

New Basic Plan and Policy Review on Securing Stable Food Supply and Food Security in Japan

(Part 2: Introduction of a new index for food self-sufficiency potential)

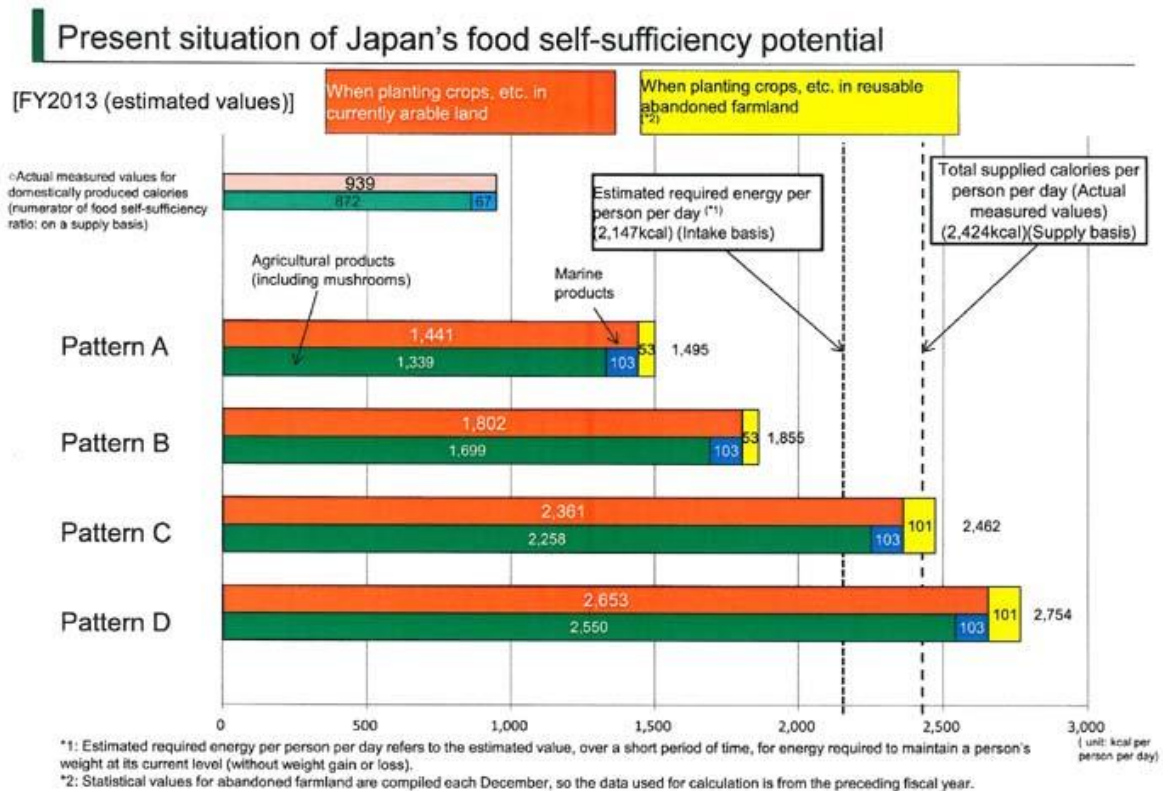
Fumihito Kabuta, Ph.D.

