

Information Systems for Nutrition

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Scaling Up
NUTRITION

ENGAGE • INSPIRE • INVEST

Introduction

“ It is my singular belief that every sector must be held accountable for their performance and delivery of food and nutrition with very clear indicators monitored and evaluated annually. ”

Ibrahim Assane Mayaki, Chief Executive Officer of NEPAD and SUN Lead Group

This series of briefings – entitled *Scaling Up Nutrition in Practice* - presents the experiences of SUN country governments, and other national stakeholders, as they scale up their efforts to ensure all people enjoy good nutrition. Each briefing in the series focuses on a theme selected by SUN country government focal points for sharing their experience during a series of teleconference calls with focal points and country teams that take place every two months.

This is the second briefing and it focuses on **information systems for nutrition**. Stakeholders from six SUN countries have contributed accounts of how relevant indicators are being collected, managed, analysed, reported upon and used to track progress and prioritise responses in order to improve the nutrition of people. Key lessons have been identified in each of the country articles.

Global Nutrition Targets

SUN countries are aiming collectively to reach by 2025 the global targets agreed by the World Health Assembly in 2012

- Target 1:** 40% reduction of the global number of children under 5 who are stunted
- Target 2:** 50% reduction of anaemia in women of reproductive age
- Target 3:** 30% reduction of low birth weight
- Target 4:** Increase exclusive breastfeeding rates in the first 6 months up to at least 50%
- Target 5:** No increase in childhood overweight
- Target 6:** Reducing and maintaining childhood wasting to less than 5%

Source: WHA65/6 Maternal, infant and young child nutrition. May 2012



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What is the purpose of information systems for nutrition?

Information systems for nutrition have three main functions. They measure **changes** in the nutrition status of vulnerable people, namely children and women, they track **progress** in the implementation of actions and they help to prioritise **response**. Reliable monitoring of progress, evaluation of outcomes and demonstration of results are core functions for countries participating in the SUN Movement. SUN countries are aiming to meet by 2025 the six targets agreed at the World Health Assembly (WHA) in May 2012. Many countries have recently revised their national goals and are establishing robust information systems to measure their progress towards the WHA agreed targets. One of the challenges faced by countries is variability in the quality and extent of information related to the targets. For example, data on birth weight are frequently inconsistent and unreliable because many women, particularly in poor rural areas, give birth at home sometimes without the support of a skilled birth attendant. Updated data on anaemia in women of reproductive age are missing for most countries due to the rare implementation of micronutrient surveys. Nevertheless, countries are striving to improve their information systems to be able to accurately measure the impact of their efforts to scale up nutrition.

Understanding the extent, location and determinants of malnutrition is vital to be able to mount appropriate responses and to inform the allocation of finite resources. A range of data related to the immediate and underlying causes of malnutrition are therefore needed to be able to analyse determinants, target vulnerable groups and prioritise effective interventions. Information on the coverage of services and programmes, and stakeholder mapping also helps to identify appropriate responses.

What forms of information systems for nutrition are in place?

Information systems for nutrition exist in all SUN countries in some form. Information in many countries comes from a series of separate systems managed by different stakeholders for specific purposes. Some countries have strengthened their capacity to use information from diverse sectors to inform decision-making at different levels. There is no 'blueprint' for information systems and countries are developing their own unique approaches. Most countries, however, find it useful to establish a national framework to collate information from multiple sources in order to inform multi-sectoral responses. The map on pages 36 and 37 provides an overview of the status of information systems for nutrition in 43 SUN countries and the State of Maharashtra, a partner in the SUN Movement.

The first group of 17 countries access information from surveys and routine data sources and are able to perform situation analysis and monitor implementation of selected programmes. These countries have not yet developed a 'common results framework' (CRF) that would enable them to collate, analyse and report data across key sectors.

The second group of 13 countries have established or are in the process of developing a CRF. The focus in many of the second group is on strengthening decentralised mechanisms and reinforcing the links between sectors.

The third group of 14 countries are already collating and analyzing data from diverse sources and have established CRFs. These countries are refining and strengthening their systems so that information is analysed, disseminated and used effectively.

This issue of *Scaling Up Nutrition in Practice* describes information systems for nutrition in six SUN countries that all belong to the third group. **Rwanda** is strengthening coordination between key ministries and monitoring and evaluation (M&E) mechanisms in line with its updated National Food Security and Nutrition Strategic Plan (2013-2018). A system to monitor District Plans to Eliminate Malnutrition has been established using a set of indicators that are updated regularly and presented in graphic form. In **Madagascar** an M&E system has been created which monitors information through responsible engagement of all stakeholders. Regional Nutrition Offices have established multi-stakeholder M&E groups that promote a participatory approach to data analysis and sharing. **Zimbabwe** has multiple sources of data and is strengthening district capacity to integrate, analyse and use information from different sectors to improve response. **Sri Lanka** has a new five year Multi-sector Action Plan for Nutrition in place and is setting up a system to monitor impact and implementation of programmes. It is extending a community-driven and multi-sectoral approach to identify nutritionally vulnerable households and respond appropriately. In **Namibia** nutrition information was successfully used to build high level political commitment for scaling up nutrition. A results framework and nutrition indicator dashboard have been incorporated into the newly endorsed Multi-Sectoral Nutrition Implementation Plan. The dashboard indicates baseline and progress towards achieving the targets for each of five key result areas. **Ethiopia** has strengthened its nutrition information system from national to district level. Nutrition information is being used to assess the food security level. Relevant data from key sectors are being used to explain sudden changes in the nutrition situation of vulnerable people and determine the most appropriate response. This was made possible through optimal use of quality data from multiple sources.

While governments take their own unique approach to establishing information systems for nutrition that reflect the context of the country, there are common elements and challenges.

Country Articles



Health Information System in Ethiopia

RWANDA

Monitoring performance



The Government of Rwanda is identifying a small number of higher level indicators to aid decision-making and record progress.

Fidele Ngabo, Director of Maternal and Child Health and SUN Focal Point describes the process...

The Government of Rwanda has set itself an ambitious target: to reduce child stunting from 44% to 24.5% by 2018. It has moved food and nutrition to the centre of the country's development agenda and updated the National Food Security and Nutrition Policy (2013) and the accompanying National Food Security and Nutrition Strategic Plan (2013-2018). Through adoption and endorsement of the policy and strategic plan, the government has committed to ensuring better nutrition and household food security for the nations' population.

Under the previous National Strategy to Eliminate Malnutrition that ran up to 2013, monitoring and evaluation (M&E) mechanisms and reporting systems were established along with coordination mechanisms at national, district and community level. The strategy served as a common framework for action among various stakeholders at all levels. Overall coordination was led by the Ministry of Health through the National Coordination Committee to Eliminate Malnutrition (NCC) supported by the Nutrition Technical Working Group on Nutrition co-chaired by the Ministry of Health together with the United States Agency for International Development, which led coordination of development partners involved in nutrition actions. The updated National Food Security and Nutrition Strategic Plan (2013-2018) has adopted a similar system with strengthened coordination between key ministries and their M&E mechanisms. Interventions have been refocused to the "1000 days programme" for the prevention of stunting focused on children under two years of age.

CHILDREN UNDER 5

Stunting:	44.2%
Wasting:	2.8%
Overweight:	6.7%
Low birth weight:	6.2%
Exclusive breastfeeding:	84.9%

Source: DHS 2010

National systems

A number of ministries engaged in nutrition – health, agriculture, local government, education, infrastructure and gender - prepare an annual Joint Action Plan to Eliminate Malnutrition (JAPEM) through the NCC. Each ministry submits a quarterly implementation progress report, which is consolidated for submission to the Prime Minister's Office. Nutrition outcomes and impact are monitored through various tools.

In the health sector, key nutrition indicators are monitored through the health management information system and through the community based nutrition programme. Information is collected from district health facilities and through community monitoring tools by community health workers. A more comprehensive survey designed to monitor the health of the population is also conducted every three to five years through the demographic and health survey. This collects information on fertility, family planning, childhood mortality, nutrition, maternal and child



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health, domestic violence, malaria, maternal mortality, awareness and behaviour regarding HIV and AIDS, and prevalence of HIV, malaria and anaemia.

Food security and vulnerability are monitored through the food security and nutrition monitoring system conducted every six months and the comprehensive food security and vulnerability assessment and nutrition survey conducted every three years. These surveys are conducted by the Ministry of Agriculture in collaboration with the National Institute of Statistics in Rwanda and the World Food Programme and are complemented by the agriculture management information system which collects routine data. These data are disseminated through bulletins and reports provided to all stakeholders for use in decision-making, strategy development and programming.

District systems

District mayors lead the preparation of a District Plan to Eliminate Malnutrition (DPEM), under performance contract with the Office of the Prime Minister. The DPEM is multi-sectoral and includes nutrition-sensitive and nutrition-specific actions related to young child feeding, home fortification, growth monitoring and promotion, screening and treatment of acute malnutrition, nutrition support for HIV and AIDS, social protection, and nutrition integration into agriculture including distribution of one cow per family and kitchen gardens. Programmes are being progressively scaled up with increasing coverage focused on addressing stunting in under twos in line with the national "1000 days campaign".

Tracking and integrating key indicators

Implementation of DPEMs is monitored through Devinfo, a system which tracks all major indicators, plans and activities in a highly visual form. Each indicator in the DPEM is depicted in a dynamic manner by presenting the base-line, objectives and frequent updates to show current status in a graphic form. The system allows districts to generate a progress report on a quarterly basis. It draws on data coming from the health management information system and from the community based nutrition programme using health facility records, the system for information on community sanitation (Système d'Information Sanitaire Communautaire SISCOM) and rapid SMS messages from community health workers.

Twice a year, the nutrition technical working group conducts supervision missions to monitor the implementation of the DPEM and provide recommendations for improving implementation.

Nutrition data are reported from village to cell, health centre and district hospitals on a monthly basis. Aspects that are reported include information on growth monitoring, kitchen gardens, cooking demonstrations, nutrition clubs, child malnutrition, water, sanitation and hygiene, and nutrition education. District hospitals analyse and disseminate the data for their health centres, sectors and communities. Most importantly, the SISCOM database is operational and includes nutrition indicators for every district that help monitor programme performance and allows management to make necessary adjustments as needed.

