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# Conference Report: Monitoring and Evaluation for Inclusive and Sustainable Food Systems

3-4 April 2019, the Netherlands

Cecile Kusters, Hermine ten Hove, Diane Bosch, Marion Herens and Seerp Wigboldus



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3-4 April 2019, the Netherlands

Cecile Kusters<sup>1</sup>, Hermine ten Hove<sup>1</sup>, Diane Bosch<sup>1</sup>, Marion Herens<sup>1</sup> and Seerp Wigboldus<sup>1</sup>

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Wageningen Centre for Development Innovation  
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Report WCDI-19-066

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This report presents the key highlights and contributions from the conference 'Monitoring and Evaluation for Inclusive and Sustainable Food Systems'. This conference was held on 3-4 April 2019 in Wageningen, the Netherlands and was the twelfth annual 'M&E on the Cutting Edge' conference. This event was organised by Wageningen Centre for Development Innovation (WCDI) in collaboration with Wageningen Economic Research and the Food & Business Knowledge Platform. This conference aimed to seek clarity in the role that monitoring and evaluation can play to support the transition toward inclusive and sustainable food systems.

Keywords: conference, evaluation, monitoring, food systems, sustainable development

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Report WCDI-19-066

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# Preface

This report summarises the outline and outputs of the conference 'Monitoring and Evaluation for Inclusive and Sustainable Food Systems', which took place on April 3-4, 2019, the Netherlands.

This conference is part of the annual WCDI series 'M&E on the Cutting Edge'. These annual events are organised by the Wageningen Centre for Development Innovation, often in collaboration with partners. So far, the following events have been organised:

**2019 'Monitoring and Evaluation for Inclusive and Sustainable Food Systems'**, with prof. dr. Ruerd Ruben, dr. Irene Guijt, dr. ir. Inge Brouwer and Paulina Bizzotto Molina; Wageningen, 3-4 April 2019.

<http://tinyurl.com/y84ndnwk>

**2018 'Communicating Evidence for Sustainable Development'**, with prof. dr. Noelle Aarts and Irene de Goede; Wageningen, 4-5 April 2018

<https://tinyurl.com/ycy3qofx>

**2017 'Measuring what matters in a 'post-truth' society'**, with Wendy Asbeek Brusse, Claire Hutchings and Robert Dijksterhuis; Wageningen, 6 April 2017

<http://tinyurl.com/zd7esy6>

**2016 'Partnering for Success: How M&E can Strengthen Partnerships for Sustainable Development'**, with Bruce Byiers and Ros Tennyson; Wageningen, 17-18 March 2016

<http://tinyurl.com/pr88j6c>

**2015 'M&E for Responsible Innovation'**, with Prof. Dr. Phil Macnaghten and Dr. Irene Guijt; Wageningen, 19-20 March 2015

<http://tinyurl.com/o3oucuz>

**2014 'Improving the use of monitoring and evaluation processes and findings'**, with Marlène Läubli Loud; Ismael Akhalwaya & Carlo Bakker; Wageningen, 20-21 March 2014

<http://tinyurl.com/pxhvwfs>

**2013 'Impact evaluation: taking stock and moving ahead'**, with Dr. Elliot Stern and Dr. Irene Guijt; Wageningen, 25-26 March 2013

<https://tinyurl.com/jps9wce>

**2012 'Expert seminar on Developmental Evaluation' and 'Global hot issues on the M&E agenda'**, with Dr Michael Quinn Patton; Wageningen, 22-23 March 2012

<http://tinyurl.com/nbw29ub>

**2011 'Realist Evaluation'**, with Dr. Gill Westhorp; Wageningen, 22-23 March 2011

<http://tinyurl.com/mhw89ka>

**2010 'Evaluation Revisited. Improving the Quality of Evaluative Practice by Embracing Complexity'**, Utrecht, 20-21 May 2010

<http://evaluationrevisited.wordpress.com/>

**2009 'Social Return On Investment'**, Wageningen, March 2009

**2009 'Innovation dialogue - Being strategic in the face of complexity'**, Wageningen, 31 November and 1 December 2009

<http://tinyurl.com/nfxzdpq>

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- **Conference contributions** (parallel sessions, in order of appearance in the programme): Helena Posthumus (KIT – Royal Tropical Institute) and Just Dengerink (Wageningen University and Research); Karen Biesbrouck (Oxfam Novib); Diane Bosch and Marion Herens (Wageningen University & Research); Ferko Bodnár (International Research and Policy Evaluation department (IOB), Ministry of Foreign Affairs of the Netherlands); Ivo Kashimana (Universität Hamburg, Center for Earth System Research and Sustainability (CEN)); Aurélie Toillier (CIRAD/Agrinatura) and Manuela Bucciarelli (FAO); Esther Koopmanschap (Wageningen University & Research); Ellen Geerlings (Dutch Committee for Afghanistan – Livestock Programs) and Seerp Wigboldus (Wageningen University & Research).
- **Conference facilitators:** Anicha Diemkoudre, Diane Bosch, Dorine de Gast, Gloriana Ndibalema, Herman Brouwer, Linde de Vries, Sara Fiorito, Seerp Wigboldus (Wageningen University & Research), Sylvester Dickson Baguma (NARO-Bulindi Zonal Agricultural Research and Development Institute) and Nicole Metz (Knowledge Programme for Food Security).
- **Conference organisers:** Cecile Kusters (conference coordinator), Hermine ten Hove, Simone van Vugt, Diane Bosch, Marion Herens, Seerp Wigboldus (Wageningen Centre for Development Innovation), Christine Plaisier (Wageningen Economic Research) and Nicole Metz (Knowledge Programme for Food Security).

Furthermore, we would like to thank Hedwig Bruggeman for her introduction to the conference; Tessa Steenberg for the video productions that brought the energy of the conference to those who could not attend; Percy Cilia Jr. for the photographs; Linde de Vries for the drawings in this report, Irene Salverda for her help in promoting and communicating about the conference; and Lotte van den Berg, Eline Perk, Elisabeth Hopperus Buma, Titia Magendans and Maria Soelen for their essential practical support.

Finally, we thank the conference participants who contributed to lively presentations and discussions.

We hope that this conference report and related conference products<sup>1</sup> will further stimulate our thinking around monitoring and evaluation for inclusive and sustainable food systems.

Wageningen, the Netherlands

October 2019

*The conference organisers*

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<sup>1</sup> Conference products include presentations, videos, photos and a conference report. These can all be downloaded from <http://www.managingforimpact.org/conference-products-2019>

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# List of abbreviations and acronyms

5C	5 Capabilities
CDAIS	Capacity development for agricultural innovation systems
CSO	Civil Society Organisation / Central Statistics Organization
DCA	Dutch Committee of Afghanistan
DDS	Dietary Diversity Score
FAO	Food and Agriculture Organization of the United Nations
FCV	Fragility, Conflict and Violence
GAMS	General Algebraic Modelling Systems
GHG	Greenhouse Gas
HLPE	High Level Panel of Experts
LMIC	Low and Middle-Income Countries
M&E	Monitoring & Evaluation
MCHD	Minimum Cost of a Healthy Diet
MEAL	Monitoring, Evaluation, Accountability and Learning
MEL	Monitoring, Evaluation and Learning
MLP	Multi-Level Perspective
NGO	Non-Governmental Organisation
PME	Planning, Monitoring and Evaluation
PoU	Prevalence of Undernourishment
R2F	Right to Food
RAAIS	Rapid Appraisal of Agricultural Innovation Systems
RMA	Reflexive Monitoring in Action
SDG	Sustainable Development Goal
TAP	Tropical Agriculture Platform
ToC	Theory of Change
UN	United Nations
UNDP	United Nations Development Programme
WCDI	Wageningen Centre for Development Innovation, Wageningen University & Research
WEcR	Wageningen Economic Research, Wageningen University & Research
WHO	World Health Organization
WUR	Wageningen University & Research



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# Summary

This conference presents the highlights and contributions from the conference 'Monitoring and Evaluation for Inclusive and Sustainable Food Systems'. This conference was held on 3-4 April 2019 in Wageningen, the Netherlands and was the twelfth annual 'M&E on the Cutting Edge' conference. This conference was organised by Wageningen Centre for Development Innovation (WCIDI), Wageningen University & Research, this time in collaboration with Wageningen Economic Research and Food & Business Knowledge Platform. The conference aimed to seek clarity in the role that monitoring and evaluation (M&E) can play in informing and supporting transformation towards inclusive and sustainable food systems for healthy diets. Key insights were drawn from five keynotes and plenary presentations, nine workshops, one synthesis session and some further research.

Throughout the conference, a link was made between food systems and M&E. The main question of the conference was: "How should and can monitoring and evaluation (inform and) support the transition towards inclusive and sustainable food systems?". Sub-questions included:

- How should M&E (inform and) support food system change, in all its multiple levels, with actors in multiple sectors with multiple incentives and goals?
- How should M&E also engage with and assist the inevitable trade-offs between competing and perhaps contradictory consequences?

Keynote speaker Ruerd Ruben introduced the theme and spoke about how evaluating food system performance and dynamics is like assessing moving targets. Keynote speaker Irene Guijt then introduced how Oxfam GB used scenario analysis in Bangladesh to envisage different scenarios for food systems, and how this could inform policymaking. The importance of sensemaking was stressed. Keynote speaker Inge Brouwer discussed how food systems start with diets, but that achieving multiple objectives (healthy, sustainable, inclusive, affordable) can be challenging. Keynote speaker Paulina Bizzotto Molina stressed the importance of horizontal and vertical linking and how feedback loops can help monitoring to be linked to policymaking. Cecile Kusters explained how trends in M&E follow international trends in development, and that M&E itself needs to be transformed in order to support the complexity of food system transformation.

Key insights are described around the need for transformation towards inclusive and sustainable food system for healthy diets, and around the need to transform M&E itself. We see that hunger and malnutrition still persist, with regional variations, and women facing a larger risk. Having unhealthy and unsustainably produced food poses a global risk to people and the planet. Even the production of nutritious food can have negative environmental effects, which is only one of the trade-offs that exist on the road to reach the Zero Hunger target by 2030. For a radical transformation of the global food system towards sustainable food production and healthy diets, there is a need for systemic thinking and systems approaches with multiple stakeholders in multiple sectors at multiple levels. Large-scale and coordinated efforts are required, which in turn requires a transformation of M&E.

M&E can inform and support the transition towards inclusive and sustainable food systems. It can generate information to help understand food systems (starting from consumption) and identify trade-offs in order to support decision-making. M&E can build on and complement existing food systems frameworks. To fulfil these roles, M&E needs to be dynamic and flexible to allow for adaptive management, and use approaches that are sensitive and responsive to complexity. Flexible theories of change for systemic change can be used to inform decision-making, from a multilevel perspective. Principles, rather than specific methods and techniques are crucial. Zooming in and zooming out is needed so as to make sense of critical drivers, interactions, and dietary choices. Scenario thinking and forward-looking evaluations are also needed, as food system transformation needs to focus on the future and be prepared for different scenarios as a result of critical factors. In turn, these processes need collaborative sensemaking and learning. This proposed M&E transformation requires adaptive capacities for collaborative sensemaking and food system transformation.

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# 1 About the conference and the report

## 1.1 Why the conference

*"The 2030 Agenda for Sustainable Development puts forward a transformational vision recognizing that our world is changing, bringing with it new challenges that must be overcome if we are to live in a world without hunger, food insecurity and malnutrition in any of its forms. The world population has grown steadily, with most people now living in urban areas. Technology has evolved at a dizzying pace, while the economy has become increasingly interconnected and globalized. Many countries, however, have not witnessed sustained growth as part of this new economy. The world economy as a whole is not growing as much as expected. Conflict and instability have increased and become more intractable, spurring greater population displacement. Climate change and increasing climate variability and extremes are affecting agricultural productivity, food production and natural resources, with impacts on food systems and rural livelihoods, including a decline in the number of farmers. All of this has led to major shifts in the way in which food is produced, distributed and consumed worldwide and to new food security, nutrition and health challenges" (FAO, 2019c).*

*"The burden of malnutrition across the world remains unacceptably high, and progress unacceptably slow. Malnutrition is responsible for more ill health than any other cause. Children under five years of age face multiple burdens: 150.8 million are stunted, 50.5 million are wasted and 38.3 million are overweight. Meanwhile 20 million babies are born of low birth weight each year. Overweight and obesity among adults are at record levels with 38.9% of adults overweight or obese, stretching from Africa to North America, and increasing among adolescents. Women have a higher burden than men when it comes to certain forms of malnutrition: one third of all women of reproductive age have anaemia and women have a higher prevalence of obesity than men. Millions of women are still underweight" (Fanzo et al., 2018).*

*"Achieving the Sustainable Development Goals cannot happen without ending hunger and malnutrition and without having sustainable and resilient, climate-compatible agriculture and food systems that deliver for people and planet" (United Nations, n.d.)*

*"The global food system must operate within boundaries for human health and food production to ensure healthy diets from sustainable food systems for nearly 10 billion people by 2050" (Willett et al., 2019)". "Global food production threatens climate stability and ecosystem resilience. It constitutes the single largest driver of environmental degradation and transgression of planetary boundaries. Taken together the outcome is dire. A radical transformation of the global food system is urgently needed. Without action, the world risks failing to meet the UN Sustainable Development Goals and the Paris Agreement" (Prof. Johan Rockström in Willett et al. (2019)).*

In order to feed a growing population sustainably, radical changes are needed of the global food system. The problems at hand are vast and need to be addressed by a wide range of stakeholders. Malnutrition is unacceptably high and the food we eat is often unhealthy, with a high consumption of fat, sugar, salt and meat. This type of diet has a negative impact on our health and the environment. In addition, our food is less diverse. Another problem is that food is wasted. Furthermore, our natural resources are under pressure. These problems are intensified by climate change. This shows that our food system, including production, processing, distribution and consumption, must be transformed, to produce healthier food for a growing population and to reduce its environmental impact. This requires collaboration between different stakeholders to produce and eat food differently. See also the following video: <https://tinyurl.com/vynztkll> (UN Environment, 2016).

