

Chapter II Whales Help the Japanese Once Again

Food self-sufficiency rate of 41%: price the Japanese have to pay for failure to give due attention to agriculture and fishery

Japan, where food worth 3 million servings is thrown away every day as described earlier, is in fact faced with a major problem.

Agriculture and fisheries are on the decline. Food problems are closely linked with the issue of whales.

First, the food self-sufficiency rate of Japan as of 2009 is strikingly low at 41%. This is considerably low, compared with other countries.

The rate for the U.K was 46% in 1970, which has since increased to 70% in 2003.

For Germany, it was once 68% but has recovered to 84%.

A rate of 100% is an agricultural country, which the U.S. well exceeds at 128%. Canada's rate is 145% and Australia boasts a high rate of 237%. France, which is apparently an advanced industrial nation, is also highly agricultural at 122%.

Seen in this light, among other advanced countries, the self-sufficiency rate is deplorably low for Japan. That is, the Japanese depend on foreign countries for 60% of their food. Thus, it is no exaggeration to say that foreign countries have the power to take Japanese lives.

Japan had a food self-sufficiency rate of 78% in 1961, which decreased year by year. In 2006, it reached 39%, going below 40%.

To effect a breakthrough in this situation, the Council for the Promotion of Improvement of the Food Self-Sufficiency Rate (the present Council Group) was established in the Ministry of Agriculture, Forestry and Fisheries. I currently assume the role of its president, where nearly 40 organizations in total take part, including the National Governors' Association, the Japan Association of City Mayors, the National

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Food Self-Sufficiency Rate of Major Countries (Calorie-based) (Unit: %)

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Year Country	1965	1970	1975	1980	1985	1990	1995	2000	2002	2003
Australia	199	206	230	212	242	233	261	280	230	237
Canada	152	109	143	156	176	187	163	161	120	145
France	109	104	117	131	135	142	131	132	130	122
Germany	66	68	73	76	85	93	88	96	91	84
Italy	88	79	83	80	77	72	77	73	71	62
Netherlands	69	65	72	72	73	78	72	70	67	58
Spain	96	93	98	102	95	96	73	96	90	89
Sweden	90	81	99	94	98	113	79	89	87	84
Switzerland	48	46	53	55	60	62	59	61	54	49
U.K.	45	46	48	65	72	75	76	74	74	70
U.S.	117	112	146	151	142	129	129	125	119	128
Japan	73	60	54	53	53	48	43	40	40	40

(Source: MAFF)

Association of Towns and Villages, the Central Union of Agricultural Co-operatives, the Japan Chain Stores Association, the Japanese Consumers' Co-operative Union, the Federation of Prefectural School Lunch Associations of Japan and the Consumption Science Federation, to strive for increasing the food self-sufficiency rate of Japan.

Japan's rate has now risen to 41%, which is still very low.

Work that is popular after retirement age

Why has the food self-sufficiency rate of Japan decreased this much? There are two reasons.

First, up to now, Japan as a nation has failed to position agriculture as an important industry. For as long as five centuries, farmers have been called *hyakusho*, something like peasants, and the tendency for class discrimination still remains. More than that, focus has increasingly shifted to manufacturing industry as modernization progressed and agriculture as a profession has increasingly been treated lightly.

However, agriculture is a core industry that sustains life. Doctors, who save lives, are certainly in a life sustaining industry but even doctors could not survive without eating food produced by vegetable and dairy farmers. Agriculture is most important.

I have heard that various surveys were taken when the EU was established in Europe. Ways of thinking were assumed to be different between different races and countries and the same questionnaire was distributed to 27 countries before currency unification.

Among the various questionnaires used for surveys, there was one question asked of people 60 years or older: If you have a chance to work again after retirement, which profession will you choose? The options included sales, engineering, agriculture, teaching and other professions.

About 60% of the respondents chose agriculture. I suppose they know the degree of importance of agriculture. This can also be viewed as living their new life after retirement while working for others. In Europe, people are properly taught the importance of agriculture and food from childhood and many people wish to contribute to society through agriculture and fisheries.

Japan's food self-sufficiency rate to decrease to less than 20%?

