



Canadian International
Development Agency

Agence canadienne de
développement international

Report of the technical meeting on the development of a nutritional measure of food aid flows

**A WFP PROJECT
SUPPORTED BY CANADA AND THE EUROPEAN COMMISSION**

Rome, Italy

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1. Background

Traditionally, food aid flows have been measured in metric tons. During the late 1970s and the 1980s, donors started to identify specific budgets in value terms to provide food aid and purchase food aid commodities on international markets. The Food Aid Convention of 1999 allowed for the first time the possibility to express commitments in tonnage or value.

In recent years, an interest to measure the nutritional value of food aid has emerged. This interest is a result of three interrelated developments. First, the importance of nutrition, particularly for young children, is increasingly recognized. Second, concerns have been raised about the supply-driven approach to (food) aid and the need for a demand-driven approach that meets the requirements of recipients. Third, there is a need to improve commitments and reporting under various international agreements, including the Food Aid Convention.

A proposal to develop a nutritional value of food aid flows was circulated to selected donors in November 2006. Canada and the European Commission generously supported the project in June and December 2007, respectively.

A consultant (Colleen Doak) was recruited in April 2008 to develop a methodology for a composite index or reference value for the nutrient value of food aid and a preliminary draft of her work and her co-author (Shanta Marapin) was presented at the workshop.

The objective of the workshop was to provide feedback on the proposed measure of a nutritional value of food aid and outline a way forward.

2. Summary of conclusions

The workshop identified a number of issues and possible ways forward in relation to the methodology, terminology, application, aims and limitations of a nutritional measure of food aid.

Several indicators were discussed. Participants recommended the consultant to explore the possibilities of developing the following three indicators:

INDICATOR 1: A one-number metric that can be used to summarize the nutritional value of food aid for each commodity and for the food aid basket. It is expressed as percentage of Minimum Daily Requirement and normalized on a [0-1] or [0-100] interval. A value of 0.50 would indicate that on average half of the minimum daily requirements are met. This indicator is a synthesis which could be used for comparisons among different donations.

INDICATOR 2: A metric that would indicate the nutritional value of one ton of food aid. This indicator could be calculated for each commodity and for the food aid basket. The indicator would indicate the number of people whose nutritional needs could possibly be met with one ton of a particular commodity or food aid basket. It was considered useful to present results by using spider-web graphs, where the axes are nutrients. The nutrient with the lowest value would be a binding constraint and determine the maximum number of people whose Minimum Annual Requirement could virtually be met with a ton of food aid. This indicator, similar to MRM4 in the paper, could indicate how a representative food basket given by a donor could be enhanced, by increasing the amount of nutrients that are binding.

INDICATOR 3: A metric that would indicate the total number of people whose Minimum Annual Requirement could be met with the tons of food aid actually delivered in a particular year. This indicator is equivalent to indicator 2 multiplied by the actual tons of food aid delivered.

The interpretation of these indicators is not necessarily easy and the use should be guided and explained into detail to prospective users. Limitations have to be communicated as well. Agreement was reached that on individual nutrient level the ratio between nutrient content to requirement can be used in a meaningful way.

3. Aim: Which questions should be addressed by this tool?

The proposed indicators could allow the international community to quantify the nutritional value of the food aid they provide. The indicators were agreed to be suitable as monitoring, reporting and advocacy tools. Participants expressed doubts

about the possibility of using this tool as a programming (or targeting) tool, as originally proposed, as it would necessitate knowledge of the non-food aid component of a population's diet. The tool could therefore be used for allocation at an aggregate and qualitative level only (INDICATOR 2).

INDICATOR 3 could be used to measure the distance to the goal of providing a food basket that meets the full dietary requirements for a defined number of people over a one year period. INDICATOR 2 could enable donors to adjust their food basket, by focusing on the nutrients that their donations lack. The nutrients with the lowest value would be the ones to increase.

4. Application: Which type of food aid should be covered by the index?

The paper illustrated the methodology by using emergency food aid, which represented 62 percent of total food aid in 2007. The paper assumed that people who receive emergency food aid are entirely dependent on food aid for their diet, which can not be assumed for programme and project food aid. For these reasons, some participants expressed their concern with regard to the suitability of such indicators to non-emergency food aid. The following issues were raised:

- **Loss of meaning:** Beneficiaries of programme and project food aid are also consuming other food besides food aid. Yet, the indicators could still assess the quality of the food aid that reaches the country. INDICATOR 2 could also be used to compare the nutritional value of food aid and the score for specific nutrients to known micronutrient deficiencies among a particular target group.
- **Possible biases:** Certain kinds of programme and project food aid are aimed at addressing very specific micronutrient deficiencies, such as vitamin A and iodine. Hence, food aid might be composed of specific commodities that are particularly rich in these nutrients. This intended bias needs to be considered in the interpretation of the indicators. Furthermore, nutrition is not the aim of some programmes and projects and a nutritional measure of the food aid used would misinterpret its aim. Hence, effective programme or project food aid could potentially get a low score for INDICATOR 1.

It was also emphasized that the utility and the necessity of extending the measure to all food aid in order to allow donors to better monitor food aid flows, remains a main issue and one of the main goals of the project.

Some participants stressed that the aim is measuring the portion of annual/daily requirement that is – hypothetically – covered by food aid, regardless of what beneficiaries are actually consuming. Full knowledge on actual food consumption of beneficiaries and nutrient deficiencies is not available and can, therefore, not be incorporated into the indicators.

Some participants emphasized that the indicators should apply to all food aid. The indicators could be calculated for the different categories of emergency, programme and project food aid and the scores should be interpreted carefully. When

project and programme food aid are included in the analysis or individually considered the analytical focus should be on INDICATOR 2 and INDICATOR 3.

