

Event Report

Global Forum for Food & Agriculture: Water Stewardship - A key to food security

Berlin, 17 January 2014

GLOBAL FORUM FOR FOOD AND AGRICULTURE

SUMMARY

On the 17th of January 2014 the Global Forum for Food & Agriculture (GFFA) was held during Berlin's International Green Week (IGW), focussing on emerging themes within the global agro-food industry. As an integral part of this conference, a BLUE PLANET panel session on "Water Stewardship as a Key to Food Security" was jointly organized by the European Water Partnership (EWP), the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the Senate Department for Economics, Technology and Research of Berlin and Messe Berlin GmbH.

Panellists and session participants discussed some of the challenges we face when developing solutions to ensure long-term food security and interlinkages between water and food. The unequal distribution of the globe's water resources means that strong (international) cooperation is needed to determine how we should share and use our resources. Where international businesses fail to assume responsibility for their water management, regional discrepancies are created in production and consumption, multiplied by the fact that climate change will undoubtedly increase the risk of water scarcities.

Session participants acknowledged the responsibility of all sectors to assume stewardship approaches to the management of water resources. There was a general understanding that new regulations could be avoided where different stakeholders were prepared to work together to find solutions and then act jointly in partnerships. Similarly, there was a general feeling that the polluter pays principle should be applied and that water-related services should not be free of charge. Combined, these efforts were perceived to provide solution to ensure water and food security and to address the private sector's use of the world's natural resources.

1. WELCOME



Friedrich Barth, Vice-Chairman of the European Water Partnership, welcomed the participants and stressed the importance of two principal challenges which are closely linked to planning for food security: (i) the need to address the global water crisis, and (ii) an ever growing population leading to ever-increasing demands for food. With the middle class expected to grow by 3 billion, impacts on global agriculture and its long-term sustainability will be significant. Therefore, developing concrete actions to improve agricultural production, as well as implementing the right policies, are of utmost priority.

In his keynote speech, Fritz Holzwarth, Deputy Director General of the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, introduced the link between governance and the need to address the water and food crisis at hand. In the agricultural sector, water availability and soil fertility are both widely taken for granted despite the risks they present for food production. From Mr. Holzwarth's perspective, one solution to these problems is water stewardship. A central aspect of water stewardship is the need for a new consciousness of responsibility within the food production chain, including its link to water.

According to a recent risk assessment released by the GFFA, water hasn't been included in the top 5 global risks. The fact that climate change received a high ranking in the assessment proves that the interdependency of climate change and water management is often forgotten. In order to address the evident water risks for the agricultural and private sector alike, a key priority should be the improvement of the water governance. In order to do this, all sectors have to assume responsibility and ownership for the future sustainability of water resources. Fritz Holzwarth ended his speech encouraging a fruitful discussion amongst conference participants.

2. OPENING

2.1 ROBERT SICHINGA



Minister Robert Sichinga, Minister for Agriculture and Livestock of the Republic of Zambia, directly related the challenges of managing water scarcity to the assumption that there would always be water. In Africa, and specifically Zambia, people's religious beliefs shape their understanding of water. In the Bible, Genesis refers to land which is arid and unproductive until there was the mist that provided the land with water and created the Garden of Eden. This story shapes an appreciation for the water and soils, as without them, there is no agriculture.

Africa is confronted with challenges posed by an arid environment combined with a decreasing water availability. Zambia is home to 40% of the African water in a number of lakes, several of which are shared with its 8 surrounding neighbours. Zambia's geography means that many of the rivers flow from Zambia into the neighbouring countries, which obliges the country with a certain responsibility while still developing the own water and energy infrastructure. This spatial nature of

the area's water resources also means that international regulations are needed to determine how resources should be shared between neighbouring countries.

The energy sector also plays an important role in ensuring that water resources reach the populations which are dependent on them for irrigated agriculture. Minister Sichinga described the manner in which most valleys remain arid due to the high cost involved in pumping water from the lakes. Regarding this, higher areas are more productive as they receive greater quantities of rain water. Zambia lacks a single entity to ensure water quality, and combined with erratic weather patterns, this poses real challenges for agriculture in the country.

Currently, the government of Zambia is working to implement programs to provide water via irrigation in arid areas, prioritizing sugar production or husbandry. While water users do not pay for their direct water use, they are required to have permission to extract water from a source. Enforcing this is critical in order to ensure that water use is sustainable. Minister Sichinga pointed out that the experiences of Europe of raising awareness amongst water using sectors could be very valuable to improve water use in his country. This is particularly true for private water users who play an important role in Zambia and take very little responsibility for the management of water.