The other reason for Japan's low food self-sufficiency rate is that Japan has become an industrial rather than a farming or fishing country. During the postwar reconstruction period, the Japanese made use of their diligence, meticulousness, dexterity and richness in ideas and developed manufacturing, science and industry. One day, we found ourselves among the leading industrialized countries in the world, exporting electronic appliances, automobiles, computers and machines in large quantities to foreign countries. However, just being able to sell goods is not acceptable in the international market so we had to buy as well. Accordingly, a decision was made to buy large amounts of agricultural products because Japan's agricultural productivity was deteriorating.

Once this situation is entered, Japanese agriculture can never compete. This is because large-scale agriculture is implemented in the U.S., Canada, Australia and other countries that export large quantities of agricultural products to Japan. There is a stark difference in scale of production, between small land plots of Japanese lands and using airplanes to

sow seeds in large acreages. This of course leads to major differences in prices of agricultural products.

In addition, the Japanese government has not carried out appropriate policies to develop farmers. For example, the government has offered compensation to farmers who do not grow rice because the people have come to eat less rice, which is basically a policy for reducing the production of rice.

If agricultural protection by tariffs was taken away, inexpensive agricultural products would freely enter in from overseas, which would doubtless devastate Japanese agriculture.

However, Japan started EPA (Economic Partnership Agreement) negotiations with Australia in April 2007. The EPA was intended for liberalizing the trade of goods and services with between countries and is virtually an agreement for not imposing tariffs on large quantities of incoming agricultural products from Australia. EPA negotiations are also in process with other countries such as Singapore, Mexico, Malaysia, Chile and Thailand.

In addition, the WTO (World Trade Organization) has worked out a policy of not allowing importers impose tariffs in the future for agricultural products from exporters, including the U.S.

If this ever becomes a reality, the situation will become extremely serious. There is a concern that Japan's food self-sufficiency rate may decrease to less than 20%, well below 40%.

More doctors than farmers!

Japanese agriculture is dire as a population of 120 million needs to be fed every day.

There are data that are symbolic of this crisis. The number of people who passed national examinations for medical practitioners, to become doctors and dentists, in the last five years is about 6,800 every year. While a doctor shortage recently became an issue, which is apparently being gradually alleviated, about 6,800 people are becoming medical practitioners every year.

Meanwhile, the number of those who inherited or started farming as a full-time occupation is less than 5,000 a year across Japan.

A phenomenon like this in other countries would be unthinkable.

In an interview I had with the principal of an agricultural high school about three years ago, I heard a shocking story. Of the graduates of agricultural high schools, which exist in large numbers nationwide, the number of those who engage themselves in full-time farming immediately after graduation is no more than 1,000 in all of Japan.

What in the world are agricultural high schools for? These results suggest that agriculture is such an unappealing profession to the Japanese, especially young people.

In Japan, unattended or abandoned farmland is currently at about 398,000 ha. To give an idea of the size, this is roughly the size of Saitama Prefecture. The biggest reason for agricultural land going unattended or abandoned is that the average age of people engaged in agriculture is greatly increasing. The current average age of agricultural workers is 62.

Fisheries also face a serious situation. Japan, a world-class fishing empire that used to eat, catch and sell the most fish in the world now has a self-sufficiency rate of fishery products of 54%. Ironically, Japan has now become the country that buys the most fish in the world.

In the past, Japan's five biggest fishing ports were arguably Kushiro of Hokkaido, Hachinohe of Aomori, Ishinomaki of Miyagi, Sakaiminato of Tottori and Choshi of Chiba. Which is the biggest fishing port in Japan now? The answer, some say, is a port away the sea: Narita Airport. An enormous amount of seafood arrives from around the world almost every day by air, thus the airports alias "Narita Fishing Port". This is totally unimaginable.

Today, at any fishing port in Japan, many boats are seen moored. The reason for this is that fishing by Japanese fishermen in fishing grounds is not worth the fuel and labor costs but fish imported from overseas is inexpensive, which makes buying fish from overseas more cost-efficient.

In this way, a terrible situation is currently underway in agriculture and the fisheries.

If this continues, Japan is certain to see its food self-sufficiency rate decrease even further.

There was a university professor who said that since Japan became an outstanding industrialized country, it could just sell automobiles and electrical appliances and spend the proceeds to buy food from foreign countries.