Tracking malnutrition in children through SMS

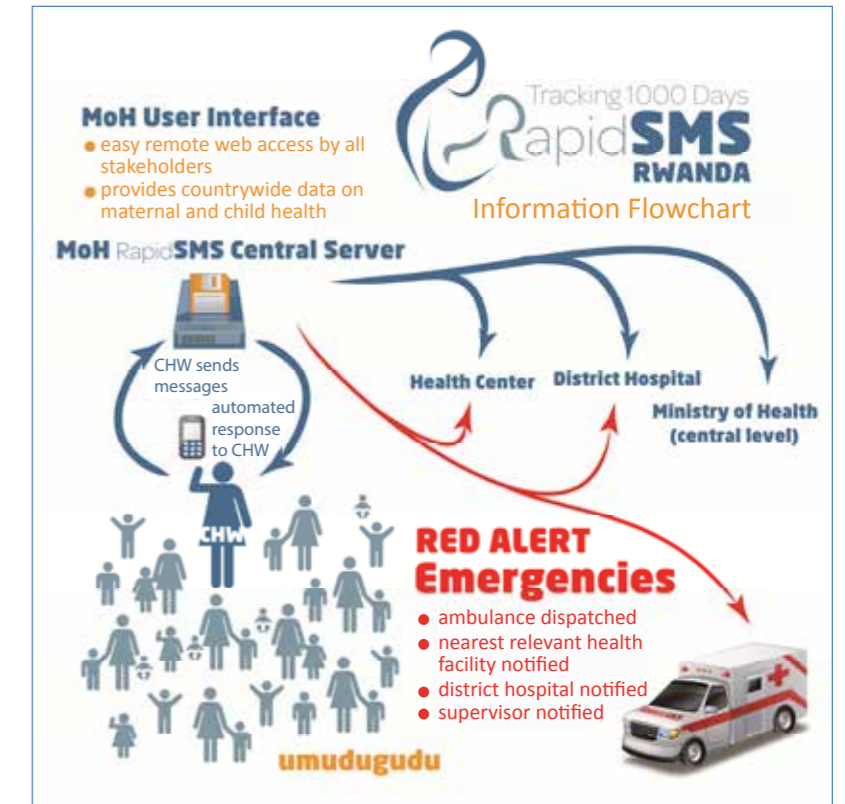
Rwanda's key intervention to prevent stunting includes a system for effectively and continuously screening children to detect and treat cases of acute malnutrition early. This intervention contributed to Rwanda's success in decreasing between 2005 and 2010 the prevalence of stunting from 51% to 44%, wasting from 5% to 3% and underweight from 18% to 11% in children under five years¹. To track malnutrition at its earliest stage, Rwanda uses rapid SMS, a mobile phone-based system designed to continuously track the pregnancy cycle - from pregnancy confirmation until the new-born child is nine months old. The system was expanded in 2013 to track the full 1000 days from pregnancy up to two years of age. This includes post natal and new born care services, tracking childhood killers such as diarrhoea, malaria and pneumonia and community-based nutrition activities (such as breast feeding, complementary feeding) and the height and weight of children under two years of age. Reported illnesses and community-based management of acute malnutrition cases are followed through for referral and treatment. The system works using real time community based information. Trained community health workers relay their reports to the rapid SMS central server of the Ministry of Health which then generates responses and passes them on to health centres, district hospitals and the central level. In case of an emergency, a red alert response is generated. This enables patients to get immediate live saving services.

The effectiveness of the system, however, greatly depends on accurate and constant information flow and generation of appropriate responses. There is a need for quality checks and consistent supervision of community health workers. Other limiting factors also need to be addressed such as lack of electricity for phone charging, geographic accessibility for transporting patients, and drop outs or movement amongst community health workers.

Challenges

Despite considerable efforts, fragmentation of information remains an issue as there is no comprehensive national nutrition tracking or surveillance mechanism in place yet. Consequently, information sharing between sectors can be limited. The government is cognizant of these weaknesses and strives to find ways to improve the system. Currently, efforts are underway to set up a nutrition surveillance system with support from the World Health Organisation.

Tracking 1000 days through rapid SMS in Rwanda



Tracking indicators through Devinfo: Rwanda Profile 2012



Key Lessons

- Understanding the causes underlying both food insecurity and chronic malnutrition in the country guides planners and decision makers towards tackling food insecurity and malnutrition better.
- Simple and available technology such as SMS can be used as an effective platform for nutrition information sharing though its effectiveness can be limited by factors that impede constant and accurate information flow and generation of responses.
- Community health workers play a crucial role for relaying real time and accurate information and therefore require adequate capacity and regular data quality supervision.

MADAGASCAR

Promoting ownership of nutrition information



Madagascar is establishing a multi-sectoral and multi-stakeholder nutrition information system owned by all stakeholders.

Jean Francois, National Coordinator, National Nutrition Office and SUN Focal Point with Ralambomahay Lova, Head of Development Partnership and Nutrition Watch, National Nutrition Office describe progress so far...

Despite the political crisis which has afflicted Madagascar since January 2009, the government is committed to advancing progress on scaling up nutrition through a strong multi-sectoral approach. Representatives from a wide cross-section of sectors and stakeholders work together through the National Nutrition Council or Conseil National de Nutrition (CNN) under the supervision of the Prime Minister. The CNN is leading efforts to ensure effective implementation of the National Nutrition Policy (PNN) and National Action Plan for Nutrition (PNAN II).

CHILDREN UNDER 5

Stunting:	50.1%
Wasting:	15.2%
Overweight:	6.2%
Low birth weight:	12.7%
Exclusive breastfeeding:	50.7%

Source: DHS 2008-2009

Multiple levels of information management

Through Government Decree 2013-847 signed in December 2013, a monitoring and evaluation (M&E) system has been created in Madagascar. The principle aim is to operationalise a coordinated multi-sectoral system to monitor information through responsible engagement of all stakeholders. Regional Nutrition Offices have been established with M&E groups that are providing a base of reliable, high quality data accessible to all relevant partners: national institutions, the private sector, development partners, communities and decentralised regional bodies. The regional M&E groups are charged with collating, analysing and reporting on data, as well as formulating recommendations for interventions based on the findings.

Currently, the information system for nutrition in Madagascar is organized at five levels:

- 1. Strategic** at the level of the Prime Minister, sectoral ministries and donors
- 2. Tactical** operating at the level of ministerial national directorates
- 3. Operational** working in the regions² covering decentralised regional directorates of sectoral ministries situated in the main town of each region
- 4. Intermediate** operating at district level and including the district health³, education and agriculture systems
- 5. Local** functioning in communities and neighbourhoods ('Fokontany')



Purpose of the M&E system in Madagascar

The information system aims to integrate data from a variety of sources with the following objectives:

1. To facilitate nutrition data collection
2. To facilitate the monitoring of progress in the fight against malnutrition
3. To strengthen mechanisms for mutual accountability between stakeholders, accountability to the State, donors and most importantly citizens
4. To promote transparency in investment for nutrition.

Data collection systems and sources of information

There are several information systems that collect nutrition-related data in Madagascar. Sectoral ministries, civil society organisations, the private sector, United Nations (UN) system and donor agencies each have their own information systems. Sometimes, these systems create duplication when they collect data from the same sources, which is wasteful of resources. At the same time, there are still omissions in information.

Data are collected through the following systems:

The National Institute of Statistics

carries out the demographic and health survey, the permanent household survey, the multiple indicator cluster survey and anthropometric surveys.

The National Integrated Monitoring and Evaluation System

measures poverty through integrating a range of indicators of poverty. It is validated and recognized by the government as a system to monitor the implementation of the PNAN II.

The National Early Warning System,

under the coordination of the National Bureau of Risk Management and Disaster with the support of UN agencies is a system that collects information on the numbers of vulnerable people, food security and prices, and infrastructure damage during disasters such as hurricanes, drought and fire. The information is collected during emergency periods only to enable policy makers to take decisions in a timely manner. It is currently not functioning.

The Food Insecurity and Vulnerability Information and Mapping System

was established to provide information on populations and areas affected by, or at risk of food insecurity by the Ministry of Agriculture and the Food and Agriculture Organisation.

Routine monitoring

data are collected by agencies implementing the PNAN II. These include technical agencies (ministries of health, agriculture and education among others), technical and financial partners (UN agencies plus donors including the United States Government, the European Union and Japanese

Government), non-governmental organisations (NGOs) and other stakeholders. These data are useful in understanding the food and nutrition security situation and trends. Relevant data that are routinely collected are incorporated into the national integrated monitoring and evaluation system.

Rapid nutrition surveys

are conducted by the CNN and sectoral ministries with the support of the United Nations Children's Fund and other agencies.

The National Food and Nutrition Surveillance System collects and analyses nutrition and dietary data through the statistical offices of various ministries.

Additional sources of data are available through:

- **Reports** from ad hoc committees including the Nutrition Cluster⁴ that is activated in emergencies
- **Studies** from research centres and universities

Data are disaggregated by age, gender, income group and geographic area.

Reporting and sharing mechanisms

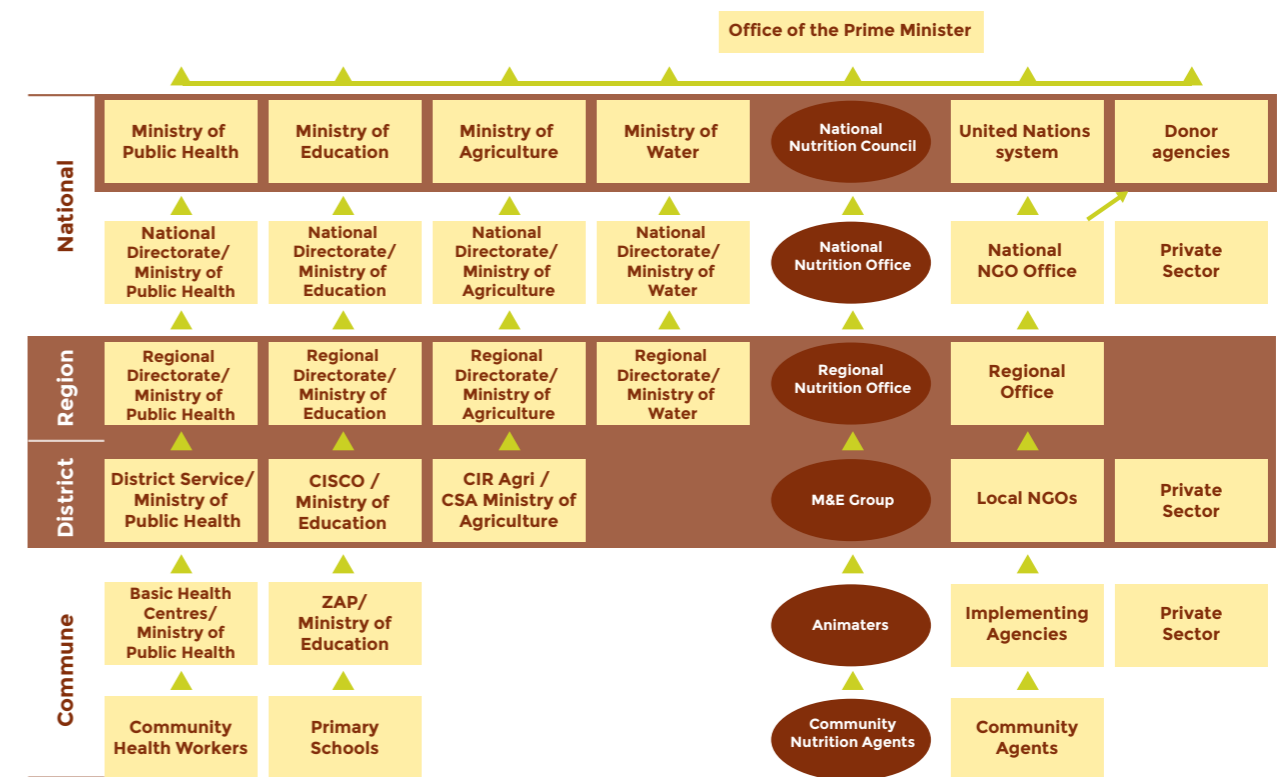
The nutrition information reporting system mirrors the decentralized structures. Data are collected and consolidated at the regional and district level before being transferred to the national level. Sessions to share information are held periodically throughout the year for validation by stakeholders before the information, including annual and interim reports, are disseminated to policy makers and donors.

The national M&E group is multi-sectoral comprising M&E specialists from partner organisations and stakeholders in the fight against malnutrition (ministries, civil society, NGOs, private sector). These specialists come together to provide a technical platform and ensure that a participatory approach is applied to sharing nutrition information. The CNN provides a permanent secretariat for this group. In addition to coordinating collation and analysis of nutrition impact and coverage data, the CNN has set up a geographic information system which is mapping stakeholder groups and interventions at all levels to provide an overview of the implementation of actions for nutrition. Reports produced at each level are accessible and available, but their preservation over time is a problem due to the lack of an archiving system.