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Monitoring and Evaluation (M&E) can play an important role in supporting stakeholders in the transition process towards a more inclusive and sustainable food system, so as to feed the world with healthy diets from sustainable food systems. But little is known about how this can be done. That is the focus of this conference.

## 1.2 About the programme and the report

This two-day conference centres around the following key conference question: “How should and can monitoring and evaluation support the transition towards inclusive and sustainable food systems?” Sub-questions included: How should M&E support food system change, in all its multiple levels, with actors in multiple sectors with multiple incentives and goals? How should M&E also engage with and assist the inevitable trade-offs between competing and perhaps contradictory consequences?

The conference was created through rich and diverse sessions offered to the 115 participants from Africa, Asia, North America, South America and Europe. Cecile Kusters, the conference coordinator and Hedwig Bruggeman, director, both from Wageningen Centre for Development Innovation (WCDI), opened the conference. The first keynote speech “Around Assessing moving targets: How to evaluate food systems performance and dynamics” by prof. dr. Ruerd Ruben (Wageningen University & Research) set the scene for the conference with an introduction to food systems as well as sharing ideas on implications for M&E to support the transition towards inclusive and sustainable food systems. The second keynote speaker Dr. Irene Guijt (Oxfam GB) then presented a case study from Bangladesh, which used scenario thinking and sense making to support decision-making on trade-offs between food security and the environment. In the afternoon, two rounds of parallel sessions were organised to stimulate more thinking around the topic of existing cases.

On the second day of the conference, after a short reflection on the previous day, the third keynote speaker Dr. Ir. Inge Brouwer looked at what extent healthier diets from sustainable food systems can be a win-win situation, and discuss some implications for M&E. The fourth keynote speaker Paulina Bizzotto Molina looked at how policy and practice can be bridged and what are the implications for M&E to support policy decisions. The morning session was then concluded by Cecile Kusters sharing the results of a quick survey that was done by interviewing key international evaluation experts on international trends and developments, and implications for M&E. In the afternoon, the third round of parallel sessions provided more insights from practical examples, and the conference was concluded with a participatory synthesis session.

The report provides summaries of the keynote presentations and brief introductions, on the parallel workshops. At the end of every contribution, a link to the presentation is given. More detailed information on each topic, including background papers, presentations, videos and photos, can be found at <https://tinyurl.com/y5xqc3fz> .

## 2 Keynote speeches

### 2.1 Assessing moving targets: How to evaluate food systems performance and dynamics



Ruerd Ruben

Impact Assessment for Food Systems, Wageningen University & Research, Wageningen, the Netherlands.

*Food systems start with diets, but matching different objectives (healthy, sustainable, inclusive, affordable) can be challenging*

The first keynote speaker, Ruerd Ruben, kicked off the conference by indicating that the entry point for food systems should be diets and consumer behaviour. Food systems try to pursue different objectives, which is also one of the main challenges. Food needs to be healthy for the consumer, sustainable in the way it is being produced, and inclusive in the way that poorer people are involved in the food system, and affordable. It's very difficult to meet all these criteria. So how can we support food systems that meet different criteria? He suggested to use 6 entry points for a food systems approach: start with consumption; link technical and behaviour change; focus on critical drivers of change; involve multiple stakeholders - public, private & civic actors; match local to global outcomes; identify solutions in other areas than where the problem occurs. It is not about fixing problems but looking at the longer term, where we want to be. A food system consists of all elements (people, inputs, environment, processes, infrastructure, institutions, etc), activities related to production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including social, economic and environmental outcomes. With a clear focus on nutrition and health outcomes and a central role for diets. We need to realize the triple burden of nutrition, including stunting & wasting, micro-nutrient deficiencies and overweight.

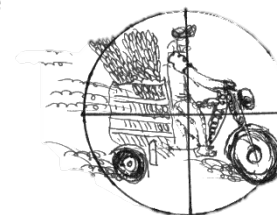
#### Impact fallacies

Ruerd warned the audience of making assumptions about routes to impact too quickly. For example, there is evidence that higher yields or reductions of food losses do not always improve nutrition. This depends, for example, on who controls the financial resources.



#### How to do food systems analysis?

There are two dimensions in doing food systems analysis: 1. Structure (static, short-term) - what is the dietary outcome? Where can we intervene (drivers)? Who to engage in the pathways of change? 2. Behaviour (dynamics) - link demand and supply side; combine technical and behaviour change; consider local and global effects. Key elements of FAO model are: drivers (e.g. population growth, difficult to influence), components (can be modified: food supply chain; food environment (governance); consumer behaviour - interaction is critical) and outcomes (diets, health). Food system transitions are adaptive systems where interactions and multiple actions take place at multiple levels, with multiple agents, which needs to be the subject of analysis. Often there are trade-offs, and you need the intelligence of many people to deal with many problems, overcome trade-offs, support synergies and make food systems work.



## M&E of food systems and their transitions

Food systems and their outcomes are a moving target, so you need to be involved in and evaluate the change processes. You have to know what is pushing or holding back agents (drivers) and understand how multiple actions and critical mass can lead to tipping points. We also need to understand the interactions between people, and actions at different levels, and capture behavioral responses. Look at formal and informal systems. Outcomes of the food system are uncertain and we need to accept that. Since food systems are dynamic, M&E cannot be linear, but rather needs to look at relationships and systems that are non-linear, where structures are both formal and informal. M&E needs to look at what is emerging, and thus capture dynamic cause-effect relationships.

*"Food systems are a moving target, where the outcome is uncertain. We need to engage with the change process, understand the interactions and see what is emerging."*

M&E of food system transitions: Focus on complex interactions (& feedbacks); trade-offs between multiple objectives; involvement of diverse stakeholders; deep dive into conflicts & bargaining power processes; wide opportunities for experiments.

For M&E to engage with, capture and support dynamic food system transitions, there is need to focus on the complex interactions (and feedback loops) between multiple agents, multiple actions at multiple levels, as currently there is inadequate knowledge on how the food system environment, the value chain and consumer choices are linked. M&E can help to understand the drivers of food systems, such as urbanization, growth etc. M&E also needs to assess and help to overcome trade-offs between multiple outcomes and also help to think through the diversity of food system pathways. For this the engagement of diverse stakeholders are needed so as to pull

together many ideas for solving many issues in the food system. Engaging with many stakeholders also means having a deep dive into the conflicts and bargaining processes. There is an urgent need to understand how dynamic change happens in food systems, and how the interactions (in the food environment, value chain and consumer behavior) as a result of stakeholders' actions (eg policy incentives, business innovations, civic driven-campaigns) and related conditions, influence people's behavior and thus the outcomes of the food system. The interactions are more important than the interventions themselves. This calls for other on the one hand developing theories of change for food systems and on the other hand making explicit the stories of change in food systems, how change happens. M&E approaches such as process tracing, outcome harvesting and narratives, whilst there is also need to do experiments (what might work, which combination of interventions) and real-time M&E.

**Get in touch:** Email: [ruerd.ruben@wur.nl](mailto:ruerd.ruben@wur.nl) | Twitter: @RRuerd | Website: <https://tinyurl.com/y3zrdqtt>  
| Slides and video: <http://www.managingforimpact.org/keynote-speakers-2019>

## 2.2 Imagining Alternative Futures for Food Systems

**Irene Guijt**

Head of Research and Publishing at Oxfam Great Britain, U.K.



*"We are taught that M&E is backward looking, always looking at past. M&E is also an exercise in bounding: what is in what is about. And M&E is blinkered: we are taught to focus."*

The second keynote speaker, Irene Guijt started by saying that in M&E, we are taught to be backward looking, and retrospectively make sense of our path and the journey. So it is always looking at the past. It is also an exercise in bounding: in M&E you have to decide what's in your scrutiny and what's outside, from a systems perspective. And M&E is blinkered: we are taught to focus. So we come to a snapshot of evaluative judgement. But what is the trajectory after that snapshot? The evaluative judgement can play tricks with us to say that situations are better or worse if they're not

nested within a bigger systems perspective. But often, we don't look at the assumptions we make about the future.

### Mapping alternative pathways or scenarios in Bangladesh

Irene then introduced the case of Bangladesh, which is very much focused on achieving the SDGs. The country has focused on SDG2, ending hunger, but it didn't pay attention to whether this could be sustained, combined with global gas emission policy objectives that it signed up. Whilst they take the SDGs seriously, they take them seriously one by one, and that is part of the problem. The food system nexus is an area where many SDGs connect, and there are many pathways to get there, each of them creating winners and losers along the way. But how much time do we spend actually mapping out the possible pathways, imagining of the alternative futures? Oxfam used scenario thinking for this process. They looked at how food systems can be tackled, not only from the perspective of hunger, but also affordable and clean energy and gender inequality. But the food and climate people are looked not looking at this in an integrated way. Bangladesh focuses a lot on SDG2 (ending hunger) and is doing a lot of work that is forward-looking, and has a very long planning horizon for its delta works. So there is a vision. But how do we make choices about possible trade-offs? The example of the Oxfam project is about how to engage in a conversation, in order to make sense of the data.

The main question for me Bangladesh project is: "If the current food system continues with business as usual, can it maintain high food security levels for Bangladesh? What will be the major challenges (such as climate change, population increase, urbanisation) for the Bangladesh food system in 30 to 50 years from now? So what are the pathways for Bangladesh?" They used scenario planning, in which they used existing data to explore possible descriptions of the future. Data from today – what might it look like tomorrow. Scenarios are plausible situations of how the future may develop. You can explore scenarios in order to make choices for the future. How do you have a conversation where you pull all the information together and start to have a conversation about a possible future. You have to make people care about the data, curious and ready to see that there are trade-offs.

*"You have to make people care about the data, curious and ready to see that there are trade-offs".*

#### Basic steps developing scenarios:

1. Identify key challenge
2. Identify building blocks of the scenario
3. Develop more detailed versions of the four scenarios
4. Analyse scenarios for decisions today

#### Four different scenarios

The research project focused on the possible pathways towards a zero hunger goal and a zero emissions (later framed as 'low carbon emissions') goal, so as to initiate a national conversation that brought these two together. A 2 x 2 matrix was developed, based on the two most influential and the most uncertain drivers: governance and environmental management. This led to 4 different scenarios: the Green Road, the Middle Road, the Divided Road, and the Rocky Road. Discussions were held on these scenarios with a wide range of stakeholders.

#### Lessons for M&E

What can we learn from this? To focus not only on projects and programs, but put the boundary wider, on (food) systems. We also need to invest not only in the known, but also in understanding the unknown. Thirdly, we need to understand behaviour. How is society responding to what is needed to change? There is a need for integrated information systems, including response evaluation. Unpack the different dimensions in a food system. Currently not being done, as people make decisions based on very limited information. Fourth, we need to be forward looking, as well as backward casting. Bring scenario thinking into the M&E practice, and allow uncertainty to be looked at. Fifth, we need to invest more in sensemaking of the data as it's people who have to make decisions based on the analysis. M&E profession needs to get its act together and start to be more serious in terms of competence, time and money in sensemaking.



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## 2.3 Healthier diets from sustainable food systems: is this always a win-win?

Inge Brouwer

Associate Professor at the Division of Human Nutrition and Health, Wageningen University & Research



### Statements

1. Dietary diversity is the best indicator to use to follow whether food system transformations lead to healthier diets.
2. A diet rich in plant-based foods and with fewer animal source foods confers with both improved health and environmental benefits.
3. A protein transition (shift from animal sourced to plant-sourced protein) is needed for better climate and public health.

Inge started her keynote by asking the audience to reflect on three major ideas that come up in many discussions on food systems, including those at the first day of the conference. Are these statements (in the box at the left) true or false, when you take low and middle income countries in mind?

### Entry points for food systems transformation

Everybody agrees that food systems need to transform. But our worries differ as per our discipline (Bene et al. World Development, 2019):

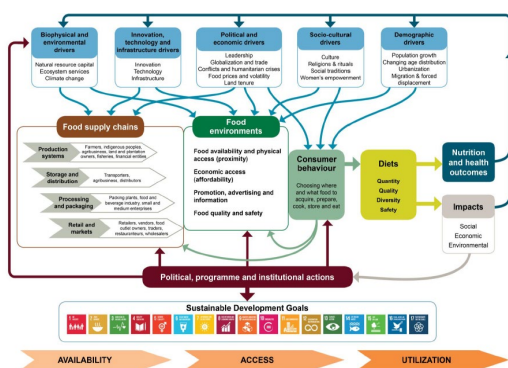
**Agronomists** are mainly concerned about whether our food systems are able to feed the future world population. The question that this conference was opened with, "Can we feed 9 billion people?" is an agriculturist worry, a concern about food security. Closing the yield gap is a priority for this group.

**Nutritionists** worry about the rising levels of malnutrition. Undernutrition or stunting is reducing, but very slowly, and overweight and obesity are rapidly rising, along with diet-related non-communicable diseases such as diabetes, cardiovascular disease and cancer. They are worried about nutrition security, and they think of closing the nutrient gap, and improving the quality of the diets that we consume.

**Social scientists** are more concerned about the inability of the system to produce equal or equitable benefits. Food systems at present are excluding some groups from having access to, for example, healthier diets. The priorities of actions are related to decentralization, grass-roots autonomy for those who do not have access at the moment. The last group is the **agro-ecologists**. They are worried because we are finishing our natural resources if we continue with our food systems as they are. As a priority, they would like to focus on reducing the foot print of the system.

*"We have to step out of our own expertise and see whether we can combine all of these worries, to identify actions to transform our food systems."*

### Starting from healthy diets



Inge argued that we should break from looking at production first, and take healthy diets as a starting point for food system transformation. The HLPE 2017 model of food systems gives a central role to diets. It looks at the components of the food system leading to diets, the drivers of the food system, and the multiple outcomes of a food system not only related to diet and health, but also to social, economic and environmental impacts.

