

Zaragoza: taking pride in integrated water management in the city

Preliminary results of the 2010 City Assessment

Context

- In spite of water scarcity in Spain and in the Aragon region, Zaragoza has secured its access to water from the Ebro, because of priority use, and consumption far below their maximum allowance
- Yet, since the early nineties , there have been efforts to improve water and sanitation services, by:
 - Investing in wastewater treatment
 - Demand management with a view towards reducing consumption, mainly for financial and economic reasons
- High degree of awareness among the the population and authorities about water issues and the importance of integrated water management: pride for the city and its waters
- Many initiatives and projects to improve water management, besides SWITCH

Origins of SWITCH in Zaragoza

- Prior work on IUWM in Zaragoza prior to SWITCH
 - Municipal Strategic Plan, based on the Agenda 21 process, in which water was prioritised, particularly water demand management and citizen participation through various Agenda 21 Commissions
 - Water demand management efforts, resulting in impressing reduction in water consumption
 - Development of a new tariff structure for water supply, also pushed by the need to use that to invest in wastewater treatment
 - Awareness raising among the population about wise water use
 - Various platforms for participation, dialogue and negotiation; Ebro River Basin Commission, Aragon Water Commission, Municipal Water Commission
 - Expo, focused on water (the Expo was done during SWITCH but the proposal for that was already made earlier)
- Expectations to join SWITCH
 - Zaragoza's broad interest in IUWM, under Agenda 21
 - To showcase Zaragoza's results in this field
 - To strengthen water demand management through an analysis of efficacy of different measures (technical, financial and education)
 - But, gaps in understanding of the operational conditions of an FP6 project (e.g. in terms of contracting) and expectations from SWITCH with respect to research and documentation

Focus and objectives of SWITCH in Zaragoza

- Zaragoza as a demonstration city:
 - To showcase its results and experiences through different platforms at local, national and international level
 - To demonstrate the possibilities for improvements in demand management through technical, financial and education measures
 - To obtain a stronger commitment of officials and citizens towards water, for the pride of being part of a European project

Internal organization

- One single partner in the consortium, the Municipality (Ayuntamiento), but with active involvement of various of its departments (Environmental Management, Infrastructure and the Treasury)
- Small team, with limited possibilities to dedicate the extra time to the project
- When SWITCH started, the Municipality didn't see the need to include the University as research partner. This only happened after 1-2 years in the project
- But then there were many difficulties in finding the right contractual arrangements and in the end it was not possible to (sub)contract the University of Zaragoza
- Support and exchange with other consortium partners on:
 - Project management (UNESCO-IHE and IRC)
 - Research into demand management (WEDC/Loughborough University and Abertay University)

Intervention logic

- **Conceptualizing** the sectorization of the water supply network, and putting that into function (demonstration work)
- **Research and analysis** of the water consumption data, after sectorization, for further actions to reduce water losses (very incipient)
- **Research** into measures (technical, financial educational) aimed affecting water consumption at household level, and how these affect actual water consumption (this was now largely done outside what is SWITCH, as the University never got the contract for this)...
- All of this as inputs into the new Municipal by-law on “eco-efficiency and the quality of integrated water management”
- Using existing platforms for sharing information about SWITCH (above all Municipal Water Commission for the Local Agenda 21)
- Demonstrating experiences and sharing information for an international audience and for local citizens, through the Expo and other events
- Interlinked with broad spectrum of other water-related activities and initiatives in the city, outside SWITCH

Inputs and activities

- Budget size was not a limitation
- But, there were problems with managing and accessing the budget
 - SWITCH funds enter the general municipal budget. From there the Environmental Management unit receives an extra allocation corresponding to SWITCH, but it has limited autonomy in managing these funds
 - Human resources – because of internal rules, the unit couldn't hire additional "replacement" capacity nor hire this externally, leading to difficulties in carrying out the work
 - Difficulties in contracting the university

Results: research in demand management

- Contribution to the scientific base
 - Better understanding of the impact of different types of demand management measures on household consumption (once data of that study have been fully analysed)
- Main added value of SWITCH: without SWITCH this type of research would not have been carried out
- However:
 - This research and its results cannot be claimed fully under SWITCH as it was done by the University without a SWITCH contract
 - Limited capitalizing on the prior experiences with IUWM in Zaragoza (e.g. on the tariff development), as there has been limited documentation and publication of these experiences done

