

Rice cultivation in Gabon

I worked in Gabon for 4 months as a JICA expert to improve production of NERICA rice. Gabon is an equatorial country on the western Atlantic coast of Central Africa bordered to the north by Equatorial Guinea and Cameroon, and to the east and south by the Republic of Congo. Those who used to listen to Radio Japan on short wave radio would have heard of the Moyabi transmission station in Gabon and many people would also know that the Nobel Peace Laureate Dr Schweitzer opened a hospital in the dense tropical forest in Lambarene here.

My first encounter with the country was in 2002 when we received a participant from Gabon for "Rice Research Techniques" course in JICA Tsukuba. The participant said that "We don't produce rice, however there is potential for future rice cultivation because we have annual precipitation exceeding 2,000 mm. Please support Gabon in developing rice cultivation techniques." This made an impression in my mind.



Giant antennas at the Moyabi Transmission Station

The land area of Gabon is 268,000 km², about the same size as Honshu Island, the main island of Japan, with a small population of 1.48 million and a very low population density. 80% of the country is forest and 85% of the population is concentrated in urban areas. It is rich in resources and the economy is dependent on the oil industry which accounts for 35% of the GDP. Agricultural production is extremely low and food supply is heavily dependent on imports. Much of the vegetable import is from neighboring Cameroon.

The staple foods of the Gabonese are bananas and cassava but rice is widely consumed in urban areas (37 kg/person/year). In the past, there were several development projects for rice irrigation scheme and around 1,000 ha were cultivated in total. However, rice production did not sustain itself and all rice is currently imported. In recent years, the Government of Gabon has started prioritizing diversification of industries and rural development, as well as introducing upland rice and development of rice irrigation scheme driven by the necessity for ensuring food security. The National Office for Rural Development (ONADER) where I worked had a three year project starting in 2009 to promote participatory variety selection (PVS) for upland and lowland NERICA varieties guided by the Africa Rice Centre. Although they have been accumulating experience in this for the last two years, there is still insufficient experience on the part of the ONADER staff and collaborating farmers. Therefore, this time, I conducted training on how to conduct varietal trials, targeting the ONADER staff.

Farmers in Gabon live in clearings they make in the tropical rain forest. Their main livelihoods consist of

cassava and banana cultivation supplemented by hunting of wildlife such as porcupines for protein and fishing in the rivers. Livestock is scarce and only a few goats and chickens are seen in the villages. Cropping and livestock husbandry of cows and pigs is not common. According to the counterparts, "To plant cassava and banana, the only thing farmers have to do is to dig holes – they don't even have to touch the soil." It may be a little exaggerated, however it is true that we do not really see open cultivated fields which have been worked over multiple years. The PVS collaborating farmers cultivated upland rice in forest or grassland clearings. Fields in the forest receive insufficient sun light and many suffered from bird and wild animals. Because of little experience in cultivating annual crops, farmers had no clear idea regarding cultivation periods based on rainy seasons.



Upland rice fields in the forest

A number of challenges were expected in our effort to extend upland rice cultivation among the farmers in Gabon. However, through training and discussions with farmers, we found out that there were many farmers with a high level of interest in rice cultivation as well as unique techniques and innovations. For instance, some farmers were practicing traditional techniques to prevent chickens eating seeds and seedlings by placing coconut leaves in rice plots. Some were using innovative materials for fencing to keep animals out of the plots. There was a farmer who polished rice using a pestle and mortar despite the fact that it was the first time for him to grow rice.

The government has been promoting rice cultivation through infrastructure placement, developing 3,500 ha rice irrigation scheme with support from the Africa Development Bank. It has also ordered ONADER to plant 5 ha of upland rice in every province, following the example of the former vice president's large scale mechanized upland rice cultivation project in his homeland after his retirement. However, it is also important to incorporate an approach to work with small scale farmers who have unique techniques and solve fundamental issues related to cultivation techniques.

The Japanese Embassy and JICA Gabon Office have been supporting development of rice production since the NERICA varieties were introduced, and the Government of Gabon is hoping to receive substantial and continuous support. The JICA ex-participant mentioned earlier has recently started working as an adviser to the Director General of ONADER, after obtaining a PhD in Agriculture from a Japanese university. This creates an ideal ground for Japan's further support for improving rice cultivation techniques in Gabon.

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(By Kojima, August 2011)