

Comments Submitted by the Institute for Agriculture and Trade Policy (IATP) on the Scope of the Study on Water and Food Security

Thank you for this opportunity to comment on the HLPE Scope to set the track of the study “Water and Food Security.” The CFS-HLPE is undertaking this study at a critical time, characterized by water related uncertainties—droughts, floods, and unpredictable monsoons—all contributing to food and nutrition insecurities in vulnerable communities.

We hope that the study builds on the work that the HLPE has already done on land tenure and international investments, social protection for food security, biofuels and food security, investing in smallholder agriculture for food security, as well the CFS’s [approved Voluntary Guidelines on Responsible Tenure](#). The [Voluntary Guidelines on the Right to Food](#) as well as the [IAASTD \(recommendations\)](#) are existing and critical tools that can help provide the basis for the report on water and food security.

Structural reasons for water insecurity and the need to explore improving water flows

Given increasing investments in land and water as primarily an asset, and the financialization of water-related services, the scope of the study will have to go beyond the immediate issues of water scarcity. It must identify the structural causes for water insecurity, and must also examine proposed solutions in terms of their inadvertent links to these structural causes. We suggest beginning the study by looking at fundamental reasons for changes in water cycles; assessing how to improve the water flows in landscapes (the quantity, timing and quality of the water flows); and looking at the extent to which preventing loss of wetlands, mountains, and forests—three ecosystems that regulate earth’s water cycles—can help improve water availability. There is an urgent need for such a wider view that incorporates the possibility that certain extractive uses or conversion of resources may be “uneconomic” in terms of destroying more (natural or social) value than they create, especially in terms of downstream and knock-on effects on water and water users ([Bond, 2012](#); [Daly, 2009](#); [The World Bank, 2011](#)).

Framework

The **right to water** in the context of health (sanitation aspects) and nutrition of people, and the right to water for ecosystem sustenance in its own right (following the South African constitution) must be central tenets of the study. Moreover, the right to water is essential also for the realization of the right to food. Given the focus in the CFS on the

food and nutrition security of smallholders and workers who feed the majority of world's population, it is important to recognize the centrality of access to water for them. The CFS report on "[Investing in smallholder Agriculture for Food Security](#)" also recognizes that "the right to food differs from food security in providing entitlements to individuals—and placing legal obligations on States—to access adequate food and the resources that are necessary for the sustainable enjoyment of food security." In keeping with this emphasis placed by the CFS on rights based approach, and the nominal obligations placed on the 70 signatories and 161 countries party to the 1966 International Covenant on Economic, Social and Cultural Rights, the normative framework of the study must be based on progressive realization of the right to water and the right to food rather than simply ensuring water security and food security.

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

The global and regional trends in water use are affected not only by the extensive agricultural water use but also by water impacts of nuclear power generation, extractive industries and other water intensive industries. However the current water footprint estimates available are mostly concerned with tracking the [consumptive water use](#), and focus mostly on agricultural production. Thus the study must note that in most value-chains and company operations the reuse of return flows is not a common practice. Moreover, the study must examine how industrial operations, including mining and thermal energy production, impact water ecosystems ([water quality](#), water temperature, water availability) and alter freshwater ecology, and thus fundamentally affect food and water security of marginalized communities around the world.

Such an approach can then help the study guide the current discussions on water-food-energy nexus at the United Nations, as it develops post 2015 Sustainable Development Goals (SDGs) and corresponding targets. In doing this, the study might also want to question the equal footing accorded to water, food and energy security in these discussions, given the unique role water plays in maintaining life.

2. Governance reform

In developing its recommendations, the study must continue with the emphasis placed by some of the CFS documents on (a) "the primary responsibility of governments and the central role of country ownership of programmes to combat food insecurity" (GFS), with the obligation of adhering to "existing human rights standards and the progressive realization of the right to adequate food in the context of national food security" (ToR to

develop principles for responsible agricultural Investments), and (b) the “due priority to enabling, supporting and complementing smallholders’ own investment” (GFS). The study should also be guided by the [Voluntary Guidelines on the Right to Food](#) (guideline 8.1, regarding access to resources), which assert: “States should facilitate sustainable, non-discriminatory and secure access and utilization of resources consistent with their national law and with international law and protect the assets that are important for people’s livelihoods. States should respect and protect the rights of individuals with respect to resources such as land, water, forests, fisheries and livestock without any discrimination.”

Economic productivity of water: Governance reforms that are sweeping across many countries tend to focus on economic efficiency as the measure of water productivity. Confining analysis to economic productivity risks pitting wealthier users or higher “value-added” uses against those with lower economic power but in greater need of water. Although the benefits to, for example, public health in some cases may make their own economic argument for value, the primary scope should focus on providing those most in need with livable and dignified access first, and strict economic considerations second, side-stepping the problem of effective demand (e.g., [Khan, 1985](#)). The study should thus examine alternative proposals to improving the governance of water. It should provide a normative framework in order that these reforms prioritize the needs of small-scale producers and workers, and that water productivity not be measured simply in terms of economic benefits. Rather, the role of water should be understood **in terms of** multiple benefits to society, including socio-ecological and cultural, many of which are least understood and thus immeasurable.