2.2 ALEXANDER MÜLLER



Mr. Alexander Müller, Senior Fellow, Institute for Advanced Sustainability Studies e.V, gave the second opening speech of the day addressing global aspects on food security and their relation to water. For Mr. Müller, water stewardship needs to be embedded into global food-related regulations and policies, in order to become a key driver for global change and food security. With 800 million hungry people globally and an ever-increasing population of hungry

people in Africa, statistics that state that "hunger is decreasing" are relative. Statistics predict that population will reach 10 billion people within the next 2 or 3 decades and also a further shift in distribution of the population from rural to urban areas. This poses a key question of who will live and work in rural areas.

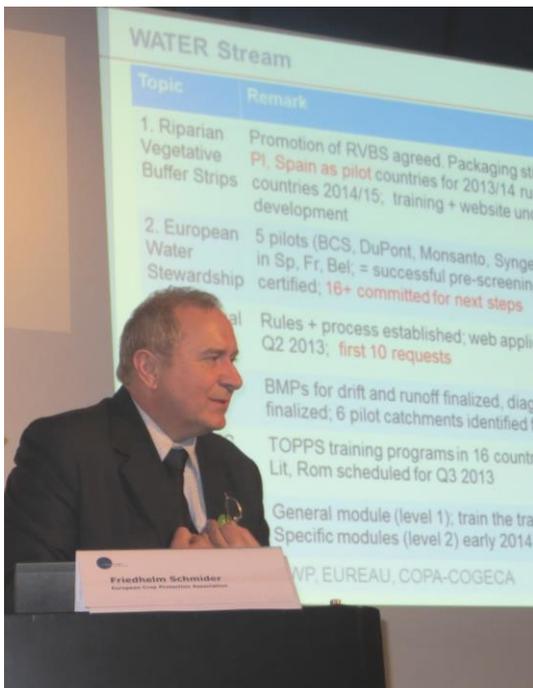
As the African population will likely increase to 2 billion people, food security in this region should be a focus. It is important to note that efficiency alone will not solve the problem of food scarcity because 148% more food would have to be produced in the developing world. These regional discrepancies are multiplied by the fact that climate change will

undoubtedly increase the risk of water scarcities. While in the developed world 70% of water is used for agriculture, in the developing countries it can be as high as 95%.

Taking these challenges into account the need to develop an integrated approach is apparent. Water stewardship can be part of the solution but it is critical that it is aligned with other existing policies. It also requires that we look at the entire value chain because competition for water resources is not local but global. Droughts can drive up food prices where production is affected, as was in the case of maize in the USA.

Today's agricultural systems are threatened by water scarcities combined with the threat of land degradation and augmented by growing populations. Dealing with transboundary challenges posed by the spatial and temporal nature of the world's rivers and lakes makes water management incredibly difficult. While efficiency is an important first step, it will not be enough to solve all problems. Nutrition must also be taken into consideration, with health care factored into how we will address future scarcities. Food waste as high as 50% in developing countries and the associated water and energy losses are important also when exploring solutions to food scarcity.

2.3 FRIEDHELM SCHMIDER



In his introductory speech, Mr. Friedhelm Schmider, Director General, European Crop Protection Association (ECPA), emphasized the importance of securing not only large quantities of water for healthy agriculture, but large quantities of good quality water. As a major water stakeholder, Mr. Schmider sees an emerging culture of responsibility within the agricultural sector, hence the right time for the new business model initiated by ECPA called "Hungry for Change". The initiative embraces the understanding that food production is central to the health of our farmers and the general population. In order to ensure this, water and biodiversity protection should be the focus of the sector's long-term goals.

Friedhelm Schmider shared some of the findings from a joint project between ECPA and the European Water Partnership as part of this "Hungry for Change" process. Five ECPA companies participated in implementing the EWS standard in their production

sites in three countries to assess the on-site water management performance. By working together and sharing their findings in follow up workshops, participants were able to identify key management strategies for water protection measures which ensure food supply while reducing water pollution and water risks. Key findings of the project were the importance of setting meaningful corporate water management strategies, the building of partnerships to drive change, and the clear benefits of implementing improvement measures collectively.

3. PANEL DISCUSSION



To introduce the panel discussion, moderator Friedrich Barth posed three questions to the audience:

1. **Do you agree that water availability is one key risk for achieving global food security?**
The majority of the audience understood this to be true.
2. **Can water management certification of farm sites contribute to food security?**
In response, most of the participants were undecided and only three participants responded negatively.
3. **Do we need water pricing policies for farmers based on the full cost recovery principle?**
Most participants responded negatively.

