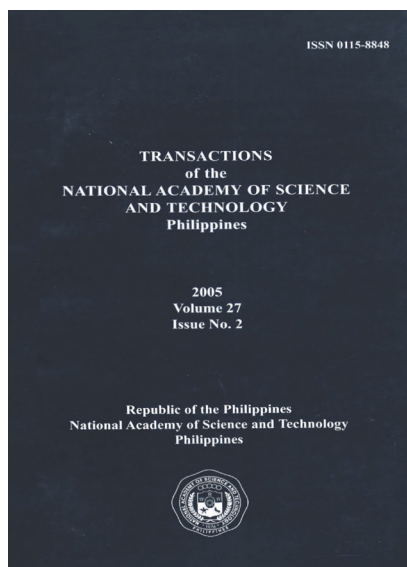


Transactions NAST PHL, is the official journal of the National Academy of Science and Technology Philippines. It has traditionally published papers presented during the Academy's Annual Scientific Meeting since 1979 to promote science-based policy discussions of and recommendations on timely and relevant national issues as part of its functions as a national science academy. Starting in 2021, this journal has been open to contributions from the global scientific community in all fields of science and technology.



Food and Nutrition Security

Rodolfo F. Florentino

President,
Nutrition Foundation of the Philippines

Citation

Florentino RF. 2005. Food and nutrition security. Transactions NAST PHL 27(2): 301-303. doi.org/10.57043/transnastphl.2005.4663

Copyright

© 2005 Florentino RF

Health and Nutrition Issues in Philippines Agriculture 2020

FOOD AND NUTRITION SECURITY

Rodolfo F. Florentino

President, Nutrition Foundation of the Philippines

Let me focus my remarks on food and nutrition security, which certainly must be one of the goals of Philippine Agriculture 2020, just as it is in the national development goals.

First of all, I wish to emphasize that food security pertains not only to availability, accessibility and affordability of food but to the nutritional quantity and quality that satisfy the dietary needs and food preferences of people for an active and healthy life.

This implies a number of attributes of our food supply in order to achieve food and nutrition security. First of all, it is obvious, that food must be available, accessible and affordable to all. And then, however, it must be adequate in calories to satisfy energy needs. Food also has to be appropriate in quality, that is, it must be nutritionally adequate in the pattern to satisfy the requirements of the various essential nutrients, particularly, protein that would enable the population to pursue a healthy and productive life, devoid of nutritional deficiencies. Then of course, it must satisfy food preferences and cultural practices of the various geographic and cultural groupings of our population. Finally, food must be safe, referring of course, to the absence of toxins and hazardous elements in food.

So, what then is the situation today? The latest information on our nutrition situation says that there has been a significant improvement in the prevalence of underweight school children, a reduction from 34% in 1990 to 27.6% in 2003, as shown in the latest national nutrition survey of the Food and Nutrition Research Institute of the Department of Science & Technology. Prevalence of underweight school children is an indicator of the nutritional status of the population.

We see also an improvement in the per capita food consumption from 1993 to 2003. Our total food consumption in 1993 was only 803 grams per

capita per day. But it increased to 879 grams per capita per day in 2003. This shows that there is some improvement in our nutritional status. In terms of caloric intake, there was an increase from about 84% in 1993 to almost 100%, or 98% energy requirement in 2003. These show that there has been in fact some improvement in the nutrition of the population.

However, if we look at the trend of the nutritional status up to 2015, we will still be unable to reach the medium term goal of 17.2%. There is such a big gap between the trends in our nutritional status to our medium term goal as expressed in the medium term plan. In fact this 17.2% is only a very conservative estimate. In Taiwan, for example their figure for malnutrition in the underweight children is already in the order of 15% whereas we are still in the area of 27%.

If we now look at the food pattern, we notice the large proportion of cereals, mainly rice, in relation to the other food groups and this is reflected also in the proportion of total carbohydrate in our food intake in proportion to total caloric intake. The amount of carbohydrate is in the order of 70%, while the fat intake is at a low level of 18%. But then, this local pattern is actually the pattern of our present food supply. Thus, if we compare our food supply to a desirable dietary pattern, we could see deficiencies in animal feeds, in fats and oils, and in beans in terms of nutritional requirements.

Another indication that the quality of our food intake is not good enough is the inadequate intake of micronutrients, for example, iron, calcium, thiamine A, thiamin riboflavin and ascorbic acid. They are all very low compared to our recommended nutrient intake. And that is the reason why we still see a large number of micronutrient deficiencies, namely, anemia and vitamin A deficiency which are still prevalent among our children.

Even among adults, we see the prevalence of chronic energy deficiency to the extent of 10% up to the age 49 and it goes up in the elder years to as much as 23%. I have not shown here the other side of the picture, the increasing prevalence of overweight and obesity particularly among women in the middle age group. The prevalence of overweight in the elderly is about 25%. Thus, we now are facing the double burden of under nutrition among the poor segments of our population and over nutrition on the other side.

So, faced with this scenario, may I suggest the following:

- 1) There is a need for a paradigm shift from simply trying to satisfy current and future food demand based mainly on current food pattern

and on population projection to one which is gradually trying to improve this demand to a chain in food supply pattern towards one of higher nutritional quality in anticipation of the socioeconomic improvement of the population. As a first step, I suggest that the agriculture commodity goal consider nutritional objective both in terms of quantity or caloric requirements as well as in terms of quality, meaning food supply pattern in terms of food group based on nutritional contribution. We could project supply needs in the coming years with nutritional requirements, particularly, in terms of calories and proteins and consider these patterns in planning our food supply goals. However, of course, we should take into account the inevitable losses and inequality distribution in terms of both geographic and demographic distribution. In our earlier estimates, the margin to allow losses and inequality distribution amounts to about 25 to 30% above our nutritional needs.

- 2) I think we should consider regional food requirements as well as urban rural differences in dietary preferences in planning for the food supply pattern. As the population shifts from predominantly rural to predominantly urban, food requirements will change both in terms of both in quality and quantity. In other words, agricultural goals will need to satisfy these shifts. Most specifically, I suggest that the goals consider improving supply of animal foods, added fats, pulses and beans, fruits and vegetables in order not only to diminish our dependence on cereals and carbohydrate food but more importantly, improve the nutritional quality of our diet towards higher quality protein, more vitamins and minerals and dietary fat.
- 3) Pursue biofortification as expressed already in Agriculture 2020 by using both plant breeding and modern biotechnology to improve the intake of micronutrient such as iron, beta-carotene and zinc.
- 4) And finally, as we make our plans for improving our food supply there is an emergent need to improve the economic lot of our farmers and fishermen especially the fishermen whose condition is worse than the agricultural farmer, through extensive extension work together with focused social and economic programs. Thank you very much.