The regional M&E group, chaired by the Regional Office of Nutrition is composed of regional representatives from ministries and technical departments, plus implementing agencies involved in the nutrition sector, particularly those responsible for projects and programmes, the private sector, development agencies, communities and decentralized regional entities. The regional M&E group is responsible for:

- collation, analysis, validation and dissemination of nutrition information at the regional level before transmission to the national level
- training staff at regional, district and community level on the collection, use and analysis of information. These actors must be able to analyze data and take appropriate action

Reporting system for nutrition data in Madagascar



Source: National Nutrition Council Madagascar

- conducting supervisions every three months, six months or at the request of Regional Office of Nutrition, and evaluating nutrition programmes annually.

Responding to emergencies

Madagascar is an island which is struck every year by natural disasters such as cyclones and flooding. In addition, there are periods of drought and pest infestations that affect areas of the island. Nutrition-related information is sent to the government to launch an appropriate response when disasters strike. The information includes:

- Child underweight collected through community growth monitoring and promotion sites
- Child wasting based on mid-upper arm circumference collected at community growth monitoring and promotion sites and health centres
- Children affected by diarrhoea recorded at health centres
- Children affected by acute respiratory infections recorded at health centres
- Information from the early warning system on:
 - Mass displacement of the population and their livestock
 - Sale of kitchen utensils and jewellery on the streets.
 - Fluctuating prices of food and basic items on the market

From analysis of the information and when response thresholds are reached, the government together with

donors and other partners, launch a humanitarian appeal to mobilise donors. A multi-sectoral humanitarian response includes food distribution, water and sanitation actions, health and education interventions and preparation of development projects.

Strengths of the M&E system

The existence of the coordinated multi-sectoral nutrition information system is an asset for Madagascar. Because of the way in which nutrition has been institutionalized, data reporting is done through the five levels of decentralized structures. Groups have been established at the different levels to strengthen the system. The information system functions across sectors and sectoral information is sent via the Regional Nutrition Office to the national level. The system has good coverage both geographically and in terms of equity (gender, income group, educational level etc.). The data collected are widely analyzed and used by multiple actors working in the field of nutrition. In addition, a computerised system has been introduced to facilitate transmission of data between different levels.

Challenges for the M&E system

While Government Decree 2013-847 has set out the framework, the nutrition information system is not yet fully functional in the way that it coordinates across sectors and partners. There are a number of challenges to be overcome.

A major challenge is to ensure the efficient use of the information collected from the existing systems. There are some parallel information systems and as yet no mechanism in place for harmonising data and ensuring quality control.

Some information, such as routine nutrition data collected through the growth monitoring system in basic health posts, is difficult to interpret because it can be incomplete and arrives late.

The CNN is dependent on collating information from the systems of different stakeholders. This can delay reporting and create challenges for coordination accentuated by the difference in logistical and financial resources of partners. Furthermore, dissemination of findings is limited to reports and coordination meetings and there is no formal mechanism for sharing data between different stakeholders.

Conclusions

An ideal M&E system for Madagascar is presented below. It shows that at each geographic level, there is an exchange of data between the entity responsible for the coordination and the various service providers, whether public or private. Collation and analysis of data is carried out at all levels to help stakeholders in decision making. Its implementation requires the mobilization of all actors. The creation of a platform for multi-sectoral M&E at national level in the form of the national M&E group helps to overcome institutional barriers and centralize all nutrition information.

The national platform ideally needs to include all ministerial departments, representatives of the various programmes, UN system agencies, donors, civil society organisations and the private sector. This would help to resolve conflict, promote harmonization of methods and assure high quality standards among all data producers. Human resources need to be strengthened - in number and diversity - for the platform to function optimally.

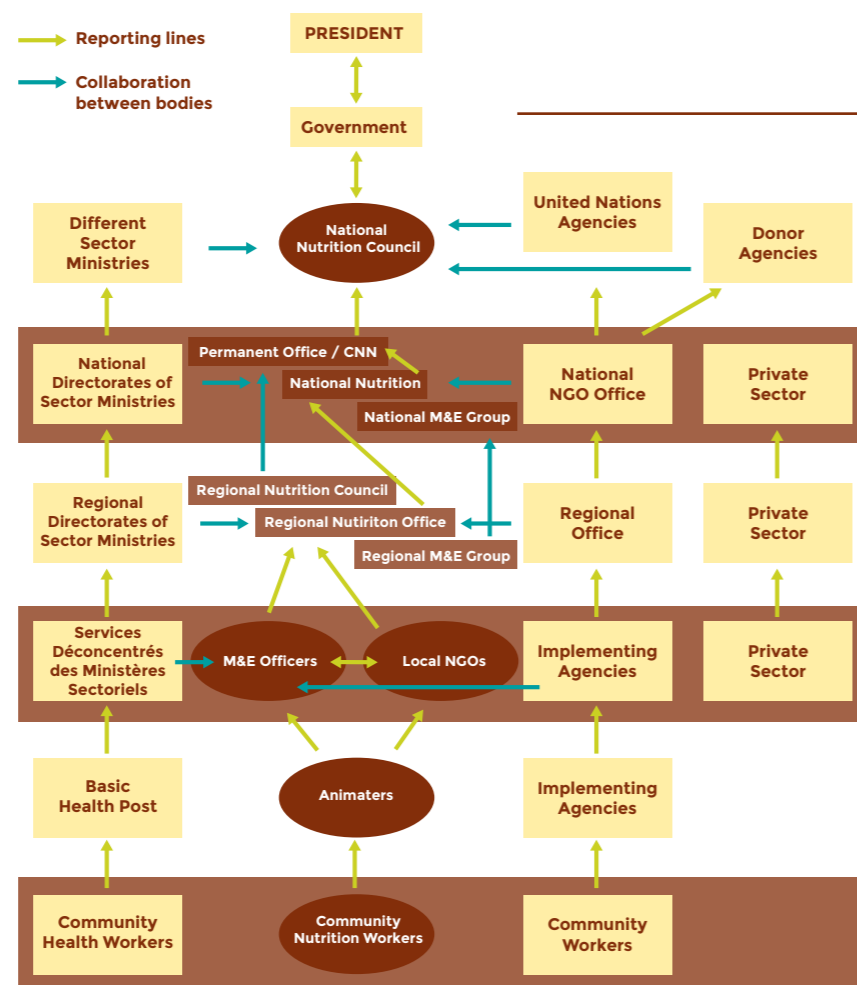
Further reinforcement of regional M&E groups is needed to provide sufficient financial resources and software so that they can collect, collate and analyze data, and prepare reports in a timely fashion for the use of all stakeholders at the district, regional and national level.

The success of Madagascar's nutrition information system is based on the ownership of the system at all levels - central level

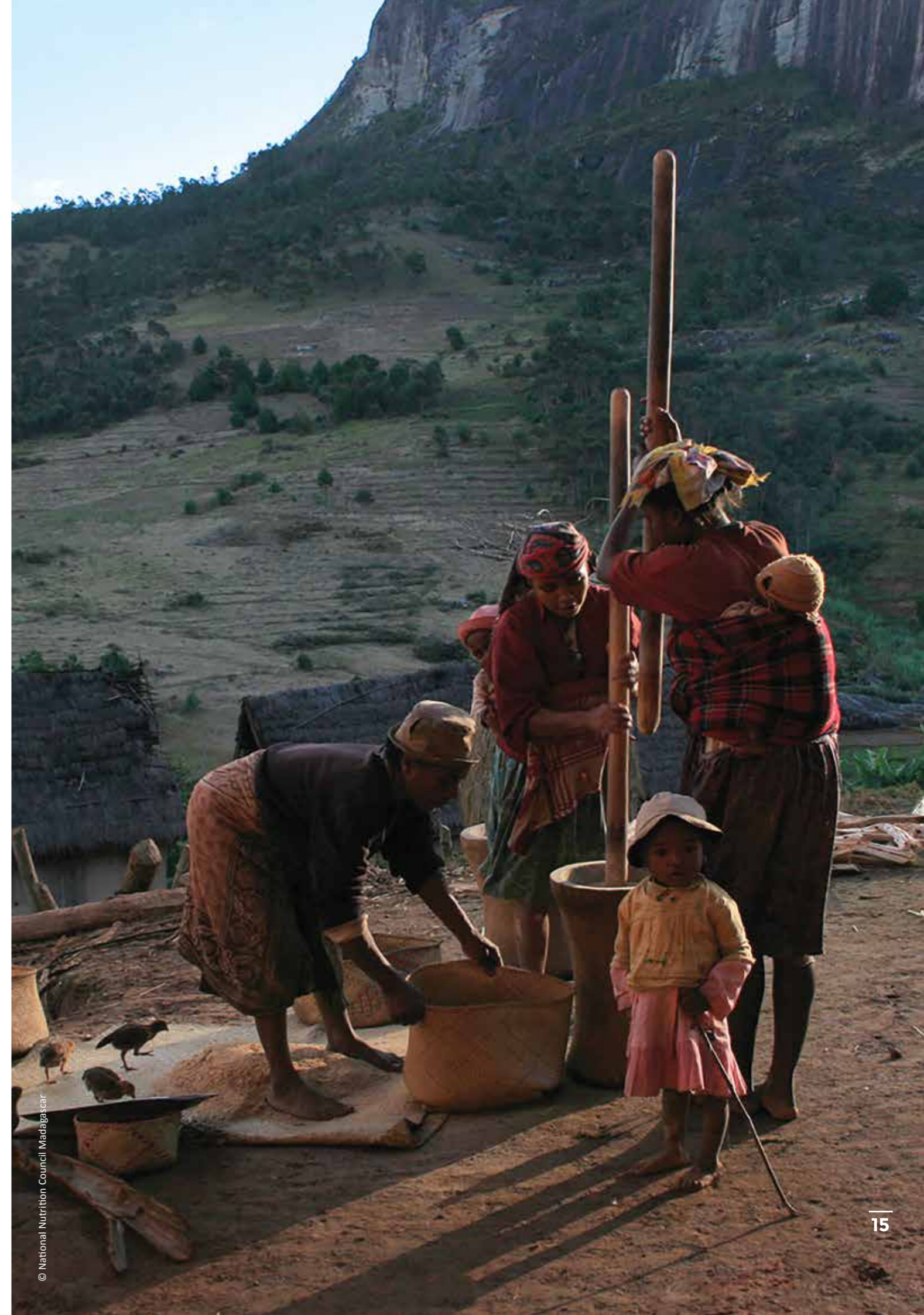
to local level - and by all stakeholders. The development of the system was conducted under the leadership of the CNN in a participatory manner. The initiation of the system seeks to provide greater synergy between stakeholders and better harmonization of activities.

Key Lessons

- Coordination in data collection is paramount. Uncoordinated data collection systems that rely on the same sources are not only a waste of resources but contribute to overload, poor quality, gaps, misinterpretation and delays in proper analysis of data.
- Some information systems may need to merge to ensure harmonization and usefulness of data.
- The success of Madagascar's nutrition information system is based on the ownership of the system at all levels - central level to local level - and by all stakeholders. However, it now requires to be sustained by increased capacity.



Source: National Nutrition Council Madagascar





ZIMBABWE

Analysing and using information from multiple sources



There are many different sources of data relevant for nutrition in Zimbabwe.

