



TELEFOOD PROJECT

Country: Republic of Suriname

Region: Latin America and the Caribbean

Project Title: Sustainable poultry production a way to improve nutrition in Apetina, District Sipaliwini

Starting Date: 1 September 2016

Completion Date: 31 August 2017

Executing Agency: The Kuluwajak Foundation, Suriname

FAO Contribution: US\$ 10,000

Ministry of Agriculture, Animal Husbandry, and Fisheries, Suriname and the Kuluwajak Foundation: US\$ 2000 (contribution in kind)

Beneficiaries: The Wayana, Apetina Village

“Sustainable poultry production a way to improve nutrition in Apetina, District Sipaliwini”

1. Beneficiary group

The primary beneficiaries will be the inhabitants of the indigenous village Apetina. The approximately 500 inhabitants of the Wayana tribe grouped into seven major clans, need a substitute for animal protein since their normal source (fish caught in the nearby waters) is contaminated with mercury. In addition, the nearby villages will also indirectly benefit from this project.

2. Background and justification of project

Apetina is a village in the resort Tapanahoni of the district Sipaliwini in Suriname¹. The village on the Tapanahoni River can be reached by boat, about six hours traveling from Drietabbetje. By plane, Apetina is one hour away from Paramaribo. In good weather you can get a good picture of the gold mines and the impact of these mines on the tropical rainforest. A study of mercury in the body of the villagers in the Indigenous village has yielded alarming results. The mercury poisoning is mostly due to the large-scale consumption of fish and the use of contaminated water resources.

At the head of the village council is a Granman which cooperates with the Kuluwajak foundation for the sustainable development of the village and the surrounding areas. The foundation promotes tourism by operating a guesthouse in which members of the community find employment. There is a project for the education of 100 school children since 2007. Besides a primary school there is also an airstrip.

Because of mercury contamination in many rivers in Sipaliwini by gold mining, their diets are endangered and the health of the villagers is seriously threatened. The Wayana's diet consists mainly of cassava, from hunting (mainly peccary) and fruit (bananas and oranges) as well as fishing. Depending on the season they collect nuts and other protein-rich plant foods from the surrounding forest. Because of their close contact with Western society (Paramaribo), however, there is an increasing demand for gardening equipment, outboard motors, clothes, gasoline, sugar, salt, etc. These products cannot be bartered, like food and other supplies, but need to be bought, which makes a financial income a necessity. To meet this need, hammocks, baskets, bows and arrows and jewelry are some of the crafts made from materials harvested in the forest.

¹ A view of Apetina: <https://www.youtube.com/watch?v=2pJLdCh4nxo>

3. Objective of project

The development objective is to improve the food security and food safety of the villagers in a sustainable manner by enabling the community to produce much more of its food, predominantly animal proteins, since their traditional source is heavily contaminated with mercury from gold mining activities up-stream.

Within 12 months, the programme objectives are:

- The establishment and full operation of a 500 unit chickens of the dual purpose local chicken breed (Oso Fowru)
- To expand, through guidance, the villagers basic farming skills in poultry farming
- Sale of roosters within the population (approximately 200) at 12 – 14 weeks of age
- Sale of eggs after the 6th month (approximately 120 per day), during 6 months.
- Production and hatching of 1000 eggs from the 9th to the 11th month for continuance and expansion (approx. 80 eggs per week kept for breeding), with a success rate of 75% hatching.

4. Project description and duration

The results of the Telefood finance will be the establishment of production units with local chickens. The local chicken breed (Oso Fowru) is selected because it can adapt perfectly to the local climatological-, feeding- and management circumstances and practices. The domestic chicken has a natural resistance to most infectious diseases and is also hardened against the most extreme weather conditions. Furthermore, they are able to hatch their own eggs. The project will be implemented over a period of 12 months.

