

The Role of Indigenous Food for Nutritional Wellbeing- FG Winarno

FG is known as the father of food science and technology in Indonesia. He created the infrastructure for the production of safe and secure food in his country. His approach is to establish 1) food safety regulations; 2) provide job opportunities for small food production business; 3) support education and research in academia.

FG Winaro:

Indonesia has a very high level of malnutrition. Indonesians are rice eaters. Indonesia has the 4th highest rate of diabetes type II. This is link to their food habits. From all diabetes cases, more than 95% are type II.

In addition, 70% of the food we consume is important. Why is Indonesia not using its natural resources better? Indonesia has resources wider than the USA. It is a mega biodiversity environment. However, we use very little of it, and almost nothing from the marine resources.

The role of indigenous food is very important for nutrition:

Land based resources: rice bran: FG developed a new technology to process the rice so to keep the most nutrients part of the rice.

Marine based: there are hidden resources in the oceans.

- micro phytoplankton: base of the food chain and highly nutrition. If cultivated well, it could become a wonderful resource of nutrient.
- Coconut: high in water and very high in protein.

With research we are developing new type of low in Glycaemic Index (GI) products and SI. We want to change people's mentality in consuming rice. We will lower the consumption but having them consume more nutritious rice. Also developing other products that are healthier and will decrease the level of diabetes.

We build a consortium of members of the government, food industry, academics to tackle the problem and change the food market in Indonesia.

- - Participant question: What could be done with the rice husk if we don't consume it. FG responded that it could be used as a mushroom medium. Some people use it to start fires for cooking. What about for human consumption? FG says it might hurt our stomachs – that's why we give it to chickens.
- - Participant question: Why would we eat phytoplankton or use it for fuel when it's at the bottom of the food chain and many sea animals eat it? FG says that phytoplankton is the original source of nutrients, so it doesn't make sense to eat the fish; we should go straight to the source. But if phytoplankton is in high demand, there's a danger that it will be over harvested. To combat this, we should harvest phytoplankton.
- - Participant question: Is there enough phytoplankton for the sea and for human use and

consumption? FG says yes, because the sea is very deep.

- - Participant question: How do you educate and encourage consumers to eat brown rice? FG says they try very hard. After all, their grandmothers ate brown rice. But with 17,000 islands, transportation is a problem. Rice bran has a shelf life of 2 months. The problem is that we're very fussy about rice – it's all about how it smells. We like a certain scent. Sometimes the tongue is stronger than the brain (i.e., the desire for a particular taste can overwhelm the knowledge that a particular food is healthy).

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- - Participant comment: Partnership with government and schools would be useful. FG says yes, and they've started those partnerships.

- - Participant comment: I don't think the phytoplankton idea will work; we tried that many years ago. And regarding coconuts: Don't you already use all the parts of a coconut? What's new about what you're doing? FG says that he's focused on preventing diabetes mellitus.