



**Nutrition Improvement and E-COBSI**

Although the COVID-19 remains a threat, both Zambian and Japanese people are gradually shifting our way of leaving to “New normal”. We hope things get back to normal soon. In this Newsletter, we would like to share Nutrition Improvement in E-COBSI. Why and how does E-COBSI address nutrition challenges in our target communities? How can we improve the status of stunted children in our target communities? Since the JICA team and the CPUs are still planning the approach and activities of nutrition improvement on E-COBSI, if you have any good experiences or ideas, please share them with us. Enjoy this Newsletter!

**COBSI and Nutrition Improvement – Why do we need nutrition improvement on E-COBSI?**

Why do we need activities of nutrition improvement on E-COBSI? According to the Demographic and Health Survey 2018 of Zambia, the nutrition status of E-COBSI target provinces is as follows:

Province	% of Stunting Children
Northern Province	45.8% (worst in Zambia)
Muchinga Province	32.1%
Luapula Province	44.9%
Copperbelt Province	29.7%
Central Province	33.4%
North Western Province	31.9%
Whole Zambia	34.6%

Children are defined as stunted if their height-for-age is below two standard deviations of the WHO Child Growth Standards median. Consequences of stunted children are the following.

- Fall sick often and slow recovery, increasing health care cost to the family and the nation
- Too short for age due to failure to grow making the child to look young for his age and may start school late
- Take long to be productive so parents must look after them longer
- **Have poor brain development leading to low intellectual ability**
- Have low performance in school and fail to progress in school hence engage in low paying jobs

Thus, stunted children cannot perform their capacity throughout their life. We must address this issue otherwise, Zambia would lose economic opportunities to develop as a country. Since nutrition improvement requires a multisectoral approach such as health, education, water, and agriculture sectors, asE-COBSI we have included nutritional iprovement activities into the plan.

In addition, T-COBSI, a former project, statistically clarified a positive impact of Community-based Smallholder Irrigation Development (COBSI) on the nutrition of farmers. T-COBSI contributed to food diversity by enabling farmers to produce morefor home consumption and/or cash crops. It also improved

scores of wasting and underweight, short, and medium consequences of malnutrition. However, we also clarified the positive impact on the chronic effect of malnutrition was not clear during the T-COSBI period. Thus, **irrigation development takes time to contribute to the reduction of stunting**, and this is a critical lesson from the T-COBSI impact survey. Therefore, we need nutrition improvement activities on E-COBSI, and it should be incorporated into COBSI approach.



We must work hard for our children and their future!

**Nutrition Improvement Activities – How do we approach nutrition improvement in E-COBSI?**

So, now we understand why we should address nutrition improvement to the context of COBSI. Process of Nutrition improvement activities is as follows;



Nutrition improvement should with a nutrition survey to clarify critical challenges of food and nutrition

security and baseline of target communities. As we discussed, improving the nutrition of farmer households is a significant goal for us. But increases in agricultural production alone and/or increased income do not necessarily translate into improved diets and nutrition. Therefore, after the survey, we move to awareness creation at the initial stage, and then farmers' behavior change is expected for nutrition improvement.

## Awareness Creation for Nutrition Improvement

Awareness Creation Activity should be: 1) evidence-based one, 2) a very simple message for farmers to understand, 3) repeated until farmers change behavior. As the E-COBSI mid-term training outlines that, CEO/BEOs and district officers, frontline extension workers, should share the following points with farmers.

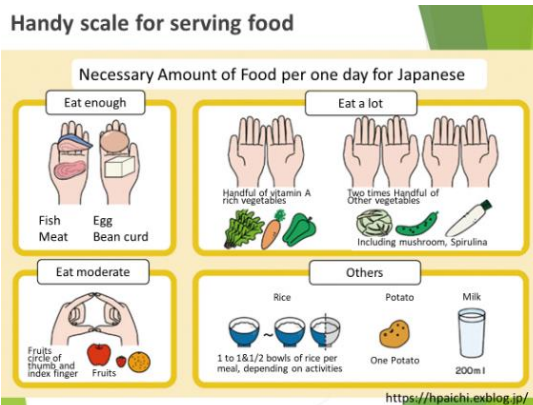
- 1) Adequate Nutrition
- 2) Consequence of Malnutrition for Adult and Children
- 3) What kind/ How much food should farmers eat? (Balanced diet and Dietary recommendation)
- 4) High Nutritional Value Foods in Zambia
- 5) Seasonal food variations
- 6) Good Activities for Nutrition Improvement for Farmers to be engaged
- 7) Women Empowerment and Gender Issues on Nutrition



Make half your plate fruits and vegetables. The traditional diet in Zambia needs to be modified by adding more fruits and vegetables to achieve micronutrient needs.

Regarding dietary recommendations for farmers, while Japan has **food-based dietary guidelines** for citizens, Zambia has not yet developed it according to FAO (<http://www.fao.org/nutrition/nutrition-education/food-dietary-guidelines/en/>). In the process of E-COBSI project implementation, such guidelines should be prepared for farmers. For example, the following picture is developed by Health Planning Aichi ([http://www.foodmodel.com/category04/f\\_50.html](http://www.foodmodel.com/category04/f_50.html)), a Japan's company, and shows handy scale to serve food daily. A picture visually shows how much food and what varieties of food Japanese people should eat. Japanese should eat one handful of vitamin A rich vegetables and two times handful of other vegetables such as mushrooms and seaweeds daily. Such food-

based dietary recommendation with many pictures and simple messages enables farmers to understand what varieties of food and how much they should eat once extension workers explain, rather than they explain "you should eat 60 grams of protein", for example.



## Good Field Activities for Nutrition Improvement to the context of Agriculture

Imagine your farmers are very much motivated for nutrition improvement. So, what kind of field activities do you plan? Following are some examples of good field activities that may contribute to nutrition improvement in agricultural context.

- No.1 COBSI (Community-based Smallholder Irrigation)
- No.2 Promoting SHEP
- No.3 Having backyard garden
- No.4 Promoting fish farming
- No.5 Planting different fruit trees & nut trees
- No.6 Rearing small livestock
- No.7 Adopting agriculture technologies
- No.8 Promoting crop diversification
- No.9 Food processing and preservation
- No.10 Collecting edible caterpillars, insects, and wild fruits
- No.11 Conducting cooking demonstration
- No.12 Growing bio-fortified crops
- No.13 Food budgeting
- No.14 Communal and school garden

In fact, E-COBSI has not yet initiated any of above good activities for nutrition improvement in the target districts model sites so far because we are still in the stage of nutrition survey and awareness creation. We will start such activities in the model sites after the projects resumes. So, if you have any experiences or ideas, please share them the Project team! Your comments and suggestions are most welcomed.



Musanda irrigation site in Kasama is cultivating fish by using irrigation water, then the farmers are enjoying fish cultivation contributing to improvement of their nutrition situation.