

SCAN

Supply Chain Analysis for Nutrition

SUPPLEMENTARY TOOL

ST-01

CLUSTER ANALYSIS—SIX CAPITALS

Background

A cluster analysis of the six capitals help to define what value means for the project and the themes or nutrition lens that will be applied to the other SCAN tools. This type of cluster analysis is helpful in identifying potential cross-cutting issues that relate to supply chains that may not explicitly fall within the three SCAN dimensions (supply chain stages, supply chain aspects, and drivers of the food environment).

The six capitals include:

- **Social capital:** the power or dynamics between stakeholders in the supply chain, such as gender or prestige
- **Natural capital:** water, land, and other natural resources
- **Human capital:** knowledge, skills, and systems of communication
- **Physical capital:** infrastructure and machinery
- **Financial capital:** access to credit, money, cash flow, and ability to make loans
- **Political capital:** laws, regulations, lobbying, and political connections

Although all these forms of capital may not directly cause constraints in nutritious food supply chains, they are important to investigate to ensure that the SCAN is considering any factors that may be indirectly affecting the food system. This is also a framework used by the United Nations Sustainable Development Goals.

Organising information around various clusters helps to break down the complexity in the food system, narrow an intervention's focus, and identify what specific values are most relevant to the desired goals. It is also useful in identifying research gaps or repeated themes, which can be expanded upon during a literature review or stakeholder interview.

An example cluster analysis is shown on the following page in Table 1, which organises information from an analysis of political capital relevant to the dairy supply chain in Zambia.

<p>NUTRITION</p>	<ul style="list-style-type: none"> • Efforts to introduce a new Nutrition Act (superseding one from 1975) and the Code of Marketing of Breastmilk Substitutes has been underway since 2015. • There is increasing awareness among government bodies, including National Commission of Food and Nutrition (under Ministry of Health) of the importance of reducing dietary dependency on maize to combat malnutrition. • As part of Zambia’s Five-Year Flagship Stunting Reduction Programme 2018-2022, the “First 1000 Most Critical Days Programme (MCDP II) has bene introduced as a joint commitment of six ministries. There is a need to mobilise support to accelerate programme implementation. • Lack of efficient enforcement of nutritional standards results in the emergency of private standards, such as the Good Food Logo, created by the SUN Business Network Civil Society Initiative and WFP. • Current government efforts to diversify the economy with agriculture being a strategic sector. The 2010 Dairy Industry Development Act presents a strategic focus to strengthen the dairy sector and established the Dairy Association of Zambia, focused on lobbying and advocacy for the dairy sector. • National level financing for nutrition: <ul style="list-style-type: none"> » The 2017-2027 Profiles Model was established in 2017 to serve as a basis for advocacy for increased spending on nutrition by tracking nutrition budgets. » The UN, a network of donors, and 10 Zambian Ministries successfully lobbied for an increased budget for nutrition during 2019-2021. » Continuous pressure to increase government spending on nutrition is needed, along with strengthening budget tracking mechanisms.
<p>FOOD SAFETY</p>	<ul style="list-style-type: none"> • Zambian legislation around food safety (The Food and Drugs Act; The Plant and Pest Diseases Act; The Stock Disease Act) are compliant with international standards. The Zambian Bureau of Standards and the Food and Drugs Control Laboratory are tasked with monitoring, but enforcement is non-functional due to the lack of human and financial resources. Under the Good Food Logo project, product samples are now being tested as of April 2019. • Activities related to food safety enforcement are contained under the new Nutrition Act, which has been delayed. Currently NGOs, international organisations, and the private sector are working to improve the situation in the nutrition and food safety space. • Private initiatives to improve food safety have emerged in light of poor government enforcement. Dairy processors demand a certain quality from milk collection centres and provide testing equipment. • The Good Foods Logo project is helping private processors introduce food safety standards. The project goal is to help processors introduce and maintain food safety and quality standards internally without tight controls from the Zambian Bureau of Standards. • Laws forbid milk collection centres from selling raw milk through informal channels; however, these sales remain widespread. • The Dairy Association of Zambia is working to establish more cooperatives and supporting relationships between processors and milk collection centres, all in an effort to formalise the supply chain.
<p>SHELF LIFE</p>	<ul style="list-style-type: none"> • Supermarket chains have considered safety standards in light of the short dairy product shelf life, which threatens stores’ reputations if milk is sold past its sell-by date.

Table 1: Example of a Cluster Analysis: Dairy Political Capital in Zambia