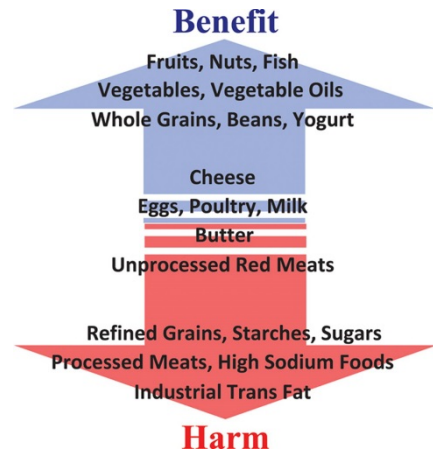
[Click to download the HLPE 2017 report \(framework is on page 26\).](#)



### What is a healthy diet?

A diet should optimise health. Simply put: it shouldn't be too little, and it shouldn't be too much. "Not too little" has to do with adequacy: consuming sufficient energy and nutrients. We know from research that better nutrient adequacy is associated with increased dietary diversity. "Not too much" means that we have to look at moderation of intake of less healthy foods and components such as sugar, salt and sugar sweetened beverages.

We like to have a healthy diet expressed in foods (instead of nutrients), because that's what people actually eat. The distinction between beneficial and harmful foods is based on the best available evidence, preferably based on systematic reviews and meta-analysis of many studies on the same topic. As consumers, we can't use this list. These foods should be translated into a diet that is affordable, acceptable, available and safe. That results in **food-based dietary guidelines**, and these should be specific to the country that you work in.



Dariush Mozaffarian *Circulation*. 2016;133:187-225

### Dietary diversity as an indicator

Not a lot of countries have food-based dietary guidelines. A proxy to judge diet quality is the **Dietary Diversity Score (DDS)**. It's embraced by many agricultural programmes. It makes use of ten to twelve food groups depending whether it is measured at individual or household level. If food from a group is consumed, it gets assigned a score of 1. In the end, you'll have a total score ranging between 0 and 12. Inge presented findings of a study on consumption in Bangladesh and Vietnam. Data show that most households consume fruits and vegetables. If someone would go by this data alone, they would not see a reason to intervene. However, DDS has some crucial limitations. Taking into account the **amounts consumed** paints a different picture: way too little fruit is consumed in both countries, and also too little vegetables in Vietnam. This has implications for an intervention: it means that households do not need to be convinced to eat these products, but they need to be convinced to eat more of it. Inge concludes dietary diversity can be a good indicator, but if you want to take healthy diets as a starting point, we'll need to combine with other indices and indicators.



### Plant-based versus sustainable diets

We want to have sustainable diets that are healthy. Globally, we should consume less animal-sourced foods in order to reduce production and emissions. But if we look at the low and middle income countries (the few that we have data on), we see that meats or animal sourced foods do not contribute much to greenhouse gas emissions. Reducing consumption of animal-sourced foods in LMIC will not contribute much to lowering greenhouse gas emission, but will certainly contribute to a lower adequacy of the diet. If the populations of LMIC will eat according to their recommended diets, they would actually have to eat more meat, and the greenhouse gas emissions will increase. So, a healthy diet is not necessarily environmentally sustainable, and a plant-based diet not necessarily healthy.

### The need for a protein transition

Will our protein intake become inadequate if we leave out animal-sourced foods? Currently, there's an overconsumption of protein – we eat more than we need. Do we need to replace the animal-sourced food with plant proteins? Probably not from a nutrition point of view. The Great Protein Fiasco in the '70s taught us that a protein shortage usually is accompanied by an energy deficit that causes protein to be used as a source of energy instead of its other functions. If you consume a more or less normal diet, you will have sufficient protein (and sufficient essential amino acids). The paper that finally debunked the Great Protein Fiasco argued that it was unethical to continue to spend resources in producing protein-rich foods, reducing the problem of malnutrition from a social-political problem to a technical, particularly medical problem.

## Conclusions

At the end of the keynote, we looked back on the statements that were presented. These reflect food system paradigms. Paradigms lead where we invest money in, are leading what kind of research is done, is leading about how we are thinking about transformation of food systems, in what kind of direction it has to go. But are they true?



Original statement	Conclusion
Dietary diversity is the best indicator to use to follow whether food system transformations lead to healthier diets.	Dietary diversity is a good indicator but needs to be supplemented with other indicators if you take healthy diets as a starting point for intervention.
A diet rich in plant-based foods and with fewer animal source foods confers with both improved health and environmental benefits.	Some countries eat very few animal sourced foods and would have to consume more to meet their recommended intake. Other countries currently eat a lot of animal-sourced food and should consume a diet rich in plant-based foods and with fewer animal source foods, conferring with both improved health and environmental benefits.
A protein transition (shift from animal sourced to plant-sourced protein) is needed for better climate and public health.	From a nutrition point of view, just leaving out meat without replacing the protein with plant based proteins in Western diets, would not harm adequacy of protein intake but we should be worried more about the adequacy of zinc, iron and vitamin B12 intake.

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## 2.4 Let's get real. How insights in interests and incentives can make the SDG machinery more effective.

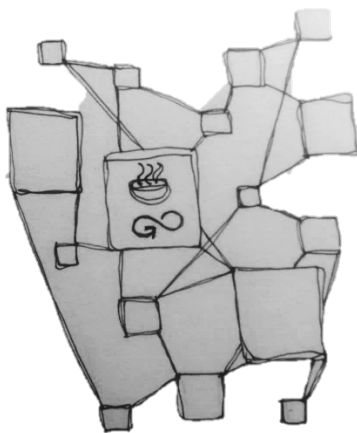


**Paulina Bizzotto Molina**

Policy Officer at ECDPM

*Interacting with food systems is like a waterbed: if you push somewhere, it will go up elsewhere.*

Paulina's keynote was about "bridging policy to practice". She started by briefly discussing the shifts that we've seen in the last years in inclusive and sustainable food systems. From a focus on increasing production, to the four pillars of food security and value chain approaches, and putting consumption in a more central place in agricultural and rural development thinking. Food systems are about the interactions between the elements in the system. That's also the hardest part and the challenging part. Paulina stressed the importance of talking about trade-offs, and to identify these leverage points, or entry points. What are the drivers, where is the give in the system? There's not going to be one magic bullet, you will have to use that system's view. We tend to only talk about the environmental sustainability of the diet, and not so much about social or political sustainability, which remains under-researched. The cultural acceptability (and we all know how crucial that is, when you talk about behavioural change), for example: it's all about what we feel is good, and what is accepted, and social norms that can make things change very fast, or make change very hard. A plenary discussion on which actors are working with food systems approaches yielded a nice overview, but confirmed that **we should lobby for a broad adoption of a food systems approach** to other sectors, like trade, spatial planning and natural resource management.



There are many parallels between the SDGs and food systems thinking, especially when you look at the key principles: universality, and the interrelatedness of the goals. For food systems, we also have to look at multi-actor, multi-level, multi-sector dimensions, going beyond aid or government.

ECDPM did a study on SDGs and governance arrangements, together with the policy and governance unit at the FAO. The focus of this study was to look at where countries stand 4 years down the road. The study tried to find out what actually works to catalyse change on the ground. Paulina explained: 'We tried to look at the interrelatedness especially – the importance of integrated policy making, as well as vertical and horizontal integration and stakeholder engagement. We added a political economy angle to it, to really try to understand interests and incentives of different stakeholders: to help move or block change.' Part of the study was a survey among FAO regional representatives and experts, and asked them their insights on what kind of SDG arrangements countries are putting in place, what kind of innovations they see in integrated policy making and what countries they feel would make for valuable case studies. The report of the study is expected to be published before the summer.

In terms of **horizontal integration**, there are lessons to be learned from policy coherence, for example in nexus approaches. Often, they are still thought of as OECD countries affairs. But the SDG policy agenda is asking of countries to be more coherent in their policies. Policy coherence in OECD countries has had a long trajectory of designing and implementing mechanisms of which middle- and low-income countries could also take advantage. Adopting a food systems approach can help address systemic issues in a much better way than classical sector-focused approaches. 'With regard to **vertical integration**,' Paulina mentioned, 'we saw that ownership, or political commitment to the SDGs lingers a lot at that highest level. There are SDG government arrangements, but there's little trickle down to local government and to local actors even less.' This was also reported by the FAO representatives: ownership of SDGs is very high at national level, but low at the local levels. But: also

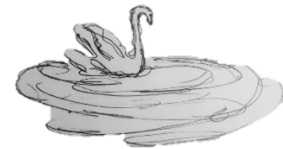
*UNDP Mali: "The local level is where it happens, but we find it hard to work with local level actors."*

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from within FAO, the importance of local actors is being more and more acknowledged, and there is a very big interest to adopt a more territorial approach, as a place where adopting a food systems approach and a more multi-sector approach is more feasible in terms of scale. There are a lot of caveats to add there, of course. Processes of decentralization do not necessarily mean decentralization of resources. Responsibilities are devolved, but resources and capacities are often not, so it is not a panacea, but the framing can help. The SDG paradigm calls for strong engagement with stakeholders. But in the end, very little translation takes place on the ground and in practice.

There's a lot of effort and investment on measuring SDG progress, but not so much on learning and supporting partner countries in building feedback loops of **bridging monitoring to policy decision making**. That's where the political comes in. There's an understandable bias towards relatively easy indicators. We also have to acknowledge that you have to strike a balance between being able to communicate progress and not wanting to confuse people by showing the complexity. An example is using a traffic light or a scorecard, which communicates progress easily and which could also change policy makers behaviour. A head of state can ask their agricultural minister "Why do we score red on this?". The assumption is that peer pressure can make an influence in changing behaviour of decision-makers. But at the same time: it does risk us going back into just simplifying progress, for example by only stressing productivity increase. The decision to invest in higher levels of disaggregation is a very political one, too. It's not so telling if malnutrition indicators at national level are sufficient, if there are huge regional disparities.

In Medellin, Colombia, a participatory approach to scenario building, involving different stakeholders, and a strong drive from civil society, contributed to the public energy company remaining a state-owned company. That company, APM, became a crucial change maker, and a very important source of resources. These processes have been instrumental in changing policy makers and private sector behaviour in the region of Medellin. The city council has incorporated an SDG dashboard, which monitors progress on a number of indicators that are prioritised in a participatory way. You can zoom in to neighbourhood level, and see how the council doing in terms of X, Y, Z. If a next mayor is less willing to show progress, he will have a hard time to take the dashboard away. This institutionalising of accountability, and using SDGs as a tool for that, is a nice example of the power of ideas. The experience of Medellin has contributed to Colombia's frontrunner role in the global debates around the SDGs. But there are limits. We see that in the fragile post-conflict rural areas in Colombia, the ingrained power disparities are such that an SDG agenda does not have the power to fundamentally change that.



*It's all about navigating the waves of interests, and about echoing the black swans, the positive deviants.*

Trade-offs are unavoidable and need to be navigated. We should not lie to ourselves: it's not always going to be a win-win. Incorporating better insights in interests and incentives of the different stakeholders that move or block change in the system is important. We also need to understand how ideas play a role and can change, help in building coalitions, identify the windows of opportunity and be ready for when

they open up. It's all about navigating the waves of interests, but also spotting, supporting and learning from the black swans - the positive deviants. Look out for those organisations or actors that are innovating in making change happen, even in the most complex environments. 'They are the experts of the system,' Paulina notes. 'They know where that "give" is, so learn from them.'

Understand what drives policy makers change their behaviour. This means that a **more systematic political economy analysis** should be included.

Further reading: [The M&E of partnerships](#) by Leda Stott and [Report: Policy coherence for agricultural transformation in African least developed countries \(LDCs\)](#) by Sean Woolfrey and Paulina Bizzotto Molina.

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## 2.5 Trends and Developments in M&E

### Cecile Kusters

Senior Planning, Monitoring and Evaluation Advisor at Wageningen Centre for Development Innovation, Wageningen University & Research (the Netherlands)



Cecile Kusters shared the key findings from a quick review that was done to find out about the key international trends and developments, and trends and developments in planning, monitoring and evaluation. Next to a quick literature review, interviews have been held with colleagues, and, more importantly, international evaluation experts.

#### Climate change high on the agenda; SDGs leading

*"Trends in planning, monitoring and evaluation follow the international trends, and this calls for more systemic M&E that supports adaptive management by stakeholders towards the SDGs"*

Climate change has been indicated as the most important challenge that needs to be addressed, since it affects other key challenges, like food and nutrition insecurity, conflict security and migration. We need to be prepared to feed a growing population that increasingly moves from rural to urban areas. With this, inequality is an important issue that needs to be addressed, since about 82% of the world's wealth is in the hands of the richest 1%, while some 3.7 billion people are amongst the poorest of the world. The 2030 Agenda for Sustainable Development is an important agenda for all countries and stakeholders to collaborate in an action plan for people, planet and prosperity. The Sustainable Development Goals (SDGs) show that

challenges are interconnected and need partnership (SDG 17). Monitoring and evaluation can play a supportive role to assess how these challenges are interconnected, and helps think through options for the future. This is particularly important in an era where the political climate is changing (increasing populism), the aid sector is changing with a shrinking space for civil society, and fake news increasingly is being used to misinform society.

#### M&E to support transformation towards SDGs needs sense making, adaptive management and complexity sensitive approaches

With increasing attention for the SDGs, there is also increasing attention to monitor and evaluate progress towards the SDGs and support transformation towards these SDGs, as is also indicated by the global evaluation agenda. Evaluators can play an important role in helping to understand this complexity, such as in food systems, by using complexity sensitive evaluation approaches and technology supported evidence for transparency and development. With this, they can play a role in communicating complexity to different stakeholders involved. This calls for moving from the fixation on indicators (232 for the SDGs!), targets (169 for the SDGs) and numbers, towards evaluative thinking and sense making, so as to make more informed choices for the future. Dealing with complexity needs adaptive management and this calls for more systemic, flexible and complexity sensitive M&E approaches.

*"We need to move beyond the fixation on indicators, targets and numbers towards evaluative thinking and sense making so as to make informed choices for the future"*

#### Deal with the politics of evaluation and communicate evidence

Evaluations are political. The bigger the evaluation, the higher the stakes and the more political it becomes. As evaluators, we need to deal with this, and speak truth to power.



