# EMBIK FARMS

"The Centre for Vocational Agriculture"

# UPDATED WEBSITE INFORMATION

(Website http://www.embik.com)

## Embik Limited

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"The Centre for Vocational Agriculture"

1.History

Embik is a privately owned limited liability company with strong social objectives that was registered in January 1997 to formalize the agricultural ventures which some members of the Chibsah family of Old Tafo, Kumasi had started in the late 1980s. The main objective of the company was to offer training avenues to the youth and peasant farmers on a 20 acre farmland at Abrakaso, Agona in the Ashanti region. Initially, the company concentrated on training in exotic vegetable production, rabbit breeding, food crops and livestock production. The company, Embik Ltd, was registered to engage mainly in agricultural production and related activities.

The Ministry of Local Government and Rural Development, in the context of a World Bank Rural Development Programme, designated Embik Farms officially as a Learning Centre in 2005 to train the youth in theory and in practice in rabbit breeding and vegetable production. In 2006 and 2007 the British High Commission, Accra and the Ministry of Local Government and Rural Development respectively sponsored Embik Farms to train 25 farmers each in rabbit breeding and vegetable production. Below is a picture of some of the farmers in training.

**Picture 1. A group picture of farmers in training in 2007**

The training was so successfully conducted that in the end it enhanced the production of rabbits on the farm out of which the trained farmers were given rabbits and hutches to start their own farms. However, the project encountered a

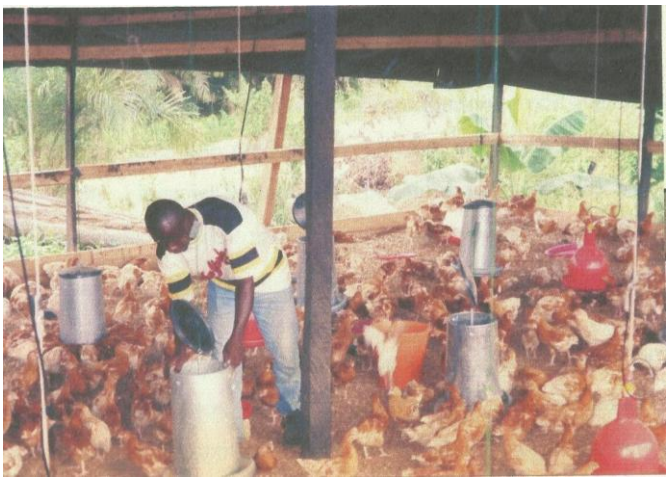
problem of marketing of over 600 rabbits produced on the farm. Traditionally, the Ashanti region prefers other kinds of meat such as grass cutters in spite of the fact that rabbit meat is considered very healthy. Embik was aware that public education was required to promote marketing of the rabbits but could not obtain any assistance in this respect and could not finance it alone.

Scarcity of vegetables during the dry season (October – April) induced Embik to engage in commercial production of dry season vegetables under irrigation in 2010 using River Pratwere on the northern boundary of the farm as a source of water for irrigation. The vegetables encountered unanticipated production problems of insect and bacterial attacks which proved resistant to treatment recommended by specialists. This saw the abrupt end of the rabbit and vegetable projects.

Picture 2. Bunnies at the Farms

In an effort to diversify production in order to discover a more sustainable activity on the farm, a commercial egg production unit was set up in 2005 with the procurement d 4,000 day old chicks to start a commercial layers project. The project performed impressively at the beginning and showed promising signs until rainstorm destroyed the facilities in 2007. Picture 3 below shows Prince, the poultry expert at work.

Picture 3. Poultry specialist at work.



Working capital for farm operations which we had hoped could come from internally generated funds was becoming a serious problem with the failure of the projects.

Sponsorship for training trickled in at a snail pace which could not save the farm in terms of its working capital needs. In search of a more dependable activity to sustain the farm, management established a college with hostel facilities at the farm in 2007 to provide formal teaching and practical training in agriculture for the youth. This, it was hoped, would bring in continuous flow of working capital. By the end of 2009, 15 students had been successfully tutored in National Vocational Training Institute (NVTI) agricultural programme to the National Craftsmanship Certificate (NCC) level. The College unfortunately was also destroyed by rainstorm in 2010.

Picture 4. Group picture of some of the students, 2008

## 2.Review of Farm Activities.

The calamities on the farm necessitated a careful review of farm activities for sustainability. Taking into account soil fertility, topography and the frequency of rainstorm on one hand and on the other hand the performance of the existing citrus plantation and the cattle ranch in spite of the comparatively minimum investment made in these activities, it was decided to put emphasis on tree crops and cattle. The tree crops would help check the acute problem of soil erosion and serve as wind breaker. The cattle on the other hand would introduce new profession in the area and improve the local supply of meat and milk on the market.

With respect to tree crops, management decided on coconut plantation on account of its current market potential, the possibility of planting cover crop underneath the coconut trees to serve as pasture for the cattle in addition to checking soil erosion. With respect to cattle breeding, management planned to put more emphasis on milk production which is currently in high demand by manufacturers of yoghurt and provide meat as well. Having brought on board these two activities, training was relegated to the position where it would be offered only on demand.

### 2.1 Coconut Plantation

In 2012 the management started planting 850 coconut trees some of which have started bearing fruits as anticipated and shown in Picture 5 below.