Professor, National Graduate Institute for Policy Studies (GRIPS), Japan

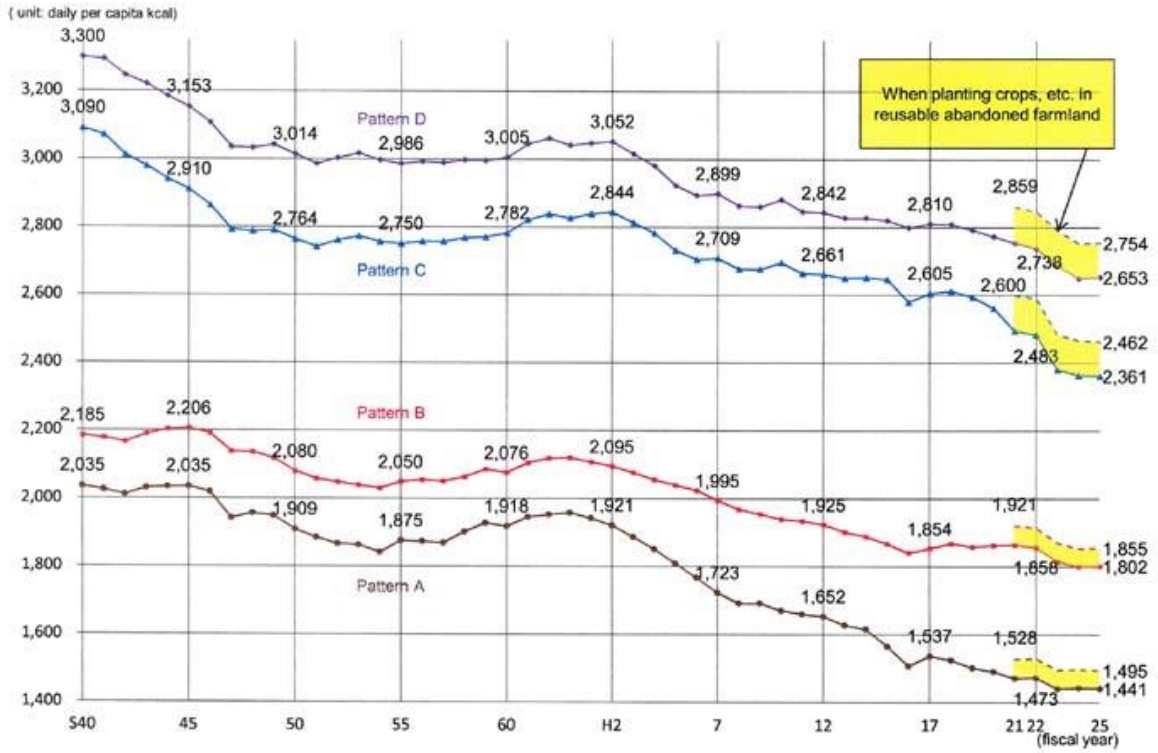
II. Introduction of a new index for food self-sufficiency potential

1. With unstable elements impacting global food supply and demand, public opinion polls show that a large percentage of the Japanese populace has a sense of crisis about our nation's declining food self-sufficiency. Under these circumstances, it is important to gauge Japan's potential for food self-sufficiency, and to deepen public discussion and debate on food security.
2. As an index, the "food self-sufficiency ratio" has certain limitations in that a) it does not take into account the latent food production capacity of farmland used for raising non-food crops (such as trees and flowers, etc.), b) there is a trend toward higher food self-sufficiency ratios in countries that are economically weaker than developed nations and have little margin for import, and c) the structure of consumption is subject to impact from factors such as changing diets due to an aging population, etc.
3. With this in mind, the new Basic Plan introduces a new index gauging Japan's total potential capacity for food production at a given point in time: "food self-sufficiency potential," i.e. the supplied calories that could be provided if the agriculture, forestry, and fisheries industries were to utilize their latent potential to the fullest extent.
4. In specific terms, the food self-sufficiency potential index assumes maximum utilization of farmland, etc., and breaks down food production necessary for preservation of life and health into multiple patterns, then indicates the number of supplied calories per person per day from domestic agriculture, forestry, and fisheries if these industries were to operate with maximum efficiency.
5. The food self-sufficiency potential index was estimated according to four different patterns, taking into account varying degrees of potential divergence from current dietary habits.
 - Crops, primarily staples such as rice, wheat, and soybeans, planted with maximum supplied-calorie efficiency, with nutritional balance taken into account to a certain degree
 - Crops, primarily staples such as rice, wheat, and soybeans, planted with maximum supplied-calorie efficiency
 - Crops, primarily of the potato family, planted with maximum supplied-calorie efficiency, with nutritional balance taken into account to a certain degree
 - Crops, primarily of the potato family, planted with maximum supplied-calorie efficiency
6. In addition, from the vantage point of clarifying the basic structural elements underlying actual domestic production (domestically supplied calories) in response to food consumption conditions, related indicators were introduced for agricultural production ("agricultural resources such as farmland and agricultural waterways," "agricultural technologies," "agricultural workforce") and for fisheries ("volume of fish, seafood, and seaweed produced," "fisheries workforce.")

7. The significance of introducing “food self-sufficiency potential” as an index lies in the fact that while actual total food self-sufficiency ratio on a supplied calorie basis has stayed flat in recent years, with the most recent figure from fiscal 2013 at 39%, a higher degree of self-sufficiency would be possible if Japan were to utilize its resources to the fullest extent. Although a) the latent production capacity of our nation is undeniably declining gradually, b) if all of Japan’s agricultural resources were to be put toward the effort, with crops prioritized according to supplied calories, this index clearly shows that it would be possible to realize a higher volume of agricultural production.



Change in food self-sufficiency potential index



(To be continued)

Date submitted: Jan. 4, 2016

Reviewed, edited and uploaded: Jan. 4, 2016