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## Evaluators and other professionals to develop capacity and engage with transformation

*"We need evaluators knowledgeable about and competent in global systems analysis" (MQ Patton) and "evaluators need to move towards more resilient evaluation practices" (M Tarsilla)*

Dealing with complexity calls for different competencies of professionals and capacities of organisations. Evaluators need to develop their capacity and engage with transformation, as "transformation implies paradigms shifts, alternatives, innovations and transitions" (Zenda Ofir). According to MQ Patton "we need evaluators knowledgeable about and competent in global systems analysis" (M.Q. Patton), whilst M. Tarsilla indicates that evaluators need "to get out of their comfort zone and cross technical and personal boundaries and move towards more resilient evaluation practices". With this, evaluators need to develop their capacity in complexity and systems thinking, as well as evaluative thinking and sense making, whilst being more inclusive in the way M&E is carried out. This also calls for other professionals to develop their competencies in M&E in support of adaptive management towards sustainable development.

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## 3 Workshops



### 3.1 Day 1, Round 1

#### 3.1.1 Monitoring dynamics in the food system: feedback mechanisms, archetypes and leverage points

##### Helena Posthumus

Senior advisor, KIT - Royal Tropical Institute (the Netherlands)

##### Just Dengerink

Impact Analyst Sustainable Value Chain Development, Wageningen Economic Research - Wageningen University and Research (the Netherlands)

This workshop presented the food system decision-support tool, that is currently being developed by Wageningen UR and KIT Royal Tropical Institute. This tool takes users through various steps to get insights in food system dynamics, in order to identify leverage points for change and support the design of development policies and programs. The tool is based on systems thinking and system dynamics.

The preliminary results of the application of the tool for a case study on food systems in Nigeria were presented. Participants discussed some of the archetypes and dynamics in food systems in smaller groups, where power relations and skewed information were recognized as important drivers of system behaviour. Improving access to market information, strengthening farmer organization and reducing post-harvest losses were identified as possible leverage points for improving the sustainability of the Nigerian food system.

Finally, a range of possible improvements of the food systems decision-support tool were discussed in plenary. It was suggested that gathering more information from local stakeholders, such as NGO's and grassroots organizations, might improve our understanding of the food system. Others indicated that the role of gender could be more prominent in the food systems analyses. Finally, it was suggested to create a library of food systems archetypes, that could help people using the tool to make better sense of the dynamics in the food system.

*"We like the food systems framework because it provides a checklist and points at vulnerabilities, but it is also important to take dynamics into account: what happens at the interface, where does the magic happen?"*

For more information, see:

<https://www.kit.nl/project/food-systems-decision-support-tool/>

<https://www.wur.nl/en/Research-Results/Research-Institutes/Economic-Research/Research-topics-1/Nourishing-the-world/Food-Systems-Decision-Support-tool.htm>

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### 3.1.2 Outcome harvesting: Oxfam Novib's Right to Food program using a content analysis of its outcome statements to influence

**Karen Biesbrouck**

*Global M&E specialist Food, Land and Water and Project leader on Outcome Harvesting for Impact Measurement and Knowledge, Oxfam Novib (the Netherlands)*



Using policy as an entry point, combinations of tactics and tools enable Oxfam Novib's Right to Food (R2F) programme to contribute to changing food system dynamics. The programme aims at policy changes and increased political will in public and private sector actors in eight different countries and at global level on the following issues:

- Access to and governance of systems that support resilient livelihoods of small holder food producers such as land and inputs;
- Fair value creation and increased transparency in value chains; and
- Secure predictable flows of finance for small holder food producers and climate finance.

To document results of its influencing work, Oxfam Novib systematically used the Outcome Harvesting methodology. Among other things, outcome statements describe an observable social change plus what contributed to this change. A large-scale deductive analysis of these outcome statements is part of Oxfam Novib's ongoing learning on "How did these changes to which we contributed *really* happen, in relation to our Theory of Change?".

Oxfam Novib shared the findings from the content analysis of a vast set<sup>2</sup> of R2F outcome statements, which largely confirmed its Theory of Change:

- Advocacy by strengthened CSOs and alliances were successful mechanisms leading to achieved outcomes at the different administrative levels and in all three themes. Working in alliances actually played a role in 54 of the 100 of the outcome statements analysed.
- Increased citizen's voice worked as pathway towards change on "Access to and governance of systems supporting livelihoods" in Indonesia, Cambodia, and Myanmar; in Cambodia and Myanmar, communities were first strengthened (with trainings, knowledge about rights, laws etc.), empowering them to speak up to authorities. It also worked on secure and predictable flows of finance in Indonesia.
- The media was an ally towards change in Cambodia, Indonesia, and Nigeria on governance of systems supporting livelihoods, in Nigeria on secure and predictable flows of finance; and in Vietnam on Fair and Transparent Value chains.

Next to such confirmations, Oxfam Novib's analysis triggered learning from interesting outliers. For instance, we noticed that legal action by groups of citizens successfully supported influencing work on access to and governance of land at local level. It did so in three cases: In Indonesia, where fisherfolks and civil society filed a lawsuit to cancel permits for creation of artificial islands; in Cambodia, villagers turned to the Compliance Advisory Ombudsmen to get their land back, and other villagers elsewhere used the provincial court to protect their forestland.

*"Next to such confirmations, Oxfam Novib's [outcome harvesting] analysis triggered learning from interesting outliers."*

Findings from Oxfam Novib's content analysis were input for dialogues among workshop participants on mechanisms triggering increased political will in governmental and private sector actors towards more just food systems. The participants in the debate on the private sector emphasised the effectiveness of NGO long term engagement with in-company allies, combining the use of evidence from previous successes with campaigning, e.g. by benchmarking to create a race-to-the-top with peers. Interestingly, they encouraged Oxfam to also scrutinise the effectiveness of combinations of several influencing strategies.

<sup>2</sup> The analysis summarized here covered 100 outcome statements harvested up to spring 2018 in the Right to Food program. Similar analyses were made of another 100 outcome statements in two parallel thematic programs, leading to comparable results.

The presentation also covered the use of the findings from this analysis in finetuning influencing strategies. The analysis deepened Oxfam’s understanding of processes contributing to policy and practice changes towards a more just food system. This helped us to build the narrative of the strategic partnership (which was substantiated in the midterm review), it validated and elaborated our theories of change, and informed our programme cycle. For instance, our learning on the effectiveness of alliances in influencing materialised into us earmarking part of the remaining program budget to stimulate and facilitate collaboration with (unusual) allies.

The workshop participants discussing their “use” of such findings, recognized the reflections on the ToC, nourishing a narrative, also as input to a midterm review. Participants reflected on the pros and cons of analysing unsubstantiated outcome statements, on the usefulness of quantifying qualitative data, and on the (im)possibility to aggregate findings from such diverse contexts. They challenged Oxfam to close the feedback loop by making the content analysis more participatory. And above all they stressed that outcome harvesting methodology is as powerful and empowering as it is inspiring.

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### 3.1.3 M&E in the complexity of Urban Food Systems

#### Marion Herens

Senior Advisor Food and Nutrition Security, Wageningen Centre for Development Innovation, Wageningen University & Research (the Netherlands)

#### Diane Bosch

Senior Advisor Food and Nutrition Security, Wageningen Centre for Development Innovation, Wageningen University & Research (the Netherlands)



The world is becoming more urban every day with the expectation that by 2050, 68% of the world’s population will be living in urban areas. Especially in low-income and lower-middle-income countries the pace of urbanization is fast. Almost 90% of the increase in urban population will be taking place in Asia and Africa<sup>3</sup>. In view of this trend, sustainable development depends increasingly on the successful management of urban growth. Provision of food and nutrition security to the urbanizing population is key to this sustainable development, although delivering nutritious food to growing cities, in particular in the low-income and lower-middle-income countries is a complex problem. Challenges for sustainable development of urban food systems are a reducing rural population responsible for food production, increasing demand on infrastructure services, dietary transitions, natural resource scarcity and climate change. In addition, poverty and all forms of malnutrition are upcoming urban challenges.

In this workshop, we put some perspectives on urban food systems centre stage. Urban food systems deal with social, environmental, economic and spatial dimensions, each of which can be used as an entry point for transformation. The spatial dimension, however, is often missed in urban food policy planning, despite its critical role in urban food systems as it pertains to land use issues. The City region Food System concept was highlighted<sup>4</sup>, emphasising rural-urban interdependencies and the range of global to local, place-based urban food systems. We also talked about the M&E

*“The transfer of poverty, food insecurity, and malnutrition to urban areas demands a new understanding of the drivers of these problems and of the policies, programs, and interventions needed to tackle them.”*

- IFPRI (2017): Global Food Policy Report

<sup>3</sup> 2018 Revision of World Urbanization Prospects

<sup>4</sup> “City region food systems” emerged over 2012--3 in discourse across UN Agencies (UN Habitat, UNEP), Associations of local authorities (ICLEI), and the research community and is proposed as a spatial representation of food and agriculture for policy consideration at local, national and international levels.

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challenges in urban food systems, exploring the [FAO's City Region Food System Toolkit](#)<sup>5</sup> to that effect, using four cities as cases.

General conclusion was that the CRFS framework/toolkit is helpful to structure what M&E requirements are. The toolkit is still in development, building on case-based studies in 8 cities, but was considered a valuable framework to compare cities as cities differ a lot from each other in food systems, across and within countries.

For more information see the [FAO's City Region Food System Toolkit website](#).

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## 3.2 Day 1, Round 2

### 3.2.1 M&E of food systems and the use of 'minimum costs of a healthy diet' (MCHD) for planning, monitoring and evaluation of agricultural development interventions

#### Ferko Bodnár

Policy researcher, International Research and Policy Evaluation department (IOB), Ministry of Foreign Affairs of the Netherlands



Food systems are high on the agenda, since we need to understand food and nutrition security in a broader perspective, and from consumption to production. This workshop discussed the food system concept as well as what overall M&E is required to analyse and support (inclusive & sustainable) food systems.

One of the objectives of agricultural development projects is to improve food security. The extent to which they contribute to improved nutrition of currently undernourished, poor people, depends on the type of product: does it fill current dietary gaps? - and on the relative cost compared to other available food - is it more affordable than alternative options? An indicator that integrates these two requirements is the 'minimum costs of a healthy diet', the costs it takes for one person (or one household) to meet the dietary requirements with locally available food items. What you need to calculate this is:

- (1) a food composition table of the most commonly eaten food items, available for many countries;
- (2) a reference table for the recommended nutrient intake, available from WHO or FAO;
- (3) prices for the food items in the area and season of interest.

This is sufficient to calculate the minimum costs of a healthy diet for an individual; to calculate the costs for an average household, you need to know the average household composition.

We showed how this indicator can be used in the planning phase of new, nutrition sensitive, agricultural or food security interventions. For example, for the new dairy project in Ethiopia, we could show whether milk contributes to improved nutrition, and if so, up to what price per litre this is the case. If milk becomes more expensive than US\$1.00 per liter, then you better choose eggs for your money instead. Similarly, we could show which food groups are most limiting the affordability of a healthy diet. Using the same Ethiopian case, it turned out that reducing meat or cereal prices by 50% had no effect, while reducing prices of vegetables, milk and eggs had a very positive effect on the affordability of a healthy diet.

*"We have a saying in Dutch: "je kiest eieren voor je geld": choosing eggs for your money. That saying becomes really practically useful here."*

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<sup>5</sup> 2018 City Region Food System Toolkit, by FAO in collaboration with CGIAR Research Program on Water, Land and Ecosystems for the RUA Foundation

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During the discussion, some good points of attention were raised.

- Availability and prices of food vary by season. It is therefore important to monitor several (e.g. 4) seasons per year. This may also guide you to interventions that improve availability of the most limiting food groups in the most limiting season, e.g. by irrigation, or storage and conservation.
- The diet that the linear programming finds for you is the cheapest option, but may not make a nice meal. Obviously, cultural and personal preferences will influence what diet is acceptable. To persuade people to eat healthy within their purchasing power will require other efforts, besides making food available, as well.

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### 3.2.2 An Integrated Assessment Modeling of Food Security in Nigeria

#### Ivo Kashimana

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Subsistence farming constitute over 80% of Nigerian farming system yet farmers are most vulnerable to food insecurities in Nigeria. To eradicate hunger and malnutrition in Nigeria, food systems need to be more inclusive and sustainable. This means that all Nigerians regardless of socio-economic status and location will have access to basic food requirements for an active life at all times. Attaining food security in Nigeria is a challenge because of inadequate monitoring of land use systems primarily responsible for the security such as agriculture and forestry systems with conflicting production and conservation targets.

The study presented in this workshop assesses food security across land use systems using an integrated assessment model programmed in the General Algebraic Modelling Systems (GAMS) to provide insights in opportunities and trade-offs between sustainable development objectives including reduction of poverty and malnutrition, preservation of valuable forest ecosystems, and global efforts to slow down climate change. These opportunities and trade-offs however depends on the differing environmental, socio-economic and policy conditions across Nigeria. Integrating these varied conditions with stakeholders' perceptions, the model depicts motivations, restrictions, and options of farmers in a changing environment and reveal the implication of changes in land use systems and policies on agricultural production and forest conservation.

*"How do we achieve policy targets while assuring food security at the same time?"*

Deforestation for agricultural expansion accompanied by unsustainable agricultural practices constitute the major causes of food insecurity in Nigeria. Harmonizing agricultural production and forestry conservation targets in most parts of Nigeria will require a change in management technologies to integrated systems such as agroforestry especially as it jointly boast production and conservation. Changes in management technologies from shifting cultivation and mono cropping to fallow and mixed cropping simultaneously improve food production and conservation in most parts of

Nigeria. Food production in Nigeria is not at its prime yet it suffer losses because of inadequate extension services. Extension services such as market creation, functional storage facilities and adequate subsidies will increase the welfare of farmers by eliminating intermediaries' extortion hence reducing the vulnerability of farmers to seasonal hunger and malnutrition. Adopting mechanized farming can aid to eradicate hunger and malnutrition in some parts of Nigeria but it is less feasible as improving subsistence farming. The cost of adjusting policies and management technologies to enhance subsistence farming is however yet to be evaluated by this study. Overall, inputs from participants suggest that there is a need for a change in policies, farmers' perceptions and practices.