5. Issues

- It was stressed that there is no international agreement on **food composition tables**. Differences exist among them as a result of different definitions, different analytical methods and natural differences because of different soil, climate and seed type. Several possible food composition databases were considered. The list of the 14 selected nutrients and the list of commodities used in the INTERFAIS food aid database were considered as important requirements that the food composition table should meet. Data in a food composition table need to be compatible in order to produce consistent and reliable data. The NutVal food composition table is a compilation of compositional data obtained from different sources, which is not ideal. Yet, its scientific validity and completeness was recognized in the discussion. As it would be too much effort for WFP to collect high quality compositional data, it was agreed that for pragmatic reasons, NutVal could be used for this exercise until a better food composition table is available. After an upcoming expansion of the NutVal database, commissioned by WFP, NutVal will be the sole database that covers a list of 14 nutrients. It was suggested to furnish a detailed description of nutrients, their source, the way they are calculated and the specific type of commodity they refer to.
- The indicator MRM1 in the paper is an **intermediate calculation** for the calculation of other indicators. For this reason it will not appear as an output.
- When an indicator is calculated for a food basket, rather than for a single commodity, it was suggested to take the **averages** of the nutrients for each commodity and the averages of the commodities for each nutrient. That is, taking averages of each row (commodity) and of each column (nutrient). This could provide useful information.
- It was suggested to try using the **median** instead of the mean to average across commodities because of outliers.
- It was decided that MRM2 in the paper would form the basis for INDICATOR 1, provided that it is **normalized** (to avoid that the presence of a fortified or a particularly nutrient-rich commodity (like iodized salt) distorts the indicator with extreme values).
- The **choice of nutrients** was endorsed. Yet, it was agreed that when NutVal is augmented with Vitamin B6, Vitamin B9 (Folic Acid), Vitamin B12 and Zinc, they will be added to the indicators as well. This is likely to happen only at the implementation stage of the project and not during the revision of the paper.
- It was also suggested to conduct an additional analysis based on **energy density**, calculating the nutrients per kcal rather than per grams, for

comparison purposes. Given that the caloric component of iodized salt is zero, this would prevent the biasing effect of this commodity on the indicators.

- The possibility of assigning different **weights to nutrients**, for example based on medical information, in the indicators was considered. Given that no international agreement exists on assigning weights to nutrients, it was agreed not to use them. Moreover, nutritionists have been paying more attention on the package of nutrients, rather than on individual ones, particularly as the interaction among them is likely to be important.
- The distinction between **in-kind and cash contributions food aid** was discussed. The indicators can be applied to both because they apply to the food aid commodities, irrespective of their financing. Yet, cash contributions are more flexible and could be used, for example, for procurement of perishable commodities rich in nutrients, such as fresh vegetables.
- Some participants argued that these indicators, by allocating the best scores to fortified food, might influence donors towards these types of donations. On the one hand, these commodities are particularly successful in the case of acute starvation as an emergency response. In the long term, naturally rich foods are most appropriate for a balanced diet. Therefore, two sets of indicators were suggested by some participants, one for fortified foods and one for non-fortified foods. Most participants agreed that the nutrient content of fortified foods should be reflected. One participant, however, felt that only naturally occurring nutrients should be included, as the ultimate objective is that people have access to a well-balanced diverse diet where there is no need to provide fortified foods.

6. Terminology

Doubts were raised about the correctness of stating 2100 kcal as the Minimum Daily Requirement, which is the minimum requirement for moderate physical activity for an average individual within the household. This has been set by the humanitarian community as the standard (WHO, UNICEF, WFP 2002). Provided that this definition will be stated clearly, this choice was accepted and agreed upon as an adequate measure applicable to groups rather than individuals.

7. Limitations

Questions were raised about the possibility that donors might be tempted to concentrate their efforts on a restricted set of commodities whose nutritional value has been ranked high by the indicators. Important components in people's diet, such as cereals and fat, would get a bad score and their importance might be underestimated by donors. Some participants emphasized the need to maintain diet diversity, rather than concentrating on micronutrient-rich foods, especially whenever it is assumed that a given population relies entirely on food aid.

Others stressed that the problem is a budget constraint that limits households to a restricted set of commodities for their diet, which are often the least nutritious.

8. Next steps

The paper will be revised by the consultant in the next few weeks. In the meantime, an ICT consultant will analyze the steps needed to implement these indicators, attach them to the INTERFAIS database and allow extraction through a web-based data extraction facility. Implementation will occur between September and December 2008. WFP is considering, in consultation with stakeholders, to organize another workshop at the end of project to present the results.

Appendix 1

Agenda

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|-------------|------------------------------------------------------------------------------------------------------|
| 8.30-9:00 | Registration and coffee Administrative issues |
| 9.00-9:30 | Opening Remarks and Background Henk-Jan Brinkman, Chief Food Security Policy and Markets |
| 9.30-10:00 | WFP's International Food Aid Information System George Simon |
| 10:00-10:30 | Literature review Colleen Doak |
| 10:30-11:00 | Coffee break |
| 11:00-12:00 | A proposed methodology for a nutritional value of food aid Colleen Doak and Shanta Marapin |
| 12:00-12:30 | Question/answer session |
| 12:30-14:00 | Lunch |
| 14:00-14:30 | Preliminary results Colleen Doak and Shanta Marapin |
| 14:30-15:00 | Discussion of methods/results |
| 15:00-15:30 | Coffee break |
| 15:30-16:30 | General discussion |
| 16:30-17:00 | Wrap-up and way forward Henk-Jan Brinkman, Chief Food Security Policy and Markets |

Appendix 2

Participants

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