

## The Commitment for Securing the Access to Water Resources – The Role of Universities

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On March 6<sup>th</sup> 2012, at the ceremony of launching the report entitled: *Progress on Drinking Water and Sanitation 2012*, by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, it has been announced that the world has met the Millennium Development Goal (MDG) target of halving the proportion of people without sustainable access to safe drinking water, well in advance of the MDG 2015 Deadline. According to the report between 1990 and 2010, over two billion people gained access to improved drinking water sources, such as piped supplies and protected wells. At the end of 2010, 89 per cent of the world's population, or 6.1 billion people, used improved drinking water sources.

The report highlights, however, that the world is still far from meeting the part of the MDG target for sanitation, and is unlikely to do so by 2015. Only 63 per cent of the world now, have improved sanitation access, a figure projected to increase only to 67 per cent by 2015, well below the 75 per cent aim in the MDGs. Currently 2.5 billion people still lack improved sanitation.

But it also highlights the immense challenges that remain. Global figures mask massive disparities between regions and countries, and within countries.

Only 61 per cent of the people in sub-Saharan Africa have access to improved water supply sources compared with 90 per cent or more in Latin America and the Caribbean, Northern Africa, and large parts of Asia. Over 40 per cent of all people globally who lack access to drinking water live in sub-Saharan Africa.

According to the latest update on rural areas across the globe, there is a desperate need for greater attention both to water and sanitation. In rural areas in least developed countries, 97 out of every 100 people do not have

piped water and 14 per cent of the population drinks surface water—for example, from rivers, ponds, or lakes.

Deteriorating water quality threatens the gains that have been made in improving access to drinking-water. Although the greatest problem continues to be the microbial contamination of drinking-water supplies (especially faecal contamination), chemical contaminants - notably fluoride and arsenic - are of increasing concern. Programme planners can no longer make assumptions about the initial safety of groundwater or any other water source without testing, and all sources must be adequately protected from subsequent contamination.

New target set beyond 2015 will have to address water quality, which will have to be measured or estimated in a meaningful and cost-effective manner. Technological advances and innovative survey methods will be needed to provide the tools for rapid, reliable and cheap measurement, to be carried out on a large scale. Within countries, regulatory frameworks will need to be developed, along with the capacity to implement and independently appraise Water Safety Plans as a standard feature of ensuring sustainable access to safe drinking-water.

In Europe, since the adoption of the Water Framework Directive in 2000, EU water policy entered in a new phase by taking an integrated approach on the basis of the concept of river basin management aimed at achieving good status of all EU waters by 2015.

However, as pointed out by the European Environment Agency's 2010 State of the Environment Report, the achievement of EU water policy goals appears far from certain due to a number of old and emerging challenges. The Blueprint to Safeguard Europe's Water, which is intended to be issued by European Commission at the end of 2012, will be the EU policy response to these challenges. It will aim to ensure good quality water in sufficient quantities for all legitimate uses. The time horizon of the Blueprint is 2020 since it is closely related to the EU 2020 Strategy. However, the analysis underpinning the Blueprint will cover a longer time span, up to 2050.

To achieve this ambitious objective, the Blueprint will synthesise policy recommendations building on four on-going assessments:

1. The assessment of the River Basin Management Plans delivered by the Member States under the Water Framework Directive;
2. The review of the EU action on Water Scarcity and Drought;
3. The assessment of the vulnerability of water resources to climate change and other man made pressures and;
4. The Fitness Check which will address the whole EU water policy in the framework of the Commission Better Regulation approach.

On 8 December 2010, the European Commission endorsed and published the EU Strategy for the Danube Region, consisting of a Communication and an Action Plan. Debated and agreed on at Community level, the documents define the core of regional cooperation in the Danube area. They were developed by the riparian states that, alongside the European Commission, assessed the real needs of the Danube region and proposed a document agreed upon both politically and technically. Therefore the Danube Strategy is a project of the European Union, which third states of the region have also been invited to join.

The four priority axes of the Strategy are connectivity (intermodal transportation, culture and tourism, energy networks), environment protection (management of water resources, biodiversity protection, and risk management), building prosperity in the Danube region (education, research, competitiveness) and improved governance (institutional capacity and internal security).

For the implementation of this strategy, a huge plan for aggregating funding resources is under development and probably it is the first time in the history when the communities along the Danube are cooperating at large scale for winning together.

As we could see, there is a huge interest in Europe and worldwide to address the most basic challenges of our society. The context is very favourable to initiate and develop appropriate cooperation patterns to cope with issues that have not been solved for centuries. But, the complexity of the problems is increasing and the academic community should understand the need and opportunity to reconsider the participation to the global efforts for promoting

the sustainable development concept tailored to the realities from each region. I do see, an opportunity for a fundamental shift of the role of the Universities in the society and I shall refer to the experience that we have accumulated within the BSUN.

Since its establishment, BSUN defined the sustainable development in the BSR as the priority area to concentrate the cooperative activities of the member universities. A systemic approach has been defined between 1998 and 2000.

