June 2005

Food Crisis

1. Actual Situation

- 40,000 children worldwide die of starvation or malnutrition every day (15 million/year).
- There are currently 1.2 billion people starving in the world today(1 out of 5 people in the world) <FAO: Food and Agriculture Organization survey>
- On the other hand, there is over-abundance of food in developed countries, especially Japan.
- Despite this fact, Japan does not provide food aid sufficiently to starving countries.
- The current food sufficiency situation in Japan has already collapsed. Its economic power (wealth = money) disguises this fact.

World's food self-sufficiency rate (grain)

Australia	272%	India	106%
France	176%	China	95%
Germany	132%	North Korea	68%
USA	127%	Japan	24%

2. If food import stopped to Japan…

- More than 30 millions of people will die of hunger within a year corresponding to the agricultural area, the amount of agricultural seeds and agricultural population

=>Japan's situation may be likened to a nation recklessly enjoying an extravagant party on the Titanic just before its strikes the iceberg

3. Food Trend in the Future

<Demand side>

Rapid population increase:

- 1.5 billion in 1990 ⇒ 6 billion by 2000 ⇒ 10 billion in 2050
- Raised living standards change people's diet from grain and vegetable to meat and processed food (massive consumption of grain and energy) ⇒ grain

consumption has greatly increased!

- Meat consumption in China has increased by more than five times.
  (7.7 million tons in 1977 ⇒ 40 million tons in 1994)

※ Production of 1kg meat requires 8kg grain for beef, 5kg for pork and 3kg for chicken

<Supply side>

Decrease of cultivated (agricultural) land area:

- Wide scale conversion to non-farm land, (i.e. factories, commercial use, housing, etc.)
- Urbanization decreases agricultural areas through asphalt roads, concrete buildings etc.
- Deterioration of land and soil erosion (due to mechanization, agri-chemicals, repeated planting of crops in the same field, over grazing and deforestation, etc)
- Deadlock of modern agriculture: arable land is deteriorating due to overuse of chemical fertilizers, insecticides and agricultural machinery, excessive irrigation.

Water shortages: due to overdrawing of water, excessive irrigation which makes it difficult to grow crops. 80 countries, or 40% of the world's population, have chronic water shortages.

Global environmental crisis: especially climate change

- Climate change (temperature rise, sea level rise, heavy rain, drought) negatively affects agriculture and food production.
- In Japan, it will be increasingly difficult to plant Japanese rice.
- In China, 78% reduction of rice production, 20% reduction of wheat production (IPCC, 1997).

<As a result>

- There will be food shortage:
- In China ⇒ 100 million ton in 2010 ⇒ 200～300 million ton in 2030 (equivalent to 0.6 ～ 1 billion people's food)
- In Asia ⇒ 550 million ton in 2020 (about 1.8 billion people's food)
- However, possible food supply will be 200 million ton only. Moreover, there will be no room for additional production thereafter.
- Food crisis worldwide will begin after 2010.
- Japan, the lowest food self-sufficiency, will be most vulnerable. But Japan is still promoting a policy of cutting back on the acreage under cultivation (its priority is always the economy).

- Annual grain consumption per capita is a little over 300kg.

4. Fish catches have begun to decrease all over the world.

- An adult fish is decreased due to over-fishing, leading to the reduction of fry ⇒ further decrease of fish catch (vicious circle)
- Increase of U.V.B. rays due to the ozone layer depletion ⇒ decrease of plankton.
- Change of sea temperature caused by climate change ⇒ change of tide, reduction of fish-bait
- Seriously adverse effect on generative functions and massive death of fish by endocrine disrupters.
- The number of fish species has been reduced by 70%, requiring appropriate catch control (According to FAO) .
- In EU, a sustainable fish catch is calculated and managed internationally.

＊ Japan, which imports 31% of the world fish (largest in the world), is most vulnerable to this change.

5. Atopy, allergy, and cancer are increased:

- No need either for refrigerators nor for pesticides in the past, because food was traded only short distances.
- At present, refrigerators, antiseptics and protective finish are indispensable, since most food is transported a long distance. However, this harms people's health.
- We are losing our health, life and future by pursuing economic expansion.

6. The catastrophe cannot be avoided without changing our value, lifestyle and ourselves:

- The expansion of economy and consumption destroys our self-sufficient economy, leading us to deepening our dependency of importation.
- The exporting countries also expand their consumption and economy, collapsing their self-sufficiency, and will depend on importation in the end.
- The current economy of developed countries accelerates the collapse of self-sufficient economies all over the world as though they are dominos.
- Japan is a typical country. The country was self-sufficient 100 years ago and is collapsing developing countries by importing massive amounts of food and natural resources.
- In this sense, the food problem is not one for developing countries but for developed countries.
- The developed economies and our lifestyles must change in order to solve food

crisis.

7. What we can do?

- Avoid over-purchasing, over-eating and left-over.
- Avoid imported products, manufactured farm products (green house products, etc.).
- Purchase chemical-free domestic farm products and organic products.
- Shift from a meat-oriented diet to a vegetable-oriented one.
- Start your own kitchen garden (20% of all vegetables are grown at home in Germany).
- Restrain the population increase, urbanization and industrialization.
- Refrain from massive consumption and massive waste.
- Pursue a self-sufficient society (getting out of companies and city-life back to their hometown, beginning agriculture).