



## Distribution of Cacao Seedlings Phase One in 2022

In mid-February 2022, the GEG program started the distribution of cacao seedlings program to 19 villages in two regencies of Jayapura and Kerrom in Papua Province. 150,000 seedlings will be distributed from five different farmer groups who have produced the seedlings. The sales of these seedlings will be an important source of income for them at a price of IDR 12,000 per tree.

The five groups are the Karya Tani Farmer Group in Takwa Bangun Village, the Sumber Makmur Farmer Group in Nawa Mukti Village, Tunas Baru Farmer Group in Nawa Mulya Village, Ibi Kballi Group in Genyem and the Putra Tani Jaya Group in Jaifuri, Keerom

These cacao seedlings will be distributed to 19 villages that have not yet received any seedlings from the GEG Program in 2021. The number of seedlings that will be received by each village depends on the number of farmers in that specific village, the readiness of their land and the availability of labour to plant the seedlings.

In total, there were 49,650 seedlings that have been successfully distributed to seven villages, namely Hamonggrang, Sarmai Atas, Imestum, Banyup, Swentab, Jaifuri and Wiantre villages in February. The activity of distributing the seedlings will continue in March 2022.



# The Journey of Finding Green Method to Increase the Quality of Nutmeg in Fakfak

Nutmeg is a spice plant that has many potential uses because every part of the plant can be utilized in food, medicine, perfume and cosmetic industries. One of the main parts of nutmeg which has high economic value and is widely traded by the people of Fakfak is dried nutmeg.

Since the beginning, Fakfak nutmeg seeds are dried using a traditional smoking method which generally

uses firewood and coconut fiber. However, with the increasing demand for high quality dried Nutmeg from both the domestic and international markets, the demand for quality dried nutmeg seeds is increasing. Some demand high quality dried nutmeg on condition that it has no smokey smell, taste and is free of Aflatoxin-Ocratoxin. Therefore in order to penetrate these markets finding alternative drying methods is critical.

Efforts to find and apply this alternative method have been carried out by the GEG program since 2020 by trying to introduce solar drying houses or better known as Solar Dryers. The drying technique using the Solar Dryer is simpler because it is easy to make, inexpensive, and effective in minimizing dust, insects and air contamination.



However, the Solar Dryer is very dependent on sunlight so that fluctuations in sunlight can create health risks. Improperly dried nutmeg seed creates an ideal breeding ground for mold which can increase the possibility of Aflatoxin contamination.

This is what made the Nutmeg Expert, Dr. Mustafri and UD Sofia,

one of the nutmeg collectors in Fakfak, continue to carry out experiments to find solutions and drying technologies that can produce high quality dried nutmeg seeds.

The experiment and research went through several stages of trial and error until finally they succeeded in finding out that the hybrid method or

a combination of the cold Dryer & Solar Dryer is the best method for drying nutmegs. They are using solar power, air conditioning and a blower to continuously maintain the humidity of the air in the drying house, day and night.

The new method is able to produce dried nutmeg seeds with a moisture level below 8% within 7 days. If the

capacity of the drying house is 1.5 tons, then in 1 month, this drying house will be able to produce 6 tons of high quality dried nutmeg seeds. The only cost required is the electricity fee which is around IDR 2,000,000/month.

This new method is much more efficient than the smoking house method that generally takes 21-30 days to get nutmeg seeds with moisture content ranging from 9-11%. In addition, on average, smoking technique is required the use of two cubics of wood to dry 1 ton of nutmeg. The need for this amount of wood is not only expensive, but in the long run it is a serious threat to the surrounding forest.

Using the new method of drying nutmeg, not only eliminates the need for firewood completely but

also cuts the production time and produces 6 times more dried nutmeg which free of smokey taste and also Aflatoxin-Ocratoxin contamination.

The technology of drying nutmeg seeds with this hybrid method has succeeded in taking Fakfak Nutmeg seeds to the international market. Last January, the True Spice Company in Surabaya exported the nutmeg seeds to Nedspice in Vietnam, which was the first Fakfak nutmeg export after 30 years.

Currently GEG program is trying to get the support of Village Community Empowerment Office of West Papua Province to be able to replicate hybrid drying house technology at several other locations in Fakfak in order to fulfill the demand for high quality dried nutmeg from Fakfak.





## Sustaining Wondama's Seaweed through New Variety of Seedling: Support from Ministry of Maritime Affairs and Fisheries

The Wondama Bay District Fisheries Service continues to take active steps to maintain and expand Wondama seaweed. This year, the work and commitment of the office gets the support of the Ministry of Maritime Affairs and Fisheries. The ministry will provide assistance in the form of facilities & infrastructure such as ropes, buoys and baskets as well as seaweed seedlings.

According to Dominggus Masyewi, Head of the Fisheries Office, 2021 was a very challenging time for Wondama seaweed. Several locations where the office and UD Nadifah work together to develop seaweed seedlings garden, such as in Aisandami village, Yende, Menarbu and Sariyai failed. This condition directly affected the annual production so Wondama can only manage to produce 10 tons of dried seaweed in 2021.

There were two causes of this condition, the first one is high intensity rainfall in Wondama. The

second one is due to the type and nature of the seaweed seedlings that is widely cultivated in Wondama. The species cultivated in Wondama today is *Euchema Cottonii* Sakul which requires high salinity water to live. So that any changes in water salinity due to high intensity rainfall will greatly affect its survival.

Therefore, this year the Fisheries Office asked for a different variety of seaweed, known as *Euchema Cottonii*, from the Ministry. This species is chosen because it has a shorter harvest period compared to the *Euchema Cottonii* Sakuul and is also more resistant to weather changes.

This year, Yomber village will be the centre of all the ministry support and has been set as the seaweed village in Wondama. This village was chosen because it is a fairly a stable

area for seaweed cultivation throughout the year. "As Yomber is not located at the mouth of small rivers, the salinity level of the water is quite stable throughout the year. It is an ideal location to start new seaweed seedlings farms for Wondama," said Masyewi.

The seedlings for Wondama from the the ministry come from the Network Culture Laboratory of the Marine Aquaculture Fisheries Center of Ambon, Maluku and is expected to arrive in March 2022. It makes Yomber the first village in the Wondama area to cultivate *Euchema Cottonii*.

Masyewi hopes that the seedlings grown in Yomber this year will be able to support the Office of Fisheries's with enough seedlings to achieve the target of expanding seaweed to other sub-districts in Wondama such as Windesi, Wamesa, Nikiwar and Sowepeu this year.



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Dominggus Masyewi,  
Head of the Fisheries Office  
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## Green Economic Growth Programme for Papua Provinces

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