



**Title:** A Food Systems approach to Monitoring and Evaluation

**Organization:** Dutch Committee for Afghanistan - Livestock Programs

**Author:** Ellen Geerlings

**Workshop/session set up:** Brainstorm session

**Materials:** Flipchart, white board and/or large size paper, markers and pens.

**Group size:** 5-8 persons

**Time:** Approx. 75 minutes

**Facilitator:** Ellen Geerlings

### Case study

## Dutch Committee for Afghanistan – Livestock Programs A Food Systems approach to Monitoring and Evaluation

### The Dutch Committee for Afghanistan – Livestock Programs

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. Analyses indicate that around 30.1% of Afghanistan's population – 7.6 million people – have a caloric intake that is insufficient to sustain a healthy and active life. Food insecurity especially affects children under five: 40.9% of them are suffering from malnutrition.

In 2018, 74,8% of the Afghan population lived in rural areas, being mainly dependent on animal husbandry and farming for their daily needs. Livestock raising is common practice in Afghanistan, where around 45% of the geographical area consists of rangeland, besides some regions with irrigated land. Livestock provides farmers with a range of animal products for subsistence use and can also be an important source of income. However, the productivity of livestock in Afghanistan is very low, this is caused among others by diseases, reoccurring droughts, and lack of fodder particularly in winter.

As livestock is of vital importance to these rural 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 food security at household level and contribute to a sustainable food system in these communities.

Over the years DCA's work has contributed to increased access to quality veterinary services through the realization of 'Veterinary Field Units (VFUs)<sup>1</sup>' in areas where these are most

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<sup>1</sup> A small veterinary clinic staffed by a veterinary (para) professional to provide animal health care services to the farmers and animals of nearby villages"



needed. Consequently a reduction of livestock mortality by 25% has been observed among those households in the West of Afghanistan who make use of these VFUs compared to families who do not make use of these services (see Bartels *et al.* 2017)<sup>2</sup>. DCA works in 29 Provinces and is presently supporting 592 VFUs throughout the nation, see Figure 1. Several of these VFUs are managed by female veterinary (para) professionals.

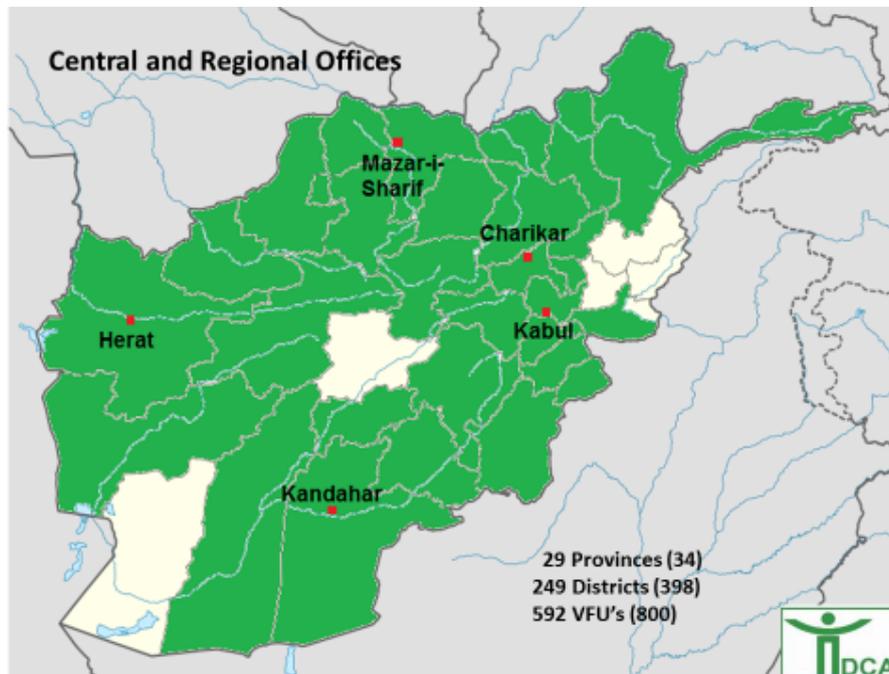


Figure 1 DCA Central and regional offices and working area

### Mission

DCA is a Dutch foundation, developing and implementing veterinary and livestock projects in Afghanistan since 1988. DCA recognises that the dependence of the Afghan farmers on livestock offers promising opportunities to lift them out of poverty. Therefore, it is DCA's mission: "to reduce poverty and increase food security for the people of Afghanistan by improving the health and production of their livestock."

