



4.2 NUTRITION ANALYSIS

4.2.1 Overview

The purpose of the Nutrition Analysis is to compile and synthesize available data so as to establish a common understanding of the nutrition situation in-country. It provides a starting point for discussion with key stakeholders on the severity and magnitude of the problem as well as major trends in the country. It should prompt an in-depth qualitative causal analysis in order to determine the root causes of undernutrition.¹ Moreover, the Nutrition Analysis provides a basis from which the so-called priority actions may be selected to ensure that the nutrition response is aligned with the problems and causes. In this sense, it is very much the **lynchpin of the greater REACH Situation Analysis**, requiring country stakeholders to identify and agree upon the nutrition issues in-country (the '*what*') and relate them to the conceptual framework of malnutrition so as to understand *why* these nutrition issues are present (See Annex 1). It also informs other REACH stock-taking analyses such as the REACH Indicator Dashboard and subsequent activities during the *Support* phase.

4.2.2 Inputs

The Nutrition Analysis draws on a range of secondary data, such as:

- National representative health surveys such as DHS, MICS, SMART, etc.
- Food security surveys, including food consumption, dietary diversity, coping strategies index, household food expenditure surveys, etc. (CFSVA, dietary diversity assessments, IPC, etc.)
- Food Balance Sheets and other production statistics (e.g. FAOStat)
- Market surveys (e.g. commodity prices, sites of purchase)
- Census data for population estimates and trends (e.g. age distribution, number/proportion of pregnant women and lactating women, under2s, under5s, urban vs. rural, fertility rate)
- Development partners and NGOs conduct sub-national surveys (e.g. KAP surveys) which can provide important quantitative and qualitative information, and thus additional insight

4.2.3 What is involved? An abbreviated "How to"

The Nutrition Analysis may be conducted in conjunction with participatory multi-sectoral planning workshops, recognising that knowledge of the nutrition context is a prerequisite for sound planning (See Section 5.5). The REACH Nutrition Analysis is conducted jointly by the facilitators and technical stakeholders. Alternately, a consultant or other specialized resource person who has strong analytical and quantitative skills may do the analysis, either in-country or remotely. If the analysis is carried out remotely, it must be thoroughly reviewed and discussed with the facilitators and technical stakeholders. It critically important for the data used in and reported by Nutrition Analysis to be accurate and sources cited. The analysis will not be considered finalised until it has been validated by technical stakeholders in-country and consensus is reached among the relevant country stakeholders. Again, the Nutrition Analysis serves as the compass for successive analyses, exercises and actions, with the REACH facilitators essentially being the custodians of the analysis. The facilitators should continually refer to it as the REACH engagement proceeds in-country, orienting stakeholders to its findings and its linkages to other analyses, exercises and actions. Specific "How To" guidance is provided by the REACH Nutrition Analysis tool, guidance notes and support conference calls, though the main steps and/or responsibilities of the facilitators are outlined below.

To date, the experiences of the REACH facilitators indicate that it is a good idea to have an updated PowerPoint presentation of the Nutrition Analysis at hand for easy reference when discussing/clarifying the nutrition challenges/problems in-country and the ensuing prevention and response actions. Hence, facilitators are strongly encouraged to carry a 'flash-disk' with these materials, even a set of hard copies, to share with (or give to) high level leaders with whom they interact/meet. It is

¹ FAO methodology for "joint planning for nutrition methodology" provides guidelines to conduct an in-depth participatory causal analysis and may be drawn upon as part of this process. Link:

http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/Joint_Planning_for_Nutrition_FAO_May2011.pdf

also important for facilitators to regularly update this data set so as to reflect new information to support additional efforts in the scale-up process. This 'snapshot' of facts and figures will become one of the most effective advocacy tools.

The more specific and clear the nutrition analysis, the easier it will be to focus the subsequent steps on 'what really matters'. Stakeholder mapping, for example, will become much easier to carry out if one can concentrate on those actors that are directly able to address the critical causal factors agreed to be the most important determinants of existing problems.