That might be all right if Japan would like to end with our generation. However, Japan must continue onto the next generation, the generation of our children and grandchildren and further generations. There is no guarantee that foreign countries will permanently export food to Japan and, in addition, countries exporting food to Japan are increasingly being troubled by abnormal weather conditions. There is also the reality of the difficulty in guaranteeing the safety and security of importing food, which is yet another of the many problems of importing food. Food is literally a lifeline and, if such a serious matter was left to be handled by other countries, Japan would have no future. What would become of your children and grandchildren, who are destined to live in such a country? In the 21st century, food is critical, not simply something to eat, but a strategic weapon.

Food crisis to come in 30 years

Food issues like these cannot be considered as issues unique to Japan. In fact, food is rapidly decreasing on a global scale.

One reason for this is the impact of abnormal weather conditions.

For example, Australia had a food self-sufficiency rate of 280% in 2000, which decreased to 237% in 2003.

The high original percentage makes it less obvious but the rate actually dipped by as much as 50% in a short period of three years. This decrease was due to the impact of drought arising from abnormal weather. Australia is the biggest provider of food to Japan and the situation is expected to grow more serious in the future.

Australia is not an isolated case: For example, tornadoes occur frequently in Canada and, in the U.S., Florida and California are being hit by more hurricanes compared to the past. The phenomenon of global warming is expected to pose a major hurdle for future food production.

On top of this is massive population growth. The Food and Agriculture Organization of the United Nations (FAO) has given stated that continued population growth at the current rate would make it impossible to feed all humans in the not-so-distant future.

Japan has no time to take it easy, either. One reason is abandoned farmland, which I mentioned amounts to a total of 398,000 ha. Land left uncultivated does not become productive immediately after restarting cultivation.

Let me give you an example of what happened in Yamanashi Prefecture. There was a rice paddy left uncultivated for three years, which people tried to cultivate to for rice but this resulted in total destruction in the end. This was because shield bugs and other harmful insects had laid large numbers of eggs in soil during the three-year fallow period and rice plants that grew from seedlings were eaten by these insects. It is possible to get rid of shield bugs and other insects by spraying a large amount of insecticide but it would be absorbed by rice, which would render it inedible.

Thus, reviving agriculture takes time. Once a rice or vegetable field is left uncultivated, the soil's ability to support crops returns after a few years.

Accordingly, for production of food, Japanese agriculture needs to be revitalized as soon as possible.

Food to be a strategic weapon in the 21st century

Let's discuss what issues will occur if Japan continues to depend on foreign countries for food.

First, Japan cannot maintain itself as a country if it fail to grow what we eat by ourselves. A basic principle of sovereign nations is to take care of its own affairs by themselves, including defense. The same can be said of food and depending on other

countries for a large part of one's food would make that nation a food-dependent country.

Currently good relationships with food-selling countries are not guaranteed to continue into the future. We can buy food for money from a foreign country, "We will entrust you with the provision of agricultural products to be eaten by the Japanese." However, if the relationship with the country grows sour, the supply of agricultural products, our lifeline, may be cut. Another possible scenario is a reduction of production due to climate change, in which case the seller may not have enough food left over to sell to Japan.

In my opinion, food is equivalent to a strategic weapon in the 21st century. To put it in stark terms, a country without agricultural products may be controlled by an agricultural country. Food is a lifeline for people living in a given country, which obliges it to obey the wishes of countries with food, significantly weakening its negotiating strength.

I have heard that U.S. President Barack Obama took food and organ transplants as examples and said something along the lines that an independent state must be able to save itself to be an independent state. Now that we are in the 21st century, the world has begun to change.

Incidentally, thanks to a close friendship with Hokkaido Governor Harumi Takahashi, I give advice on agricultural administration and offer assistance with promoting agriculture under the title of Honorary Food Advisor of Hokkaido, which is why I visit Hokkaido several times every year. The following happened once.

In 2007, companies including Meiji Dairies Corporation, Snow Brand Milk Products Co., Ltd., Morinaga Milk Industry Co., Ltd. built a large milk factory near Obihiro. In fact, behind this almost simultaneous establishment of many milk factories, something worth noting that is somewhat suggestive of the future is what was going on between cheese exporting countries and Japan, an importer of cheese.

Cheese that had been distributed in Japan up to that time were mostly from northern European cheese producing countries such as Denmark and the Netherlands. However, the amount of cheese imported into Japan sharply decreased beginning around 2005. Where did the cheese go? To China, which is enjoying fantastic economic growth.

