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Agribusiness Initiative – Scoping paper (Draft March 4th, 2013)

We know that hikes in food or fuel prices can often trigger social unrest, yet demand for food, fuel and fiber is increasing dramatically. By 2050, the demand for food alone is set to rise 70%; for cotton, 80%, while bio-energy production may increase 44% by 2030. **Vision 2050** considers that agricultural output will have to double through better land and water productivity, and deforestation will have to be not only halted, but significantly reversed. In other words, by 2050, we need to feed more people with less water in the context of a changing climate, growing energy demand and key ecosystems under significant pressure. Business has recognized a clear need to develop new solutions to deal with the interconnectedness of water, food, fiber and energy.

Context - The challenge

The FAO projects that to meet the needs of 9.15 billion people by 2050, global agricultural production needs to be 60% higher than in 2005/07 (FAO, 2012). Considering that currently one out of eight people is undernourished, the challenge is even more daunting.

While an essential sector generating very significant economic and social benefits, agriculture generates major environmental and ecosystem impacts. It already accounts for approximately 70% of the freshwater withdrawals, 19% of GHG emissions and a significant share of the 12 % of land use emissions due to the conversion of forests to crops, and 38% of the total land use globally. Additional land for agriculture is constrained and as population grows, competition for land use will also increase between producers and downstream industries associated with food, feed, fiber, bio-fuels and biomaterials production.

Additionally, food production also accounts for 60% of the phosphorus and nitrogen pollution and 30% of toxic pollution in Europe (UNEP, 2010). These externalities are not integrated in the cost of food, but if they were, agriculture's economic viability would be challenged. Estimates of the cost of water pollution by agriculture in France for example range from 1.1 to 1.6 billion Euros a year (MEDDE, 2011). Cost-benefits analysis highlights that the environmental costs of all nitrogen losses in Europe is estimated at €70-320 billion per year and outweigh the direct economic benefits of nitrogen in agriculture (Sutton et al, 2011).

Agriculture also relates to other critical societal issues such as energy (e.g. though water pumping or nutrient production), national food security, food prices, local livelihood or health issues (nutrition-related issues, appropriate use of chemicals).

The main challenge ahead of us is thus about how to feed the world's population without overstepping planetary boundaries. Agriculture-related issues are however multiple and complex, as they are intertwined. Challenges that we have identified are as follows:

1. **How to feed 9 billion plus people in 2050?** It relates not only to how to increase the agricultural productivity per hectare, but also to how to reduce food waste and improve food availability, accessibility and affordability to all .
2. **How to reduce environmental impacts of food production**, at the farm level as well as during food processing and at the consumers' place? Main impacts relate to water use, energy use, GHG emissions, forest conversion, habitat and biodiversity loss, air, soil and water pollutions (e.g. phosphorus, nitrogen, pesticides)
3. **How to manage competing land-use** between urban and rural areas, and particularly between food, feed, bio-fuels and biomaterials?
4. In a world where climate change is a reality, **how can agriculture adapt to changing climate and related water availability?**
5. **How can agriculture help support and enhance livelihoods?**
6. **How should the agribusiness sector evolve so as to protect consumers and farmers' health** (e.g. obesity, rise in cancer)?
7. **How can governments transform agriculture through smart public policies?**
8. **What is the role of global companies in delivering business solutions for food, fiber, bio-fuel and freshwater security – now and in the future?**

Rationale for a new WBCSD initiative on Agribusiness Solutions

During our last Council Members meeting in Seoul, a number of WBCSD members have recently shown interest in developing and contributing to a new WBCSD initiative on agribusiness solutions. As our member companies play different roles in the agricultural value chain (from seed and inputs production to food processing), they have different expectations from such an initiative. To respond to these requests and further scope its future role in this area, the **WBCSD is organizing an agribusiness solutions workshop during its yearly Liaison Delegate in Montreux on Thursday 18 April (8:30-12:30).**

This area of work is not new to the WBCSD. In 2009, we collaborated with IUCN on the development of "[Agricultural Ecosystems: Facts & Trends](#)", a publication which presents well-documented facts and figures to help governments, farmers, consumers and industry better understand the challenges facing the sustainable management of agricultural ecosystems. It was followed by the release of [Tackling climate change on the ground](#), a compendium of case studies on land use management practices to curb GHG emissions.

The Water Project Leadership Group is also currently documenting and assessing the potential impact of scalable solutions to address the global challenges of the higher demand for food, fodder, fuel and fibre by 2050, as part of its "[Water, Energy and Food](#)" linkages pathway. The solutions explored in the "Agrosolution Paper" being developed as part of the initiative include plant breeding, improved crop management, better blue (irrigation) water management, better green (moisture) water management, more efficient farm operations, using trade, reducing food waste or a combination of the above. These different options will be illustrated in the paper by case studies of solutions already being implemented by member companies.

In parallel, the WBCSD's Forest Solutions Group is also looking into these linkages through participation in dialogues on Food, Fuel, Fiber and Forests as part of [The Forests Dialogue](#) Platform. The latest field [dialogue organized in Brazil](#) in November 2012 highlighted a set of possible solutions to tackle the linkages, which included integrated and participatory land use planning, the development of a coordinated international guidance on land use, the support of family farming, as well as work around improved governance, supply chain management and waste reduction.