Table 8: Facilitation of the Nutrition Analysis Exercise
Outlining the tasks and/or roles to guide the Nutrition Analysis

| Tasks and/or Roles | Description |
|-----------------------------|--|
| Guidance and stewardship | Facilitate the overall Nutrition Analysis exercise, defining: objectives, expected results, outcomes and deadlines/timeframe Provide guidance on identifying main sectors related to nutrition (e.g. agriculture/food security, health, care, water and sanitation, education, social protection, etc.) |
| Data collection | Spearhead process of compiling secondary data from multiple sources in close collaboration with technical stakeholders. It is important that tasks (e.g. data collection requirements) are assigned to technical stakeholders, though facilitators may carry a greater burden. |
| Data analysis | Coordinate the data analysis (trends, gender, livelihoods analysis), elaborating graphs, maps, summary tables and/or other visual aids to guide discussions and agree on data quality. Although facilitators are expected to lead the analytical exercise, the REACH Secretariat may provide backstopping, as needed. Facilitate an in-depth qualitative analysis, whereby one intensive (half-day or full-day) or a series of meetings/workshops are conducted to elaborate an undernutrition problem tree and solution tree, applying the food security, health and care classification presented in the conceptual framework on the causes of malnutrition. Facilitate discussion on the relevant linkages between these dimensions (See Section 5.5 for further guidelines). Revise analysis and supporting charts, maps, etc. in view of discussions on the underlying causes |
| Review and validation | Organise a workshop with technical stakeholders, where the analysis of findings both - quantitative and qualitative - is presented. During this workshop, discuss data gaps and ways to address them. Facilitate the selection of situation analysis indicators to be included in the Indicator Dashboard, engaging the expanded group of technical stakeholders. |
| Consensus-building | Lead technical stakeholders to consensus on the overall nutrition situation (improving or deteriorating) and on the main undernutrition problems. The resulting consensus should determine the common 'nutrition story' within that country context to inform communications and advocacy messages. |
| Communications and Advocacy | Advocate for government to organize a forum to present the results to the greater nutrition community in-country, including policymakers. This workshop will help government to gain ownership of the results and prepare the stakeholder community for the next steps of the process. |
| Knowledge-sharing | Facilitate access to data, assessment tools and/or resources persons in UN partner agencies, as related to the Nutrition Analysis. Document country experiences and any lessons learned. |

4.2.4 Guidelines for analysis

The Nutrition Analysis contains the four components listing below, and draws upon the conceptual framework of malnutrition (See Annex 1).

- 1) Basic Nutrition Trends
- 2) Causal Analysis (Underlying causes and basic causes)
- 3) Key messages/Briefs with respect to components one and two
- 4) Situation Analysis Dashboards (outlined in the next section)

Typically, the first three components are packaged together in one PowerPoint file and are collectively referred to as the Nutrition Analysis slides. This first package (components one through three) includes the following main features of the analysis for illustrative purposes. Additional elements may be included, as appropriate.

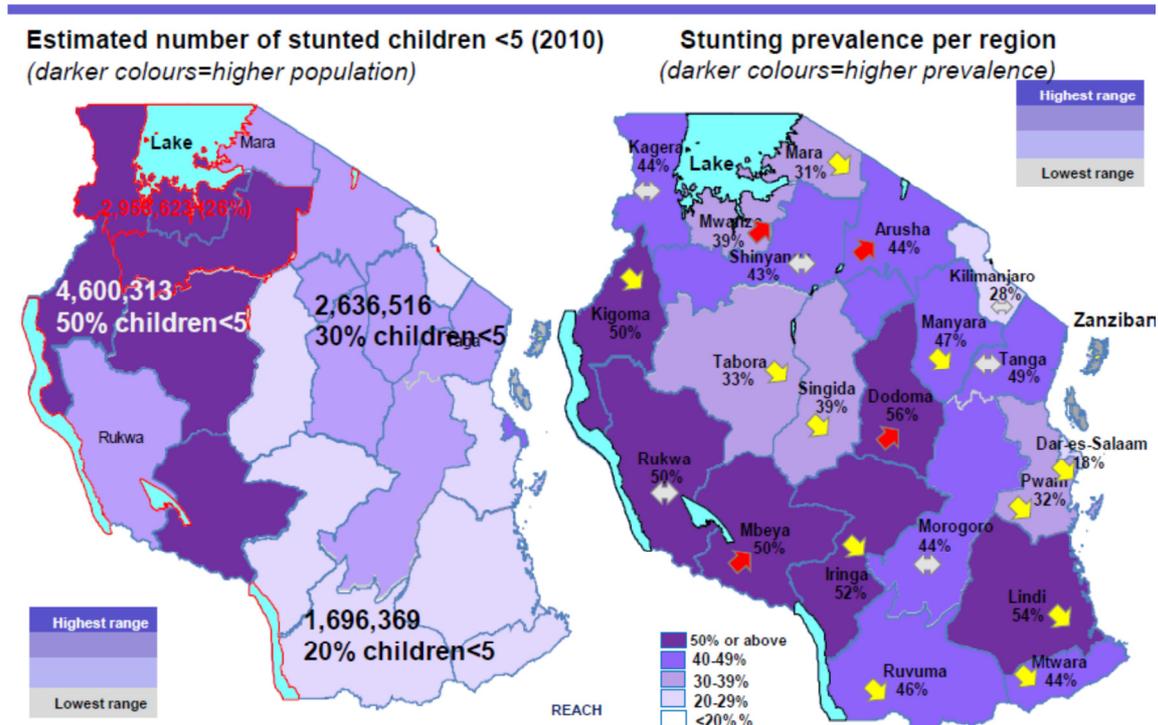
- ✓ Target population group quantified at national and sub-national levels
- ✓ Discrepancies identified on key indicators between different sources
- ✓ Data sources selected and agreed with country technical stakeholders
- ✓ Comparative analysis between relative figures (e.g. prevalence) and absolute numbers of undernourished children is completed
- ✓ Trends analysis conducted (e.g. changes over time) of undernutrition levels such as prevalence of stunting, wasting, underweight and other key indicators (e.g. micronutrient deficiencies)
- ✓ Relevant indicators disaggregated according to the following criteria
 - Sub-population group (e.g. under2s, under5s, pregnant women, lactating women)
 - Geography (province, district, etc.)
 - Gender
 - Household economic status
 - Livelihood groups
 - Urban versus rural
 - Parents' education
- ✓ Geographical areas of high nutrition burden identified based on absolute numbers and relative numbers of undernourished children²
- ✓ Analysis undertaken comparing areas where there is a high malnutrition burden areas with causal factors, as appropriate (e.g. food security, sanitation, etc. data) for those areas (e.g. Do they correspond?)