George Kembo, Director, National Food and Nutrition Council and SUN Focal Point

describes how the information is analysed and used...

“Government has made commitments to... a national integrated food and nutrition security information system that provides timely, reliable information on the food and nutrition security situation, effectiveness of programmes and informs decision-making...”

Comrade R.G. Mugabe, His Excellency the President of the Republic of Zimbabwe

CHILDREN UNDER 5

Stunting:	32.0%
Wasting:	3.0%
Overweight:	5.5%
Low birth weight:	9.5%
Exclusive breastfeeding:	31.4%

Source: DHS 2010-2011

In response to persistent hunger and under-nutrition, particularly among the poor, the Government of Zimbabwe launched a Food and Nutrition Security Policy in May 2013. The policy marks the start of a concerted effort to promote economic development by addressing food security and nutrition challenges in a robust, coordinated, and multi-sectoral manner. The Food and Nutrition Council (FNC) is the national agency mandated to lead the coordinated, multi-sectoral response. The FNC engages multiple ministries and other stakeholders including United Nations agencies, non-governmental organizations (NGOs) and the business community.

Government commitment

The government sets out seven commitments in the Food and Nutrition Security Policy including a commitment to a national integrated food and nutrition security information system. Key aspects of the information system are:

- reporting on inequity
- harmonization, integration and synthesis of information from multiple sources
- basing the system on standardized, agreed and comparable indicators

- decentralized ownership of information systems inclusion of routine data
- ensuring a strong linkage between information, decision-making and action including for emergency responses
- building a central information repository
- inclusion of both qualitative and quantitative tools and approaches
- linking with regional and global nutrition information systems; and
- distinguishing between chronic and acute situations.

The system combines a number of different assessment and monitoring tools that together provide a comprehensive understanding of the food and nutrition security situation.

Systems and sources of information

The integrated food and nutrition security information system seeks to collect, analyse and utilize information on **impact** – progress toward the six World Health Assembly (WHA) targets – and **determinants** of malnutrition. There are multiple systems and sources of information.

The Zimbabwe Demographic and Health Survey is conducted every five years. With the exception of anaemia in women of reproductive age, data related to all WHA targets are collected. These data are disaggregated according to geography, wealth, gender, livelihood and age group.

The National Nutrition Surveillance System was set up to collect information on an annual basis during the peak hunger season (the time just before harvest). Recently, due to resource constraints, data collection has been on an ad hoc basis. In 2013, data were collected in 10 livelihood zones considered to be most food insecure by means of a rapid assessment. In 2014, data are being collected through mini nutrition surveys targeting 10 food insecure districts in four provinces⁵. Data are collected on five of the WHA targets, the exception being again anaemia in women of reproductive age. Disaggregation of data is by geography, gender and age group. Members of Multi-sectoral Food and Nutrition Security Committees at provincial, district and ward level are being trained on food and nutrition security surveillance. This includes training on how to collect and analyse data and the production of reports at district level. A total of 98 people from national, provincial and district level have been trained recently including staff from the health sector (nutrition, environmental health, and community nursing), social services, United Nations and civil society.

Routine data collection

is carried out by NGOs, usually as baseline and endline at the start and end of a programme, and on a monthly or quarterly basis throughout the life of the project. The information is usually disaggregated by geography, gender, livelihood and age group. The indicators collected vary according to the scope of the programme. Some information has a focus on food security and markets, some on water, sanitation and health and a few collect information on community infant and young child feeding programmes.

The Zimbabwe Vulnerability Assessment Committee (ZIMVAC)

carries out an annual rural livelihoods assessment (ARLA) using random sample surveys. The 2013 ARLA was carried out in May and collected data through community and household questionnaires on education, food and income sources, income levels, expenditure patterns, crop production, livestock production, water and sanitation, crop post-harvest management. Data were also collected on wasting in children under five years of age. The ZIMVAC collects and analyses comprehensive data on the

determinants of wasting including information on dietary intake, food security, illness (recent diarrhoea, fever or cough in children under the age of five), and water and sanitation. Limited data are collected on access to health services and on the care of the mother and child. The data are disaggregated according to gender, age and geography.

The Agriculture and Food Security Monitoring System

collects data in 57 out of 60 districts once every quarter. The system is adapted to conduct a household food consumption survey every year in October at the start of the hungry season. All the data collected under this system are from rural areas. Further disaggregation is carried out according to livelihood zone.

The Crop and Livestock Assessment

is carried out twice a year with analysis of data disaggregated down to ward level.

The Health Information System (HIS)

collects monthly reports on most diseases and health conditions including wasting, underweight and pellagra (due to niacin or vitamin B3 deficiency disease). The HIS also has a weekly disease surveillance system that monitors outbreaks of diseases of public health importance such as cholera, malaria and measles.

Annual mapping exercises

are conducted by the Nutrition Technical Coordination Group to produce a Nutrition Atlas. The mapping captures which stakeholder groups are doing what and where they are active. The mapping covers government activities as well as those of NGOs. The Agricultural Working Group does a similar mapping exercise on a yearly basis for the food security sector. The information for the mapping exercise is collected through self-administered questionnaires which are sent to key people at the different agencies and sectors.

Analysis and use of information

There is high level commitment from government to collect, analyse and use data. There is good capacity for collection at national and district level but currently the capacity for analysis is largely confined to the national level. Provincial and district level staff are currently being trained to analyse their own data and produce reports as part of a broader data management training.

Programme design and targeting of geographical areas by partners is usually based on the nutrition information that is available. Organisations frequently carry out baseline and end line assessments to determine the effectiveness of programme implementation at district or ward level depending on the scope of their programmes. At national level, there is a need for operational research to determine the overall impact of the different programmes on the nutrition situation in the country.

Dissemination of information

The FNC is currently establishing a website to create a forum where the public can have access to food and nutrition security data and can also provide feedback. Information is presented in the form of maps, graphs, tables and dashboards.

Integrating information on food and nutrition security for flood response

During the rainy season of 2013-2014, Tsholotsho District in western Zimbabwe was hit by heavy rain and floods which affected more than 40 households in five wards situated close to the Gwayi river. A multi sectoral approach was used to collect and analyse data, respond and strengthen information systems. The District Food and Nutrition Security Committee (DFNSC) is the multi-sectoral committee that coordinates an integrated system for addressing food and nutrition insecurity. One of its specific functions is to facilitate and participate in food and nutrition assessments, surveillance and early warning activities.

Agriculture extension workers from the Ministry of Agriculture surveillance system monitored the effects of the rain and flooding on crop production in each of the affected areas. They found that extensive damage had been incurred to maize, sorghum and pearl millet crops.

A malnutrition screening exercise was carried out in the areas affected by the floods through the Ministry of Health. The screening was done in coordination with the expanded programme for immunisation in three wards. Mid-upper arm circumference was measured in order to assess acute malnutrition (wasting) in affected areas. A total of 156 children between the ages of 6 and 59 months were screened and referred to treatment programmes to prevent further deterioration. In addition, members of the DFNSC took part in a SMART⁶ nutrition survey in March 2014. The survey measured

mortality, child nutritional status, and food security.

The DFNSC met to discuss the information collected in affected areas. The committee agreed that advocacy for programmes – such as school feeding – was needed to protect children from malnutrition. In addition, the DFNSC highlighted the need for training to strengthen the quality of data produced through community based growth monitoring in the district. This would allow the nutrition situation to be monitored over time as part of the early warning system especially in the affected areas. A total of 160 village health workers were trained on growth monitoring in March 2014, specifically on the use of new child growth curves⁷ so that data collected are as accurate as possible.

DFNSC members took part in data management training to establish guidelines for an integrated information system on food and nutrition security and vulnerability. The result is that the DFNSC can now collect and analyse their own food and nutrition security information. Surveillance systems under different ministries (e.g. Ministry of Health and Ministry of Agriculture) are combined to produce a comprehensive picture of food and nutrition situation in the district. This integrated information sharing system will act as an early warning mechanism for pending food and nutrition insecurity and to monitor the situation in flood affected communities. It also allows the DFNSC to prioritise programmes to be implemented in the district.

Coordination, alignment and dissemination across different sectors is expected to improve with the strengthening and continued revival of multi-sectoral FNSCs in which NGOs participate together with key food security and nutrition sectors including agriculture, health, social welfare, education, gender, youth and local government.

nutrition information systems. In Zimbabwe these multi-sectoral coordination and governance structures are being strengthened at national, provincial and district level and are being established at ward level.

Challenges and opportunities

While efforts are being made to generate reliable nutrition information that can be used for nutrition programming and planning, disaster preparedness and response, there remains a need to increase the capacity for response. Furthermore, though it is recognized that multi-sectoral response is the most effective way to address nutrition, it can be delayed due to competing priorities within the different individual sectors themselves. The high attrition rate of staff within government is also a challenge resulting in trained and experienced staff departing for 'greener pastures', leaving untrained and inexperienced staff with low motivation. Resources for response are currently limited and strong efforts to mobilize them are required.

There are opportunities, however. The five year costed National Nutrition Strategy for Zimbabwe which is now being finalized includes 'quality nutrition information systems and advocacy' as one of its six key result areas and hence resources will be mobilized specifically around improving nutrition information systems in Zimbabwe. There is a high level of recognition of the role of nutrition in development. As the multi-sectoral collaborative platforms continue to strengthen, this will have a ripple effect on the effectiveness and advocacy towards improved

Key Lessons

- The quality of advocacy improves as nutrition information systems are strengthened and local evidence is documented.
- Communities can play a vital role in contributing to nutrition information systems through building the capacity of community based volunteers participating in disaster preparedness and response activities and also providing specific follow up to vulnerable households and/or individuals in wards.
- Feedback to communities is a vital part of nutrition information systems enabling them to prioritise their own problems and areas for response.
- Participatory monitoring and evaluation results in participatory response and increased sustainability of nutrition information systems.

SRI LANKA

Identifying vulnerable households



Sri Lanka is developing a system to identify and target vulnerable households through the collection of village-level information.

Lalith Chandradasa, National Nutrition Secretariat Coordinator reviews the success so far...



Sri Lanka made impressive progress in improving the health and nutritional status of its population between the 1970s and 2000. Advances have slowed in the last 15 years, however, resulting in high levels of under-nutrition relative to gross domestic product and to infant mortality rates. In rural Sri Lanka, where 80% of the population live, stunting rates are now moderately high compared to other indicators of development. Moreover, the prevalence of wasting has remained unusually high and largely unchanged over the last three decades.

In response to stagnation in levels of under-nutrition, the President of Sri Lanka set up the National Nutrition Council (NNC), comprising ministers of 16 implementing ministries (relevant to scaling up nutrition) and selected Members of Parliament. The NNC is advised by a Technical Advisory Committee on Nutrition while implementation is monitored by a National Steering Committee on Nutrition comprising secretaries of the implementing ministries, chief secretaries of provinces and civil society representatives.

A special unit, the National Nutrition Secretariat, has been set up within the Presidential Secretariat and under the direct guidance of the Secretary to the President. This unit is responsible for nutrition coordination, monitoring of implementation and reporting. A five year Multi-sector Action Plan for Nutrition (MsAPN) was launched in December 2013.

CHILDREN UNDER 5

Stunting:	19.2%
Wasting:	11.7%
Overweight:	0.9%
Low birth weight:	18.1%
Exclusive breastfeeding:	75.8%

Source: Nutrition and food security survey 2009

Approach to nutrition monitoring

The MsAPN takes a new approach to monitoring nutrition information and is putting in place a system which has two parts:

- ➔ Impact monitoring through nutrition surveillance; and
- ➔ Monitoring of implementation of the MsAPN by partner ministries.

