
HLPE e-consultation
to set the track of the study on:

Water and Food Security

From 21 January to 20 February 2014

<http://www.fao.org/fsnforum/cfs-hlpe/water-food-security-scope>

– Scope proposed by the HLPE Steering Committee –

Topic

The CFS, in its 40th session, requested the HLPE to prepare a report on Water and Food Security for its 42nd session in 2015, as follows:

“In the follow-up of major international events such as Rio+20 and the World Water Forum, the HLPE will further explore the “water and food security” issue. Water has an important role in food security through its multiple impacts on: health and nutrition (drinking water, cooking water, sanitary aspect/diseases), on agricultural production (access to water, water management, improvement of irrigation and dryland agriculture) and on food processing (water management, quality of water...). This topic should be seen in the wider context of the nexus between water, soil, energy and food security which is recognized as a pillar of inclusive growth and sustainable development. The HLPE report could put together information on how countries and regions are addressing the management of this important resource.

Through a food security lens, the HLPE will focus its analysis on water for agricultural production and food processing, taking also into account gender-related aspects. More specifically, the HLPE could, from a food security perspective, assess the impacts of water management practices on food security, including water usage for agricultural production, food processing and other ways of consumption. It should also consider in particular issues related to the sustainability of irrigation systems, the salinization of agricultural land and the reduction of the quality of the ground water. On this basis, it will give appropriate recommendations so as to improve water and food security policies, as well as coordination among the different fields and actors at all levels, with a long-term perspective.”

As part of its report elaboration process, the HLPE is launching an e-consultation to seek views, public and expert feedback and comments, on the following proposed scope and building blocks of the report, outlined below.

The HLPE ambitions to synthesize and analyze available evidence expected to be useful to support action by the public and private sectors and civil society. Based on this evidence a set of policy recommendations will be made.

1. Water use for health, nutrition and food security – global and regional trends

Water is central to food and nutrition security. Safe drinking water and sanitation are fundamental to good nutrition, the health and dignity of all. Water is also key for food security because it is an important and essential input for agricultural production, food processing, preparation and cooking of food.

First, the HLPE proposes to summarize the latest evidence-based information on the use of water for health and nutrition (drinking water, cooking water, sanitary aspect/diseases), and for food and agriculture, - indicating how much water is consumed for the production, processing, and consumption of food as well as for sanitation and drinking water. This section of the report would also include:

- Metrics on access to safe drinking water and adequate sanitation: trends in the number of people who lack access to safe water and adequate sanitation. Latest data and trends in water consumption by the food and agriculture sector, the manufacturing industry, the energy sector, IT based communication systems and services. What are the global and regional patterns and anticipated increases in water consumption in these sectors over the next 30 years?
- Metrics on global freshwater withdrawals for food production. Available data on the consumption of surface and groundwater water for food and agriculture in different regions. Assessment of existing projections of future water prices.
- Global and regional statistics on water quality. To what extent, - and how -, is water quality changing in rural and urban areas, both within and between countries? How does the geography and current trends in water quality affect the capacity of different genders and social groups to access clean and good quality water?

The report would critically discuss the accuracy and reliability of all the metrics and water accounting methods used in this report.

2. Governance of water and food security

Water governance is now a key concern in a context of increasing water scarcity, local and trans-boundary water conflicts, and global climate change. The HLPE report would therefore focus on the governance of water management for food and nutrition security. In this context, governance refers to the interactions among different institutions, actors and structures that determine how and by whom power is exercised, and where decisions are taken on water and food security. Rights, relationships, responsibility, and accountability are key issues here along with the set of rules, cultural or social norms that regulate access, use and control over water.

Actors, entitlements and rights. The HLPE report would briefly describe the various categories of actors who participate in the governance of water management for food and water security. These actors include water collectors (mostly women), small scale food producers (men and women farmers, pastoralists, fishing communities, forest dwellers, indigenous peoples, urban and peri-urban farmers...); public actors (local and national); and the private sector (small and medium size business to large multinational corporations). The report would distinguish these different actors on the basis of clear criteria, - including their specific capacities for water management; their entitlements and rights to manage water resources; their capacity to influence policy making and institutional choices at local/national/international levels; and ability/willingness to invest specific resources in the governance of water management for food security.

Special attention would be given to the contributions and roles of women as food and water providers. What do we know (and do not know) about gender relations and women's roles, rights, and responsibilities in the governance of water and food security?

Policies for water and food security. The HLPE report will seek to compile available information on how countries and regions are addressing the management of water for food and water security through their policies and institutions. The report will aim to identify common denominators and fundamental divergences in the policies and institutions for water governance that are promoted by different actors (the State, corporations and other private sector actors, indigenous peoples, non governmental organisations, peasant/farmer organisations, and social movements...). It would be

useful to focus on national and international policies for this analysis of different practices and normative views on water governance and food/water security.