Conferences, seminars and summer schools have been organized and the outcomes of these activities have been synthesized in the “*The Kyiv Declaration of the University Rectors for the Sustainable Development of the Black Sea Region*” signed on the occasion of BSUN 2008 Congress. In the text of the Declaration it is clearly stated: “...*We believe that urgent actions are needed to address these fundamental problems and reverse the trends. Equilibrated demographic policies, eco-innovation by adoption of environmentally sound industrial and agricultural technologies, reforestation, and ecological restoration are crucial elements in creating an equitable and sustainable future for all citizens of our region in harmony with nature.*

*Universities have a major role in the education, research, policy formation, and information exchange necessary to make these goals possible*”. The full text of the Declaration could be downloaded from [www.bsun.org](http://www.bsun.org).

And the consequences of the document are already visible: many universities have introduced new programs on sustainable development at Bachelor, MSc and PhD levels. The BSUN Consortium on Sustainable Development is coordinated by Acad. Michael Zgurovsky, the rector of National Technical University of Ukraine and former BSUN President. The environmental protection aspects are diffusing in more and more courses and actions like “green campus” contribute to the active involvement of students in order to build a new type of environment protection attitudes. A very interesting cooperation has been initiated recently with Baltic University Program to generate synergies between Baltic and Black Sea regions on education for sustainable development.

But, the challenges today are so complex and the old models for acting within the decision making loop are obsolete. The world needs a fundamental shift of the paradigm. What is the role of education and science in defining such a new paradigm? I believe that the UN Academic Impact initiative can offer a possibly new pathway for bringing Universities closer

to decision makers and civil society, deploying large resources of knowledge and innovation. This is a global initiative that aligns institutions of higher education with the United Nations in actively supporting ten universally accepted principles in the areas of human rights, literacy, sustainability and conflict resolution. The official launch was on November 18th 2010 at the UN Headquarters and it has been welcomed with great enthusiasm by the Academic community worldwide so, at present, more than 800 universities are involved in activities under the frame of UNAI.

The Black Sea Universities Network coordinates the UNAI Hub on sustainability. Our mission is to facilitate the transfer of knowledge from Universities to different other partners in promoting sustainability. A versatile portal has been developed and can be accessed at [www.unai-sustainability.org](http://www.unai-sustainability.org). Individuals and institutions have the possibility to plug-in and participate in live conferences and discussion fora, to register in the databases and to access the resources. A number of selected projects are monitored and offer the possibility to transfer the best practices and experience. The selection of projects has been made during the International Conference on “Education & Governance for Sustainable Development”, organized under the frame of UNAI in Constantza, Romania in March 2011 and reviewed in November 2011 in New York.

At present, we are working to implement the selected priority projects and we would like to emphasize that during this process, there were identified a tremendous resource of synergies.

Dear students, on such an occasion, allow me to address to you some of my thoughts. Today, the World population is officially considered as exceeding 7 billion people. In such a crowded world, consuming huge stockpiles of resources with a very poor efficiency, generating enormous quantities of wastes and emissions, surviving is difficult. But living at a certain standard of life is even a harder struggle.

You are living in a country which went through difficult reforms but which is now prepared to address the challenges of integration in the family of EU member states for offering a high standard of living and a sustainable future to its citizens.

I am sure that having the Sava and Danube rivers in your eyes from sunrise to sunset, it is difficult to imagine that you put to yourselves the question: why water is so important?

Water is the most basic of all resources. Civilizations grew or withered depending on its availability. We like to say that all the water that will ever

be in our world is, right now here. Although water covers 71% of the Earth's surface, only 3% of that is freshwater, of which 69% is "trapped" as ice, mainly at the North and South poles and only a tiny part of it is available for being used. It is the most direct and effective example of the finiteness of the resources and the whole evolution of the mankind might be described based on the relation between human beings and the water. The status of the water may be seen as a mirror of our level on understanding, of our level of tolerance, of our level of resilience or of the level of governance.

Looking only from the perspective of the problems with water, we have enough arguments to say that in the 21<sup>st</sup> Century a new kind of literate is needed, one who can innovate by reasoning broadly across disciplines and by considering the human dimensions that are at the heart of every challenge. If for centuries, in education it has been followed an approach based on the use of logics, math and sciences by linear, mechanistic and discreet reasoning, in the new context we have to move towards eco-innovation and a holistic approach. This means integrating knowledge across disciplines to deal with complex problems in order to better serve humanity and in this way to serve ourselves.

In order, to prepare for these challenges, aside from comprehensive knowledge in all traditional courses, you as students have to understand the connections among your courses and to integrate, or "unify," your learning. More than ever, as students, you have to pay attention to the understanding of the complexity and diversity of nature, having in the centre the human condition.

And, after such an effort, if you will succeed to do this, you will be amazed by the plenitude of the pleasure of drinking a glass of pure clean water and by seeing how many Nobel Prizes and confined in just a droplet of water!

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March 2<sup>nd</sup> 2012, on the occasion of the Ceremony dedicated to World Water Day.