For more information, click [here](#).

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### 3.2.3 Tracking changes resulting from capacity development interventions with agricultural innovation niche partnerships

**Aurélie Toillier**

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**Manuela Bucciarelli**

Capacity development and M&E consultant, FAO (Italy)



In developing countries, capacity development (CD) interventions for strengthening agricultural innovation systems (AIS) are gaining attention, in contrast to linear approaches of technology transfer. The objective is to empower rural actors in designing by themselves suitable solutions and innovations to face their own socio-economic and environmental challenges taking into account the characteristics of their contexts. Tracking capacity changes, and then assessing the effectiveness of CD interventions, involves looking at aspects that are difficult to capture such as changes in individual practices, attitudes and knowledge. Currently, there are no turn-key approaches to achieve such objectives. Both the methodologies for assessment and development of capacities to innovate are in the experimental stage.

The presentation focused on the Monitoring, Evaluation and Learning (MEL) system adopted by the EU- funded Capacity development for agricultural innovation systems (CDAIS) project. It provided an introduction to the topic of agricultural innovation and agricultural innovation system and to the key concepts of the [Tropical Agriculture Platform \(TAP\) Common Framework on CD for AIS](#), in particular highlighting the concept of functional capacities. The MEL system was presented with reference to the work done at the innovation partnership level (niche partnership) to track and assess changes in functional capacities of niche actors and to explain how the functional capacities contribute to the innovation process. The concept of coaching process was introduced and focus was given to the tracking-monitoring-learning phase. A real case from one of the niches in Burkina Faso- the BIOSPG organic label- was used as an example to present some of the activities carried out, such as a capacity needs assessment, coaching plan design and measurement of functional capacities using a scoring tool within a facilitated simulation game. The presenters explained the concept of progress markers (graduated indicators of change in Knowledge, Attitudes and practices). An exercise on progress markers was conducted, which allowed a broader discussion on how to formulate progress markers that express statements of behavioural change for each of the different actors of the innovation partnership. Results from the Burkina Faso innovation niche showed that at the endline assessment, all functional capacities had improved, especially technical capacities, capacity to navigate complexity and to collaborate.

*"Developing capacities to innovate require embedding M&E into learning processes so that innovation partnerships become empowered to manage and achieve successfully their project."*

Some lessons learned on the use of progress markers were shared as well as recommendations on how functional capacities are linked to technical issues and concrete innovation/experimentation activities. Challenges in the formulation of progress markers were highlighted, in particular the concept of "disposable indicators of change", due to moving evaluation targets.

In terms of implementation, it was shared that the CDAIS coaching process required a well-trained MEL team, with mixed skills: facilitation, technical expertise, M&E and capacity to lead and design.

For more information see [www.cdais.net](http://www.cdais.net).

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## 3.3 Day 2, Round 3

### 3.3.1 Food systems performance: the impact of climate change

**Esther Koopmanschap**

Senior advisor Water, Nature and Rural Development, Wageningen Centre for Development Innovation, Wageningen University & Research (the Netherlands)



"Addressing climate change and its negative impact on our society and environment is one of the major challenges of the twenty-first century". We all know this sentence well, either from newspapers, peer-reviewed journals, IPCC reports etc. In the Paris Agreement of 2015, world leaders agreed to work to limit global warming to less than 2 °C and preferably to a maximum of 1.5 °C.

Without doubt, we have not yet figured out how to address climate change impacts on food systems effectively. Strategies to optimise food systems performance and work towards a low-carbon society (climate change mitigation) can be supported by innovations in technological systems, in policy frameworks and in market mechanisms. More and more countries have developed, and are developing, adaptation strategies (climate change adaptation) and have embedded the commitments adopted in the Paris Agreement in their policy. Unlike mitigation interventions, of which the change in greenhouse gas emission results is 'relatively easy to measure' (not denying that it is still not simple!), adaptation is scale- and context-specific, stretches out across many sectors, is characterised by both short- and long-term time frames and includes large uncertainties. Participatory approaches, involving a multitude of diverse stakeholders, are therefore required when assessing potential effects of climate change adaptation interventions, innovations and incentives on food systems. Climate change adaptation actions themselves may also lead to future risks or unintended negative consequences on food systems outcomes that are difficult to capture when not carefully designing M&E systems.

*"It is not so much the technical aspects but more conflicts between people."*

In this session, we explored how M&E could support working towards climate-smart and resilient food systems considering its multiple levels, with actors in multiple sectors and multiple incentives and goals; and how M&E could support assessing the risks and uncertainties of the pathways forward (and ensure we are not committing ourselves to a new pathway that is as unsustainable and non-inclusive and as the current one...).

*"You need to set boundaries, because you can't measure and set indicators otherwise, but how to narrow it down without losing the bigger picture, without losing climate change as a whole or food systems as a whole."*

One of the challenges that was identified was setting boundaries, as it is impossible to measure and set indicators otherwise. How to narrow it down without losing the bigger picture: climate change as a whole or food systems as a whole? One way of addressing this challenge is in coming together more. All too often, we come together and gain a wider perspective, but lose this perspective as soon as we get back to our own workplace, our own reality. Another way of addressing the challenge is to plan using theories of change that go beyond the immediate issue. That way, we will be better able to assess the sustainability and inclusivity of our change pathway. It should not just be a theory of change, but a theory of systems change.

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### 3.3.2 Case Study: A Food Systems approach to Monitoring and Evaluation

#### Ellen Geerlings

*Independent Consultant, Dutch Committee for Afghanistan - Livestock Programs (the Netherlands)*



The Afghanistan Central Statistics Organization (CSO) estimated that in 2018, 54% of the Afghan population was living under the poverty line, compared to 38% in 2014. This poverty brings along huge food insecurity, one of the main problems in Afghanistan. Almost one-third (30%) of the population have a caloric intake that is insufficient to sustain a healthy and active life. In 2018, 75% of the Afghan population lived in rural areas, being mainly dependent on animal husbandry and farming for their daily needs. As livestock is of vital importance to the majority of Afghan families, it is the aim of the Dutch Committee of Afghanistan – Livestock Programs (DCA) to assist the Afghan people by improving the health and production of their livestock. Healthier and more productive animals increase income and food security at household level and contribute to a sustainable food system in these communities.

DCA is currently in the process of moving from a donor-driven project-based M&E approach to a programme level Monitoring, Evaluation, Accountability and Learning (MEAL) approach. It is expected that this development will: a) increase visibility and transparency of DCA work, b) aid in adjusting and improving DCA work and planning, c) improve alignment with DCA's mission and vision, and d) create a sense of ownership and pride across DCA Afghanistan and DCA Netherlands staff of the many achievements realized so far. Part of this shift involves the development of a set of program level key performance indicators (KPIs).

The aim of the workshop was to discuss the main activities and outcomes of the work of DCA from a food systems perspective. A framework was presented (based on Van Berkum et al. (2017)<sup>6</sup> that describes the main food system activities, socio-economic and environmental challenges as well as food system outcomes, socio-economic and environmental outcomes. Environmental challenges include droughts and land degradation. Socio-economic challenges include conflict & political instability and increasing poverty rates.

*"Can we develop food system outcome indicators that can measure progress in food system outcomes at DCA program level?"*

Based on the presented framework the participants were asked to break up in smaller groups and brainstorm about KPIs related to **Food System Outcomes** that are realistic, relevant and cost-effective and measure improvements in **Food Security** (i.e. access, availability and utilization) and **Socio-economic Outcomes** at household and/or community level across all DCA projects (i.e. program-wide).

Participants appreciated the fact that an attempt had been made to translate a theoretical concept into practical application. Participants were asked to put theory into practice taking into account all the challenges and limitations faced by an NGO working in a fragile state. Participants noted that the framework needed some more work, this particularly related to describing dynamics and interactions between actors and stakeholders in the system. One participant noted that major issues outside of the livestock sector should be identified as these could influence DCA activities and outcomes. To improve cost-effectiveness and efficiency one participant suggested to combine KPI data collection with other project activities and to use real time M&E to track progress of the KPIs. It was noted that a combination of quantitative and participatory M&E (e.g. 'most significant change' stories) provide both breadth and depth in tracking progress. In addition, participants came up with a number of KPIs that will be presented and discussed within DCA for possible inclusion in the final set of DCA program KPIs.

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<sup>6</sup> [https://knowledge4food.net/wp-content/uploads/2018/10/180630\\_foodsystems-approach.pdf](https://knowledge4food.net/wp-content/uploads/2018/10/180630_foodsystems-approach.pdf)

### 3.3.3 Considering food system change in a fully integrated (holistic) way - towards systemic checklists to inform M&E design

#### Seerp Wigboldus

Senior advisor, Wageningen Centre for Development Innovation, Wageningen University & Research (the Netherlands)



Many initiatives start with articulating a food system perspective, but when it comes to practice, system components tend to be addressed in (relative) isolation, also in terms of related M&E. The same applies to different types of outcomes which food system performance may have (e.g. sustainability, resilience, healthy food, etc.). However, effects in relation to one component often affects conditions in other components. Or, one type of outcome may come at the cost of another. This is often referred to as trade-offs. This requires an adequate overview of where those trade-offs occur, and it requires an idea about what should be prioritised. But before all that, we need to have some framework that enables us to systematically and systemically check for implications across all relevant implications of outcomes of food system performance and change. What could serve that purpose and thus inform M&E design? This requires an integrated/holistic approach.

*All models are wrong, but some are useful - George Box (1976)*

The opening presentation presented three options: 1) a framework on capacities for change towards inclusive and sustainable food systems; 2) an initial approach to articulate a theory of change (ToC) from a system change perspective (a theory of (food) system change); and 3) a framework representing a suite of aspects of temporal reality which has been used in a number of contexts, including in evaluating sustainability in the built environment (Brandon & Lombardi, 2011). The presentation explored connections to the context of food systems. The presenter argued for (the WCDI approach of) approaching different frameworks and models related to food systems from a mixed-models approach: rather than loading one model with everything relevant to food systems, or to select just one limited model, why not work with a suite of models to activate complementing angles on the subject?

In relation to food system transitions, there is much to be read about related dimensions and dynamics, but little about what collective capabilities would be involved in making such transition possible. The framework presented allows for making systematic assessments (such as before and after) in relation to this.

Theories of change have become part and parcel of many (research and) development initiatives. However, rarely do they focus on systemic change. Usually the focus is on problem solving or making use of new opportunities (innovations). This limits understanding about related system conditions and change. The multi-level perspective (MLP) was used to illustrate one way of articulating a system-oriented theory of change (a theory of food system transition).

Finally, the suite of aspects, developed originally by Dutch philosopher Herman Dooyeweerd, is arguably the best coherent, systemic, and structured way around for developing integrated/holistic perspectives on situations and entities. Translating it to the food system context provided a rich perspective on what to take into account in ways which go way beyond merely distinguishing between social, economic, and environmental. It helps to understand where reductionist approaches guide decision-making and provides an integrated and interdisciplinary perspective on sustainability. Thus supporting the integrated philosophy behind the Sustainable Development Goals.

Participants discussed in small groups the three presented frameworks to consider options and opportunities. Right after the session was over, some appointments for collaboration in further development of e.g. the theory of (food) system change were already made between the presenter and some participants.

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## 4 Key insights

Throughout the conference, a link was made between food systems and monitoring and evaluation (M&E). The main question of the conference was: “How should and can monitoring and evaluation (inform and) support the transition towards inclusive and sustainable food systems?”

Sub-questions included:

- How should M&E (inform and) support food system change, in all its multiple levels, with actors in multiple sectors with multiple incentives and goals?
- How should M&E also engage with and assist the inevitable trade-offs between competing and perhaps contradictory consequences?

Key insights in this section are based on: keynote presentations, parallel sessions, synthesis session, and some references. Whilst there has been no intention nor capacity to do an extensive literature review, we still think that the insights below can help both the food systems community as well as the M&E community in addressing key challenges that we have at hand.

During the last session of the conference, participants shared key insights and lessons from the conference in a synthesis session, participants responded to the following questions:

1. *What is important to keep in mind in the design of food systems related interventions? (Bearing in mind the multiple levels, actors in multiple sectors with multiple incentives and goals).*
2. *What is important and useful when it comes to food systems M&E to support transitions towards inclusive & sustainable food systems? (Bearing in mind the multiple levels, actors in multiple sectors with multiple incentives and goals).*
3. *What skills and competences are necessary in relation to intervention design/planning, but also monitoring and evaluation of to support transition towards inclusive & sustainable food systems?*
4. *How can M&E engage with and assist with the inevitable trade-offs between competing and perhaps contradictory consequences?*

Participants were asked in subgroups to provide the top 5 answers to one of the questions and then moved to the next group to review the responses of the previous group to another question, and agree on the 5 answers. The responses to each question after different rounds, were presented plenary. The responses to these questions have been integrated with other insights from the keynote presentations, parallel sessions, the key learning from participants at the end of the conference and some references. This report is not trying to be conclusive but rather intends to provide insights and stimulate learning around the topic of M&E for inclusive and sustainable food systems.

### 4.1 The need for transformation towards inclusive and sustainable food systems for healthy diets

#### 4.1.1 Hunger and malnutrition still persist; regional variations and women more at risk

There is an immense challenge to achieve the Zero Hunger target by 2030, as there is an increase in the number of hungry people, with variations in different regions and with women being more at risk of food insecurity. FAO (2019) indicates that “*After decades of steady decline, the trend in world hunger – as measured by the prevalence of undernourishment – reverted in 2015, remaining virtually unchanged in the past three years at a level slightly below 11 percent. Meanwhile, the number of people who suffer from hunger has slowly increased. As a result, more than 820 million people in the*

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world are still hungry today, underscoring the immense challenge of achieving the Zero Hunger target by 2030" (FAO, 2019c). They furthermore indicate that there are regional variations and that women are more at risk. "Hunger is on the rise in almost all sub-regions of Africa, the region with the highest prevalence of undernourishment<sup>7</sup>, at almost 20 percent. It is also rising slowly in Latin America and the Caribbean, although the prevalence there is still below 7 percent. In Asia, where undernourishment affects 11 percent of the population, Southern Asia saw great progress in the last five years but is still the sub-region with the highest prevalence of undernourishment, at almost 15 percent, followed by Western Asia at over 12 percent, where the situation is worsening. Estimates of SDG Indicator 2.1.2, which monitors progress towards the target of ensuring access to food for all, reveal that a total of about 2 billion people in the world experience some level of food insecurity, including moderate. People who are moderately food insecure may not necessarily suffer from hunger, but they lack regular access to nutritious and sufficient food, putting them at greater risk of various forms of malnutrition and poor health....In every continent, the prevalence of food insecurity is slightly higher among women than men, with the largest differences found in Latin America" (FAO, 2019c).