### Vision

DCA envisages a future in which: "Afghan farmers produce enough livestock products to feed themselves as well as their community and to earn a decent income. Women as well as the poorest Afghans are empowered, to make a living in the livestock sector. The Afghan livestock sector can rely on a sound and sustainable veterinary system with specific roles for both private and public sectors all working together in one national system."

<sup>2</sup> <http://www.dca-livestock.org/wp-content/uploads/2016/05/170815-Livestock-mortality-and-offtake-...-PrevVetMed-2017.pdf>



### **Monitoring, Evaluation, Accountability and Learning (MEAL)**

At present DCA manages monitoring and evaluation at project level. For each project awarded to DCA a log frame, a set of project indicators and a Monitoring and Evaluation (M&E) workplan is developed in consultation with the donor. The majority of projects awarded to DCA can be categorized in one or more of the following thematic areas: animal health and production, VFU development and veterinary (para) professional training, livelihood resilience and food security, value chain development, gender and animal welfare. Progress in terms of reduction in livestock mortality, increase in disposable household income and increase in livestock productivity are among some of the indicators that are carefully monitored throughout the project lifecycle.

DCA recognises the vital role of M&E for evidence-based policy making, budget decisions, management, and accountability. For DCA this requires a structural change; moving from project-based M&E to program level Monitoring, Evaluation, Accountability and Learning (MEAL). Therefore DCA is now in the process of developing a plan for setting up a MEAL program that is integrated in the management structure of DCA. An important element of this MEAL program is to monitor Key Performance Indicators (KPIs) at organizational level. At present DCA has drafted a set of 17 KPIs covering the areas of animal welfare, gender, animal health & production and VFU performance. These KPIs and associated data collection methodologies and work plans will be further refined and edited over the coming months. It is our aim to track the KPIs at annual intervals and to use both quantitative and qualitative monitoring tools. It is hoped and expected that this development will increase visibility and transparency of DCA work and impact over time at program level and also aid in adjusting and improving DCA work and planning. However, it is proving quite a challenge for DCA to develop an appropriate set of food security & food system outcome KPI's and relevant monitoring tools.

### **Food Security and the Food Systems concept**

The concept of food security has rapidly evolved over time. Almost two decades ago more than 200 definitions and over 450 indicators of food security already existed (see Hoddinott, 1999<sup>3</sup>). Globally, in the 1980s the focus gradually shifted from national supply/production issues towards access to food at household level. This shift in focus was informed by experiences with the mid 1980s food crisis in Africa where sufficient food availability at the national level did not automatically translate into food security at the household and individual level and thus indicated that food availability in itself is not enough. Poverty or lack of economic access was regarded by many as the primary cause of food security at the household and individual level. In the 90's insights into malnutrition led to the need for more refinement of the definition of food security. The argument was that food intake alone (i.e. access to sufficient calories) does not necessarily prevent malnutrition; quality of food in addition to sufficient quantity also mattered. Later importance was given to the role

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<sup>3</sup> Hoddinott John. Choosing Outcome Indicators of Household Food Security. Vol. 7. International Food Policy Research Institute, Technical Guide; 1999



of culture and community by adding food preferences to the definition of food security. Many more food security concepts and definitions have emerged since Hoddinott's study in 1999. It can be argued that many of these concepts and definitions, in their effort to be more specific and inclusive have actually become less clear. It has become increasingly difficult to measure progress toward achieving food security.

Recognition of the complexity and interactions involved in addressing food security led to the concept of 'food systems', in the late 1990s. This concept not only helps to identify the full range of activities involved in the food system, but also helps to identify the actors involved, the roles they play, and the many and complex interactions amongst them. Food systems function at the individual, household, local, regional, national, and global levels. The levels, or scales, in this hierarchy are often operational at the same time, and they interact.

The food system has been defined as a system that “embraces all elements (environment, people, inputs, processes, infrastructure, institutions, et cetera) and activities that relate to the production, processing, distribution, preparation, and consumption of food and the outputs of these activities, including socioeconomic and environmental outcomes”<sup>4</sup>.