Monitoring impact

The MsAPN has adopted five of the six key results areas that were agreed at the World Health Assembly (WHA) in 2012. The exception is the breastfeeding target which has already been met with exclusive breastfeeding levels standing at over 75%. The government is using the targets to monitor the impact of the MsAPN up until 2016. A total of 24 indicators have been identified under the five key results areas. Data collected in 2012 through the national

nutrition and micronutrient survey conducted by the Ministry of Health are being used as baseline information. National and district profiles prepared on the basis of the baseline information, set individual targets for each district to be used by policy makers and implementers for easy reference. An end line national survey to cover all 25 districts in the country is planned for the end of 2016 to assess the impact and targets achieved.

Monitoring implementation

There are 16 ministries included under the MsAPN. For each ministry, a set of interventions have been identified with associated indicators. Progress reviews are conducted by the NNC every month to review programme coverage and access. A health information system is being set up by the Ministry of Health which will provide information every quarter on nutrition specific interventions including coverage and access.

Identifying nutritionally vulnerable households

The MsAPN was based on the lessons learnt from pilot projects in two districts of Sri Lanka (Monaragala and Nuwara Eliya) where rates of under-nutrition are high. With the support of the United Nations Children's Fund (UNICEF), a multi-sectoral approach was operationalized based on multi-sectoral District Nutrition Action Plans. The approach:

- targets nutritionally vulnerable households
- adopts a multi-sectoral approach to identify and address identified risk factors
- implements through existing structures and systems
- intensifies and coordinates efforts with greater effectiveness and efficiency
- maximizes available resources of different interventions and partners

The information system identifies and targets vulnerable families. Public health midwives⁸ (PMHs) identify nutritionally-at-risk households in each 'Grama Niladari' area, the smallest administrative unit in the country, using monthly records and four criteria:

1. Pregnant mother with body mass index below 18.5
2. Underweight child below five years of age or child with growth faltering
3. Child under one year old born with low birth weight
4. Pregnant teenager

Village level officials from the ministries of health, agriculture, economic development, and child development & women's affairs are deployed to carry out a causal analysis of the nutritionally vulnerable households. Seven causal factors under 34 sub headings are considered:

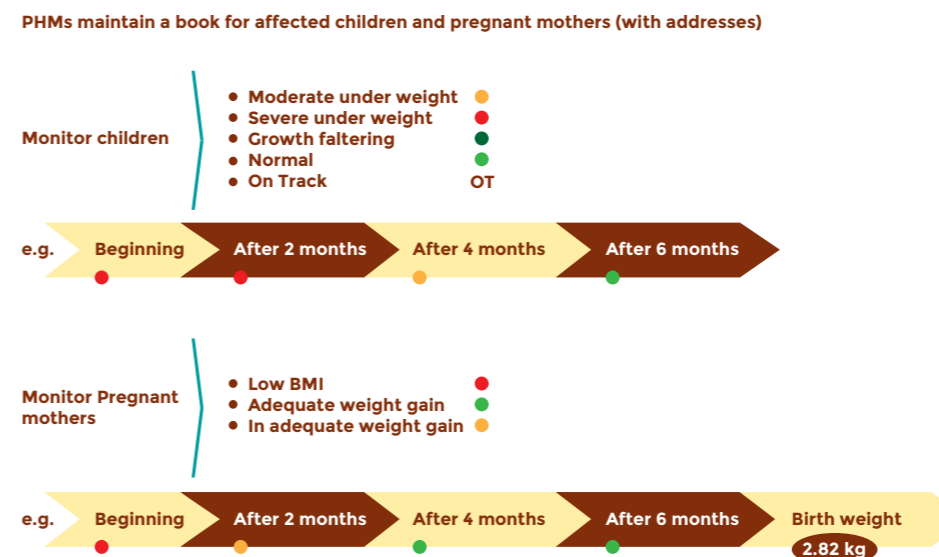
1. Economic reasons
2. Poor child care and practices
3. Poor feeding/dietary behaviour
4. Household food insecurity
5. Communicable disease
6. Poor housing conditions
7. Alcoholism and drug addiction

The village development officer with the assistance of the planning section of the divisional secretariat summarizes the information collected and sends it to the division. This is the level at which different sectoral interventions are planned for the village level. Division coordinating committees discuss the analysis of the data in monthly progress review meetings. The information is then transmitted from all divisions to district and provincial level to be discussed at their respective committees.

Responding to the needs of nutritionally vulnerable households

The responsibility to rectify and respond to the issues identified depends upon the causal analysis. For example, households with identified economic problems may

Colour coded monitoring system in Sri Lanka



Source: Regional Health Directorate

receive financial or technical assistance or equipment. A multi-sectoral group is activated to create employment opportunities, provide motivation for going to work every day, provide motivation for additional earning possibilities and provide direct nutrition support. Where household food insecurity is identified as a problem, agricultural staff are responsible for raising awareness about food security and supporting households in home gardening efforts. All sectors are involved to ensure effective responses to households identified as vulnerable.

Monitoring progress and demonstrating results

The PHMs maintain a separate register for priority households and use a colour coding system for each household to visualize its progress. Results in the two districts over the three year pilot period have shown encouraging results. In Monaragala, stunting rates among children below five years fell from 18.5% to 14.2% while in Nuwara Eliya, they fell a staggering 17 percentage points from 40.9% to 23.8%. Reductions in stunting have not been reflected in decreased wasting and iron deficiency rates, however, suggesting that specific actions to address micronutrient deficiencies and wasting need to be strengthened.

Extension of the monitoring system

The monitoring system will now be implemented nationally, expanding to cover all divisions in 10 priority districts in Sri Lanka during 2014 and then to cover each of the 331 divisions⁹ in all 25 districts of the country. The system will rely on the collection of data using a uniform questionnaire from the 14,022 'Grama Niladari' areas, which have populations of approximately 1,500 – 3,000 people. Data collection will provide employment for

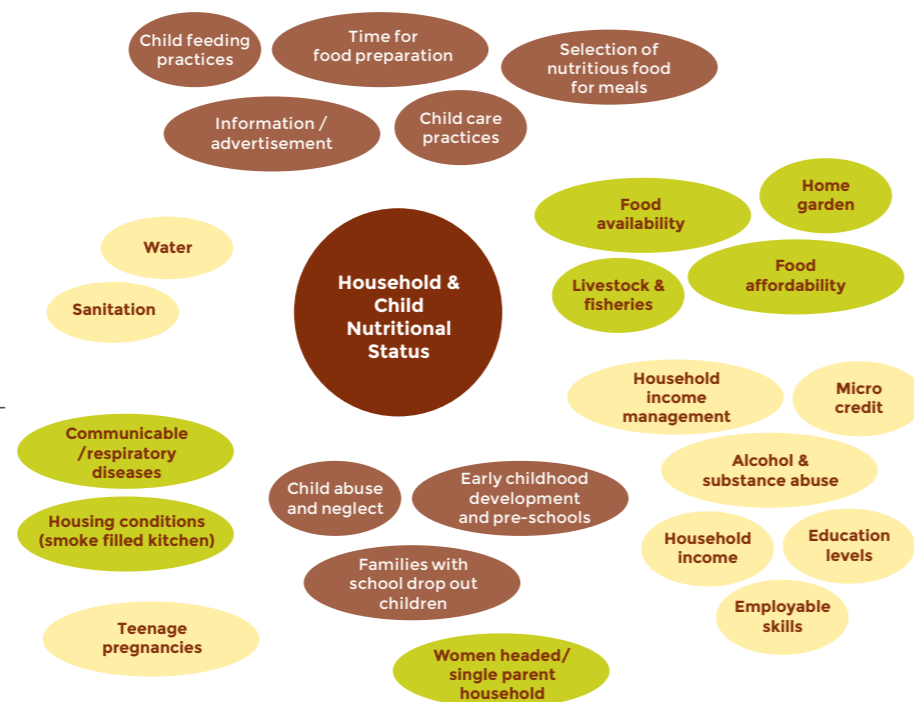
university graduates under the Ministry of Economic Development who will provide training. The same multi-sectoral system of identification, causal analysis and response will be applied as for the pilot projects.

Publicising nutrition information

Currently, some of the information on impact and implementation is available through reports, bulletins and via the website of the relevant ministries. In addition,

information is distributed through a public forum initiated by the Presidential Secretariat. A web-based database to track implementation and a social media platform to engage the general public together with a comprehensive social media strategy to promote nutrition are planned for the near future. Already, the state media channels have committed airtime and coverage for key nutrition related messages during peak times.

Causal analysis of nutritionally at risk households in Sri Lanka



The multidimensional nature of nutrition requires not only health but all sectors to assist

Source: Regional Health Directorate

Key Lessons

- Targeting at household level and providing responses is achievable when a coherent multi-sectoral approach is taken.
- When different sectors work together around a common results framework and view nutrition as one of their 'duties', it shifts responsibility from nutrition being seen as solely a health issue to a multi-sectoral issue
- Sustaining a multi-sectoral monitoring and response system is challenging but achievable if it is well established in existing systems.
- Visualizing progress through colour coding systems and understanding the link between cause and impact is helpful.
- Regular multi-sectoral review meetings allow collective decisions and raises the profile of nutrition.

NAMIBIA

Developing a dashboard of indicators



Namibia is tracking progress using a dashboard of indicators. Marjorie van Wyk, Chief Health Programme Administrator, Subdivision: Food and Nutrition, Ministry of Health and Social Services and SUN Focal Point with others¹⁰ describes efforts to...

Namibia has undertaken an ambitious project to develop and pilot a dashboard of indicators for improved nutrition. The purpose of the dashboard is to ensure that information collected is linked to coverage of interventions and can be used to inform decisions at all levels. The dashboard is part of Namibia's new Multi-Sectoral Nutrition Implementation (2012/2013 to 2015/2016). The endorsement of the plan marks a major achievement for Namibia requiring the commitment of many sectors, from community to national level, in government and among development partners.

CHILDREN UNDER 2

Stunting:	29.0%
Wasting:	7.5%
Overweight:	4.3%
Low birth weight:	14.0%
Exclusive breastfeeding:	23.9%

Source: DHS 2006-2007

Sources of nutrition information

Survey data

The demographic and health survey (DHS) is the main source of nutrition related data in Namibia. Data are disaggregated by region, wealth, gender, livelihood and age. The DHS is, however, only carried out every five years, at a minimum. The most recent DHS was carried out in 2013 and the results are pending. The key indicators of relevance for nutrition are stunting, wasting and underweight in addition to infant and young child feeding practices covering breast feeding and complementary feeding.

Data relating to the determinants of malnutrition are collected via a number of instruments such as the national income and expenditure survey, which provides information on sanitation, poverty and deprivation, and the national census which also provides information on sanitation and

water access. Both data sets are disaggregated by region, wealth, gender and age group.

A national Infant and young child feeding survey will be carried out in 2014, which will give valuable insights into the current practices of parents and caregivers in relation to breast feeding, complementary feeding, food consumption, play and early childhood stimulation. This information will enable the Ministry of Health and Social Services (MoHSS) to better target their communication materials.



Early warning system

During times of emergency such as drought, floods or disease outbreak, rapid assessments are carried out whereby data are collected on nutrition sensitive indicators. The Namibian vulnerability assessment is carried out annually. It reports on food security, vulnerability indicators and livelihoods. It relies on secondary nutrition data sources, however, and because the nutrition information system is currently weak, nutrition information is often excluded. Regular reports and daily flood bulletins released by the meteorological bureau provides information on climatic events such as floods and potential drought situations. This information is fed into the vulnerability assessment, which is used as early warning of need requiring a rapid response in the case of an emergency.