**Picture 5. Coconut Plantation**

At this rate it is certain to start full commercial harvest in 2017 as planned and provide some financial relief for better farm operations..

2.2 Livestock Project

The cattle project is planned to be implemented in 3 phases with a shift of emphasis from beef to milk production including milk processing.

**Phase 1** of the project consists of modifying the existing structures so as to create two separate sections: breeding and milk production sections. The breeding section is housed in the existing kraal after renovation to meet planned objective. Local cows when on heat will be isolated within the kraal in a section created purposely for that and artificially inseminated with Friesian semen to obtain crossbred calves. Male calves will be left at the breeding section to be fattened. It is planned to procure ten oxen every six months to be fattened for the market. The breeding section will be maintained on free grazing with some feed supplementation.

Picture 6. Breeding stock on farm pasture

Female calves from the breeding section will be moved after weaning to the dairy section (shown in Picture 7 below) which is specially created away from the breeding section. The dairy cows will be maintained totally on zero grazing.

The concept of zero grazing has necessitated pasture development on the farm covering a total of about 8 acres to be managed in a manner that in combination with feed supplementation and irrigation, there will be grass on the farm all year round. Three different kinds of grass are available for propagation to provide variety and improve nutritional content of feed.

The dairy section is already operational with 3 crossbred cows and 1 crossbred bull (Friesian/local Sanga) purchased from Amrahia Dairy Farm. This is a state institution setup to assist farmers in this respect. The 4 animals presently on the farm are a small part of a planned target of between 16 to 20 animals for the dairy section in Phase 1.

Management intends to procure pure Jersey breed brought in from South Africa to cross the Friesian crossbreeds to improve milk yield. The products of Jersey/Friesian crosses have been recorded to yield 20 litres of milk per day as compared to the average yield of 15 litres from the Friesian/Sanga crossbreed. The picture below shows the dairy cows on zero grazing in their kraal.

Picture 7, Dairy Cows on zero grazing

**Phase 2** of the project will consist of expanding the dairy section with the aim of producing enough milk on the farm to make it economically worthwhile to engage in milk processing. **Phase 3** will consist of organising a suitable location on the farm for installation of the necessary machinery and training of personnel required for the milk processing plant.

As usual, the management will undertake feasibility studies to test the viability, profitability and sustainability of the second and third phases before implementation. Pre–investment estimates indicate that the three phases will cost about USD 400,000 at January 2014 prices over a period of about 10 years (2014–2023). Phase 1 is planned to cost GHc 200,000 as at 2014 prices. Management was able to raise partial funding in the last quarter of 2014 to start implementation of Phase 1. Additional funding is urgently required to complete phase1 of the project.

**3. Supplementary Activities**

Pasture for free grazing is becoming increasingly difficult to obtain due to the increasing activities of estate developers at the district level where Embik operates. It is therefore envisaged that in addition to the provision of pasture on the farm, it will be necessary to put in place systems to prepare feed pellets from local inputs and hydroponic fodder with the aim that the totality of the animals on the farm will in the near future be put on zero grazing. The cover crop to be planted underneath the 8.5 acres of coconut plantation will be of immense value in this respect.

Picture 4. Hydroponic Fodder

**4, Market Potential**

FAO statistics in 2010 indicated that cattle population and meat production in Ghana stood at 1,454,000 and 19,990 metric tons respectively. In the same year there was an import of beef and buffalo meat to the tune of 15,182.6 metric tons

and over 50,000 live cattle from neighbouring countries. There was no export of cattle or beef from the country meaning that all cattle produced in the country do not meet local demand hence the need for imports. Per capita consumption of fresh milk in Ghana, according to FAO 1999 statistics, is comparatively very low among African countries as shown in the Table 1 below

Table 1.Per capita milk consumption 1999, (FAO)

| Nos | Countries | Consumption (kg) |
|---|---|---|
| 1 | Bangladesh | 19 |
| 2 | Ghana | 5 |
| 3 | Kenya | 85 |
| 4 | Avg. Sub-Saharan Africa | 55 |
| 5 | Avg. South Asia | 72 |

In spite of the low level of consumption, as much as 28,267.5 metric tons of milk in various forms was imported from Europe and America in the same year. Conclusively meat and milk demand in Ghana exceeds supply and livestock farmers should be encouraged and supported to take advantage of the situation to increase their production levels and still find market. Moreover, this is an import substitution venture which will save the country some foreign exchange.

**6.Technical Assistance**

Skilled and experienced personnel envisaged in this project are not very common in the area where the project is being developed. Equipment and other vital inputs also have to be sourced from either Accra, the national capital or from outside the country. In terms of technical assistance and knowhow, the Mampong campus of the University of Education Winneba, which is about 30 km to the north of the project, provides technical guidance in project implementation under the directorship of Prof Annor within the context of the EDULINK project.

In spite of the challenges, the stakeholders including Embik, are passionate and committed enough to see the project through. Pioneers, it is said, are those often with arrows in their backs. They go through all kinds of challenges but triumph at last. Embik Farms have had their share of challenges and problems as outlined above but things seem to be falling in place for the success of the project. In this connection no assistance, technical, equipment or otherwise is considered small enough to be rejected. For further information please contact the Director of Embik Farms Mr. Seidu Chibsah, by email sk@embik.com.