### DCA and a Food Systems approach

As mentioned in the previous paragraphs improving food security and contributing to a sustainable food system is one of the main aims of DCA. Based on Ingram (2011)<sup>5</sup>, Van Berkum et al. (2017), and Dengerink and Vellema (2018)<sup>6</sup>, the food system includes the following elements:

- **Food system activities**
  - Production
  - Processing
  - Packaging
  - Distribution
  - Retail
- **Food system outcomes**
  - Food security
    - Food availability
      - Production
      - Distribution
      - Exchange
    - Food access
      - Affordability
      - Allocation
      - Preference

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<sup>4</sup> <https://www.un.org/zero hunger/>

<sup>5</sup> [https://www.researchgate.net/publication/257788749\\_A\\_food\\_systems\\_approach\\_to\\_researching\\_food\\_security\\_and\\_its\\_interactions\\_with\\_global\\_environmental\\_change](https://www.researchgate.net/publication/257788749_A_food_systems_approach_to_researching_food_security_and_its_interactions_with_global_environmental_change)

<sup>6</sup> [https://knowledge4food.net/wp-content/uploads/2018/12/181109\\_wur-kit\\_fs-concept-practice.pdf](https://knowledge4food.net/wp-content/uploads/2018/12/181109_wur-kit_fs-concept-practice.pdf)



- Food utilization
  - Nutritional value
  - Social value
  - Food safety
- **Socio-economic drivers**
  - Markets
  - Policies & political stability
  - Science & technology
  - Poverty
  - Social organizations
- **Environmental drivers**
  - Climate
  - Bio-diversity
  - Land
  - Water
  - Fossil fuels

Activities of DCA focus on a specific dimension of the food system; the livestock sector. DCA's activities are meant to have a positive impact on all elements of the **Food system outcomes**. Figure 2 illustrates the activities that DCA is involved in as well as the anticipated outcomes. The coloured text boxes describing activities in the **Food system activities** section relate directly to the **Food system outcomes** in the text box of the same colour. For example '*Communities have increased local availability of food (animal products) including among the most vulnerable HHS*' in the light blue coloured box is a **Food system outcome** described under *food availability* in the *food security* section. This is directly related to the activities described in the light blue box under the **Food system activities** section. Through providing animal healthcare services, prevention of animal mortality and morbidity, creating fodder banks for lean periods, increasing productivity and targeting the most vulnerable in communities food availability (in the form of animal products) will increase through increased *production*. Food availability will also increase by improving *distribution* of food by targeting the most vulnerable households.

**Socio-economic outcomes** of DCA work include increased household income and improved socio-economic status of women. The activities directly linked to these outcomes include development of business skills of men and women and creating social safety nets through establishing Self Help Groups (SHGs), creating income generating activities and developing a system of revolving funds among targeted communities.

**Environmental outcomes** could potentially<sup>7</sup> be a reduction in antimicrobial resistance by increasing awareness on antimicrobial resistance and providing alternatives to antibiotic and anthelmintic use. At community level DCA promotes sustainable use of grazing land through extension and training activities and by creating fodder banks for use during lean periods. These contribute towards reducing grazing pressure and slowing or halting degradation of land at community level.

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<sup>7</sup> Activities in this section have only recently started or are still under development and their impact has not been evaluated yet.

