**Concept Note on “Guidelines for Measuring Usage and the Transformation of Food Staples”**

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The aim of the research is to equip countries with tools to enhance the monitoring of national food security. Specifically, the research will allow countries to quantify the transformation of key staple crops beyond the farmgate. Indeed, beyond the production level little is known about what, where and how key commodities are transformed and more importantly how much is being made available for food consumption and in what form.

The idea is to survey agents in value chains for staples who are present at the farmgate at the time of harvest and are engaged in buying the crops for particular markets, e.g. retail, feed, food processing and alcohol, and how much of the staple is retained by the farmer for seed and storage. The survey can also be implemented in conjunction with other surveys, namely on production, to ensure low cost and sustainability. Initially, background information has been collected on major staple crops and notes have been drafted. This was done to ascertain which staples in terms of their importance need to be piloted, in which country and also to understand better what potential markets and uses characterize these crops. The information would also be important for questionnaire design.

Starting from the structure of FAO Commodity Trees[[1]](#footnote-1), research has then been conducted on (i) crop characteristics, plant anatomy and nutritive factors, for which different nutrition sources have been compared (e.g. West African Food Composition Tables, United States Department of Agriculture Agricultural Research Service Database[[2]](#footnote-2), ESS Nutritive Factors list[[3]](#footnote-3), etc.); and (ii) processed product transformation: how these primary commodities are transformed into processed food, nutritional characteristics, local recipes, etc.

In order to identify the importance of the commodities in diets and in key countries, data on *food supply* (kcal/capita/day), *protein supply quantity* (g/capita/day) and *fat supply quantity* (g/capita/day) have been downloaded from the FAOSTAT for the following crops: cassava, millet, maize, oats, rice milled, rice paddy, sorghum, soybean and wheat. For each country, the commodity supply on total food supply has been calculated, and the average for the last three available years (2007-2009) has been considered to rank results and identify where single commodities have a higher impact on total food supply.

As no existing material to work on is available, the hugest part of this work is to design pilot tests for countries.

We have identified **3 commodities** relevant for food security in **3 developing areas**: **West Africa**, **Latin America** and **Asia**.

Information needed to design apilot survey has been collected to get information on:

* Commodity physical description, commodity species (to get information on nutritional aspects);
* Commodity production;
* Commodity utilization;
* Commodity transformation methods (traditional vs industrial);
* Commodity transformation methods focused on processed food of the commodity tree (e.g. for millet: flour, bran, non alcoholic beverages, beer, alcoholic beverages, infant food, etc.);
* Commodity market (who is the final subject that use the commodity).

In order to identify the key commodities and the key countries, data on *commodity supply/total food supply* have been analysed.

For **West Africa** the commodity selected is **millet.**  Countries proposed to conduct the pilot test are:

1. Niger (millet represents 41.65% of total food supply),
2. Burkina Faso (millet represents 19.92% of total food supply) and
3. Mali (millet represents 19.66% of total food supply).

For **Latin America** the commodity selected is **maize.**  Countries proposed to conduct the pilot test are:

1. Guatemala (maize represents 36.10% of total food supply),
2. Mexico (maize represents 32.49% of total food supply) and
3. Honduras(maize represents 27.43% of total food supply).

For **Asia** the commodity selected is **rice.**  Countries proposed to conduct the pilot test are:

1. Bangladesh (rice represents 70.17% of total food supply),
2. Cambodia (rice represents 64.23% of total food supply) and
3. Lao People's Democratic Republic (rice represents 62.07% of total food supply).

Before designing the survey, desk research have been conducted on available information on the commodity characteristics in selected countries: (i) physical description, (ii) commodity production, (iii) commodity utilization, (iv) commodity storage; (v) commodity processing methods (e.g. traditional vs industrial, processed food).

To organize the field test we have to identify:

* Who will be contacted (commodity producer, commodity transformation industries (traditional, industrial), final users);
* How to proceed with countries
* How to conduct the field test.

The final output will be 3 pilot field test, the results of their analysis will help in designing the “***Guidelines for Measuring Usage and the Transformation of Food Staples***”.

1. FAO commodity list is tailored on commodity trees so that the primary crop and its derived products are traceable all along the value chain of agricultural production. [↑](#footnote-ref-1)
2. <http://www.ars.usda.gov/main/site_main.htm?modecode=12-35-45-00> [↑](#footnote-ref-2)
3. <http://www.fao.org/economic/the-statistics-division-ess/publications-studies/publications/nutritive-factors/en/> [↑](#footnote-ref-3)