3. Management of water for food and nutrition security: impacts, sustainability and resilience

Water management. What are the key issues for the management of water for human health and nutrition, agriculture, and processing? How do changing diets affect water demand and water management options, and vice versa? Most national plans for agriculture and food security focus on expanding the area under irrigation by some significant amounts. What are the challenges for water management? What is the potential to accommodate demands for more irrigation? How far can water management stretch the resource?

How do management decisions to first allocate water for cities, industry, mining, and the energy production sector affect access and quality of water for human consumption and agriculture & food processing? How is water management challenged by the demands of urbanisation and population growth? What are the implications for the right to water and the right to food for all?

The HLPE report would compare and contrast the water use efficiency of different food systems and water management practices for the production, processing and consumption of food, - including drinking water using the concept of 'water footprints'¹ and other water accounting methods. The strengths and weaknesses of the different water accounting methods used for these comparisons would be critically discussed.

What is the effect of water availability on the international trade of food (crops and livestock products)? What are the risks and opportunities associated with the expansion of international trade in water intensive commodities? How are people's right to water and right to food affected by the changing relationships between (inter)national trade and water management? How do these trends impact on local and national food/water sovereignty? After critically assessing the strengths, weaknesses, and relevance of the 'virtual water'² concept, the HLPE report would describe the impacts of international trade on domestic water resources and on how water is managed and allocated within river basins, watersheds and villages/municipalities for drinking water, sanitation, farming, food processing and so on.

How could climate change affect water availability for human needs and agriculture in different regions? What are the likely impacts of climate change on groundwater use, water storage, and the availability of surface water for drinking/cooking water, sanitation, agricultural production, and food processing? The report would critically discuss the potential of technological and institutional innovations for water conservation and its sustainable use in the context of climate change, -

¹ The "water footprint" of a food commodity (or any other product) is the total volume of water of freshwater used - that is consumed and polluted - to produce the food commodity, measured over the whole production chain. It is an indicator of freshwater use that looks at both the direct and indirect use of water to produce a particular food (or any other product).

² The "virtual-water" content of a food product is the freshwater 'embodied' in the product. The virtual-water balance of a country or continent over a given time period is defined as the net import of virtual water over this period, which is equal to the gross import of virtual water minus the gross export. A positive virtual-water balance for the food and agriculture sector implies net inflow of virtual water to the nation from other nations. A negative balance means net outflow of virtual water.

focusing on water management for health, nutrition and water security and on agriculture and food security.

The report would also offer critical reflections on the resilience of the water management systems and practices currently used by different actors. How do the water management systems and practices of these different types of actors compare in terms of their resilience and capacity to adaptively respond to change, - including climate change and market volatility?

Water governance impacts & emerging issues. Available evidence and knowledge will be used to critically analyse the impacts of different governance regimes for water management on a) local and national water and food security, and b) on the livelihoods and food/water security of actors centrally involved in water harvesting and collecting, water distribution, sanitation, food production, processing and food preparation. When assessing the short and long term outcomes of different water governance regimes on food and water security and key actors, the HLPE proposes to consider both negative and positive i) environmental impacts; ii) social and cultural impacts; iii) public health impacts; and iv) economic impacts.

Last, the HLPE proposes to examine some critical emerging issues for the governance of water management. For example, the HLPE report would analyse the impacts of water grabs/acquisitions on food and nutritional security. Water is both a target and driver of the recent large scale land investments/land grabs for agricultural production (including biofuels). Particular attention would be given to the documented impacts of 'water grabs' on the food, nutritional and water security of women, vulnerable peoples and groups. The report would identify uncertainties, gaps in knowledge, and needs for further research on the long term consequences of water grabs/acquisitions for water and food security.

Equity and sustainability. The HLPE proposes to offer a critical assessment of the equity and sustainability outcomes of a range of water governance regimes and management practices, emphasizing implications for the food, nutritional, and water security of different genders and social groups. The report will seek to clearly identify gaps in knowledge and uncertainties in their discussion of controversies, contentious issues, and competing and conflicting approaches to water and food security, inclusive growth, and sustainable development.

4. Policy recommendations for water management and food security

As in previous reports, the HLPE will seek to elaborate policy recommendations, taking into account three important elements. First, the recognition of the need to take into account the diversity of converging and diverging perspectives, thereby trying to elicit controversies as well as competing visions and conflicting paradigms for water and food security. Second, the currently uncertain policy context that exists for water and food security. Third, the current context of increasingly rapid and unpredictable environmental, economic and social change.

The HLPE will ambition to take a long term perspective in its recommendations on how to improve policies and institutions for water and food security, as well as coordination at all levels among different sectors and actors.