



**RIO+20**  
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Within the framework of the initiatives promoted by Italian Ministry of Foreign Affairs - DGDC  
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HYDROAID presents

## INTEGRATED KNOWLEDGE MANAGEMENT AND ITS BEARING ON THE GREEN ECONOMY: LESSONS LEARNED FROM ITALIAN AND BRAZILIAN WATER AND ENERGY CASE STUDIES ON SUSTAINABLE DEVELOPMENT.

*June 22nd, h. 11.00 – 13.00 - ATHLETES' PARK AUDITORIUM CNO3*

### **Panel description**

Italy's approach to development cooperation focuses on the integrated management of water, food and energetic security toward sustainability. A discussion on such a management model started in the 2012 6<sup>th</sup> World Water Forum in Marseille and will continue throughout Rio +20 UN Conference on Sustainable Development with the aim of facilitating a productive dialogue among international organizations, national governments and scientific institutes. The participants – members and representatives of international organizations, governments, energy and water management companies – will discuss key development cooperation issues in their relationship with the complexity of the modern communication system, outlining knowledge management problems and offering to the panel a number of concrete approaches to address them, building on their own applied experiences and doctrines. While offering the opportunity for sharing relevant Italian and Brazilian development experiences and strategies, the outcomes of the discussion will provide a notable reference framework for future decision making as well as toward promoting multi-objectives and integrated approaches in development cooperation.

### **Expected Participants:**

UN DESA – United Nations Department of Economic and Social Affairs, UN SGAB – United Nations Secretary-General's Advisory Board on Water and Sanitation. UN WWAP – United Nations World Water Assessment Programme., HYDROAID – Water for Development Management Institute, Government of Italy – Ministry of Foreign Affairs, Directorate General for Development Cooperation, Federal Government of Brazil – Ministerio das Cidades, PETROBRAS – Brazilian energy company, ENI spa – Italian energy company, EXPO 2015

## Event overview

### Background: Challenges and opportunities for development in the Information Age

With over 2 billion Internet users around the globe and worldwide communication systems coverage, information has become quickly and easily accessible for anybody on the planet. However, ease of access and knowledge do not always come together: in fact the information revolution that we are currently experiencing is a precious resource but it has deeply transformed our way of communicating and a considerable number of critical points and flaws can be observed too. Firstly, the speed and the innovation trends inhibit a careful and critical analysis of the received information which is therefore learned and processed only superficially. Secondly, the increased number of sources has multiplied the amount of available information which now comes in higher quantity and with a higher degree of specialization making it harder to gain a complete and logic overview on complex subjects. Thirdly, web communication produced and spread a “new language” for exchanging and simplifying data made of minimal and quick messages, images and instant posts, that is often presenting a shallow or even deceiving view of reality. An example of this is the *Joint Monitoring Programme for Water Supply and Sanitation Unicef-Oms Report "Progress on Drinking Water and Sanitation 2012"* that was published in March 2012 and stated MDG 7C (*Halving the proportion of the population without sustainable access to safe drinking water and basic sanitation*) had been successfully achieved in 2010, 5 years prior to its deadline in 2015. While “only” 884 million people are left without access to safe drinking water, the truth is that about 2 billion are still relying on not drinking water and another 3-4 billion are drinking unsafe water. Globalization trends and changes are producing significant effects on the economic, social and environmental dynamics but their delivery capacity is still to be fully understood and most interpreting techniques are no more adequate for their purposes. By analyzing modern occurrences with not up-to-date methods and filters, we risk getting an even more distorted view of reality. Finally, the extreme abundance of information, along with a general lack of control and moderation tools, prevents the final recipients from identifying the truly helpful knowledge so that theory can be translated into practice.

If considering all these issues – as reported by UN DESA, UN SGAB and Italian Government’s delegates – in the cooperation to development perspective, the risk of having the knowledge-transferring process stuck is very worrying. Access to information should correspond to advancement and life conditions improvement but, while the communication systems are now reaching even the poorest and less developed areas of the Earth, its benefits are still very poor. The most disadvantaged are those who, though being included in the global communication network, are unable to benefit from it: millions of people are thus missing important opportunities for development. Moreover the complexity of many aspects and mechanisms in the development field – like the water and energy management systems – is such that they must be faced jointly in order to produce any positive and long-lasting effect. It is therefore essential to identify and implement strategies to work efficiently in this kind of communication system thus making the best out of its information access and sharing options and meeting the development needs.