Routine data collection

The national health management information system includes data on in-patient and out-patient admissions, in which malnutrition is reflected through a diagnostic code. Capturing data on nutrition specific interventions from routine data recorded in health facilities, however, is a challenge due to the inadequacies of the data management system. Improving this system is a priority in 2014, particularly with regard to monitoring of the nutrition assessment, counselling and support (NACS) programme. NACS is Namibia's version of community

management of acute malnutrition. It aims to identify and treat cases of acute malnutrition (wasting). In late 2012, the MoHSS conducted a review of the NACS programme. Data on health facility admissions for acute malnutrition are collected manually and recorded in a register from which information is collated into a summary form. There are significant variations between health facilities in the quality of data recorded, and health facility data recording and reporting were identified as key areas needing improvement. The information produced is not routinely used for programme monitoring and due to inconsistencies across regions¹¹ there is little confidence in the reliability of the data.

Data relating to acute malnutrition are also routinely collected during annual maternal and child health week activities. Children under five are screened for acute malnutrition using mid-upper arm circumference (MUAC). The information is comprehensive in that all children are measured.

Information on programme implementation

Information on planned and achieved geographical programme coverage is obtained via various reports. For example immunisation campaigns report on delivery of vitamin A and deworming tablets and screening for acute malnutrition. Information on the number of health



Part of the results framework for Namibia showing objectives and indicators

	<p>WASH strategy launched # of TWG meetings held # ECD centre workers trained # ECD centres implementing and meeting the IYCF standards</p>
Objective 1.2	<p>To reduce the prevalence of micronutrient deficiencies among infants, young children and women of reproductive age</p> <p>1.2.1 Develop and/or revise micronutrient policy and implementation guidelines for supplementation programmes [vitamin A, iron (including deworming), iodine, zinc and calcium] 1.2.2 Train Health workers in routine vitamin A, Zinc, IFA supplementation for women and young children 6-59m 1.2.3 Implement Maternal and Child Health Days (MCHD) as key delivery platform in high burden regions for critical low cost high impact maternal and child health interventions 1.2.4 Pilot MNP in x districts in 2 selected regions (Hardap and Oshana) 1.2.5 Scale up MNP in regions with highest burden of malnutrition (dependent on Pilot study outcomes) 1.2.6 Develop national mandatory food fortification programme including National Food Standards and regulations</p>
Indicator(s)	<p>Policy guidelines developed and implemented # health workers trained # of sites where MCHDs conducted Food fortification Legislation adopted</p>
Objective 1.3	<p>By end of 2015/2016 increase coverage of NACS programme to match all ART sites</p> <p>1.3.1 Scale-up NACS to sites selected as part of expansion plan (train remaining health facilities in NACS service delivery) 1.3.2 Provide nutrition assessment equipment to scale-up NACS 1.3.3 Develop a Community Nutrition Promoter service delivery model in partnership with NGOs / CSOs and FBOs 1.3.4 Conduct quarterly supportive supervision and mentoring visits for health facility workers delivering NACS services 1.3.5 Strengthen current supply management system for nutrition, maternal and child health commodities, and ensure end-user monitoring for effective delivery of services</p>
Indicator(s)	<p>Number of health facilities out of the total, which are providing NACS services Number of NACS sites fully equipped % of defaulters followed up within the reporting quarter Number of supportive supervision visits conducted over 12 months End-user monitoring reports</p>
Objective 1.4	<p>Strengthen the legal, policy and institutional frameworks for planning, implementing, coordinating and monitoring nutrition programmes</p> <p>1.4.1 Develop MoHSS Circular relevant to the Code of Marketing of Breast milk</p>

Source: Namibia's Multi-Sectoral Nutrition Implementation Plan



Women and children in Namibia

facility staff trained in various areas of nutrition are also available from reports. NACS reports provide information on the number of people accessing the programme though it is acknowledged that there are reporting errors and weaknesses in the current system that may result in under-reporting.

In addition, national reviews have been undertaken. Namibia has conducted a Landscape Analysis to Accelerate Actions to improve maternal and child nutrition in Namibia in September 2012 as well as the NACS review in 2013. This was the first time that these types of assessments have been conducted at a national level in Namibia. The two assessments focused on knowledge and skills of health workers on nutrition, availability of resources, quality of service provision, barriers to nutrition service provision and client awareness and uptake of, and satisfaction of services provision.



Nurse measures the mid upper arm circumference in Namibia

Using information to advocate for nutrition

Regional nutrition profiles were produced in 2010 and have been used as advocacy tools to raise awareness about the nutrition situation at district, regional and national levels. The profiles were part of a broader publication set developed in 2010 to highlight the 2006/07 DHS indicators for nutrition. The profiles were used during regional nutrition roadshows, hosted by regional governors with participation from national level teams. The aim of these roadshows was to raise awareness among regional authorities about the nutrition situation and to motivate them to commit to action.

Highlighting the increase in the prevalence of stunting and wasting between 2000 and 2006 effectively secured the attention of high level government officials such as the then Prime Minister, Honourable Nahus Angula who subsequently joined the SUN Movement Lead Group.

Pending the results of the most recent DHS, there is an intention to update the regional profiles. These will again be used for advocacy purposes, especially since there are 2010 versions for comparison.

Highlighting links between nutrition and WASH

Currently, there is no system in place to link nutrition data with programme implementation. There are, however, examples of where links are being made. For example, national sanitation coverage is 48% and the programme to increase sanitation coverage is not achieving its target. It is assumed that the low sanitation coverage contributes to the stunting rate which remains at 29%. Under a broad water, sanitation and hygiene (WASH) programme, community led total sanitation (CLTS)¹² is being piloted in selected communities where rates of open defecation are extremely high. The impact of CLTS is being assessed using the indicator of wasting in children. In addition to this indicator, the presence of helminths is being monitored. Baseline data for both indicators are available and will be used for comparison. The inclusion of these two indicators in the WASH pilot have increased awareness and commitment amongst the WASH sector about the implications of poor sanitation on nutrition and ways to address this. The plan is to use maps to show areas where CLTS is implemented and relate these to areas where there is high incidence of wasting. Before and after maps will be developed to match CLT outcomes with nutrition outcomes.

Results framework and dashboard of indicators

The aim of the results framework now incorporated into Namibia's Multi-Sectoral Nutrition Implementation Plan, is to link intervention activities and reflect input, output and outcome indicators. The results matrix tracks progress against five key areas; 1) improvement in maternal, infant and young child nutrition status; 2) reduced burden of non-communicable disease; 3) improved resiliency to shocks that impact on nutritional status; 4) improved awareness of and commitment to national nutrition priorities; and 5) a functioning and effective monitoring and evaluation system.

The nutrition indicator dashboard will at any given point, indicate the status of progress towards achieving the set targets for each result area. The dashboard sets out baseline and targets for each indicator. Some of the indicators are high level impact indicators such as stunting prevalence, while others are process or outcome indicators. Due to the substantial limitation in human resource capacity in Namibia, the first year of the Multi-Sectoral Nutrition Implementation Plan has a strong emphasis on process indicators such as training and supervision of knowledge transfer in practice.



Mid upper arm circumference measurement

Challenges and opportunities

Namibia faces a number of challenges. Whilst there are many monitoring systems in place, information collected on nutrition specific interventions is still limited. Furthermore, there is a lack of coordination among the various systems and as a result most of the information gathered is not being properly analyzed and used for decision making. In addition, there is inadequate technical capacity within the government to analyze and report on the available information.

The Multi-Sectoral Nutrition Implementation Plan with its dashboard of indicators provides an opportunity for Namibia to link nutrition sensitive and nutrition specific interventions, including monitoring and evaluating progress of implementation. Also, the Namibia food security monitoring system will provide an opportunity to generate timely, accurate and valuable information on the main indicators of food security and nutrition in the country.

Key Lessons

- Survey data can be developed into advocacy materials (regional profiles) to highlight nutrition and build political commitment for scaling up nutrition at the highest level. Profiles can be updated as new data becomes available.
- By building a results framework and indicator dashboard into national multi-sectoral nutrition implementation plans, progress across sectors can be monitored by comparing baseline and target data.
- A results framework and indicator dashboard can clearly show the link between intervention activities and inputs, outputs, outcomes and eventually impact.
- Measuring the success of interventions in different sectors (e.g. WASH) using nutrition indicators (wasting in children) is being applied in some areas.

ETHIOPIA

Transforming the nutrition information system



Ethiopia has transformed its information system for nutrition. Ferew Lemma, Senior Advisor, Office of the Minister of Health and SUN Focal Point provides an update of how routine information is bolstering the system...

A discussion of the national Nutrition Information System (NIS) for Ethiopia as it was in early 2011 is presented in the box on page 33. In the last few years the system has been strengthened, extended and some of the challenges addressed. These changes are described by the author below.

CHILDREN UNDER 5

Stunting:	44.4%
Wasting:	9.7%
Overweight:	1.7%
Low birth weight:	10.8%
Exclusive breastfeeding:	52.0%

Source: DHS 2011

Main achievements of the Nutrition Information System

The national Nutrition Information System (NIS) has been strengthened as part of the 2008-2013 National Nutrition Programme (NNP), which was updated for 2013-2015. The Health Extension Programme (HEP) has ensured that the NIS is widely recognized by all partners as the source of reliable information. This information also serves Emergency Nutrition Coordination Units (ENCUs) of the Ministry of Agriculture (MoA) established at national and regional level¹³. This has progressively reduced the duplication in data collection and ensured optimised sharing and use of available information.

Inclusion of routine nutrition data in the NIS and the early warning system

Due to the consistent reporting and wide coverage of routine data collected through the HEP – therapeutic feeding programme (TFP), trends have been established for several years. The trend data provide information on what happens with admissions for severe acute malnutrition during the hungry seasons, as well as during times of crises and normal periods. TFP trend data is incorporated in the early warning system and is the critical component in triggering immediate response that may arise. This means that the capacity of the health system determines the emergency response: if the health system is not able to absorb the increase of caseloads then additional support is required.



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Better management of data

Under the MoA food security Directorate, there is an Emergency Nutrition Coordination Unit (ENCU), which is responsible for the national multi-agency nutrition task force (MANTF) coordination meetings, information sharing and discussion of technical issues among nutrition partners working in Ethiopia.

In addition to this, the health management information system of national Ministry of Health (MoH) collects six or seven nutrition indicators, including growth monitoring and promotion data, information on the community management of acute malnutrition (CMAM) plus its outcomes, micronutrient data (on vitamin A, de-worming, iron and folic acid supplements) and low birth weight. These information are collected monthly and reported quarterly.

Ethiopia has introduced a child survival score card in an effort to reduce child mortality. The scorecard consists of three components: input indicators that relate to policy issues and availability of resources; process indicators; impact and outcome indicators that outline the data results. Nutrition indicators such as stunting, breastfeeding practices, vitamin A and de-worming capsule coverage are included on the score card.

Furthermore, the National Nutrition Coordination Body (NNCB) led by MoH is currently working to develop a multi-sectoral nutrition scorecard that would facilitate high level decision making.

Improvements in the use of decentralised nutrition data

At 'woreda' level, the information system serves all sectors and is called 'woreda net'. Health and nutrition information is included in this system and is compiled by 'woreda' health offices. For programmes such as the productive safety net programme¹⁴, the 'woreda' administration triangulates agriculture, climatic, nutrition and other data with vulnerability to decide who requires support.