When Japanese buyers went out to buy cheese, the Chinese beat them, using their money to buy up virtually several years' worth of cheese. This resulted in a sudden, significant decrease in the amount of cheese imported into Japan. Recently, in Japan, where cheese had come to be consumed by households, by confectioners to make cheese cakes, by pizza parlors set up here and there in towns and by Western-style restaurants that sprouted everywhere like mushrooms, demand for cheese rose sharply over time and imports rose accordingly—then suddenly dropped. Cheese importers lurched into serious trouble because their supply could not keep up with demand. That is why domestic cheese factories were rapidly built.

In fact, I think things turned out for the better for Hokkaido and Japan. Until this occurred, there was a surplus of milk in Hokkaido and excessive importation of dairy products which can be processed into cheese. Circumstances improved Japan's self-sufficiency rate, and this should be welcomed.

Cases like this, though, are expected to increasing unless we make our own food.

No guarantee of safety and security with imported foods

Secondly, safety and security of agricultural products and seafood cannot be guaranteed if we continue to depend on foreign countries for our food.

It is obvious from the Bovine Spongiform Encephalitis (BSE) and avian influenza crises. Beef, pork and chicken are coming in from overseas in large amounts. If such meat contained hazardous materials, it may escape detection once the meat comes onto the market. If volumes of vegetables with large amounts of residual agrochemicals are imported from foreign countries, we have no choice but to eat them. If partner countries inspect food before exporting, the number of types of inspection is dauntingly large, the volume of food running into hundreds of millions of tons. If they attempt to inspect all of it, every single one, there would be no end.

A few years ago, a large volume of vegetable imported from a certain country was found to be contaminated with an agrochemical not listed in Japan. Accordingly, Japan contacted the exporting country to complain, which was met with a curt reply that they would not export to Japan any more. In this way, exports from a certain country to Japan stopped.

To be blunt, it means, “If you complain, you’ll get no food from us.”

That is the reality occurring in the world of food.

Japan not allowed to exclusively continue to purchase food

The third thing to consider is that food is running low on a global scale and Japan will not be given an exclusive right to continue to buy food, no matter how much money is offered.

Among African, South American and Asian countries, many are suffering a food shortage and the situation is expected to grow worse. There is a high possibility that Japan will become unable to purchase food for any amount of money.

In conclusion, we must grow our own food. However, in the present agricultural situation, the average age of people engaged in agriculture is 62. This is the highest in the world. No major increase in food production can be expected.

There is a policy in place for encouraging new participants in the agricultural sector by a grant in order to increase the number of newcomers in agriculture but the reality is that newcomers are not easy to find.

Japan has the world’s highest food mileage

Have you heard of a phrase “food mileage”? Food mileage is the distance food is transported and represented by the product of the weight of food exported and the transportation distance between the exporting and importing countries. A short distance between the food producing and consuming areas makes the food mileage low whereas transportation of food from a distant country makes food mileage higher. Thus, food mileage is a very useful indicator of a given country of its dependence on food imports. Japan has the highest food mileage in the world. Statistics taken by the Ministry of Agriculture, Forestry and Fisheries (MAFF) show that Japan’s food mileage is by far the highest in the world in terms of the total amount and per-capita amount.

Come to think of it, this is easy to understand. What Japan is doing is to import large

volumes of food from various parts of the world to make up for its low rate of self-sufficiency.

For example, Japan buys mackerel and salmon in large amounts from Chile in South America and Norway in Northern Europe. When you buy salmon rice balls or salmon box lunches at supermarkets or convenience stores, please check the labels. You will find many of them say “Salmon (from Chile).” Many others use salmon from Norway.

This is because salmon from Chile and salmon from Norway are both significantly less expensive than salmon from Japan. The reason for the low prices is that many of them are farmed, in holding ponds, in particular.

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Food Mileage by Country

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Country Name	Total Amount	Per-capita Amount
Japan	900,280 million	7,093
South Korea	317,169 million	6,637
U.S.	295,821 million	1,051
U.K.	187,986 million	3,195
Germany	171,751 million	2,090
France	104,470 million	1,738

(2001: MAFF)

*Unit: ton·km

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At present, the safest, most secure and most delicious salmon are said to be those that swim back up rivers in areas such as Hokkaido, Tohoku and Niigata Prefecture.

