



NWGN

Netherlands Working Group on International Nutrition



Photo: Genevieve Audet-Belanger

Measuring nutrition effects of food security and agriculture programs

Sharing approaches, metrics and practices

Introduction

There is growing commitment at global level to address malnutrition in all its forms. Alongside nutrition-specific interventions, special efforts are being made to make agri-food systems more nutrition sensitive. At the same time there is a growing demand for evidence on what policies and programs work best, how they work, and at what cost. Good quality metrics and measurement tools are key to collect data on output, outreach, outcome, and impact levels. This is important for different stakeholders including agri-food practitioners, policy makers and academic experts involved in program evaluations and research, to monitor progress of program implementation. The Global Nutrition Report 2015 states: "Establishing outcome indicators for food systems can guide policy makers in fostering

nutrition-friendly and sustainable food systems while also helping citizens hold their governments accountable for their policy choices."

The Netherlands Working Group on International Nutrition (NWGN) in coordination with the Food and Business Knowledge Platform (F&BKP) are pleased to present lessons learnt about approaches, metrics, and practices for measuring effects on nutrition of food security and agricultural development programs shared during an internal NWGN workshop, held on December 12th, 2017. Field experiences and literature reviews formed the basis for a common analysis on the practical implications of the use of different metrics and measurement approaches for nutrition

About the Netherlands Working Group on international Nutrition (NWGN)

The mission of the NWGN is to promote inclusion of nutrition specific as well as nutrition sensitive approaches in evidence-informed development policies and strategies of Dutch stakeholders, taking into account the complexity of malnutrition in all its forms. The NWGN believes that improving nutrition contributes to the achievement of all SDGs in a direct or indirect way, while vice versa the achievement of many of the SDGs contributes to improving nutrition. Since 2008, the NWGN has been operational in exchanging and generating knowledge; providing technical advice and carrying out advocacy and lobby activities.

In 2018, members of the NWGN include representatives of: DSM, Dutch Ministry of Foreign Affairs, ETC Foundation, Free University Amsterdam, GAIN NL, ICCO Cooperation, International Medical Corps, Royal Tropical Institute KIT, Save the Chil-

dren NL, SNV, UNICEF NL, Unilever Research & Development Vlaardingen BV, Wageningen University & Research - Center for Development Innovation, Wageningen University & Research - Division of Human Nutrition, United Nations World Food Programme NL

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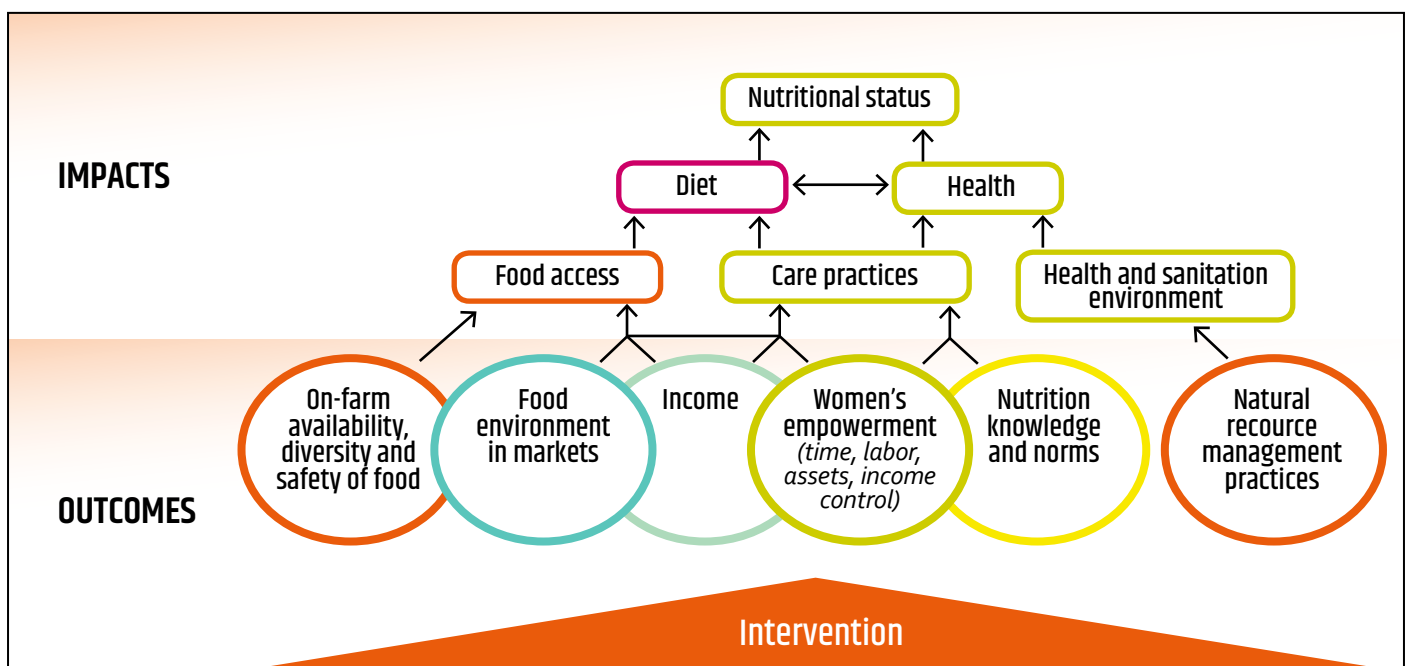
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sensitive interventions. The overall aim of sharing these experiences was to strengthen the performance of the Dutch development sector in the fight against all forms of malnutrition; and ultimately to contribute to the Sustainable Development Goals.