The panel participants included: Minister Robert Sickinga, Mr. Jean-Pierre Halkin, Head of Unit for Rural Development, Food Security and Nutrition, Directorate General for Development and Cooperation, European Commission, Mr. Friedhelm Schmider, Mr. Alexander Müller and Mr. Jörg Andreas Krüger, Director Biodiversity, WWF Germany.

Guiding questions for the panel discussion were the following:

1. Do you think that water is a crucial factor for global food security and why?
2. Agriculture needs a paradigm shift on how to become a better steward of water resources and manage water more sustainably on a watershed level. From your perspective, what can be the drivers for this shift?
3. How and under which conditions could agriculture as a sector lead water stewardship? How do you assess the potential of the agricultural sector to become a powerful engine for collective water stewardship actions?
4. From your point of view, what are other key drivers, needs and requirements to further facilitate this paradigm shift? (e.g. policy, supply chain management, public awareness raising etc.)
5. From the application of the EWS, some players from the industry became champions for implementing water stewardship already. From your point of view, what incentives will get farmer's communities interested in water stewardship?
6. Do you think that collective actions between farmers, industry and local communities are possible in all river basins around the world? If yes, which partners should be involved and what are the preconditions of success?

Mr. Halkin highlighted the lack of nutrition in early childhood and its long-lasting effects. The impact of this on a considerable share of the global population should lead to a commitment of global governments to improving the quantity and quality of food production. Related to this is the vital link between food and water (i.e. poultry and vegetables etc. which require large inputs of water before they are ready for consumption). For its part, the European Commission is committed to spending money on programs which are looking closely at the topic of nutrition.

For Mr. Halkin, part of the solution for a more sustainable food production is to address the “need for a better government which involves all actors” as technical solutions like genetic resources alone cannot provide the solution. As there is more water in rural areas, farmers and governments would both benefit from bilateral discussions.

Mr. Krüger addressed another critical topic regarding global water resources namely the loss of 50% of the world’s fresh water species. The pressure caused by the anthropogenic activities on freshwater systems is detrimental to healthy ecosystems. A new culture of a catchment-based responsibility for protection of our resources is needed within the global, political agenda. Mr. Krüger sees great potential to improve water management within the food sector, especially as businesses come to understand that water risks within their supply chains are equivalent to other risks and need to be addressed in a robust business model. To address these risks, companies should take the first step towards water stewardship by addressing their supply chain and initiating discussions with farmers on regional level.

Mr. Sichinga asked the participants to reflect on what concrete actions were needed. Water management has a global dimension. Events in developed countries have their impact on developing countries and vice versa. We must expand our view on existing resource challenges. For example, while Europe’s population is ageing, in Africa 84% of the population is under the age of 35 years. If these patterns persist, the question of where food will come from in the future and who will produce it, will become quite pressing. In addition, with an increasing migration to the urban areas, the loss of small scale farms will increase.

Mr. Schmider was asked how ECPA is addressing the global challenges discussed throughout the conference. His response was that you can only change what you are able to see but not the things you do not know. The main reason that ECPA member organizations chose to participate in new projects is to gain more awareness to be able to disseminate this knowledge. For Mr. Schmider an essential factor in realizing change within the sector is to inform and assist farmers in making those changes. A shift of mind-set takes a lot of time and involves training, education and working with small scale farmers to find solutions together and then act in partnership.

Friedrich Barth: “Is this a way forward?”

To the final question, **Mr. Müller** stressed that there are different actions needed since there is not one single goal. Creating a basic understanding of existing challenges is important as is incorporating regional interests. In order to do this, it is necessary to set up a platform where different stakeholders work together. Industries have come a long way already. For example, crop protection production companies made progress in addressing the presence of pesticides in rivers and have assumed large amount of responsibility to a certain extent. One participant questioned whether more regulation should be the strategy or alternatively more voluntary measures, as well as the role that technology could possibly play. Mr. Müller responded that balanced solutions were necessary. In the case of strict regulations, often the poor suffer the most if they are not able to produce and sell their food because of regulatory restrictions.

Mr. Sichinga commented that when it comes to the environment, change needs to happen on all levels. Without photosynthesis from the trees, what will be producing the oxygen for the world? Water is also very much linked to these systems, food is produced in one area of the world where water is taken, yet other countries profit.

