The state of our forest

Agro – forestry for Lauru State

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This paper is written to highlight the natural interdependence between agriculture and forestry as the basis of sustainability from time immemorial, at present and the future of Lauru (the traditional name of Choiseul) island. But not exclusively to mean the inter-cropping of trees and food crops as the present meaning of agro-forestry refers to.

Above: The rainforest of Choiseul Island, which is today under threat from logging. Insert: Bronze ground dove.

If Lauru State is going to be a progressive, sustainable and viable state now and in the future, it must base its food security on forestry resources

Lauru State as it will be called in the future has a unique environment. Because of its uniqueness, it provides habitats for rare and important birds, flying foxes, reptiles, and turtles. The island has fast flowing rivers, streams, drinkable springs, freshwater lakes, and white and black sandy beaches. Because of the islands physical and natural features it has a wider base for sustainable development to take place. The urgency is immediate especially with the logging industry exploiting this last island with merchantable tracks of lowland forests in the entire country.

What this article intends to convey is the importance of the forest and its various components without which all the inhabitants and especially the physical features of this island (Lauru or Choiseul) would be perpetually changed or destroyed. If the present and future generations of this state continue to exploit the resources of the island at the present unsustainable rate and injudicious way, there will be disastrous consequences for both the human population and the environment of the island.

The forest

One may ask how forests are self sustaining – through the processes of growth and decay. Our correct understanding of these two processes should be as equally important as the existence of our forests in relationship to our agricultural activities. As people of Lauru, we can learn a lot from our forest. The trees, shrubs, palms, and vines and creepers grow by getting their energy from the sun through the process of photosynthesis. When leaves die or are blown by the wind, they fall to the ground. The thicker the layer of leaves on the ground the faster the process of decay proceeds. The process of decay in the forest is enhanced by the activities of decomposing bacteria and fungi. Fungi are the most important agent of decay with bacteria, earthworms and other microorganisms. The decomposition of all the organic matter in the forest is the very essence of the formation of humus soil.

Humus soil

Humus is the living part of the soil in which every organism and creature in the forest completely depend on. The plants in the forest derive their nutrients from humus in order to grow. The perennial growth of forest trees and plants, which provide food for living things, is a direct result of the processes of growth and decay.

Humus is the dark black and brown soil top layer, which can easily be washed away into rivers and out into the ocean. Humus can easily be destroyed by rain, floods, landslides, sun, winding, the effects of logging and other human activities, especially agriculture. Land clearing for gardens or farms without proper cover or protection, results in a loss of fertility in the humus layer. When the sun heats up this top layer or humus, it converts this deposit into dust. Hereafter, there are two things that can easily happen to humus soil. Either it gets blown away by the wind or washed down gullies into rivers and streams, finally ending up in the sea or ocean.

This vital part of our soil must be protected or wisely used for it can easily be depleted or destroyed. The good news about humus is that it can be cultivated. Compost heaps made up of several layers of different types of organic materials can easily produce humus. Usually the end product of this process is the rich black soil. Again it is the same processes that take place in the forest as described above.

Natural Forest Supports our Livelihood

Our forest is an invaluable entity. The forest and its contents cannot be expressed in monetary terms. Forests have all the essentials to fully support our lives and the lives of the millions or billions of living creatures and plants in and around it. It must not be under estimated. Selling our forest is exactly the same as selling our own lives. No same person will ever sell his or her own life and that is exactly how much each one of us should correctly understand the importance of our forest.

(a) Forest food

Our natural forest has an abundance of food to keep us alive. In Babatana areas (northwest of Choiseul Island), with Tony Jansen and Maeni Sirikolo we discovered 98 different varieties of food in our forest. Imagine how many more are awaiting discovery and documentation in other

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parts of the island. There must be hundreds and hundreds of forest products and especially food essentials that have not been documented, yet are known by indigenous forest dependent communities.

Some forest foods include; **voka, tubulu, gosu, kekoso, jua, sai, zuku, moga, moke, karamo, poporo, gio, gota, noga, ngelo, noga kokoru, saga, kaku, reo, ludu** (a mushroom), **poraka, zaki**, and **kanava**. Some forest protein include freshwater mountain Mallet like **buri** (which is threatened today by over harvesting and pollution of streams), lizards like **pano** (*Corucia zebrata*), pigs (*Sus scrofa*) and **bogere** or Bougainville giant rats (*Solomys salebrosus*).

The above list is only a very small record of the vast varieties of forest foods that are available. There are so many vegetables and fruits as well as birds and animals we can collect and catch for food. Someone had rightly described the forest as "our supermarket." And so it should be seen as one, due to the many varieties and the quantities of food it provides. It is indeed "our supermarket"! Yet, why do we sell it for a pittance?

Clear felling with all the heavy equipment used in logging operations, completely destroys and removes humus soil, which for centuries have supported such food plants. The minerals and trace elements found in humus soil are exactly the same as those that are found in the leaves, stems, and fruits of food plants.

(b) Medicinal Plants

Medicinal plants of great varieties are found in and around our forest. Some of these plants include: **noge, kibiri, nuliti** (which is also eaten by **visiri** (*Chalcopsitta cardinalis*), **botere, sulutavera, pogasa, buava, ara, varu, veloki, soso, geo, pugu, kanagi, papakutu, kokama, kunu, papageto, modo, rurui orata, sakatuku, lupitae, book, pusuka, sui** leaves, **bubo** leaves, **kaku** (*Canarium indicum*), the liquid of **saga** (*Canarium salomonense*), **viviriti, kabo** and **lotu** to name a few. Some plants are used for specific illnesses such as dudula, which is used to treat a person with TB or someone suffering from severe cough or irritation of the throat. So there are many values of the forest that are important to our livelihood and cultural heritage as well.

Today when bio-prospecting is becoming an issue in the country and throughout Melanesia, we should be cautious who we allow access to our forests and its products as in most cases the forests have been exploited by eager pharmaceutical companies. And as is the case in most instances, the host country loses out on its exclusive rights to the chemical extraction from the forest once it has been patented by foreign companies.

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There are many edible forest foods like *Pteropus rayneri* (top), **Bogere** (*Solomys salebrosus*) (above centre), superb fruitdove (*Ptilinopus superbus*) (Above). Page 24: Mushrooms are abundant in rainforests, some very edible.