

## Realization of a very short food chains

### PURPOSE

#### 1 - Preliminary remarks

The project for Ghana, shared and supported by YTASYA (1), comes from a group of engineers, technologists, agronomists, economists, educators and cooperators involved in the study of socially sustainable projects for the improvement of underdeveloped or developing Countries.

This team, coordinated by Eng. Leonardo Saracino, working strictly together with Greentechnology (2), aims at making available for Ghana their skills mainly developed within the wide Italian system of cooperative enterprises.

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(1) YTASYA is a company which aims at giving its small contribution to the building of a more ethically and socially responsible system, to help the least developed countries to achieve higher levels of economic stability.

(2) Greentechnology established in 1985 is a company with wide experience and knowledge of the agro food problems in Italy and in the world. It's made of long experienced and competent engineers working in many areas of food processing technology, with technical and entrepreneurial skills gained within big food industries.

#### 2 - Elements for the creation of an agricultural and food project

The "tomato" project can be applied in every other production of the agro-zootechnical area which Ghana imports. To involve the Ghanaian farmers with a leading role in their Country's and in the foreign market, it's very important that they can work with a short, quite short chain, weeding out all intermediaries who drain margins with the only result to squeeze the agricultural products' prices up to make their harvest not even convenient. The organization of a short chain since it must necessarily be based on the consent of the main and also only actors, the peasants, is rather complex and has to be made step by step; by small, controllable and manageable steps, whose positive effects will give an extra push towards a broader spread in the whole Country (contagion effect). By the higher produced value it depends the income growth of whom were always the last ones, who suffered and are going on suffering the harassment of the many intermediaries of the chain. We can assume that the whole stages of the very short chain are managed by a single organizational structure with the direct participation of the farmers (cooperative, companies' network, joint ventures...). The use of the dispenser instead of the cans, aims at by-passing the use of steel containers. In this way the costs of the empty containers, their carriage and storage, sterilization, storage, the inevitable waste, the storage of filled containers, the surcharge for lithography, etc.. will be cancelled. This option would give further competitiveness to the product than the Italian and Chinese one. The project will acquire significance and consistency as the chain goes up, from the market up to the agricultural productions, because, to use a much simplifying slogan, we have to produce what the market demand and not to sell what we produce. With reference to the tomato, Ghana is an importer of the tomato by-products with a quite long chain: product made in China, semi-finished one in China, reworked in Italy and exported to Ghana. Moreover there are also great concerns about the quality conditions of the product when it arrives to the Country of destination (molds, chemical treatments waste, etc..), that is: "all that isn't good for the European market, because no more in accordance with the domestic or European rules, is taken to Africa" On the whole, Ghana could become a great competitive producer of excellent quality tomatoes, if it organizes its own market by adopting the short or quite short chains' model. The assessments of the experts on the fruit and vegetable sector would be contradicted, according to which it's more convenient for Ghanaians to import Chinese or Italian product rather than to produce it in their own Country.

Currently China meets nearly 90% of the worldwide production. There would be a clear improvement of its own monetary reserves. The chain project will be successful if the same farmers, organized in co-operative (to co-operate =to do together), will be able to run and defend the whole process without intermediaries. The motivational mainspring is to create and defend their own income. For sure it requires a very important cultural and organizational commitment. It is a question of carrying on an organizational model able to push the agriculture development with important repercussions on the employment and on the exploitation of rural economies, with a decisive reduction in poverty and in the volume of imported finished products with the consistent improving in the foreign exchange reserves.

