this new source of revenue, and from the nutritional knowledge and practices which will accompany it. The beneficial effects of this product are manifold. Some additional examples: the transport costs of constituent raw materials to the city would be much higher than the transportation costs of the finished product. City-women save much cooking time and cooking energy. And the health of children who eat this nutritious product is served tremendously.

Other foreseen Easy-to-prepare Foods have comparable positive effects. At the moment of writing, Tomoka and GuKam plan to produce Fufu and Plantain Flower (Project 712), and Milled, Vitamin enriched Maize (Project 713).

An extremely simple form of creating surplus value is the **drying and packaging of local spices and herbs** (Project 706). Project 708, moreover, encourages women to **market and sell Jatropha Oil for light and cooking**. This will liberate their rural clients from the burdens of collecting wood for their households, and they are not exposed anymore to the heavy smoke which actually threatens their lungs. These and other initiatives will be organized and financed with the help of **micro-credits** (Project 709).

The wide spectrum of agro-industrial initiatives will need a fulltime **manager** who will coordinate, demonstrate and supervise agro-industrial initiatives and who has to make sure that they are in line with other projects in Tomoka's Agricultural, Environmental and Social Action Programmes. Project 702 will deal with the tasks and priorities of this program officer.

Plans for the production of bio-diesel, glycerine and other Jatropha derivatives will be worked out at a later stage. They require higher educational levels of the population, and also a more substantial financing.

It has been explained already in our Social Action Program that **access to banking and credit** will help the economic progress of the local population considerably. Credit facilities, saving and budgeting are of even greater importance if local revenues and entrepreneurial levels are improved and when a manifold of new jobs will be created in the ways described or implied in this Action Program. That is why we stress again the importance of Project 812 which will make use of the fact that our Target Area is being covered increasingly by a mobile phone network which will enable them to market their products and produce even better.

List of ALL Projects in our five Action Programmes: see the Content Table on the webpage *Downloads* of our website www.tomoka-togo.com

PROGRAMME 3: LOCAL AGRO-INDUSTRY

LOCAL PROCESSING OF LOCALLY PRODUCED CROPS

A summarizing, descriptive overview of the interrelated projects in this Programme is available in the **DOWNLOADS** section of our website www.tomoka-togo.com

PROJECT <i>Action Programme 3: Local Agro-Industry</i>			PHASE		
NUMBER	TITLE	MAJOR OBJECTIVE / DETAILS	CONCEPTION	PLANNING and/or TRY OUT	IMPLEMEN- TATION
701	DOCUMENTATION	<i>Collection & Description of Program related Professional Literature, Organisations, Expertise, Donors, Banks, Equipment</i>	X	X	X
702	PROGRAMME EXPERTISE	<i>full time Program Officer will be in charge of starting up activities, coordination and some daily affairs in all Agro-industrial Projects (Foreign) experts will help where needed</i>	X		
703	MANUAL PRESS (4x) (Bieleberg Ram Press)	<i>Small-scale production of Jatropha Oil by 3 women groups and Savolab</i> The oil will be needed for demonstrations and starting up of Soap Production, Clean Cooking Campaigns, the Savolab Trials of Project 715, and the maize mills for local women (Project 704) Local technical construction competencies (in Lomé) are tested by GuKam's order to produce a prototype Bieleberg Ram Press based on drawings provided by German engineers	X	X	(x)
704	MAIZE MILLS (2x)	<i>Nearby Small Maize Multi-product Mills (with engines which can run on Jatropha Oil) will lighten household burdens of local women and will enable them to use their time more productively.</i> The mills will be owned and managed by women. Purchases via Credits provided by Tomoka or a Bank. The mills are also a preparation for the more complex Maize Mill of Project 713. Storage, shelf life and other aspects will be studied here.	X		
705	SMALL-SCALE SOAP PRODUCTION (by a try-out women group)	<i>Construction of simple Work & Storage Space in Kpékpéta, accompanied by training in production, marketing and sales on nearby open air markets</i> This project will be monitored closely in order to improve products, production methods, marketing and sales <i>before</i> the semi-mechanical Savonnerie (Project 714) will become operational and Women Ateliers (project 707) will start European or American soap maker support seems advisable.	X	X	(trial failed)