5. Project activities

The main activities include the procurement of construction materials, supplies for the chicken pen, purchase of baby chicks and feed for the initial stage. The division of livestock development of the Ministry of agriculture will be guiding the project, by giving instructions to the trainers, from facility construction to the raising of the chickens, making poultry feed rations with locally available feedstuffs and manure composting for the production of leafy greens and other vegetables. With the methods and skills learned, the members of the foundation and also the villagers will be in a better position to preserve the surplus from the chicken farm. The constructions of the lofts are the responsibility of the foundation together with the villagers, making use of the guidelines of the Ministry. The chickens will be nourished according to a feeding schedule. During the first few weeks the chicken feed will be flown in. To increase the awareness on poultry diseases as well as to highlight basic poultry bio-security measures, workers and volunteers as members of the foundation shall be responsible for the activities such as checking of birds, daily cleaning of water bins, preparation and maintenance of foot bath, hand washing for the workers and disposal of any death birds. The livestock department will, as part of its support to the project, guide the workers to do regular

health checks, including vaccination and implementing a medication preventative health programme for the birds.

<u>Activity</u>	<u>By whom</u>	<u>When</u>
-Develop monitoring- and evaluation plan	MoA, Foundation	Month 1
-Procure baby chickens and production supplies	Foundation, MoA, FAO	Month 1
-Sent signed receipts to FAO	MoA, Foundation	Month 1 - 2
-Build chicken pens	Foundation, MoA	Month 1 – 2
-Guidance in poultry production, farm management and marketing	Foundation, MoA	Month 2 – 12
-Poultry care	Foundation	Month 2 – 12
-Egg harvest	Foundation	Month 6 – 12
-Collecting and hatching eggs	Foundation	Month 9 – 11
-Monitoring and evaluation	Foundation, MoA, FAO	Month 2 – 12

6. Project outputs

The following outputs are expected.

1. A chicken pen will be constructed and divided in 5 sections with 100 chickens each.
2. 30 villagers and 10 members of the foundation will be trained in poultry farming methods and in hatching eggs (by letting hens sit and by using an artificial brooding machine) thus leading to increased capacity of those involved.

7. Inputs/ Budget

The total project cost for establishing the poultry units and have it operational for one year is USD 11994.00. This will be funded through the Telefood fund for the purchase of tools, construction materials, feed, baby chicks and medicines at a total cost of USD 9994.00. The contribution of the Kuluyawak Foundation, the villagers and the MoA is estimated at USD 2000, referring mainly to labor, transportation of materials and technical guidance.

Inputs to be Procured	Total (USD)
Tools	882.00
Construction materials	2855.00
Baby chicks	1000.00
Chicken feed and medicines	3938.00
Feed and waterers equipment	1319.00
Other field supplies & transport	0.00
Total (max. FAO contribution, US\$ 10.000)	9994.00

9. Cost/Benefit Analysis

<u>Start-up cost year one</u>	USD
Construction materials	2855.00
Tools	482.00
Other field supplies (water tank, other)	<u>400.00</u>
Subtotal	3737.00
<u>Operating cost year one</u>	USD
Chicks	1000.00
Feed	3888.00
Medicines	50.00
Utilities (feeders etc.)	1319.00
Labor, transport	<u>2000.00</u>
Subtotal	8257.00
Total expenditure year one	11994.00
Income year one: Sales chicken: 200 @ USD 9	1800.00
Savings eggs 6 months 19800 @ USD 0.11	2178.00
Savings on replacement stock 750 @ USD 2	<u>1500.00</u>
Profit year one: USD	-6516.00

In the first year the project may generate negative gross revenue as the supply of protein to the villagers is the priority objective and not sales receipts. The fundamental purpose is to achieve food security.

10. Risks

As in all agricultural related activities, the project faces risks related to weather (extreme weather conditions), diseases, organizational capability, experience and ownership. An average loss of 2 to 5% of chicks during the first 4 weeks is considered, but this percentage can go up to 10% if small chicks are managed poorly by the community. The ministry also will have to respond to the culture and customs of the villagers e.g. preservation of the traditional lifestyles of indigenous people. The language as well plays an important role in transfer of information. The village does not really have a trade tradition. The process of bartering of obtaining goods and services by direct exchange without the use of currency is common in the village.