Ghana has water and sun: necessary natural conditions to the development of a great agriculture. But the farmer must be enabled to compete with the products from the “developed” Countries, through:

- 1.** an adequate technical and agronomic assistance: also through appropriate training sessions with exchange of experiences with Italian Agricultural Organizations (for ex. some Ghanaian farmers could study more in depth the agronomic aspects of the tomato cultivation through an internship at an agricultural Italian farmers’ cooperative) to learn the different cultivation methods for a higher productive yield (hundred kilograms/ha);
- 2.** the use of selected seeds, suitable for the canning industry;
- 3.** aid for fertilization, irrigation, fungicidal protection and for the location of areas climatically and pedologically favourable for the tomato cultivation;
- 4.** an adequate organization of the harvest and transport: two very tricky phases during which the tomato could be damaged and could change the characteristics of the product;
- 5.** the constant research for balance between production costs and selling prices to the processing industry, for the improvement of the farmer’s income and for the development of a sustainable competitiveness of the agricultural and food system starting from the internal market;
- 6.** the realizations of processing and packaging plants easily manageable by specialists who can be found or be trained in Ghana;
- 7.** the establishment of business networks, if those that may exist in the Country should be very far from the production places, even in self-managed form (cooperative), able to guarantee:
  - management of an agricultural machinery park (tractors, tools for working the land: seeding, sprayers, ...) kept in full efficiency by an adequate technical assistance (workshop and spare parts warehouse),
  - the establishment of centers for the distribution of fertilizers, pesticides, seeds,...
- 8.** It’s strategic the road network connecting the agricultural production and agro-food industry places with the highest consumption centers and the port: the efficiency of the domestic road network helps to give the Country’s agriculture competitiveness;
- 9.** State’s financial aids to support the modernization of agriculture, as it happens in the advanced Countries. In Ghana the tomatoes for the processing are the same which reach the fresh market. This circumstance means that when the fresh product get more attractive prices on the market than those offered by the canning industry, there is lower flow of product towards processing or at least less product and higher prices that will never give competitiveness to the canning industry. This happens because there is no differentiation of the tomato’s characteristics based on its use. It happens in Ghana what it happened in Italy several decades ago. It’s also well known that the tomato’s characteristics depend on its industrial use (concentrate, peeled, drinkable juice, etc.).

Over the past 50 years, the research on new tomato's varieties went on no stop. Numerous varieties have been introduced with the purpose of putting together different characteristics such as suitability for the canning industry, high productivity (HK/HA), resistance to over ripening, ripening uniformity, resistance to cracking (which allows the carriage in large containers), high lycopene content, resistance to fungal attack, to the apical rot, ... Achievements: the productivity in Italy has increased from 300 H.K./ha of the 70s to the almost current 900 H.K./ha. For the development of the "short chain project" it is necessary above all the knowledge of the rural world's sociological aspects, of the cohesion and trust level which characterize the relationships between agricultural producers, of the existence of preconditions, even if in embryo, to co-operate. Moreover it is necessary to know the data about the fields (current agricultural yield H.K./ha), data on the climatic and pedological specifications, on irrigation, on the type of finished products consumed in Ghana, on the packaging and the types and capacity of used containers, on the availability of electricity and gas / diesel for steam production, data on infrastructures, and so on. Ghana has the water and the sun: essential natural requirements to develop an intensive agriculture!

### **3 - Feasibility Study for a "pilot project" on the tomato: planning phases**

**a.** Preamble - The development of the "short chain project", organizational strategic method for the takeoff of the Ghanaian agriculture, for its organizational complexity, requires a gradual start. For this reason we suggest to start from a "pilot project" which could become "model" for the development of similar experiences in other territories of Ghana. The good results achieved by the "pilot" experience will surely get a powerful "contagion effect" with spread throughout the Country.

**b.** Elements for the definition of a "tomato pilot project" – We have to consider agronomic, technical, infrastructural, organizational, commercial and sociological aspects. Normally tomatoes for processing are the same ones that reach the fresh market. This circumstance means that when the fresh market demand goes up and the prices rise, less product flow goes to the processing industry, so it runs the risk to operate in conditions of poor efficiency. The differentiation is then necessary, starting from the choice of the tomato variety for fresh consumption rather than the one for the production of the tomato puree. The tomato for preserves must be, in turn, differentiated, working on seeds, depending on the target market of the finished products that are requested by the Ghanaian consumers (concentrate, peeled, pureed tomatoes, drinkable juice, pulp). The suitability of the land, the choice of the seeds and the use of appropriate cultivation and agronomic techniques are the indispensable initial stage of any project.

**Per maggiori informazioni contattaci su [www.ytasya.com](http://www.ytasya.com)**



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