How are salmon caught in Japan? First, artificially-incubated fry are released into a river. The salmon swim all the way to the distant Bering Sea, where they eat a large volume of krill (plankton) and small fish as they develop and return to their native river to spawn three to five years later.

Incidentally, the reason why salmon can return to their native river is said to be that they can locate the river where they were released by the smell of the water, which is a wonderful ability of salmon.

This journey for salmon is extremely harsh. Of the fry released, less than 1% manage to return to their rivers of birth. As they swim over great distances, they fall prey to other fish.

In addition, Japanese salmon fishermen try to “catch before salmon spawn because those immediately before spawning absorb fresh water of rivers and do not taste good” and go to the trouble of going far from the mouth of rivers to catch salmon. That makes Japanese salmon delicious.

Although artificially-incubated, they grow under natural conditions. The natural environment gives them firm flesh and plenty of fat.

Furthermore, they are safe and secure. It is because the Bering Sea is said to have better water quality than Scandinavian seas.

However, that also makes Japanese salmon more expensive. Fishermen go out in boats, which incurs fuel and labor costs as well.

To turn our eyes to farmed fish that are imported, spawned fry are not returned to the sea but raised in seawater pools, or holding ponds. This does not involve the trouble of sailing out to fish, which saves fuel and labor costs. In addition, the return rate of salmon is 100%.

However, it also has high risk. With salmon farmed in a holding pond, once any one of them gets sick, sickness may spread to destroy all other salmon as well. To prevent this, large amounts of antibiotics are added to the holding pond water and feeds.

About six years ago, imported foreign farmed salmon were found to contain large amounts of antibiotics, which led to import suspension. Nonetheless, the Japanese are happy to buy foreign-produced salmon, saying that they are purse-friendly.

If the price of a slice of Chilean salmon is 180 yen, for example, Japanese salmon is about 230 yen a slice. This makes Japanese consumers opt for Chilean and Norwegian salmon, rather than Japanese salmon. I think that present-day Japanese tend to judge the value of what they eat by cost and like cheaper food better. However, it is not that we

eat salmon every single day and I personally buy safe, secure and delicious Japanese salmon, even if slightly more expensive.

In the first place, I am among those who have doubts about the recent trend of Japanese, in which consumers select food based only cost, without being aware of how it was raised, thinking the cheaper the better. Trading companies bring in farmed salmon from overseas, which are sold at various shops including supermarkets, department stores and convenience stores. This naturally causes price wars. Consumers who believe that a lower price, even by just 1 yen, is better choose farmed salmon from overseas.

As a result, in Kushiro and Nemuro of Hokkaido, salmon traders are giving up, one after another. I have recently been to Hokkaido and enjoyed Kushiro and Nemuro, salmon, which are exceptionally delicious. The tastiness of salt-cured salmon, called *yamazuke*, is indescribable with words. They taste great grilled and I could eat rice to go with it forever.

However, Japanese consumers have stopped buying Hokkaido salmon because inexpensive salmon is imported in large amounts from overseas. This gives traders no choice but to put the caught salmon in freezers, which incurs refrigeration and storage costs as well.

In addition, storing in freezers for long periods causes freezer burns, which makes them less marketable.

In the end, they get thrown off the market, putting many salmon traders in Hokkaido out of business.

In an episode entitled "*Food Crisis*" *Creeping up on Japan*, on *Today's Close-up*, a TV show produced by Japan Broadcasting Corporation (NHK), an astonishing story was covered. It said that Chinese traders now visit Kushiro and Nemuro to purchase large amounts of salmon. What they do is to beat down the prices of the salmon lying idle in freezers of various companies.

The world's most delicious, safest and most superb salmon, which Japanese should eat, are not being bought by Japanese but purchased at low prices by the Chinese.

The Chinese take advantage of their low labor costs to have the salmon canned and sell them worldwide as “the world’s most delicious and safest canned salmon of China.”

Meanwhile, Japanese eat foreign-farmed salmon not confirmed to be safe.

What do you make of this?

The Japanese should have more ethnic love

To make an extreme observation, Japanese consumers are buying salmon provided by Chilean and Norwegian farmers, thereby making Chilean and Norwegian traders rich and tormenting Japanese salmon traders.