² Different priority regions may be identified depending on which indicators are selected.



Figure 13: Excerpt from the REACH-facilitated Nutrition Analysis in Tanzania

Comparing absolute numbers to prevalence of stunted children under five years old by region, and thus in both cases, the geographical distribution of child stunting



4.2.5 Outputs

The respective outputs of the Nutrition Analysis are listed below.

- ✓ An in-depth causal analysis on undernutrition conducted
- ✓ A PowerPoint presentation created with graphs, maps and other visual aids that highlight the results of the Nutrition Analysis in an user-friendly manner
- ✓ A summarised narrative drafted on the nutrition situation at the national level



4.8 SITUATION ANALYSIS DASHBOARD

4.8.1 Overview

The Situation Analysis Dashboard is one of the most valued REACH flagship tools.

The purpose of developing this dashboard (in its respective views) is to provide a synthesised, user-friendly tool for policy-makers and practitioners to understand the nutrition issues in-country and the measures being taken to address them. The dashboard summarises key nutrition indicators across sectors, highlighting the magnitude and severity of nutrition problems (as per the Nutrition Analysis). In some cases, it may also depict the interventions undertaken to address these nutrition-related issues. In addition to serving as a valuable monitoring tool, the dashboard is an effective advocacy tool, which helps stakeholders communicate common nutrition messages across the multi-sectoral nutrition landscape. While the dashboard has traditionally been developed for the national level, countries may wish to devise similar dashboards for the sub-national level (e.g. regional, district) subject to data availability.

4.8.2 Inputs

The Situation Analysis Dashboard is a culmination of the first three components of the Nutrition Analysis:

- Basic nutrition indicators and trends as per the Nutrition Analysis slides, including the and the Basic Nutrition Trends, Causal Analysis and Key Messages/Briefs (See Section 4.2) and menu of indicators for the Dashboard (see REACH Indicator Dashboard tools)
- Public health thresholds to determine degree of severity of the situation analysis dashboard indicators (see REACH Indicator Dashboard tools)
- REACH Indicator Dashboard templates (See REACH tools)

4.8.3 What is involved? An abbreviated “How to”

The Indicator Dashboard has two main views.

- Overall Situation Analysis Dashboard
- Gender-sensitive Situation Analysis Dashboard

Additional views may be created to highlight disparities observed in the country and/or sub-national levels (e.g. Urban versus rural).

The Situation Analysis Dashboards summarise and classify the severity of the nutrition situation based on secondary data from credible, nationally representative nutrition, food security and health surveys (e.g. DHS, MICS, SMART, among other sources) as compiled for the Nutrition Analysis slides (See Section 4.2). Whereas the Overall Situation Analysis Dashboard describes the general situation for the selected indicators, the Gender-sensitive Situation Analysis Dashboard disaggregates these data by gender. Country stakeholders may also wish to present coverage data Coverage Dashboards, building on the REACH Implementation Tracking system though those dashboards are covered in a separate section of this manual. Facilitators should be sure to cite the source and year of data collection to which the data refers on the dashboards for accuracy and credibility purposes. Furthermore, the situation analysis indicators are grouped into the following three sub-sections: nutritional impact; underlying causes and basic causes.