This burden of malnutrition is unacceptably high, especially for women. "The burden of malnutrition across the world remains unacceptably high, and progress unacceptably slow. Malnutrition is responsible for more ill health than any other cause. Children under five years of age face multiple burdens: 150.8 million are stunted, 50.5 million are wasted and 38.3 million are overweight. Meanwhile 20 million babies are born of low birth weight each year. Overweight and obesity among adults are at record levels with 38.9% of adults overweight or obese, stretching from Africa to North America, and increasing among adolescents. Women have a higher burden than men when it comes to certain forms of malnutrition: one third of all women of reproductive age have anaemia and women have a higher prevalence of obesity than men. Millions of women are still underweight" (Fanzo et al., 2018).

#### 4.1.2 Unhealthy and unsustainably produced food poses a global risk to people and the planet

Part of the problem is that the way food is currently produced is unsustainable. "Unhealthy and unsustainably produced food poses a global risk to people and the planet. More than 820 million people have insufficient food and many more consume an unhealthy diet that contributes to premature death and morbidity. Moreover, global food production is the largest pressure caused by humans on Earth, threatening local ecosystems and the stability of the Earth system. Current dietary trends, combined with projected population growth to about 10 billion by 2050, will exacerbate risks to people and planet. The global burden of non-communicable diseases is predicted to worsen and the effects of food production on greenhouse-gas emissions, nitrogen and phosphorus pollution, biodiversity loss, and water and land use will reduce the stability of the Earth system" (Willett et al., 2019).

#### 4.1.3 Trade-offs, especially between food production and the environment

There are trade-offs between food production and climate change, as food production can contribute towards greenhouse gas emission, and at the same time climate change can negatively affect food production. According to Vermeulen et al (2012), "Food systems contribute 19%–29% of global anthropogenic greenhouse gas (GHG) emissions, releasing 9,800–16,900 megatonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e) in 2008. Agricultural production, including indirect emissions associated with land-cover change, contributes 80%–86% of total food system emissions, with significant regional variation. The impacts of global climate change on food systems are expected to be widespread, complex, geographically and temporally variable, and profoundly influenced by socioeconomic conditions. Climate change will affect agricultural yields and earnings, food prices, reliability of delivery, food quality, and, notably, food safety. Low-income producers and consumers of food will be more vulnerable to climate change owing to their comparatively limited ability to invest in adaptive institutions and technologies under increasing climatic risks. Some synergies among food

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<sup>7</sup> The prevalence of undernourishment (PoU) is an estimate of the proportion of the population whose habitual food consumption is insufficient to provide the dietary **energy levels** that are required to maintain a normal active and healthy life (FAO, 2019b).



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*security, adaptation, and mitigation are feasible. But promising interventions, such as agricultural intensification or reductions in waste, will require careful management to distribute costs and benefits effectively” (Vermeulen, Campbell, & Ingram, 2012).*

Other trade-offs also exist, including those related to other environmental challenges, human nutrition or health. For example, animal source food consumption has grown rapidly with increasing wealth levels in East Asia; this growth has had substantial implications both for land use and international trade of both animals and feed (e.g. (He, Baiocchi, Hubacek, Feng, & Yu, 2018)). Growing healthier foods such as fruits and vegetables is more water intensive relative to grains, and animal source foods are in general more resource intensive. More intensive animal source food production in some countries could come at the expense of climatic goals (e.g. (Vermeulen et al., 2012)). There are also food safety issues related to healthier foods, as they usually spoil relatively quickly, and fruits and vegetables are often grown with more chemicals than grains and legumes. In: (De Brauw et al., 2019). In addition, other trade-offs may be related to socio-economic opportunities and risks related to the above changes in food consumption patterns, and to the various climate mitigation or adaptation measures.

#### 4.1.4 Urgent need for radical transformation of the global food system towards sustainable food production and healthy diets; large-scale and coordinated efforts required

The consequences of the way we currently produce and consume food are severe and radical transformation of the global food system is required in order to sustainably feed the world with healthy food. *“Without action, the world risks failing to meet the UN Sustainable Development Goals (SDGs) and the Paris Agreement, and today’s children will inherit a planet that has been severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease” (Willett et al., 2019).*

The recent EAT-Lancet report urges radical transformation of the global food system. *“An immense challenge facing humanity is to provide a growing world population with healthy diets from sustainable food systems. While global food production of calories has generally kept pace with population growth, more than 820 million people still lack sufficient food, and many more consume either low-quality diets or too much food. Unhealthy diets now pose a greater risk to morbidity and mortality than unsafe sex, alcohol, drug and tobacco use combined. Global food production threatens climate stability and ecosystem resilience and constitutes the single largest driver of environmental degradation and transgression of planetary boundaries. Taken together the outcome is dire. A radical transformation of the global food system is urgently needed. Without action, the world risks failing to meet the UN Sustainable Development Goals (SDGs) and the Paris Agreement, and today’s children will inherit a planet that has been severely degraded and where much of the population will increasingly suffer from malnutrition and preventable disease” (Willett et al., 2019).*

The transformation to healthy diets from sustainable food systems requires major shifts in food production, dietary shifts, and large reductions in food loss and waste. The focus on healthy diets is crucial according to keynote speakers Ruerd Ruben and Inge Brouwer.

There is a need for global commitment towards healthy diets and sustainable food production. *“There is substantial scientific evidence that links diets with human health and environmental sustainability. Yet the absence of globally agreed scientific targets for healthy diets and sustainable food production has hindered large-scale and coordinated efforts to transform the global food system” ((Willett et al., 2019).*

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#### 4.1.5 Transformation to healthy diets from sustainable food systems requires major shifts

As there is a need for major transformation of the global food system to healthy diets from sustainable food systems, major shifts are required to make this happen, as also indicated by the recent EAT Lancet report. According to Willet, Rockström et al (2019), *"With food production causing major global environmental risks, sustainable food production needs to operate within the safe operating space for food systems at all scales on Earth. Therefore, sustainable food production for about 10 billion people should use no additional land, safeguard existing biodiversity, reduce consumptive water use and manage water responsibly, substantially reduce nitrogen and phosphorus pollution, produce zero carbon dioxide emissions, and cause no further increase in methane and nitrous oxide emissions. Transformation to sustainable food production by 2050 will require at least a 75% reduction of yield gaps, global redistribution of nitrogen and phosphorus fertiliser use, recycling of phosphorus, radical improvements in efficiency of fertiliser and water use, rapid implementation of agricultural mitigation options to reduce greenhouse-gas emissions, adoption of land management practices that shift agriculture from a carbon source to sink, and a fundamental shift in production priorities"* (Willett et al., 2019).

*"Transformation to healthy diets from sustainable food systems is necessary to achieve the UN Sustainable Development Goals and the Paris Agreement, and scientific targets for healthy diets and sustainable food production are needed to guide a Great Food Transformation. Healthy diets have an appropriate caloric intake and consist of a diversity of plant-based foods, low amounts of animal source foods, unsaturated rather than saturated fats, and small amounts of refined grains, highly processed foods, and added sugars. Transformation to healthy diets by 2050 will require substantial dietary shifts, including a greater than 50% reduction in global consumption of unhealthy foods, such as red meat and sugar, and a greater than 100% increase in consumption of healthy foods, such as nuts, fruits, vegetables, and legumes. However, the changes needed differ greatly by region"* (Willett et al., 2019).

*"Transition towards sustainable food systems for healthy diets, requires substantial shifts towards healthy dietary patterns, large reductions in food losses and waste, and major improvements in food production practices. This requires a range of actions from individuals and organisations working in all sectors and all scales"* (Willett et al., 2019).

## 4.2 Transforming M&E to support transformation towards inclusive and sustainable food systems for healthy diets

The urgent need to radically transform the global food system, also requires a transformation of planning, monitoring and evaluation. This is also indicated in the *'Prague Declaration on Evaluation for Transformational Change'* (IDEAS, 2019) underlines this importance. This was adopted at the 2019 IDEAS Global Assembly & Third International Conference on Evaluating Environment and Development (Oct 2019). It entails commitment to:

1. Promote Transformational Evaluation for the Sustainable Development Goals
2. Work in partnership
3. Explore power relations and promote inclusiveness
4. Respect for rights and responsibilities
5. Support for professionalization and capacity development
6. Focus on sustainability
7. Focus on fragility, conflict and violence (FCV)
8. Support for transformational indigenous evaluation
9. Shared responsibility for results

Some of these aspects also come back in the ideas below.

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#### 4.2.1 Systemic thinking and systems approaches with multiple stakeholders, in multiple sectors at multiple levels

Radical transformation of food systems requires a holistic and coordinated approach, engaging different stakeholders in different sectors at multiple levels, which calls for a systems approach to M&E, that supports stakeholder engagement, learning and adaptive management. *"A transformation of the global food system should ultimately involve multiple stakeholders, from individual consumers to policy makers and all actors in the food supply chain, working together towards the shared global goal of healthy and sustainable diets for all"* (Willett et al., 2019). *"The complexity of food systems requires a more holistic and coordinated approach. Many food security and nutrition challenges are complex problems whose solutions are contested and which transcend disciplinary, divisional, and institutional boundaries. In increasingly globalized food systems, these challenges result from interactions across different scales and levels. They require integrated actions taken by all stakeholders at local, national, regional, and global levels, by both public and private actors, and across multiple fronts- not only in agriculture, but also in trade, policy, health, environment, gender norms, education, transport and infrastructure, and so on. It requires a synergetic merging rather than a destructive clashing of the ideas emerging from these various angles"* (FAO, 2019d).

According to keynote speaker *Ruerd Ruben*, there is an urgent need to understand how dynamic change happens in food systems, and how the interactions (in the food environment, value chain and consumer behaviour) as a result of stakeholders' actions (eg policy incentives, business innovations, civic driven-campaigns) and related conditions, influence people's behaviour and thus the outcomes of the food system. M&E can play a role in capturing these interactions and behaviour changes (e.g. dietary behaviour), in assessing whether there is a real paradigm shift and whether transformation really happens.

Since food systems are dynamic, one needs to be prepared to deal with uncertainty, follow many moving targets, understand relationships between multiple stakeholders at multiple levels in multiple sectors and be prepared for unexpected changes. This uncertainty also needs (safe) trials by different stakeholders that need to be closely monitored and stimulated when going well, but stopped when there are failures. It requires M&E to take a systems perspective and look at the key issues, context and stakeholders in food systems and how they are related. It calls for complexity science and systems thinking as also indicated in the presentation by Cecile Kusters on trends and developments in M&E. There is a need to actively engage with multiple stakeholders in multiple sectors at multiple levels to find out what are the key issues, what works (and what not) and to adapt to a changing environment and follow moving targets. Various speakers and conference participants also underlined the importance of collaborating with multiple stakeholders in transforming food systems, and in planning, monitoring and evaluation. Understanding the dynamics of a food system, the behaviour and interrelationships of stakeholders and tipping points for change requires flexible and adaptive M&E approaches that take a systems perspective, whilst engaging with multiple stakeholders in multiple sectors at multiple levels.

Michael Quinn Patton also refers to systemic thinking, connecting local to global ('glocal'), and thinking across silos as part of the global thinking principle in *Blue Marble evaluation: "Apply whole-Earth, big-picture thinking to all aspects of systems change"* (Patton, 2019). Patton's earlier book on developmental evaluation, focused on applying complexity concepts to enhance innovation and use (Patton, 2010).

IIED urges to embracing complex systems thinking. *"Integrating complex systems-informed approaches into efforts to achieve the SDGs will require innovative processes and new relationships. Development and evaluation actors will need to 'scale deep' — experiment with new approaches that respect different values and contexts, yet are sufficiently aligned to deliver mutually reinforcing effects. Achieving this will require new and more intensive ways of engaging across multiple disciplinary, ideological, sector, governance and country boundaries, but the effort will be worthwhile. If reaching the SDGs can seem like a daunting challenge, this more expanded vision of planning and evaluation could be one of the keys to unlocking truly transformational change"* they call for "using

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*systemic approaches to evaluation that connect the global and local, the macro and the micro, and study the relationships between worldwide patterns and area-specific challenges” (IIED, 2019).*

#### 4.2.2 Dynamic and flexible M&E for adaptive management

The dynamic nature of food systems requires M&E also to be dynamic, and to actively engage in the food system transformation processes and related interventions, from food system analysis, to making explicit (multiple) theories of change, to generating new evidence and sense making of the evidence, in collaboration with stakeholders. This requires flexible monitoring and evaluation that is embedded in an adaptive system of enquiry and management. One such approach is the ‘Managing for Sustainable Development Impact’ approach (Kusters, Batjes, Brouwers, & Baguma, 2017).

As such, monitoring and evaluation can help to undertake situation analysis, by helping to make choices on what to focus on rather than trying to capture everything. M&E needs to be integrated from the start of food system interventions, so as to ensure these interventions are context specific, and adequately managed in response to a changing environment. M&E needs to be dynamic, capturing not only agreed upon parameters, but also what is emerging, unknown and unexpected, for stakeholders to be aware of and respond to.