Every time I am faced with the present Japanese food situation, I become keenly aware of how the Japanese have changed. People seem to be losing their ethnic love.

After the first case of BSE was discovered in the U.S. in December 2003, Japan halted imports of beef from the U.S. Subsequently, imports resumed because beef passed inspection.

Still, I do not think that eating U.S. beef should be encouraged just because it passed inspection. Safe and secure beef is quite alright but I do not mean that U.S. beef should not be eaten because we might be importing hazardous materials. My question is: Why do the Japanese help American dairy farmers and not Japanese dairy farmers? They only buy beef from American dairy farmers, which makes the situation immensely difficult for Japanese dairy farmers.

What I mean is that I would like the Japanese to have more ethnic love and feelings of kinship.

The following is what I wrote in a paper at that time:

“Food culture” is peculiar to a given ethnic group and the people have kept it with pride, as a point of ethnic awareness.

However, the Japanese diet has undergone a sea change in the last 40 plus years

from low-protein, low-fat and low-calorie meals to Western-style high-protein, high-fat and high-calorie food. Of the many ethnic groups, the Japanese are unprecedented in that their diet has changed so dramatically in such a short period of time. In my view, the change can be likened to plant-eating animals suddenly, in one day, transformed into flesh-eating animals.

In the past, the Japanese depended on marine plants, root crops (such as taros, lotus roots and burdock roots), seafood, soybeans and pulses and rice as main foodstuffs. These foods are what have cultivated the Japanese mentally and physically since ancient times.

Many foreign researchers greatly appreciate Japanese-style meals, calling them “healthy food materials, ideal calorie intake and nutritional balance”. The fact that the very Japanese are increasingly inclined to Westernized diet makes me, a lover of this country, reflect very deeply. (Partially omitted)

Imports of U.S.-grown beef are now about to be resumed in December. It is apparently a result of accepting the U.S. demand for resumption of beef imports without delay to avoid economic sanctions that would have been imposed otherwise. Dictionaries define the word “sanction” as “a penalty for disobeying a law or rule.” If this applies, I have absolutely no idea why the Japanese, who are not living under American laws, have to be subjected to sanctions only because of not eating U.S.-grown beef.

People of an independent sovereign nation have a choice of what they eat and the thinking that people who do not eat what others want them to eat should be penalized is incomprehensible to a naive person like me. In addition, issues including safety and security of food are in the background, which makes it even more incomprehensible.

Now is the time for the Japanese to eat safe and secure domestically-grown Japanese beef. While U.S.-raised beef is cheaper, not many should be eating heaps of beef every single day and it makes more sense to choose Japanese beef when eating beef, which is eaten occasionally, even if it is a little more expensive. The idea of supporting American beef herders and not helping Japanese dairy herders in a predicament is incompatible with me. I am, in the end, a Japanese.

In the end, U.S.-raised beef imports were resumed and have been allowed since then. In fact, merits of Japanese beef were rediscovered during the import suspension period and more households and stores came to buy Japanese beef, which greatly helped Japanese dairies. Subsequently, the consumption of Japanese beef continued to increase.

Having said that, imported beef still accounts for a large portion of beef consumed in Japan. If beef imports from the U.S. and Australia stopped now, the amount of beef distributed in Japan would drop at once, seriously affecting Japanese food provisions. That is how heavily we depend on imported meat.

International strategy surrounding bioethanol

The Japanese should give serious consideration to food issues as the Japanese and say 'no' when necessary. This has been brought home to me not only by beef and whale issues but also by bioethanol, on which the U.S. is currently working.

Bioethanol, which is a fuel utilizing wheat and corn as the raw materials, was much talked about as "clean energy" but I do not think it is at all. From the perspective of zymology and fermentology, in which I specialize, I am skeptical of the claim that bioethanol prevents global warming. It is not only based on an ethical sense on the appropriate use of grain, which is a valuable food, to run automobiles.

First, let's see how bioethanol is made. To produce bioethanol, wheat and corn starch must be decomposed to glucose. Growing wheat and corn, the raw materials, involves emission of CO₂ resulting from the use of tractors and various other machines and manufacturing of chemical fertilizers put on the plants also emits large amounts of CO₂. Decomposition of the grain uses not just a little energy as well.