“Kick start” timeline

- **March 27th (09:00 and 16:00 CET):** Kick-off call focused on scoping paper
Please contact Violaine Berger at berger@wbcspd.org to register to the call.
- **Up to April:**
 - Mapping of the existing agribusiness-related initiatives
 - Completion of the Water Project’s Agrosolutions Paper with case studies illustrating possible solutions
 - Workshop design
- **April 18th (08:30-12:30):** Half a day scoping workshop during Montreux LD meeting.
Objectives:
 1. Deepen understanding of agribusiness related challenges, in the context of the Vision 2050 to Action 2020 project
 2. Present the Water Project’s recent Agrosolution Paper, with a highlight on the different solutions that are already being implemented by business
 3. Identify agribusiness challenges and related areas of work where a new WBCSD project could add the most value
- **Post April work** – if a valid role is confirmed, rapid organization of work program to initially focus on 2020 “must haves” for agriculture to inform and influence the Vision 2050 to Action 2020 project

Note that WBCSD has allocated CHF 50,000 to support this scoping phase.

WBCSD’s role – possible options (preliminary)

Since the idea of such an initiative emerged during the Seoul Council Members meeting, the WBCSD had a few individual discussions with members and partners, who expressed interest in working in the following areas:

- Identifying the agricultural and land management related must-haves to achieve Vision 2050 (e.g. productivity targets, land use intensity targets)
- Informing the development of the Sustainable Development Goals
- Addressing the food waste issue in the agribusiness value chain
- Building capacity: adapting the current Business Ecosystems Training (BET) material to the agricultural sector
- Developing a tool/framework that can help identify risks in agricultural supply chains (beyond water and carbon)
- Representing companies into standard-setting initiatives (e.g. ISO)
- Participating in the “Dialogue Platform on Sustainable Biomass Optimization”, co-convened by the IUCN, UNEP and FAO, objective being that “*Biomass fulfills its potential as a truly renewable resource with biomass use optimized and competing biomass-based sectors aligned towards and ultimately operating and developing within planetary boundaries*”

WBCSD current related work

- [Vision 2050](#) (From Vision 2050 to Action 2020) and [Changing Pace](#)
- Water Project: “Agriculture: co-optimizing solutions” (version 1.0 available for comments)
- Rural Labor Initiative (scoping stage): a cross-sectoral group of member companies working to improve the availability and quality of labor in rural areas, and to make the economies of rural areas in the developing world more attractive and resilient.

- Forest Solutions Group: The Forests Dialogue, [Field Dialogue on Food, Fuel, Fiber and Forests](#) (see latest dialogue on 11-14 Nov 2012)
- “Food-Fuel-Fiber: Making the equation work” Roundtable at the WBCSD Council Members Meeting in Seoul (31 Oct 2012)
- Link with Science and the work of the Stockholm Resilience Center, in particular related to the [nitrogen and phosphorus boundaries](#)

WBCSD contact points

Agribusiness Solutions initiative scoping

- James Griffiths, Managing Director, Natural Capital (griffiths@wbcspd.org)
- Violaine Berger, Manager, Ecosystems & Water (berger@wbcspd.org)

Water Project “Agrosolutions Paper”

- Joppe Cramwinckel, Director, Water (Cramwinckel@wbcspd.org)

Caveats related to the development of a new WBCSD agribusiness initiative

The WBCSD is aware that different initiatives already exist in this area (e.g. SAI, Croplife International, Field to Market) and will make sure a new WBCSD initiative won't duplicate with existing efforts, but will instead complement what is already being developed.

With this in mind, the WBCSD is developing a simple mapping of the existing agribusiness initiatives that will be presented and discussed with members so as to make sure that no important project has been omitted.

Appendix 1 – Background References

WBCSD

WBCSD (2012), [Changing Pace](#)

WBCSD (2010), [Vision 2050](#)

WBCSD (2009), [Agricultural Ecosystems: Facts & Trends](#)

WBCSD (2009), [Tackling climate change on the ground](#)

Other

FAO (2012) [World Agriculture towards 2030/2050 – The 2012 revision](#)

FAO (2012) [The State of Food and Agriculture: Investing in Agriculture for a Better Future](#)

FAO (2011) [Global Food Losses and Food Waste](#)

FAO (2011) [Making Integrated Food-Energy Systems Work for People and Climate](#)

Mark A Sutton and Hans van Grinsven (2011), [The European Nitrogen Assessment, Sources, Effects and Policy Perspectives](#)

MEDDE (2011) [Studies and Documents, Assessing water pollution costs of farming in France.](#)

NinE, BEGIN *et al*, [The Barsac Declaration:](#)

[Environmental Sustainability and the Demitarian Diet](#)

Rockström, *et al* (2009). [Planetary boundaries: exploring the safe operating space for humanity.](#) Ecology and Society 14(2)

The Forest Dialogue, [Field Dialogue on Food, Fuel, Fiber and Forests](#) (11-14 Nov 2012)

UNEP (2010) [Assessing the Environmental Impacts of Consumption and Production: Priority Products and Materials](#)

World Bank (2008) [World Development Report: Agriculture for Development](#)