Keep in mind

The process of defining actions and indicators is on-going and iterative. It is important for stakeholders to understand that these are not ‘set in stone.’ An initial draft should be agreed upon in order to proceed with the relevant data collection and analysis, though this can be re-visited and modified multiple times thereafter.

Facilitators facilitate discussions with technical stakeholders to determine which indicators should be included on the respective dashboards, choosing from a menu of options (discussed in the REACH Dashboard Methodology) and data compiled through the Nutrition Analysis slides. These choices should take into account both the nutrition problems and availability of data. Moreover, the process of



selecting indicators for the dashboard can be a good opportunity to identify gaps in existing data collection efforts/exercises.

Once coverage dashboards are compiled, stakeholders may wish to bring these two elements together. By tracking situation analysis and coverage indicators in an integrated manner, stakeholders may identify bottlenecks to scaling-up nutrition interventions. The tool helps depict nutritional status challenges within the context of the underlying and basic causes of undernutrition in a clear and visual manner.

Table 15: Facilitation of the Situation Analysis Dashboard compilation
Outlining the tasks and/or roles to guide the Situation Analysis Dashboard compilation

| Tasks and/or Roles | Description |
|-----------------------------|---|
| Guidance and stewardship | Facilitate the Situation Analysis Dashboard, defining the objectives, expected results, outcomes and deadlines/timeline. |
| Data collection | Organize and prepare the dashboard templates, gathering and/or updating available data and referring to data reported by the Nutrition Analysis slides (Basic Nutrition Trends, Causal Analysis and Key Messages/Briefs). It is also helpful to create backup spreadsheets in Excel, compiling data from previous years to see whether the situation is improving, deteriorating or constant. |
| Data analysis | Facilitate discussions with technical stakeholders to: (a.) select/refine the applicable indicators for the situation analysis dashboards, discussing the pros and cons of various options (e.g. food consumption score versus dietary diversity score to report food insecurity); (b.) classify the severity of the data on the situation analysis indicators; (c.) identify trends over time and between genders; (d.) identify data gaps and workaround solutions. Solicit and document recommendations from technical stakeholders on indicators that should be added to routine data collection and/or periodic nutrition surveys |
| Review and validation | Lead the discussion with technical stakeholders to agree and validate the selected indicators |
| Consensus-building | Promote the consensus among the larger nutrition community on: <ul style="list-style-type: none"> • Country’s nutrition problems (magnitude and severity) • Sub-national nutrition problems (magnitude and severity) |
| Communications and advocacy | Advocate for government to organize a workshop to present the results. Alternatively, the Dashboard may become a prime instrument to use by a high-level coordinating committee. It can provide a useful starting point as well as periodic referencing for strategic decision-making. Support the development of a storyline, identifying local examples and data to justify the need for nutrition action and the consequences of inaction, so as to raise awareness about the nutrition situation and the need to scale-up nutrition actions. The concise and visual nature of the dashboard makes it an effective tool to engage policy-makers, and in general, to communicate a large amount of technical information in a brief, user-friendly format. |
| Knowledge-sharing | Facilitate access to good practices, case studies, etc. from other countries, if available. Document this country experience, being sure to capture key successes and challenges to help guide similar efforts in other countries. |



4.8.4 Guidelines for analysis

Facilitators should refer to the Dashboard Methodology narrative for comprehensive guidance on the process of assigning REACH stoplight ratings and adding trend arrows. These features are briefly discussed below.

One of the distinguishing features of the Situation Analysis Dashboard is the REACH stoplight rating system used for the situation analysis indicators. The system applies a four-point rating system, inspired by the red, yellow and green traffic code to classify the level of public health significance, whereby:

| | |
|--|---|
| | Red denotes an <i>Urgent problem requiring urgent action;</i> |
| | Yellow denotes a problem <i>Requiring action;</i> and |
| | Green denotes something that is <i>Not currently a serious problem.</i> |
| | White denotes not applicable |

Experience has shown this notation to be readily understood by non-technicians, who often exercise decision-making power and influence policy. The rating system capitalises on the existing evidence base with respect to population thresholds/public health significance categories.³ In some cases, this has required existing four- or five-category classifications to be consolidated into three severity categories used by the REACH stoplight system.