Nutritional status and related result chain framework

The nutritional status of individuals is defined by their diet and health, which in turn depend on food access, care practices, and the health and sanitation environment. The figure below illustrates a simplified framework that currently guides much nutrition-sensitive programming.

Nutrition-sensitive programs are, by definition, complex in design and implementation as they often span different sectors, such as health, agriculture and education. As a result, these programs take longer to become fully functional and well implemented. A meaningful effect on biological outcomes, such as children's anthropometric measurements, may require as long as 1,000 days of program exposure¹. Therefore, the 2016 FAO "Compendium of indicators for nutrition-sensitive agriculture"² recommends focusing monitoring, evaluation and learning on intermediate, or outcome indicators. Using a common framework and standardized approaches forms a starting point for meaningful cooperation and learning beyond program and country boundaries.



Adapted from: Herforth and Ballard, 2016

¹ Leroy, J.L., Olney, D.K., Ruel, M. Evaluating Nutrition-Sensitive Programs: Challenges, Methods, and Opportunities

² <http://www.fao.org/3/a-i6275e.pdf>. Also see IFPRI (2016) Evaluating nutrition-sensitive programs: challenges, methods, and opportunities

Standardized approaches are available for the measurement of a wide variety of outcomes. Examples include the following:

- Household Food Insecurity Access Scale
- Minimum Dietary Diversity for Women
- Women's Empowerment in Agriculture Index
- Infant and Young Child Feeding Practices

Source: Adapted from Leroy, Olney and Ruel, 2016

Key Common Insights

Monitoring, Evaluation, and Learning Mechanism Design

- One should be conscious of what to measure, for whom, for what purpose, and at what costs.
- As multiple nutrition sensitive (agriculture) intervention strategies and actors are required, a well-elaborated theory of change or logical framework, illustrating links, pathways of change, and assumptions, is essential.
- An embedded gender lens supports making explicit the assumptions around how different agri-food interventions lead to nutrition outcomes. Understanding differences between women and men around decision making, access and control over agricultural resources, division of labour and gender norms is key for designing interventions to leverage the positive impact of agri-food programming on nutrition.
- Engaging key agri-food actors, program staff and beneficiaries throughout the program cycle is required for tailoring intervention strategies to different contexts to both achieve sustainable results and ensure doing no harm.

Indicators

- Program level indicators for nutrition monitoring, evaluation, and learning should preferably focus on intermediate or outcome levels instead of impact level.
- Standardized outcome indicator measurements, such as Household Food Insecurity Access Scale (HFIAS), Months of Adequate Household Food Provisioning

(MAHFP), and Minimum-Dietary Diversity for Women (M-DDW), have clear advantages as they facilitate comparability between programs, use of benchmarks, efficiency, and common learning.

- Measuring women's empowerment in relation to nutrition improvement is an evolving field with promising results. The project level Women in Agriculture Empowerment index (pro-WEAI) is a metric that allows measurement of progress on women empowerment and association with nutrition outcomes as well as comparison across different nutrition sensitive programs.