Next, the glucose obtained is fermented with yeast to produce a mixture containing ethyl alcohol, or ethanol. Ethanol, in turn, is distilled before it can be extracted. As energy is required for distillation, large volumes of oil are consumed. That is, for producing a form of energy, another form of energy is used in large quantities. Even with modern science, distillation is the only way for human beings to extract pure ethanol.

There is first of all the “law of conservation of energy” and producing one form of energy naturally requires another form of energy. Even a fundamental issue like this is forgotten and bioethanol is said to be “clean,” which is totally ridiculous. There are those attempting to produce "clean energy" in order to prevent global warming caused by CO₂--emitting large amounts of CO₂ in the process.

As I was saying here and there that bioethanol would not prevent global warming, an American research institute is reported to have recently announced that producing bioethanol may conversely *accelerate* global warming.

Furthermore, because grain is the raw material for bioethanol, they fetch high prices (prices of bioethanol-related grains have increased), in Brazil, they have reportedly started to develop tropical rainforests to plant wheat and corn. Cutting down the vast jungles of the Amazon, which contribute to the prevention of global warming, would lead to global environmental destruction. This would render the effect of bioethanol meaningless.

To begin with, is it not ethically inappropriate to use human food to run automobiles? Now that the whole world is expected to suffer from food shortages, it is not logical to try to run automobiles using valuable food.

Bioethanol is in the end a national strategy of the U.S.

The reason is that people who profit most from production of bioethanol are grain farmers in countries such as the U.S.

Once a country, especially an influential country like the U.S., announces the use of grain to make bioethanol, the world market rate for grain immediately soars. This in turn causes the prices of bread, confectionery, beer and even mayonnaise, which generally uses corn oil, to rise.

Where do the profits from the rise in prices go? To exporting farmers who grew the grain. Just mentioning bioethanol brings floods of money to farmers of those countries without any special effort.

The Japanese are buying food that has become high-priced without considering this

simple logic. How absurd!

At long last, plaudits for bioethanol have become less convinced, now raising skepticism about the alleged contributions of bioethanol to the prevention of global warming.

In a conversation covered in the August 2008 issue of *Shincho 45*, I said, “Kick bioethanol away!” Failure to grow food domestically may allow foreign countries to have such influence. It is very scary just to think about it.

Whales help the Japanese once again

I have used a lot of space to discuss food issues up to now because they are closely related to the utilization of whales, which I will explain after this. As I have said so far, Japan is now troubled by an abnormally low rate of food self-sufficiency. Still, as very rare exceptions, there are two things of which Japan boasts a self-sufficiency rate of 100%. One is rice and the other is whales.

As almost a matter of course, Article 8 of the International Convention for the Regulation of Whaling provides that whales used as specimens may be marketed and used rather than wasting them. Those whales are food obtained by Japanese research whaling ships, which means that the self-sufficiency rate is 100%. However, anti-whaling countries have unanimously complained that utilization of whales like this is commercial whaling disguised as research whaling.

The U.S., Australia and New Zealand are those that show especially strong distaste for whaling and their real intention includes stopping Japan from whaling, such that the Japanese will buy more of their beef.

At present, the Japanese are taking in animal meat as the main source of animal protein, mostly beef, pork and chicken, and whale meat only accounts for less than 0.1%. Animal meat producing countries are certainly eager to further expand the market in Japan. One reason is that, if Japan ever comes to depend on whale meat again, the market for animal meat in Japan will doubtless shrink accordingly. In fact, Japan had a food self-sufficiency rate of 70% 40 years ago, when the Japanese depended immensely on whale meat: Among whale meat, beef, pork and chicken, whale meat accounted for

70%.

From the viewpoint of the Japanese, reducing meat intake and going back to a fish-eating culture, which includes whale meat, will lead to a stable supply of animal protein and restoration of food safety and security as well, which will improve the health of the people and the food self-sufficiency rate.

That is why now is the time for the Japanese to withstand foreign pressure and rediscover the merits of whales.

The Food and Agriculture Organization of the United Nations (FAO), mentioned earlier, has pointed out a food shortage crisis due to an increasing world population and given a warning against excessive protection of whales.

Whale meat once greatly helped the Japanese, as described in Chapter I.

Now that the food self-sufficiency rate has dropped this far, I am positive that the Japanese will seek support from whales again some time.

In the next chapter, let's approach the current whaling issues.