#### 4.2.3 Understand food systems, start from consumption and use complementary food system frameworks

Understanding food systems requires understanding the elements, context and dynamics of food systems, whilst starting from the point of consumption. Whilst there are different conceptual frameworks on food systems, with similar elements, keynote speakers Ruerd Ruben and Inge Brouwer stressed that it’s important to understand food systems from the point of consumption (‘healthy diets’) first. One of the commonly used frameworks is the framework proposed by the High Level Panel of Experts (HLPE) on Food Security and Nutrition, as developed in 2017, as indicated below. But there are also other frameworks like the *van Berkum framework* (van Berkum, Dengerink, & Ruben, 2018) for which a *food system decision tool* (Posthumus, de Steenhuijsen Piters, Dengerink, & Vellema, 2019) was presented during one of the parallel workshops at the conference. These food system frameworks have much in common, such as food supply chains or systems with related activities, people, inputs, environment, infrastructure, institutions, etc. The food system frameworks also include drivers that affect food production and consumer behaviour as well as results/impacts of the interactions in terms of food and nutrition security, health, but also environmental and socio-economic impacts. There is no one particular framework that is the best, but rather one can make use of complementary frameworks, as suggested by *Seerp Wigboldus*.

More information on food systems approaches and reports can be found *here*. Posthumus and Dengerink organised a workshop on the *food system decision tool*, which is based on one of the food system conceptual frameworks, is one of the ways to help assess food systems.

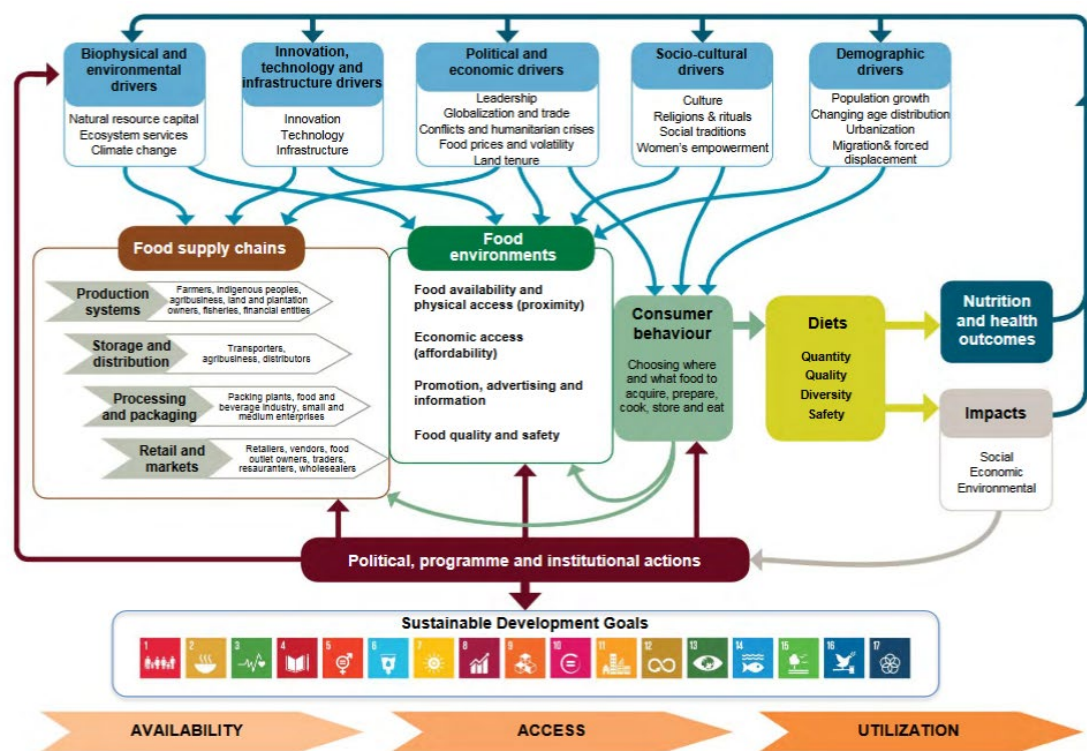


Figure 1 - HLPE Conceptual Framework on Food Systems for Diets and Nutrition (HLPE, 2017)

Undertaking a thorough situation and contextual analysis is needed to understand the main drivers of the system, how issues are interrelated, and to understand the different roles, rationales and power of different actors in the system. But also to understand potential trade-offs, which is explained in 4.1.3.

According to Keynote Speaker *Ruud Ruben*, there are two dimensions in doing food systems analysis: 1. Structure (static, short-term) - what is the dietary outcome? Where can we intervene (drivers)? Who to engage in the pathways of change? 2. Behaviour (dynamics) - link demand and supply side; combine technical and behaviour change; consider local and global effects. Key elements of the FAO model are: drivers (eg population growth, difficult to influence), components (can be modified: food supply chain; food environment (governance); consumer behaviour - interaction is critical) and outcomes (diets, health). Keynote Speaker *Paulina Bizzotto Molina* also called for including more systematic political economy analysis. Food system transitions are adaptive systems where interactions and multiple actions take place at multiple levels, with multiple agents, which needs to be the subject of analysis.

Now the challenge is to understand food systems in their contexts, and not get lost in determining all the different pieces of the puzzle, but rather to understand interconnections, leverage points and potential trade-offs, whilst keeping focused on the ultimate objective(s), especially healthy diets. This requires stakeholder collaboration. See also the section on 'zooming in and zooming out' below.

#### 4.2.4 Zooming in and zooming out - sense making of critical drivers, interactions and dietary choices

M&E can support transformation by connecting the dots in a food system through zooming in and zooming out. *Seerp Wigboldus* introduced this idea of zooming in and zooming out and showed as an example the SDG Interlinkages Analysis & Visualisation Tool (V2.0). Also keynote speaker *Irene Guijt* indicated the importance of putting the boundary wider, by not only focusing on projects and programmes but on food systems that they are part of.

Zooming in and zooming out involves looking at the food system as a whole as well as understanding particular parts of the food system, which can help to identify the critical drivers of (behavioural) change, agency interactions, dietary choices, and where change can possibly happen. Keynote speaker

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Ruerd Ruben stressed the importance of understanding agency interactions, which requires involvement of M&E people with the action. And understanding relationships requires investing in these relationships, and building trust. This is in line with the international trend towards M&E that captures complexity and focuses on global issues, in line with the SDGs. Zooming in can help to understand necessary details, whilst zooming out can help to understand interconnections, and identify leverage points.

#### 4.2.5 Understand trade-offs to support decision-making for inclusive and sustainable food systems

The presentation by *Cecile Kusters* on international M&E related trends and developments showed that there is an increasing importance of M&E for sustainable development and transformation towards SDGs and that the evaluation agenda needs to shift in order to support the SDGs. This has implications for evaluation. *"The complexity and inter-related nature of the SDG targets requires that evaluation takes account of the linkages and potential trade-offs between targets and goals. SDG implementation and monitoring processes are expected to be country-led, resulting in an increased focus on country-led evaluation work. Partner countries' national statistical capacity and evaluations systems will play a key role in follow-up and review processes"* (OECD-DAC, 2019).

Understanding the complexities of food systems also includes understanding trade-offs, which is caused by pursuing different objectives, and is one of the main challenges of food systems. For example, dietary objectives may include a healthy consumer diet. But healthy diets are not always affordable, nor necessarily sustainably produced. He et al (2018) have shown that animal source food consumption has grown rapidly with increasing wealth levels in East Asia; this growth has had substantial implications both for land use and international trade, both of animals and feed (e.g. (He, Baiocchi, Hubacek, Feng, & Yu, 2018)). At the same time, food production puts pressure on natural resources and contributes to climate change. According to FAO estimates, in 2010, emissions from the agriculture, forestry and other land use sector directly accounted for 22 percent of total global emission (FAO, 2019a). Behrens et al (2017) also show the burden of food systems on the environment. *"Food systems place large and increasing burdens on the environment. Food production accounts for 19–29% of global greenhouse gas emissions (80–86% of which are in agriculture), drives eutrophication, and occupies ~33% of the ice-free land globally. Furthermore, agricultural development threatens biodiversity and can increase soil degradation. The increased environmental impact of food is driven by an increase in global population, in combination with a decrease in undernutrition. On top of this, recent trends show increasing demand for foods with high environmental impacts. Although there are environmental impacts that could be eased with improved supply-side production techniques, there is a large scope for demand-side changes through individual dietary choice, in terms of both food choices and quantities consumed. Careful consideration of choices, although ensuring sufficient macro-nutrient and micronutrient intake, may also result in a co-benefit because in general, environmentally friendly dietary choices can confer large co-benefits in health outcomes"* (Behrens et al., 2017).

Monitoring and evaluation can help to make these different trade-offs explicit, by making available existing evidence, and by generating new evidence, so as to support more informed decision-making for inclusive and sustainable food systems. According to keynote speaker Ruerd Ruben, often there are trade-offs, and you need the intelligence of many people to deal with many problems, overcome trade-offs, support synergies and make food systems work.

#### 4.2.6 Scenario thinking and forward-looking evaluations

Dealing with food systems calls for or forward-looking Keynote speaker *Irene Guijt* indicated that M&E usually looks at the past, but often we don't look at the assumptions we make about the future. Scenario thinking can help to have a conversation about possible futures, and to think through the trade-offs when making different choices. In this way, M&E can connect the past with the future, and support more informed decision-making for more inclusive and sustainable food systems. Irene encouraged us to bring scenario thinking into the M&E practice, and allow uncertainty to be looked at. Irene explained how Oxfam GB used scenario thinking to think through the possible scenarios or



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trade-offs that may arise as a result of certain decisions. Keynote speaker *Ruerd Ruben* called for more forward-looking evaluations. Scenario thinking and foresight are needed to better help shape the future towards more inclusive and sustainable food systems.

#### 4.2.7 Theories of change for systemic change, from a multilevel perspective

*Seerp Wigboldus* called for the need to have theories of change that focus on systemic change, and integrate elements from a multi-level perspective. These theories of change need to be made explicit in collaboration with stakeholders and need to be updated regularly due to the complex nature of food systems. According to Ruerd Ruben there is a need to have evaluations with a theory (of change) with respect to behavioural changes, so as to understand, but also work towards behaviour that is more sustainable and inclusive. With this, there is a need to connect local to global outcomes and move from problem-solving to system responses.

Van Tulder and Keen refer to designing complexity-sensitive theories of change for cross-sector partnerships. They developed a complexity alignment framework and a diagnostic tool that enables partnerships to better appreciate the complexity of the context in which they operate, allowing them to adjust their learning strategy (Van Tulder & Keen, 2018).

#### 4.2.8 Collaborative sense making and learning

*"Evaluation plays an important role in processes of learning and mutual accountability. Evaluations can be used to generate evidence on what works and to assess progress in SDG implementation. The evidence generated through evaluation can contribute to strategies to operationalise the SDGs and to inform policy and management decisions. Collective learning, knowledge sharing, and capacity building in development evaluation, in line with Agenda 2030, contributes to stronger evaluation systems and practice; it also helps DAC members and developing partners adapt to new evaluation challenges"* (OECD-DAC, 2019).

Transformation needs different stakeholders from different sectors to collaborate at different levels, which requires a process of collaborative learning and sense making. Keynote speaker *Irene Guijt* also stressed the importance of collaborative sense making. *Cecile Kusters* indicated that international trends and developments also show that there is a need to move from measuring indicators to evaluative thinking, and pay more attention to sense making of findings, particularly for issues that are more complex. Learning can be done from single, to double to triple loop. M&E can play its role by sense making of a food system in the past, present and future, so as to make informed decisions as to navigate complexity, minimise trade-offs, and contributes towards inclusive and sustainable food systems for healthy diets.

#### 4.2.9 Complexity sensitive/responsive evaluation approaches and principles

*"Dealing with complexity in development evaluation requires more than a good understanding of the various complexity dimensions that characterize an intervention and its context. It requires a set of methodological approaches that can address particular aspects of complexity in the evaluation design and implementation"* (Raimondo, Vaessen, Vaessen, & Bamberger, 2015).

Whilst no specific approaches have yet been developed specifically to monitor and evaluation food systems, we can draw on a range of approaches, methods and tools that available and tweak these. For example systems based evaluation approaches; complexity sensitive/responsive evaluation; approaches for (agricultural) innovation; to more approaches and methods that specifically zoom in on particular elements of food systems. There is not one approach that will capture everything but rather a flexible combination of approaches and methods is needed, whilst at the same time adhering to principles that support M&E for transition to sustainable food systems for healthy diets, such as engaging multiple stakeholders in multiple sectors at multiple levels (glocal – from local to global); systems thinking; collaborative learning and sensemaking.

But it's not just about methods, we also need to understand food systems in their context, by looking at the past, present and future. This includes methods and approaches for systems mapping, visioning, and scenario mapping. It involves collaboration and dialogue, so as to work on the food system from multiple perspectives.

M&E methods and approaches need to be matched to the complexity of issues, capture unexpected changes and look for what is emerging. Feedback loop are needed to improve understanding the context, and this needs to be a reflexive process, where different stakeholders engage in sense-making and learning. Building relationships and trust are crucial in addressing multiple issues that interact.

Below are just but a few of approaches that could be useful for M&E that supports a transition to inclusive and sustainable food systems for healthy diets.

Raimondo et al. (2015) refer to a range of methodological approaches that stem from complexity science and how they can be applied in evaluation. This can also be useful for food system analysis.