In his summary statement, Friedrich Barth highlighted the problem of financing solutions, which in many cases benefit only a selected group, to which Mr. Sichinga added that the manner in which these benefits are distributed is also important. Mr. Schmider stated that where new regulations can be avoided, this should be prioritized in order not too detrimentally affect poorer strata of the population. Mr. Müller responded that for smaller farms, sustainability standards would be difficult to meet and therefore proposed that perhaps standards should be lowered.

Friedrich Barth then opened the floor to the conference participants for questions and comments. One participant from Oxfam Germany raised the point of the need to control access to water and the issue of water grabbing. Her feeling was that too much weight is placed on the issue of irrigation and water consumption in terms of quantity and that the attention should rather be focused on soil efficiency and fertility. Additionally, high nitrate levels in drinking water due to inefficient pesticide controls is another priority topic.

Another participant mentioned his research on water management in agriculture in Mongolia with farmers suffering from companies' water pollution. This reaffirms the point driven by Mr. Sichinga earlier that international businesses fail to assume responsibility for their water management abroad creating local water challenges. Adding to this, a contributor suggested that China had the farthest to go in terms of addressing its water challenges and that it would be interesting to see representatives from this region represented within the global dialogue.

Taking on the questions and comments of the participants, Minister Sichinga noted that water access is controlled by landowners. In case of Zambia for example, while no one owns the land and water, they do lease land and water rights. These users are in charge of the stewardship of the land they lease or water they use, and in cases where misuse is noted they run the risk of losing the land or water rights. International protocols determine who has rights to water and what they are able to do with those rights, for example changing a river flow which may impact a neighbouring country. Strict agreements are needed between countries in order to change the way water is used and stored.

The polluter pays principle was one solution to address the private sector's use of the world's natural resources. With private companies polluting the air and water with long-lasting effects on our health and nature, or mining companies exploiting the mineral resources and leaving the local populations to deal with the consequences requires assigning greater responsibility to international corporations. Global regulations and standards should be considered as means to protect local communities.

Mr. Müller added to this that no one is actually paying the full cost of water since most often water rights are assumed with land rights. He supported the concept that guidelines for land use should be linked to water use. To the point, he emphasized that the question of "*Who is paying for oxygen*" should be linked to the question "*Who is paying for pollution?*" Governments should take companies to court where there is oversight and breach of human rights in the countries where they are producing. To a certain extent, it is the responsibility of the people to apply pressure on the companies to act responsibly.

Mr. Halkin returned to the topic of land use, where he felt that balanced agreements between partner countries and a general respect were needed. The natural resource issue has become much more important with population growth becoming more evident, and companies are forced to be pro-active. Responding to the suggestion for less regulation Mr.

Halkin suggested that fair trade is becoming an increasingly important topic. As consumers become more educated on food quality, they become part of the driving force influencing the manner food is produced and refined.

As a last response, Mr. Krüger stressed that all the arguments are well known and that therefore our efforts should be directed towards the need for action. He highlighted the WWF as exemplary in the negotiations and projects initiated with organizations such as Edeka in Africa and encouraged other companies to act similarly.

4. Conclusion & Outlook

To conclude the panel, Mr. Barth requested the panellists to make a final statement to the question “*Do we value water enough? In this respects, should everyone pay for water?*”.

Mr. Halkin stated that for the European Commission a priority should be to increase funding to address the shortage of potable water.

Mr. Müller responded that pricing measures would not solve the valuation problem given poor quality at hand. If people needed to buy bottled water in order to have access to water, it would be the poorest that are most affected.

Mr. Krüger suggested that instead we should be talking about pricing the use of the ecosystem and about who should be charged for the use. To add to this, **Mr. Schmider** mentioned small farmers would have a hard time paying for these services.

Mr. Sichinga acknowledged that this was a very difficult question since “water and environmental benefits are so valuable that they are priceless.” He painted a picture of a mother who leaves at 4 am to fetch water for her family arriving at 11 am at the well, waiting until 10 pm to run water into her container before walking back eventually to arrive at home again 24 hours later. He then asked whether it was the right thing to having her pay? In the developed world, we take water for granted, but in reality only a small percentage of the population has access to clean water. Mr. Sichinga felt strongly that the use of resources should be focused on giving more people easy access to clean water.

Friedrich Barth ended the session with the message that water should not be priced, but rather the service of delivering or treating. At the end of the day the polluter pays principle should be applied and the services should not be free of charge. When he asked the panellists for their affirmation, they all agreed.