Data from the information system is now available in computerized form in most 'woredas'. The capacity of district officials to perform data quality checks and analysis has also been strengthened with college or university trained information technicians now employed at 'woreda' and zonal level. Hence decentralization of the system has facilitated local interpretation and use of information.

Trust in frontline staff as the main source of information

Frontline workers in Ethiopia have been gathering nutrition information (particularly data for CMAM) since 2004. Over the years, the skills of these workers have been developed and data have become very reliable. For instance, in 2011 when the Horn of Africa was hit by food shortages, the situation was picked up by frontline workers in Ethiopia very early and corrective measures were put in place – hence the number of affected children was minimised and the death rate remained very low.

Key Lessons

- It is necessary to work on developing the health system before embarking on an information system for nutrition which is reliable and able to inform decision making.
- When scaling up an information system, quality can be compromised and it is important to put mechanisms in place (continuous capacity building) to address these shortcomings.
- Getting a reliable comprehensive nutrition information which addresses timely warning, plus informs about the progress of national plans and multiple sectors is very, very difficult and takes time.
- Country's need to look at their context, be patient and build the capacity of frontline workers continuously.



Ethiopian woman



Ethiopian woman and child

Discussion of Ethiopia Nutrition Information System in early 2011

In Ethiopia, the role of the national Nutrition Information System (NIS) has been clearly stated in the Ethiopian National Nutrition Programme (NNP). There are three constituent parts to this role. These provide a 'comprehensive' and holistic structure to NIS design: to support timely warning and adequate interventions at woreda and higher levels, to develop, manage and evaluate the NNP at all levels, and to inform other sectors like agriculture, water/sanitation and economic development. This comprehensive vision for the NIS is to inform understanding of the nutritional situation with respect to chronic and newly occurring problems, as well as the causes of these

problems, and how these change over time in order to help in decision-making at all levels. However, while the NIS can effectively accommodate and be 'open' to an unlimited amount of data, the ability to trigger an effective and appropriate response requires that the information is timely, reliable and consistent. These conditions ultimately determine the basic parameters upon which the initial choice of information for the NIS is made. Put simply, all data should be trusted and continuously available, data should be triangulated to generate 'context-specific' and evidence-based information and there should be a clear process, agreed by all actors, to feed information into decision-making.

Unique data situation in Ethiopia

Ethiopia is in quite a unique position because, over the last thirty years, large amounts of data have been collected by the Early Warning System (EWS), including health and nutrition information. However, the nutrition information collected by the EWS provides only scattered data - mostly alert signals based upon 'observable' degeneration. Data is collected directly from health workers at 'critical times' and without systematic comparison with what would be 'normal' for a given time of year. Nutritional assessments are required during these critical times to confirm 'emergencies' but the seasonality of these critical times creates a widespread, simultaneous demand for assessments, which rarely can be adequately met.

In recent years, targeting of surveys has been improved through increased use of routine data sources, at least to indicate where an assessment is most urgently needed. Nutrition data are now available and accessible on a monthly and quarterly

basis at the lowest levels due in large measure to three programmes: The Community Based Nutrition programme (CBN), the Therapeutic Feeding Programme (TFP) and Community Health Days (CHD). These routine systems are the monitoring backbone of the NNP, which - at least theoretically - can be combined to inform timely warning and be shared with other sectors. Similarly, a number of diseases are also currently being tracked on a weekly basis through the Public Health Emergency Management (PHEM) system. Thus, there is a very real potential for the EWS to systematically tap into specific data from existing health information sources and vice-versa. This will be most effective if a consensus is reached on key indicators, in particular for timely warning. The key question, ultimately, is whether decision-makers from all sectors are willing to exchange and use available routine data to inform their decisions and response.

Nutrition data management

While there are 'trust' issues on data quality and credibility, the administrative decentralisation and existence of a widespread health network, creates the rare opportunity to build capacities, accountability and transparency at lower levels like the woreda and the kebele. Initial data collectors are volunteers and frontline health practitioners. Many report that data collection is an additional burden to their already crowded agenda. After the initial collection, data flows up through various levels via supervisors and health officials. However, little feedback is given through the system so that people directly involved have a limited sense of what is actually done with the information provided. The sheer volume of reports stored testifies to the regularity of data collection undertaken and the immediate priority that should be given to improve the 'efficiency' of the process. Currently, asking for nutrition information

from a woreda official leads to a paper-chase given the amount of report forms collated. Where officials have been provided with a computer, data appears to have been regularly updated. Given the increased requirements for information management, it seems inevitable that woreda Health Offices will move from a paper-based system to a computerised one, allowing them to perform data quality checks that otherwise are time consuming and prone to mistakes if done manually. The implication here is that woreda level officials are mostly young, often computer-literate, professionals with degrees. Provision of adequate tools/software to practically manage information can help build their capacity to implement the system. If information is not properly valued at woreda level, where most data are collated and 'checked', then the task of quality assurance at higher levels is nigh-on impossible.

continuation of article on next page >>

Added value of NIS: triangulation of data

What is 'new' in the NIS paradigm is the requirement for 'triangulation' to provide evidence-based information for decision making. This implies that collected data are not interpreted in isolation but are brought together from different sources. The strength of triangulation is the 'contextualisation' of the data, meaning numbers and/or standardised observations are grounded in 'local knowledge'. Frontline practitioners in health-posts have access to nutrition and health information through regular contact with patients. With nutrition, for example, they are in the best position to judge if the deteriorating weight of a child during monthly growth monitoring or his/her admission in the Outpatient Therapeutic Programme (OTP) is linked to lack of food in the family or to other causes like illness, inappropriate feeding practices, etc. It is this 'proximity' that allows for the triangulation to be most helpful at community level whereby root causes of

malnutrition can be identified. An example where this could be used is in chronically food insecure areas supported by the Productive Safety Net Programme (PSNP) where risk financing mechanisms exist to address new chronic or temporary food insecurity. By monitoring increases in underweight (as an early indicator) and OTP admissions (as a late indicator), frontline health practitioners, who are members of the Food Security Task Forces (FSTF), can play a crucial role in providing information for appeal processes. However, the credibility of their information will depend on their full understanding that risk financing mechanisms are only accessible when malnutrition is linked to food insecurity. Thus, triangulation of data at source is a kind of check by key people before information is fed into the decision-making processes or reported to higher levels.

Trust, accountability and transparency

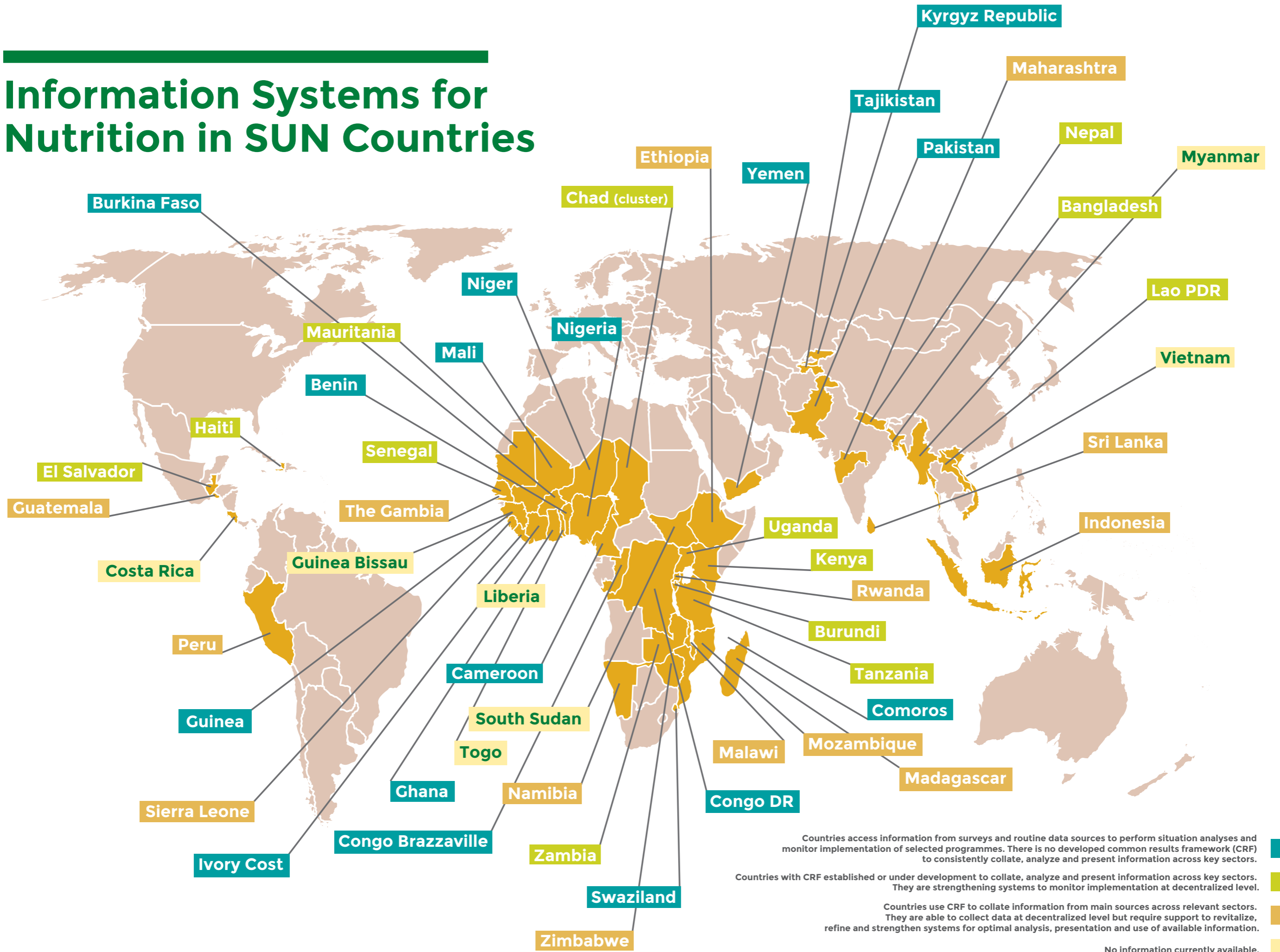
In Ethiopia, in line with governmental decentralisation, woreda and kebele level administrations have been given increased power to analyse, assess and act on their own changing situation. They are therefore more responsible and accountable for both development and emergency response. Addressing the challenges of how information can feed into decision-making will ensure the credibility and sustainability of the NIS. At the moment, available data from routine sources are not adequately linked to information use. The main challenge for data utilisation at higher levels is that sources are not fully trusted while at lower levels there are limitations over capacities and mandate. While data quality assurance can be built into the system, especially by improving lower-level capacity, more emphasis needs to be given to the human aspect. 'Trust' cannot be built without attention to the role played by each stakeholder, starting with frontline practitioners. 'Accountability' cannot be acquired if there is no hand over of responsibility. 'Transparency' cannot be promoted without making response and feedback more visible.

The NIS in Ethiopia can be built upon coupling available data sources with adequate technical support provided throughout the health system. However, technical inputs are not enough to ensure its sustainability. A sense of 'value' is what motivates people and without it, the simple transmission of data to higher levels will not provide incentive to stakeholders for their input. 'Triangulation' is most effective at community level where individual data sets can be compared at source and understood within a given context. Frontline practitioners play a crucial role in building the credibility of the NIS but this can only come about with increased recognition of the role they play in informing decision-making. As the process of decentralisation continues within Ethiopia, important decisions to be taken at the lowest levels, risk financing mechanisms being an example, will require bringing together available data from different sources. This, in turn, will rely increasingly on key people accountable for informing this process at the frontline. Before trusting the Nutrition Information 'System', a vote of confidence should be given to empowering the information 'Source'. Credibility, after all, should always start with the people.