In addition, the dashboards provide a **rough estimation on progress** – not upward or downward trends in the nutrition levels themselves - with respect to previous data, by the inclusion of ‘trend arrows’. In many cases, the time series data is not directly comparable due to differing sampling methodology and/or subtle differences in indicators. Where considerable discrepancies are observed between sampling methodologies and/or differing indicator definitions, trends arrows should not be assigned.

³ Population thresholds or public health significance categories refer to population-level statistics (e.g. prevalence, mortality rates, etc). For instance, a population where greater than 40% of children ages 6-59 months are anemic would be classified as a severe public health problem.



Figure 20: Excerpt from the Situation Analysis Dashboard in Sierra Leone
 Looking at the Overall Situation Analysis Dashboard, which presents categorised indicators, statistics, data source, year of data collection, severity stoplights and trends arrows

Draft **REACH Indicator Dashboard**
Sierra Leone – SITUATION ANALYSIS

● Not currently a serious problem
● Requiring action
● Serious problem requiring urgent action
○ Not applicable

n.a. Data not available
➔ Improving
➔ Not changing
➔ Getting worse

| | Indicator | Status | Source | Year | Severity | Trend |
|--|--|----------|-----------|-----------|----------|-------|
| Nutritional impact | Stunting Prevalence of stunting among children 6-59 mo. old | 34% | SMART | 2010 | ● | ➔ |
| | Wasting GAM prevalence among children 6-59 mo. old SAM prevalence among children 6-59 mo. old | 7% | SMART | 2010 | ● | ➔ |
| | | 1% | SMART | 2010 | ● | ➔ |
| | Vitamin A deficiency Children <5 with Vitamin A deficiency | n.a. | n.a. | n.a. | n.a. | n.a. |
| | Iron deficiency Children 6-59 mo. with anemia Women 15-49 yrs. with anemia | 76% | DHS | 2008 | ● | ➔ |
| | | 45% | DHS | 2008 | ● | ➔ |
| Iodine deficiency disorders School-aged children w/iodine deficiency disorders | 85% | MoHS/WHO | 1994 | ● | TBD | |
| Underlying causes | Food security Households with poor or borderline food consumption Proportion of population undernourished Global Hunger Index rating | 45% | CFSVA | 2010 | ● | ➔ |
| | | 35% | SF SW | 2005-2007 | ● | ➔ |
| | | 79/84 | GHI | 2010 | ● | ➔ |
| | Health & sanitation Under 5 mortality rate (deaths per 1,000 live births) Women 15-49 yrs. w/problem(s) accessing health care | 192 | ChildInfo | 2009 | ● | ➔ |
| | | 89% | DHS | 2008 | TBD | ➔ |
| | Care Household access to improved water source Household access to improved sanitation facilities | 66% | CFSVA | 2010 | ● | ➔ |
| 64% | | CF SVA | 2010 | TBC | ➔ | |
| Timely initiation of breastfeeding* Infants 0-5 mo. exclusively breastfed † | | 51% | DHS | 2008 | ● | ➔ |
| | 11% | CF SVA | 2010 | ● | ➔ | |
| | Children 6-23 mo. old with min acceptable diet | 23% | DHS | 2008 | ● | ➔ |
| | Caregivers washing hands after using toilet Time to fetch water (households that take ≥30 min) | 91% | CFSVA | 2010 | TBD | ➔ |
| | | 19% | CF SVA | 2010 | TBD | ➔ |
| Basic causes | Education Females that completed primary school or higher Literate females ages 15-49 yrs. old | 25% | DHS | 2008 | TBD | ➔ |
| | | 4% | DHS | 2008 | TBD | ➔ |
| | Population Total fertility rate | 5.1 | DHS | 2008 | TBD | ➔ |
| | Gender Women aged 20-49 yrs. with first birth at 15 yrs old Women's intra-household decision-making power Global Gender Gap ranking | 12% | DHS | 2008 | TBD | ➔ |
| 40% | | DHS | 2008 | TBD | ➔ | |
| | n.a. | n.a. | n.a. | n.a. | n.a. | |
| Poverty Population living under national poverty line | 60% | MDG Prog | 2010 | ● | ➔ | |

4.8.5 Outputs

The Situation Analysis Dashboard(s) produces the below outputs:

- ✓ Dashboards devised which display situation analysis (which may potentially be merged with coverage indicators), noting improvement, deterioration or no change as well as the severity of the problem.
- ✓ A set of recommendations identifying a list of indicators which should be added to routine data collection and/or periodic nutrition surveys.
- ✓ (Optional) Recommendations compiled for harmonizing methodologies, indicators and data requirements across surveys.