Water, food security and trade: The scope of the study refers to the potential of virtual water transfer or trading (as an alternative to producing food within national boundaries) as a means for food security. This is not new—many countries that lack arable land or access to water, but with access to financial resources, have been meeting their food security needs through imports. Not only the country’s access to foreign reserves, but also its agricultural investment and trade policies play a key role in this. However such trading occur in the context of international trade agreements. Thus proposals such as virtual water trading needs to be assessed in terms of the impacts of trade agreements (and partnership) and investment on progressive realization of the right to water as well as the right to food for the small scale food producers and workers in the context of national food security. Given that the focus of CFS is to strengthen the food security of small scale producers and workers, it is crucial that the study build on the CFS report on “[Investing in smallholder Agriculture for Food Security](#),” and pay attention to the civil society inputs on responsible agricultural investments.

3. Water management

The proposed scope of the study (“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?”) opens a huge area for us to look at. The HLPE has already addressed some of these aspects through its [study on Biofuels and Food Security](#) on which the current study can build.

Water use in industrial meat production: In addition, this study must look into a critical area of concern: industrial meat production. Assessing this extremely water intensive food production model involves looking at its extensive agricultural water use in growing feed-crops and animals, its impact on water quality both from point and non-point sources, as well as its impact on global water cycles and thus on food security. As is well known now, the water footprint of industrial meat production is extremely high ([Olsen-Sawyer, Kai 2011](#)). Moreover, surface and groundwater contamination due to excessive manure application is leading to major [environmental and public health concerns in industrialized countries](#).¹ These concerns about water quality are now becoming a major cause for concern in developing countries as well.² For example, the shift towards an industrial resource intensive model of meat production in countries such as China has an enormous impact on water resources not only where meat is consumed, or processed, or where animals are raised, but also where feed is grown. For example, increasing demands for feed grains result in agricultural expansion into rainforests and other mountainous landscapes, contributing to land-use changes, further altering already disturbed water flows. Often times, such expansion of feed production into so-called “marginal” lands displaces indigenous and marginalized populations. Thus the global water resource impacts of the industrial meat value chain (including the industry’s thirst for cheap feed) and its human rights impacts should also be examined. The study must therefore include a proposal to assess all the water-related implications of the industrial meat sector and its impacts on food security and recommend an alternative way forward.

Water use in agroecological approaches: The scope of the study must be expanded to include an assessment of water implications of agroecological approaches, and of the co-ecological benefits of such practices. Agroecological approaches contribute to progressive realization of the right to water and the right to food of the small-scale food producers and workers engaging in such production practices; they also provide other socio-economic benefits arising out of increased access to natural resources ([Chappell et al 2013](#)). Further, the advantages to prioritizing local and small-scale institutions,

¹ See also: Pew Commission on Industrial Farm Animal Production (2008). [Putting Meat on the Table: Industrial Farm Animal Production in America](#), pg. 23..Baltimore, Maryland: Johns Hopkins Bloomberg School of Public Health.

² Industrial animal farms are becoming a key source of water pollution in China, for instance. See IATP studies, [Global Meat Complex: The China Series](#)

where possible, are well established ([Ostrom, 1990](#)) and access to water has been correlated to significant reductions in infant malnutrition ([Smith and Haddad, 2000](#)). Co-ecological benefits include improved soil water retention, increased carbon content of the soil, improved soil nutrient content, improved soil biotic activity, and reduced soil erosion ([Kremen and Miles 2013](#); [Davis et al 2012](#); [Lotter et al 2003](#)).

Water loss, food production and food waste: The study needs to explore the extent of water loss as result of lack of access to appropriate technology or information both in agricultural production, processing, post-harvest loss and through food waste.³ The study can build on the existing CFS-HLPE work on this and examine the potential for investing in developing water conserving local technologies.

4. Policy recommendations

The study needs to explore the potential of Investing in agroecology. This may be the single most effective strategy to address water insecurities, especially in the rural areas around the world. It will simultaneously improve the soil productivity and agricultural outputs, enhance ecological functions, and help achieve progressive realization of the right to water and the right to food of small-scale producers and workers. The study must also explore the potential of public investment in water conserving techniques such as system of rice/root intensification ([SRI](#)) and micro watershed development in agricultural lands, in rainwater harvesting and other water conservation efforts in public lands as well as through investing in waste water reuse for urban agriculture. When these investments are linked to agroecology these can help address water-climate and food crisis.

In developing the policy recommendations, the study must explore the possibility of using the notion of water commons; the pertinent principles for managing certain forms of common property water regimes are well-studied and well-validated, including the work of the late Nobel Prize Winner Elinor Ostrom ([Ostrom, 1990](#); [Poteete et al., 2010](#)). Privatization/ commodification and top-down management have comparatively weaker records at providing the greatest benefits to different levels of society.

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³ See e.g. Lundqvist, J., de Fraiture, C., & Molden, D. (2008). Saving water: From field to fork - Curbing losses and wastage in the food chain (SIWI Policy Brief). Stockholm: Stockholm International Water Institute (SIWI), <http://www.siwi.org/publication/saving-water-from-field-to-fork-curbing-losses-and-wastage-in-the-food-chain/>. They point out, the ~50% waste rate of food is important because “Food Wastage is Water Wastage”.