# Dutch Committee for Afghanistan - Livestock Programs

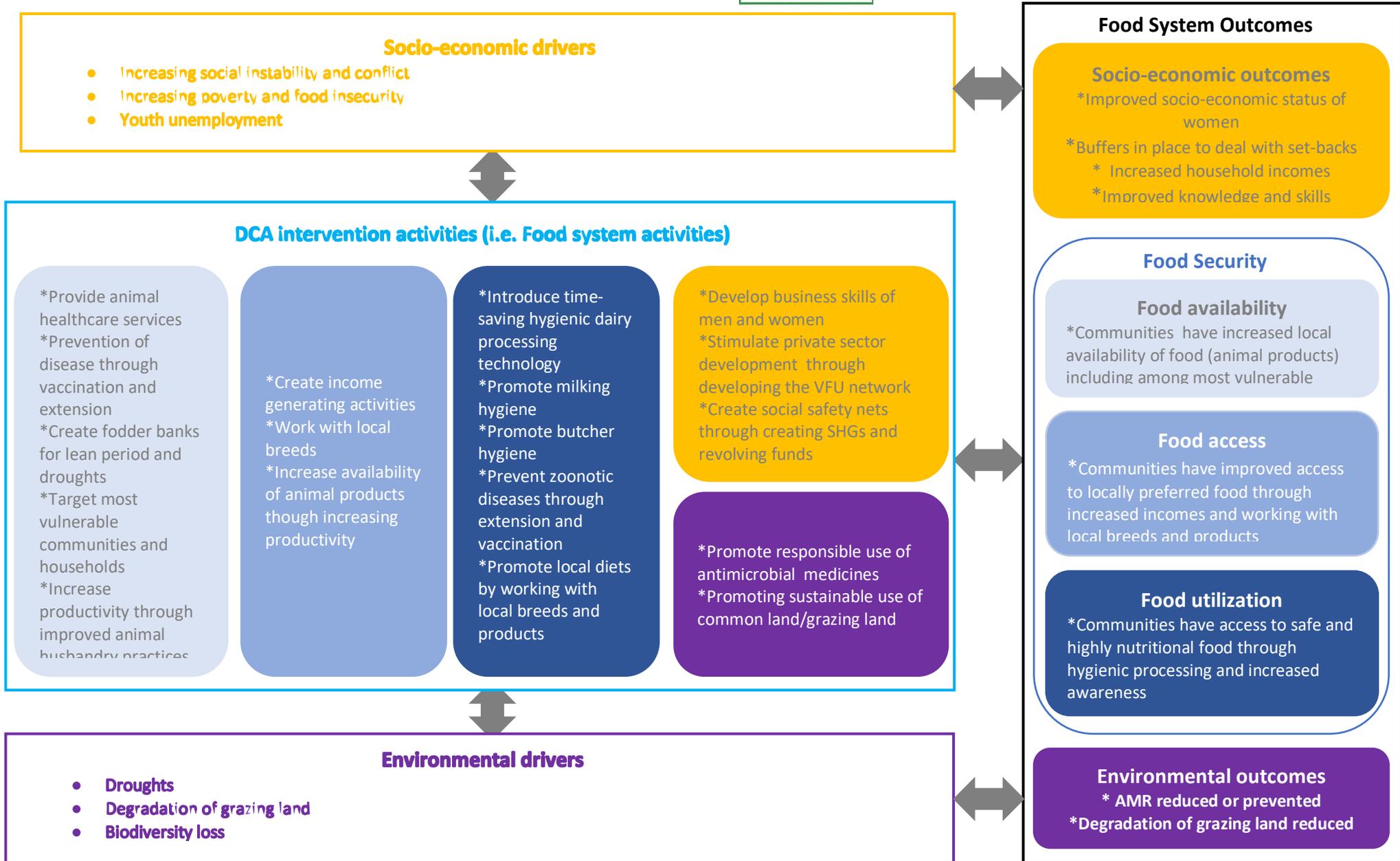


Figure 1 DCA Food system activities and outcomes



The food system is influenced by many external factors which are (to a great extent) outside of the control of DCA. **Environmental challenges and drivers** that have a direct impact on DCA's work include droughts and land degradation. **Socio-economic challenges and drivers** that directly impact DCA's work include conflict & political instability and increasing poverty rates.

## Monitoring and Evaluation of Food System Outcomes

Based on the above it is recognised that measuring progress in food security and improving the sustainability of the food system is an extremely complex issue. It is commonly recognised that no single indicator exists that can accurately measure food security. Additionally, reliable information from the field is often hard to collect in Afghanistan and the availability of time and budget are limited.

DCA wishes to develop KPIs related to **Food System Outcomes** and associated methodologies 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)<sup>8</sup>.

### **Challenge**

Can we develop food system outcome indicators that can measure progress in food system outcomes at DCA program level? What would be the appropriate methods (quantitative, qualitative, mixed-method?), data sources and estimated time demands?

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<sup>8</sup> It is believed that at this point in time it is too early to have **Environmental outcome** indicators in place as many of the environmental factors are very hard to control by DCA and work on influencing some of the environmental challenges has just recently started or are yet to be developed.