**Institut de l'Aigua – Universitat de Barcelona**
**WORLD WATER DAY ACADEMIC CEREMONIAL**
**22 March 2010**

# URBAN GROUNDWATER USE
## Main Observations of Round Table


- **Albert Casas (Coordinator) : IAUB-Barcelona**
- **Stephen Foster (Lecturer) : World Bank-GW.MATE**
- **Francisco Luque : AGBAR-Barcelona**
- **Gabriel Borràs : ACA-Catalunya**
- **Damia Barceló : ICRA-Catalunya**
- **José Benavente : IAA–Granada**
- **Eloy García : IMDEA-Madrid**


**(1)** **Planned conjunctive use of groundwater and surface water sources (including targeted aquifer recharge from excess runoff) has now become accepted practice to improve urban water-supply security by the water-service utilities of Barcelona, Granada & Madrid (in common with many other European cities) – but similar strategies have rarely been deployed in developing cities. It is highly relevant to ask the question how such a culture might be seeded in urban water-service utilities and water resource agencies in developing nations – given that essential facets for the promotion of such practice are a technically-sound planned approach and the integration of charging tariffs for different types of resource use embracing both public and private use.**

**(2)** **Much private waterwell construction and operation in urban areas is 'illegal' – but its illegality does not benefit either the private user or the public administration. This applies almost equally to Spain as to most developing nations, and an initiative of Spanish academic water institutes to review the subject of waterwell illegality and propose practical ways forward to bring a much larger percentage of groundwater users (especially those volumetrically more significant) into legality would be a welcome contribution to addressing this 'entrenched problem'.**

**(3)** **Whilst groundwater contamination with nitrate (mainly derived from domestic wastewater) was a problem common to various Spanish cities and those of the developing world, the knowledge of other urban groundwater contaminants (synthetic solvents, disinfectants, detergents, pharmaceuticals including antibiotics, etc) is far more advanced in Barcelona (and other European industrial centres) than in the developing world. There is a need to identify rapid survey methods to assess the likelihood of encountering these – and approaches to controlling their pathways to aquifers.**

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