Table 1 - Text Possible Uses of Complexity Science Approaches in Evaluation (Raimondo et al., 2015)

Methods	Dimensions of complexity	Use in evaluation
<b>System dynamics</b>	Dealing with interconnectedness and dynamic interrelationships	<ul style="list-style-type: none"> <li>• Map the program context</li> <li>• Test assumptions underlying a particular causal chain within a theory of change</li> <li>• Assess the change in the state of a system based on different hypotheses about the dynamics of an intervention</li> </ul>
<b>Critical systems heuristics</b>	Dealing with embedded norms, beliefs and values	<ul style="list-style-type: none"> <li>• Elicit particular motivations, values, and perspectives held by a range of program stakeholders</li> <li>• Assess how these different values and perspectives can lead to possible design failures</li> </ul>
<b>Systems mapping</b>	Dealing with complex theories of change	<ul style="list-style-type: none"> <li>• Map the various complexity dimensions of an intervention and its context</li> <li>• As the basis for pre and post comparison (comparing a systems map at the end of an intervention to a systems map prior to the start of an intervention)</li> </ul>
<b>Social network analysis</b>	Dealing with a large number of stakeholders and their relationships	<ul style="list-style-type: none"> <li>• Identify the multiple layers of relationships among various stakeholders</li> <li>• Explore the structures that form or are formed by networks</li> <li>• Assess how different patterns of networks illustrate differential levels of capacity, communication, resource movement, etc.</li> </ul>
<b>Agent-based modelling</b>	Dealing with complex causal processes	<ul style="list-style-type: none"> <li>• Model various levels of reality (e.g., macro level of society, meso-level of an organization, micro-level of a program)</li> <li>• Anticipate the outcome of a situation based on the simulation of interactions, preferences, and characteristics of individual agents</li> </ul>

Complexity sensitive evaluation approaches like theory-based evaluation approaches, including outcome harvesting, realist evaluation, contribution analysis and processes tracing are also upcoming in relation to dealing with more complex issues. The case of Oxfam Novib using *outcome harvesting* was also presented during the conference. Real-time monitoring as well as do experiments were also mentioned as relevant. Overall, a mixed methods approach was encouraged, whilst having a flexible

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approach to M&E that supports adaptive management. *Seerp Wigboldus* indicated it is not possible to meaningfully capture food systems in one model and that we have to work with multiple, complementary models. The same is true, he indicated, with M&E designs, and we need to aim for complementary designs covering different dimensions and dynamics, and not all-encompassing ones. Food systems also need to be looked at as being related to other systems such as the governance system, health system, political system, etc.

Michael Quinn Patton's latest book on Blue Marble evaluation, provides a framework for developing, adapting, and evaluating major systems change initiatives involving complex networks of stakeholders. He demonstrates how the four overarching principles and 12 operating principles of this innovative approach allow evaluators, planners, and implementers to home in on sustainability and equity issues in an intervention. Blue Marble evaluation is rooted in utilization-focused, developmental, and principles-focused evaluation, and is designed to tackle problems outside the reach of traditional evaluation practice (Patton, 2019).

Bob Williams has developed a range of relevant resources that provide systems concepts in evaluation (Williams & Imam, 2007), that help to put systems concepts in action (Williams & Hummelbrunner, 2010), or that provide a systems approach to complex problems (Williams & van't Hof, 2016). His most recent book is about *systemic evaluation design*.

In their *workshop*, Diane Bosch and Marion Herens indicate that urban food systems pose different challenges, including a reducing rural population responsible for food production, increasing demand on infrastructure services, natural resource scarcity and climate change. They refer to the *City Region Food System Toolkit*. This toolkit provides guidance on how to assess and build sustainable city region food systems; a multi-stakeholder approach is crucial.

Helena Posthumus and Just Dengerink in their *workshop* refer to the '*food systems decision support tool*', that is based on one of the food system frameworks currently existing.

Rapid Appraisal of Agricultural Innovation Systems (RAAIS) may also be useful. "RAAIS is a diagnostic tool that can guide the analysis of complex agricultural problems and innovation capacity of the agricultural system in which the complex agricultural problem is embedded" (Schut et al., 2015). One can build on this in relation to food systems.

The *workshop* held by Aurélie Toillier and Manuela Bucciarelli was also informative in this respect. They focused on MEL of capacity development interventions for strengthening agricultural innovation systems, which are gaining attention, in contrast to linear approaches of technology transfer. In order to strengthen capacities to innovate at the niche level, a MEL approach was not only track changes in the capacities of the stakeholders involved in each innovation niche partnership, but also to support their capacity development itself through self-assessment of their collective capacities to innovate and refinement of their strategy and action plan. The approach combines qualitative tools and participatory workshops: a capacity needs assessment workshop with a scoring tool, a coaching plan with progress markers, reflexion and refinement workshops and a contribution analysis diagram.

Van Mierlo and Regeer have developed an approach '*reflexive monitoring in action*' (RMA) that has been developed especially for projects that aim to contribute to the sustainable development of a sector or region by working on system innovation (Van Mierlo et al., 2010).

The *Managing for Sustainable Development Impact approach* may also be useful in the sense that it is an integrated, results-oriented management approach, which can be used across a range of sectors and domains in a variety of contexts, and aims to contribute towards the Sustainable Development Goals. It addresses some of the most pressing concerns, such as engaging primary stakeholders, designing effective strategies and related M&E, focusing on capacity development, and responding to change in a complex context. Key features of M4SDI include its people-centered approach and how it seeks to integrate planning, monitoring and evaluation processes (Kusters et al., 2017).

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Specific methods and approaches should not be the starting point, but rather principles that underpin monitoring and evaluation, so as to truly support transformation towards inclusive and sustainable food systems for healthy diets.

#### 4.2.10 Develop adaptive capacities for collaborative sense-making and food system transformation

Transformation of food systems requires M&E to transform and this requires developing adaptive capacities, including sensemaking, being able to engage with system change and cross-boundaries. According to keynote speaker Irene Guijt *"We need to invest more in sensemaking of the data as it's people who have to make decisions based on the analysis. The M&E profession needs to get its act together and start to be more serious in terms of competence, time and money in sensemaking"*. M&E professionals need to be able to engage with systems change and cross boundaries, as indicated in the *PME trends and developments* by Cecile Kusters. Aurélie Toillier and Manuela Bucciarelli indicated *"Developing capacities to innovate require embedding M&E into learning processes so that innovation partnerships become empowered to manage and achieve successfully their project."*

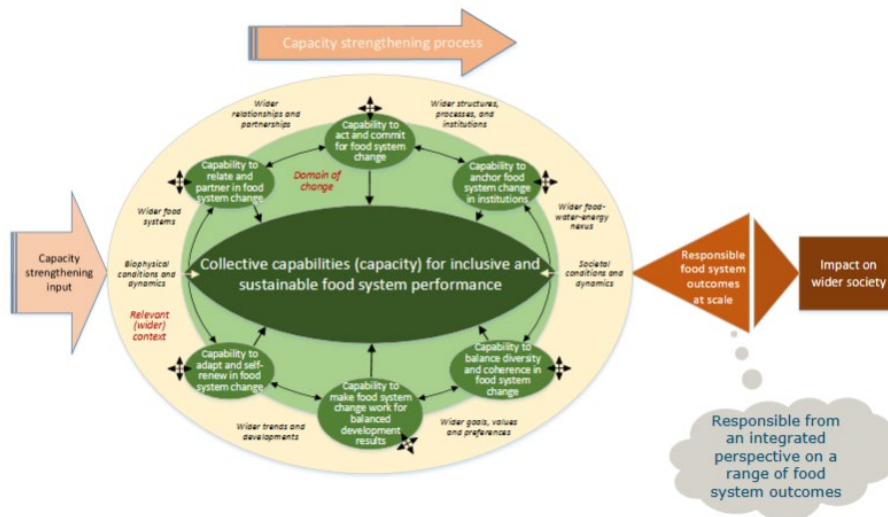
The Prague declaration on Evaluation for Transformational Change, also indicates there is a need to *"support professionalization and capacity development of commissioners, evaluators, development partners and the diversity of stakeholders, in support of evaluation for transformational change"* (IDEAS, 2019).

The *Managing for Sustainable Development Impact* guide speaks about the following key competencies that are needed to manage towards impact: strategic thinking, systems thinking, strategic foresight, managing change, facilitating learning and engagement, and strategic communication. In addition to this, more technical competencies are needed, such as situation analysis, strategic planning and management, operational planning and management, M&E design, data collection and analysis, and sense making and reporting for use (Kusters et al., 2017).

In addition to this, the collaboration with stakeholders, needs to include technical experts that have expertise on specific elements of the food systems such as nutritionists, environmentalists, agronomists, or behaviour specialists (e.g. to understand what drivers influence healthy diets), so as to ensure different kinds of backgrounds and knowledge. For transformation to be supported by M&E, there is need for close collaboration with stakeholders, so as to come to a shared vision or long-term purpose, whilst negotiating trade-offs. Next to systems thinking and strategic thinking, analytical thinking skills are needed, whilst having the ability to not only zoom in but also to zoom out. Communication is also needed during the process of transformation, for example, to translate different kinds of knowledge. In all of these processes, leadership is crucial and this includes being creative and thinking out of the box.

M&E needs to support decision-making for inclusive and sustainable food systems, and needs to not only generate good quality evidence, but also facilitate dialogue so as to bridge and work across silos. Evidence is needed on possible trade-offs, leverage points and the why and how change mechanisms. Whilst evidence can inform decision-making, one also needs to be able to deal with emotions and with power (Kusters, ten Hove, Brouwers, & Mostert, 2018) – different stakeholders have different interests in food systems changes and the extent to which they can influence these changes varies. Dealing with power also involves using an 'inclusion' lens, so as to empower the marginal. Since food systems are complex, and different stakeholders have different perspectives and backgrounds, the learning and sense-making will need to be facilitated so as to come to a shared understanding of the situation. This involves facilitating dialogues between actors and making conflicting results comparable.

## Possible application in support to capacity development



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Figure 2 - Model of collective capabilities for inclusive and sustainable food system performance

Seerp Wigboldus elaborated on a model he had developed for collective capabilities (capacity) for inclusive and sustainable food system performance. This is based on the 5 C framework by Morgan and Baser (2008).

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# References

- De Brauw, A., Brouwer, I. D., Snoek, H., Vignola, R., Melesse, M. B., Lochetti, G., . . . Ruben, R. (2019). *Food system innovations for healthier diets in low and middle-income countries* (Vol. 1816): Intl Food Policy Res Inst.
- Fanzo, J., Hawkes, C., Udomkesmalee, E., Afshin, A., Allemandi, L., Assery, O., . . . Chen, K. (2018). 2018 Global Nutrition Report: Shining a light to spur action on nutrition.
- FAO. (2019a). The Climate Smart Agriculture Sourcebook (living, online document).
- FAO. (2019b). SDG Indicator 2.1.1 - Prevalence of undernourishment. Retrieved from <http://www.fao.org/sustainable-development-goals/indicators/211/en/>
- FAO. (2019c). The State Food Security and Nutrition in the World. Safeguarding against Economic Slowdowns And Downturns.
- FAO. (2019d). Sustainable food systems. Concept and framework.
- He, P., Baiocchi, G., Hubacek, K., Feng, K., & Yu, Y. (2018). The environmental impacts of rapidly changing diets and their nutritional quality in China. *Nature Sustainability*, 1(3), 122.
- HLPE. (2017). Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.
- IDEAS. (2019). Prague Declaration on Evaluation for Transformational Change. Adopted during the 2019 IDEAS Global Assembly and the Third International Conference on Evaluating Environment and Development, held in Prague, October 2019.
- IIED, E., EvalPartners, The Nippon Foundation Nereus Program. (2019). From monitoring goals to systems-informed evaluation: insights from SDG14. . *IIED Briefing*.
- Kusters, C., Batjes, K., Brouwers, J., & Baguma, S. D. (2017). *managing for sustainable development impact*: Wageningen Centre for Development Innovation, Wageningen University & Research.
- Kusters, C., ten Hove, H., Brouwers, J., & Mostert, R. H. (2018). *Conference report: Communicating Evidence for Sustainable Development: 4-5 April 2018, the Netherlands*. Retrieved from
- OECD-DAC. (2019). Sustainable Development Goals and Evaluation.
- Patton, M. Q. (2010). *Developmental evaluation: Applying complexity concepts to enhance innovation and use*: Guilford Press.
- Patton, M. Q. (2019). *Blue Marble Evaluation: Premises and Principles*: Guilford Press.
- Posthumus, H., de Steenhuijsen Piters, B., Dengerink, J., & Vellema, S. (2019). A decision-support tool for the design of food & nutrition security programming: Bridging concept and practice in the Food System approach.
- Raimondo, E., Vaessen, J., Vaessen, M., & Bamberger, M. (2015). Toward more complexity-responsive evaluations: overview and challenges. *Dealing with complexity in development evaluation: a practical approach*, 26-47.
- Schut, M., Klerkx, L., Rodenburg, J., Kayeke, J., Hinnou, L. C., Raboanarielina, C. M., . . . Bastiaans, L. (2015). RAAIS: Rapid Appraisal of Agricultural Innovation Systems (Part I). A diagnostic tool for integrated analysis of complex problems and innovation capacity. *Agricultural Systems*, 132, 1-11.
- United Nations. (n.d.). Pathways to Zero Hunger. Retrieved from <https://www.un.org/zerohunger/content/challenge-hunger-can-be-eliminated-our-lifetimes>
- van Berkum, S., Dengerink, J., & Ruben, R. (2018). *The food systems approach: sustainable solutions for a sufficient supply of healthy food*. Retrieved from
- Van Mierlo, B., Regeer, B., van Amstel, M., Arkesteijn, M., Beekman, V., Bunders, J., . . . Leeuwis, C. (2010). *Reflexive monitoring in action. A guide for monitoring system innovation projects* (9085855993). Retrieved from
- Van Tulder, R., & Keen, N. (2018). Capturing collaborative challenges: Designing complexity-sensitive theories of change for cross-sector partnerships. *Journal of Business Ethics*, 150(2), 315-332.
- Vermeulen, S. J., Campbell, B. M., & Ingram, J. S. (2012). Climate change and food systems. *Annual review of environment and resources*, 37, 195-222.
- Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., . . . Wood, A. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), 447-492.
- Williams, B., & Hummelbrunner, R. (2010). *Systems concepts in action: a practitioner's toolkit*: Stanford University Press.
- Williams, B., & Imam, I. (2007). *Systems concepts in evaluation: An expert anthology*: EdgePress of Inverness Point Reyes, CA.



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Williams, B., & van't Hof, S. (2016). *Wicked solutions: A systems approach to complex problems*: Lulu. com.

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To explore  
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Wageningen Centre for Development Innovation supports value creation by strengthening capacities for sustainable development. As the international expertise and capacity building institute of Wageningen University & Research we bring knowledge into action, with the aim to explore the potential of nature to improve the quality of life. With approximately 30 locations, 5,000 members of staff and 10,000 students, Wageningen University & Research is a world leader in its domain. An integral way of working, and cooperation between the exact sciences and the technological and social disciplines are key to its approach.