Source: "Can the Nutrition Information System be 'trusted' to build on available data sources?" (Field Exchange, Issue 40, February 2011, page 11, Patrizia Fracassi)



Information Systems for Nutrition in SUN Countries





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What has been learnt?



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Strengthening information systems for nutrition: What has been learnt?



*Observations by
Andris Piebalgs,
European Commissioner
for Development and
SUN Lead Group*

This second edition of **Scaling Up Nutrition in Practice makes for inspiring reading**. Focal points from six countries within the Movement for Scaling up Nutrition report on progress that is being made with developing information systems for nutrition. This is real proof of how their ambitions are coming to life!

I am proud to have been a member of the first SUN Movement's Lead Group established in 2012. It gives me an opportunity to engage and discuss with colleagues in the SUN Movement from all around the world. I have seen the Movement grow in confidence and strength. A common goal unites us in the Lead Group: working towards a world in which everybody enjoys good nutrition.

As the European Commissioner for Development I frequently travel to countries where people are at risk of malnutrition. This is also where I witness the results of the SUN Movement's efforts with my own eyes. For example, I have seen how government leaders in SUN countries are working hard to minimize the risks that children suffer slowed growth and are stunted already by the age of two. I want to help countries in their efforts to scale up the actions that can reduce the proportions of stunted children. The European Union is contributing significantly to this outcome and we are moving forward on key issues.

Today, one of the biggest challenges governments often face is lack of information. Such information is central for making the right decisions about priorities, for ensuring the efficiency of implementation and measuring results.

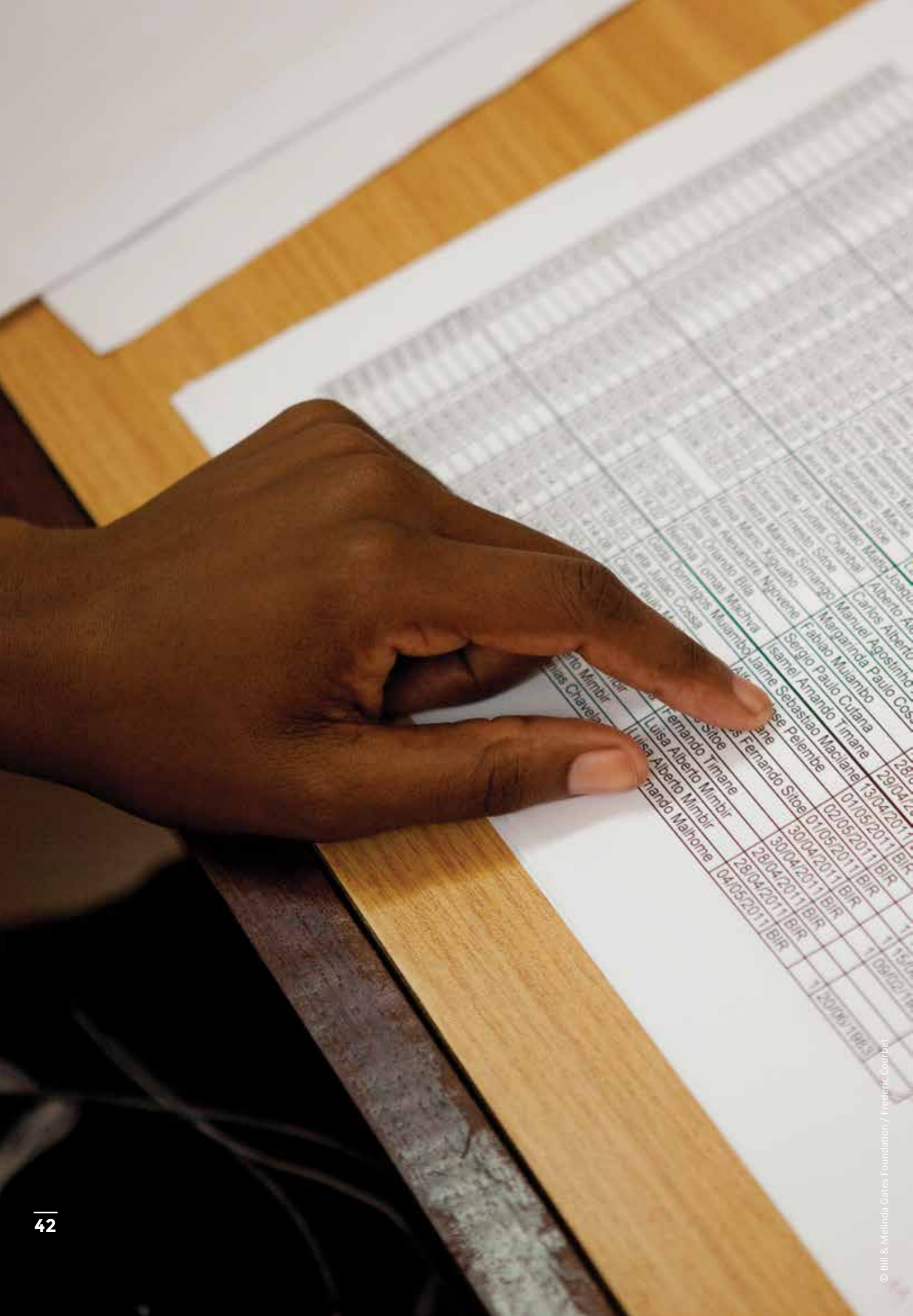
For this, reliable data need to be collected everywhere on agriculture, food security and health. Furthermore, systems for analysis and reporting procedures need to be put in place. Countries must be sure that the information is of sufficient quality to serve as a basis for decision-making and for indicating progress.

The six articles by SUN Government Focal Points in this brief demonstrate ways in which information systems for nutrition are being strengthened in each of the countries. They illustrate the links between actions underway within SUN countries and the kinds of support they seek from development partners.

Taken together, the articles are proof that officials in SUN countries are organising their national information systems for nutrition in ways that engage all relevant sectors and makes the best possible use of data that are already available.

The reports also show the types of support that are needed by individual countries in order to yield detailed and disaggregated information about the nutrition situation at district, as well as national, levels. Within the SUN Movement it is generally acknowledged that such support will enable countries to establish a strong people-centred evidence-base to inform policies and decisions.

SUN countries receive support from a coalition of international experts and development partners, including the European Commission, as well as from other SUN countries.



The support is being made available increasingly through Communities of Practice (COPs) that reinforce information systems for nutrition across the Movement. In time, the COPs will bridge the interests of societies at risk of malnutrition with the contributions of development partners to good nutrition. The European Commission and partners are contributing to the COPs in order to strengthen multi-sectoral analyses of the nutrition situation in a country, and to increase our collective understanding of the effectiveness of different nutrition-sensitive approaches.

Such multi-sectoral analyses require access to data (both quantitative and qualitative) from all relevant sectors, addressing all levels of the causal pathways that can lead to malnutrition. These data can usefully be organised into a common data base that will be designed and managed by national governments. They will incorporate data from existing information systems, periodic surveys, the monitoring of interventions, as well as financial data tracking the use of resources. National authorities may decide to introduce additional

elements (such as new systems for data collection, or additional variables) so as to fill critical gaps. SUN Government Focal Points have already indicated that a common need is to assess the extent to which sector strategies and nutrition-enhancing programmes are resulting in improvements in people's nutrition. The European Union and partners also recognise the need to strengthen national capacity alongside any such technical support.

The COPs will be owned by – and be accountable to – national governments, and will be operated in close cooperation with development partners. Their work will contribute to the vision that Ibrahim Assane Mayaki of NEPAD formulates in the introduction to this brief. Many different stakeholders play a role in the reduction and elimination of malnutrition among the world's children. All of us who are concerned by this are keen to ensure that their actions are fully effective and achieve the greatest possible impact.

ENDNOTES

¹ Rwanda Demographic and Health Surveys 2005 and 2010.

² Administratively, Madagascar is divided into 22 regions, 119 districts, 1,570 towns and 17,500 'Fokotany' (neighborhoods).

³ The health districts encompass 55 health centres, 768 health posts, 551 rural maternity posts and 1,384 basic (community) health centres. The 55 health centres are, in theory, district hospitals but because of the lack of technical equipment they lack the capacity to fulfil this role.

⁴ The Global Nutrition Cluster was established in 2006 with a vision to safeguard and improve the nutritional status of emergency affected populations by ensuring a coordinated, appropriate response that is predictable, timely, effective and at scale. The Global Nutrition Cluster is made up of 40 partner organizations and two organisations-observers. Country-level Nutrition Clusters are activated during nutritional emergencies.

⁵ There are 8 administrative provinces, divided into 60 districts and 1,960 wards in Zimbabwe.

⁶ SMART (Standardized Monitoring and Assessment of Relief and Transitions) methodology is an improved survey method for the assessment of severity of a humanitarian crisis based on the two indicators: (i) Nutritional status of children under-five; (ii) Mortality rate of the population.

⁷ In 2006, WHO published new child growth standards to replace the previously recommended 1977 child growth reference.

⁸ Public health midwives (PHMs) have been an important part of the primary healthcare system in Sri Lanka since early in the twentieth century. Traditionally these health workers focused only on midwifery, but now PHMs have evolved into a professional cadre, playing a role in preventive health covering many aspects other than midwifery. Their services are immensely valued in rural settings where health resources are scarce.

⁹ Sri Lanka is divided into nine provinces, 25 districts, 331 divisions and 14,022 'Grama Niladari' areas (cluster of villages or 'wasama').

¹⁰ This article was co-authored by Len Le Roux, Director, Partnerships Southern Africa, Synergos Institute, Myo-Zin Nyunt, Chief of Health, UNICEF Namibia, and Karan Courtney-Haag, Nutrition Specialist Consultant, UNICEF Namibia.

¹¹ There are 14 regions in Namibia further subdivided into 121 electoral constituencies. The number and size of each constituency varies with the size and population of each region.

¹² Community Led Total Sanitation (CLTS) is an innovative method for mobilising communities to completely eliminate open defecation. Communities are facilitated to conduct their own appraisal and analysis of open defecation and take their own action to become open defecation free.

¹³ Ethiopia is divided into nine regional states and two cities. Regions are divided into zones and then into districts or 'woredas'. There are about 670 rural 'woreda' and about 100 urban 'woreda'.

¹⁴ Established in 2005, the productive safety net programme provides multi-annual predictable transfers such as food, cash or a combination of both, to help chronically food insecure people survive food deficit periods and avoid depleting their productive assets while attempting to meet their basic food requirements.

“ Country ownership again will be realized ... if countries have the control over the monitoring and evaluation framework that will be used to monitor national plans. So donors, implementing partners, and other stakeholders should help countries to have a mutually agreed upon monitoring framework and these parties should avoid parallel monitoring frameworks. If we have mutually agreed upon indicators, we should use the same kind of techniques to measure and monitor those indicators and targets.. ”

**Dr. Kesetebirhan Admasu,
Minister of Health, Ethiopia**

February 2013

The SUN Movement Secretariat is supported by Canada, France, Germany, Ireland, the Netherlands, the United Kingdom and the European Union.

WANT TO FIND OUT MORE?

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