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NUMBER	TITLE	MAJOR OBJECTIVE / DETAILS	CONCEPTION	PLANNING and/or TRY OUT	IMPLEMEN- TATION
706	<HERBS & SPICES> (by women groups; 2x)	<i>Conservation, packaging and sales of locally grown or gathers spices, herbs, fruits, and some vegetables (primarily for the Lomé markets) by women groups</i> Examples are: bissap, moringa, edemè, pepper, and medicinal herbs Try-outs will include <ul style="list-style-type: none"> - the drying of tomatoes and some berries - the production of ground garlic powder and pepper - the production of bissap concentrate for soft drinks - the production of red pepper (dried and in powder form) - the production of ground okra 	X	X	X
707	SOAP ATELIERS BY WOMEN (2x)	<i>Improved commercial production of two Soap Lines developed by GuKam for rural markets and Togolese cities. Two ateliers owned and operated by a women group and guided by Tomoka</i> Washing powders in small sachets and soap bars will distinguish themselves from existing products with better fragrance, colours and more foam	X		
708	SMALL-CITY SALES OF JATROPHA OIL, LAMPS AND COOKERS	<i>Market penetration efforts will be carried out by women who have obtained demonstration trainings and micro-credits.</i> Storage space (small depots) in major Canton and close-by Markets like Kati and Kantikopé will enable sales ladies to participate. Monitoring experiences will be done by the Program Officer responsible for the Projects in Tomoka's Social Program. At a later point local farm women will have enough household money to buy lamps and cookers as well.	X		
709	MICRO-CREDITS and (mobile) banking in Project 812	<i>Participants in Projects 505 and 703-708 will need micro-credits</i> An experienced Micro-credit Organization has joined Tomoka to manage this project (at own risk). Tomoka will see to it that the Target Group will obtain access to banking (preferably via mobile phones).	X	(x)	X See Project 505-1
710	GUKAM OIL MILL	<i>Construction and start up of a mechanized Oil Press, owned and managed by GuKam, functioning along the guidelines and criteria for procurement and employment set by Tomoka.</i> The expected annual press capacity will grow steadily: see our SCENARIO in the downloads section of the Tomoka website	X	(x)	
711	EASY TO PREPARE FOOD for Babies and little Children	<i>The Production of easy-to-prepare food in a small Atelier, managed by GuKam (with female operators) will prepare the road to a larger Unit when sufficient marketing channels have been set up.</i> Institutional Clients (clinics, orphanages etc) and Lomé based super markets will be the first sales outlets. GuKam has closely monitored the production and sales of a befriended small producer with a similar product in order to improve own ideas. Next step will be the experimental production of improve recipes in his atelier.	X	(x)	

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NUMBER	TITLE	MAJOR OBJECTIVE / DETAILS	CONCEPTION	PLANNING and/or TRY OUT	IMPLEMEN- TATION
712	EASY TO PREPARE STAPLE FOOD Fufu and Plantain Flour	<i>The Production of easy-to-prepare staple food like Fufu in a small Atelier, managed by GuKam (with female operators) will prepare the road to a larger Unit when sufficient marketing channels have been set up.</i> Lomé based super markets and some Diaspora Groups will be the first sales outlets. GuKam intends to study the production and sales of similar products in some Units in Ghana before this plan will be worked out into further detail.	X	(x)	
713	PACKAGED FLOUR (vitamin enriched maize flour)	<i>The production and wholesale of vitamin enriched maize flour will save much time from city-ladies. The Unit will be owned and managed by GuKam.</i> Recipes and nutrition information campaigns should accompany marketing.	X		
714	SAVONNERIE	<i>The production of export oriented handmade, natural luxury soaps (based on Jatropha and other local produce) to West African souvenir shops and supermarkets, and to Western importers will take place in a GuKam owned Production Unit operated by women.</i> Pre-feasibility studies have been carried out with the help of some of GuKam's European friends. Similar soaps from other African countries have been tested.	X	(x)	
715	SAVOLAB: CRATION OF A SIMPLE SOAP DEVELOPMENT LABORATORY	<i>Developing Natural Handmade Soap varieties for Togolese and Foreign Markets based on local raw materials: natural produce and Jatropha Oil.</i> Simple Try-outs have been commenced by GuKam in Lomé. The Project also intends to develop manual and semi-mechanical production routines, marketing materials and procedures suitable for the producers (rural women groups and GuKam)—perhaps with support of European soap maker volunteers.	X	X	
716	BRIQUETTE PRODUCTION 5x	<i>The seed cake (residues after the pressing of Jatropha seeds) will be turned into energy rich briquettes which will compete with charcoal.</i> Each Oil Pressing Unit will be accompanied by a mini-unit where men press briquettes for their own account. Marketing and sales with uniform prices will be coordinated by Tomoka's <approved charcoal traders> who obey the rules set in Tomoka's Environmental Projects.	X		
717	SHEA BUTTER	<i>The production of Shea butter by women groups with the crops from local trees</i> Export to Ghana and other countries is foreseen. The local soap units will also buy some quantities	X		
718	RURAL ELECTRIFICATION	<i>The objective is to generate electricity for local use in major villages – predominantly with the locally produced Jatropha Fuel (as is the case in Mali and Senegal).</i>	X		