## Discussion: Experiences and study cases of integrated knowledge management

The difficulties involved in dealing with the current communication system can be summarized into **two main critical factors** that are weakening and interfering with the great potential of the global information network: on one hand, the uniform, constant and direct information flow is an obstacle for individual receivers who need concrete and basic help and must therefore deal with a huge amount of confused and unverified data; on the other hand, information is fragmented and usually presented in a very high level of sectorial specialization, giving the erroneous impression that complex issues could be managed separately. On the contrary, the complexity of the modern world is leading us to increasingly intertwined resources managements and to multidisciplinary approaches to development.

Hence we propose the following **key issues** for discussing the mentioned needs:

1. **Managing the complexity of the modern Knowledge dynamics for development objectives:** the need for strategies and solutions to orientate information management in a world filled with information (with the need for both basic knowledge and applied experience as functional assets for translating knowledge into effective actions and sustainable achievements);
2. **Establishing integrated knowledge management approaches:** strategies and solutions to manage the knowledge of sectorial fields, such as the water and energy systems, within an integrated and multidisciplinary perspective, taking into account their interlinking, as well as in the framework of the specific features and peculiarities of the territory and the relevant beneficiary communities.

The inadequacies in knowledge management capacity will be discussed by a representative of **UNSGAB** against first hand case studies illustrating their impact on policy development.

The **Ministerio das Cidades** will share some lessons learned from the application of a comprehensive approach to resource management in order to act efficiently and consistently with the needs which currently emerge from fast developing local economies and urban expansion. This approach involves identifying best practices and projects, combining social security and quality targets with environmental policies, coordinating and supporting activities, as well as dealing with a complex range of problems at a local scale and with a governance-based management process.

**PETROBRAS** will focus on the rationalization of energy and water use throughout its infrastructural and operational cluster, toward pursuing the goals of eco-efficiency and business excellence in an integrated and sustainable way. This energy corporation will share its lessons learned toward minimizing the negative impacts of its activities on local social economic and environmental realities with particular regard to the unregulated urbanization trend and consequent derangements in the local supply and sanitation services. Consistently with its social responsibility strategy and planning model, Petrobras will discuss how its objectives pursue the management of these impacts by restoring local sanitation infrastructures and enhancing sustainable policies and activities.

In turn, **ENI** will illustrate the engagement and communication approach it adopts in managing its industrial activities. Such an approach stands now as the

Italian national energy company own business model, and allows to translate its corporate responsibility into concrete sustainability pursuits. ENI will illustrate the role that sound negotiation and communication skills can play in direct and cross-cultural relations with the local stakeholders and communities' agreements which emerge as essential features when tackling the above sustainability model.

Lastly, **UN WAPP** will discuss the importance of an integrated system analysis of sectoral information, outlining methodological limits in the data processing with regard to essential knowledge for defining water governance policies and strategies. In fact, UN WAPP's ambitious goal –influencing the world decision makers towards sustainable water management and empowerment policies by fostering a large communication network based on water management monitoring– has to deal with a complex global framework that is still deeply influenced by the still generalized trend of addressing the issues of development through narrowly sectoral strategies.

## **Conclusion: pursuing solutions**

The discussed issues and experiences can provide an ideal framework for outlining and comparing new and more effective strategies for the integrated management of the knowledge related to the green economy.

**EXPO 2015** commitment to development cooperation in integrated knowledge management will be illustrated through a presentation of its 2012 project "Feeding Knowledge", a part of the programme "Feeding the Planet, Energy for Life" and is aimed at the accomplishment of MDG 1 (*Halving the proportion of people who suffer from hunger and undernourishment within 2015*). EXPO 2015 will illustrate a possible cooperation approach for addressing the discussed knowledge management problems, based on the creation of an international network for research and innovation on food security. Such a challenging pursuit is to be developed through the support of several institutional technology platforms, aiming at implementing dialogue and synergies between donors and beneficiary countries as well as to redressing the lack of infrastructure for research in developing areas. An innovative feature of the project will be illustrated which consists in the introduction of *e-collaboratory* strategies, such as shared and constantly updated web libraries, virtual monitoring, and organized dissemination of results.

Lastly, **HYDROAID** will present an innovative vocational training model resulting from its 10 year experience in applied research toward promoting the independent use of available knowledge. Hydroaid will discuss the advantages of integrated training approaches and the importance of building on constant feedback processes for adapting the proposed activities to the actual needs and specificities of beneficiaries. Hydroaid presentation will also defend the contention that combining information with experience helps preventing the disempowerment of development cooperation strategies. By stimulating local participation and consolidating the capacity for bottom-up decision making and consultation in development projects, new schemes can be created together with more effective tools for cooperating, while strengthening skills and fostering sustainability.