Areas for follow up and further action research

- Given the growing importance and potential of the Sustainable Development Goals (SDG) framework, the NWGN members' aim is to align indicators and particular program objectives with the SDG monitoring mechanism.
- With micronutrient deficiencies affecting 2 billion people worldwide and growing attention for diversification of diets, micro-nutrient supplements and fortification of food, there is a need to develop cost-effective measurement approaches, beyond Dietary Diversity.
- Intervention strategies to foster behaviour change are necessary for improvement of nutritional status. Therefore, it is also important to develop methods to keep track of changes in nutrition related knowledge, attitudes and practices at individual and household level and how these are mediated by gender relations.
- Taking into account the need to address both under- as well as over nutrition at the same time, it was concluded that there is a need to address the current lack of standardized approaches to measure over nutrition, i.e. the increased risks associated with non-communicable diseases.
- Impact evaluations ideally have a control group included in the design to build evidence around attribution. However, this is often beyond what is feasible on the ground (cost, and human capacity). There is a need to look for innovative approaches to address these challenges within realities of programming.

Field experiences of using standardized approaches to measure nutrition-related outcomes

NWGN member ICCO focuses on the availability and accessibility of food at household level and utilization of nutritious foods among particular target groups for monitoring, evaluating and learning from its programs. Since 2011, standardized measurements such as Household Food Insecurity Access Scale (HFIAS), Minimum Dietary Diversity for Women (MDD-W), and Months of Adequate Household Food Provisioning (MAHFP) have been applied in over a dozen countries. This has gone hand in hand with involving field staff in the use of mobile devices and web-based applications for data collection, processing, visualization, and analysis. Experiences with contextualization, selection and training of enumerators, sampling, logistics, and reporting have been reviewed carefully. The combination of measurements

generates additional insights on seasonality, diet quality, and the position of women. The approach has improved reporting and made it easier to use the data for upstream and downstream accountability. In addition, target groups have been able to use the data and related insights for evidence-based lobbying and advocacy towards local duty bearers. In Ethiopia, so-called self-help groups, stressed the need for intervention strategies towards climate resilience food security safety net programs.

For further information please see: "Effectively assessing household food security status".

Marijke de Graaf, ICCO Cooperation

Insights from a gender analysis of impact evaluations approaches to measuring women empowerment in agriculture-nutrition pathways

Women's empowerment and the link with improved nutrition is an area of growing interest. There is a need to better understand how women's empowerment mediates progress



Photo: SNV

towards nutrition in agricultural programs. A recent analysis of impact evaluations highlighted the need for programs to:

- include a clear theory of change or logic model explaining how women empowerment works across the agriculture-nutrition pathways to achieve progress on nutrition
- build in mechanisms for routinely assessing how implementation modalities work to empower women and how this links to nutrition, but also to ensure no harm is done
- acknowledge women's empowerment to be context specific. What works in one context to empower women to address barriers to nutrition may not be applicable in another.
- include women's perspectives and give them a voice, as part of intervention design as well as the monitoring and evaluation processes
- use monitoring and evaluation systems that value the use of multiple indicators capturing different elements of empowerment. Consider using mixed methods approaches that build an understanding of how interventions can lead to women's empowerment as both an outcome and process contributing towards improved nutrition.

For further information, please see: "Enhancing the effectiveness of agriculture-to-nutrition pathways: Key insights from a gender analysis of impact evaluation design" (KIT, 2018)

Julie Newton and Noortje Verhart, Royal Tropical Institute (KIT)

Increasing the nutrition sensitivity of agriculture and value chains: Role of metrics for improving design

How agriculture contributes to improve nutrition, in particular that of vulnerable subgroups, is a frequent topic of debate. Recent reviews point to a lack of evidence on nutrition outcomes in agriculture, which raises the question of how nutrition measurements can be strengthened. Agricultural interventions can vary from homestead production and diversification to commodity value chains. Hence, nutrition-sensitive agriculture and market-development activities should articulate a clear theory of change that is reflective of the constraints of the program. This is the lens that SNV takes in its dairy and horticultural value chain work. It is also important to clearly state assumptions about what other

changes need to occur beyond the activity scope. Where our interventions focus on improving nutrition outcomes of producers, validated indicators such as the Minimum Dietary Diversity for Women (MDD-W) and the minimum acceptable diet (MAD) provide much insight into the dietary issues of the more vulnerable members of a household. Greater understanding and more strengthening of food environment metrics is required to improve the design and evaluation of future value chain programs.

For further information on SNV's nutrition-sensitive agriculture work, please see [SNV Agriculture](#).

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