11. Project Linkages

The project is linked to the ministries policy plans for the interior for the period of 2011 – 2015 and the ongoing endeavor of the Government to include the hinterland in the development process. At the same time, organizations such as the National Women’s Movement (NVB) and the Inter American Institute for Cooperation in Agriculture (IICA) continuously work together with hinterland communities and organizations to develop the interior and guarantee food security and food safety.

12. Revolving Community Fund

The Kuluwajak foundation in collaboration with the village head will open a bank account and will monitor sales receipts and expenses. Within the village, trade or exchange in food may be mainly through a barter system. To estimate the dollar value of poultry produced, it is proposed monthly units consumed per household be used as the equivalent to poultry sales. Based on this monthly value, a proportion of income of the village craft will be set aside for reinvesting into the poultry enterprise. The ministry of Agriculture will evaluate on an annual basis, the progress made with regard to the sustainability of the project and provide guidance where appropriate. A Monitoring and evaluation plan will be used as a guideline for the beneficiaries, the field staff and the staff at the head office.

13. Technical support, supervision and reporting arrangements

The project will be monitored by the staff of the livestock department of the MOA and the project committee established by the Foundation of Kuluyawak. The evaluation of the project will take place periodically and will involve all actors. The chairman of the foundation with support of others will be responsible for recording and reporting of the project activities. A monthly progress report will be prepared which will reflect the main activities undertaken, project expenditures, production revenues, the progress made, any difficulties encountered and adjustment of the work plan. The report will be shared with the livestock department representatives. An interim report and a final report will be presented to FAO, respectively within a period of 6 months and upon finalization of the project.

Annex 1 Budget estimate

Description	Unit	Amount	Price per unit USD	Subtotal cost USD
Building stones 4"	pcs	100	2.50	250.00
Cement	bags	35	15.00	525.00
Construction sand	m3	10	25.00	250.00
Wood grofolo 2x3"	mtr	192	2.00	384.00
Wood cross-beams 2x4"	mtr	32	2.00	64.00
Galvanized nails 2 1/2"	kg	5	3.00	15.00
Carboleum	ltr	7	4.00	28.00
Brushes	pcs	2	2.00	4.00
Galvanized roofing	mtr	40	8.00	320.00
Galvanized roofing nails	kg	5	5.00	25.00
Chicken fence 25 x 1.50m	rolls	2	120.00	240.00
Gutter	mtr	40	5.00	200.00
Nestbox	pcs	50	10.00	500.00
Lighting	pcs	5	10.00	50.00
Total construction				2855.00
Feeders (kuikenvoederplaat) # 5A	pcs	5	8.00	40.00
Chickdrinkers # 5A	pcs	5	6.00	30.00
Feedingboxes #7A	pcs	12	15.00	180.00
Automatic drinkers #8A	pcs	5	22.00	110.00
Pvc waterhose 3/4"	mtr	15	9.00	135.00
Pvc waterhose 1/2"	mtr	15	8.00	120.00
Chicken transportation crate	pcs	10	65.00	650.00
Disinfectant		1	42.00	42.00
Electrol		1	12.00	12.00
Total feeders/health supplies				1319.00
Baby Chicks		500	2.00	1000.00
Chicken feed 0-8 weeks, BRF	bags	144	27.00	3888.00
Medicines (worm treatment)				50.00
Total chickens, feed, medicines				4938.00
Durotank 200 gallon	pcs	2	200.00	400.00
Garden hose	m	20	3.00	60.00
Spade and stick	pcs	2	20.00	40.00
Rake and stick	pcs	2	12.00	24.00
Wheelbarrow	pcs	2	100.00	200.00
Cutlass	pcs	2	12.00	24.00
Hammers	pcs	2	12.00	24.00
Boots	pcs	6	15.00	90.00
Water buckets	pcs	8	2.50	20.00
Total tools				882.00
General total				9994.00