Results: demonstrating sectorization

- Main added value of SWITCH: to give an impulse to take this forward
 - Because it then became part of a project with time limits
 - For the pride of wanting to show
 - By having a framework for it, provided by SWITCH
- The demo provided the possibility to involve various departments of the municipality. But as it was a highly technical work, it bears little interest for a wide group of stakeholder
- Dissemination of work through the Comisión Municipal de Agua
- Documentation is being finalised

Results: sharing information through different platforms

- Explicit decision not to establish an LA, as already various platforms existed at municipal and regional level
- Comisión Municipal de Agua
 - With some frequency SWITCH and its plans and results were presented here
 - This platform also provided inputs into the new by-law and provided feedback on various drafts
- Aragón Water Commission
 - This platform has not been used by SWITCH for the moment
- Confederación Hidrográfica del Ebro (Ebro River Basin Commission)
 - This platform is mainly to divide water and define user charges, so less of interest to share SWITCH results
 - Yet, some inputs were made into a CHE document with good water management practices,, which can be shared with other municipalities in the basin

Results: sharing information through different platforms

- Expo
 - Water Tribune (Tribuna de Agua), where SWITCH concepts were presented, as well as experiences from Zaragoza and other SWITCH cities
 - For an international and local audience
 - Inputs into briefing material for Expo volunteers
 - Follow-up on maintaining the intellectual legacy of the Expo in the form of a “Blue Box” with all cases and presentations on the website. But, what next with it?
- Participation in other international events: conference organised in Zaragoza in Dec 2010, City Summit of ICLEI in Dunkerque and preparatory meetings for the Copenhagen Climate Conference

Resultados: sharing information through different platforms

- Mixed experience in collaboration with other consortium members
 - Various partners have come to Zaragoza to learn from the experiences there (Hamburg, IRC, Loughborough, Latin American city partners)
 - Learning from other other partners and cities has remained below expectations
 - Zaragoza is already employing many of the relevant proposed techniques and approaches
 - Language barriers
 - Support in project management – but in spite of that support, it was not possible to overcome some of the problems, e.g. the sub-contracting of the university

Results: inputs into municipal plans and policies

Municipal by-law on eco-efficiency and integrated water management

- Various by-laws existed dealing with water management
- Need to join, review and expand them into one single by-law, reflecting SWITCH and other project experiences
- Process of compiling inputs from the members of the Municipal Water Commission, review and approval
- In spite of being quite a technical topic, there was some interest in this from politicians, as they had been working on these issues for a while

Review of the tariff structure

- Depending on the results of the research

Update on the Municipal Strategic Plan??

Conclusions

General

- Zaragoza already had a long trajectory of moving towards IUWM before SWITCH, and many of these continued alongside SWITCH
 - The Expo, both in the themes that were presented and the use that was made of the Expo to recover the areas alongside the river
 - Establishment of the Office of the UN for the Water Decade
 - Various ways of involving the citizens, e.g. Expo volunteers
 - The actual water management in the city, was progressive ways of dealing with technology, financing and citizen participation
- Therefore, it was not expected that SWITCH would bring a paradigm shift, but give it another push, above all in showing the results already obtained and contributing to specific demo and research activities

Conclusionss

General (cont.)

- It has been easy and difficult at times to embed SWITCH into this complex of initiatives:
 - Municipal staff already dedicated to IUWM ... but with limited capacity to assume the additional work that SWITCH required
 - Already big investments in IUWM ... but municipal financial management procedures make it difficult to earmark SWITCH funds
 - University with prior experience and capacity for research in relevant themes ... but their late involvement made it difficult to bring in that expertise into the project
 - A lot to show to the consortium... but documenting experiences has remained limited
 - A lot to learn from the consortium... but learning from other partners and cities has remained below expectations
 - Prior existence of stakeholder platforms ... but these platforms were only involved to a limited extent in SWITCH

Conclusions

Obj. 1: Contributing to the scientific base

- Research started late, and therefore results are only now coming out
- Therefore these results and their possible use cannot be assessed yet. However, it is expected that the results can be used relatively easily, as the research responds to specific municipal demands, and was developed with the relevant Municipal departments
- Insufficient capitalization on the possibility to document Zaragoza's experiences prior and outside SWITCH

Conclusions

Obj. 2: demonstrate innovative technologies and approaches

- The demo on sectorization has responded to a clear demand from the municipality and has permitted involvement of various municipal departments
- Even though it is only coming out now, there is a good documentation of this work, and various local channels for dissemination are explored now, with good possibility to use these results at the short and medium term
- At the same time, the entire city can be considered a “demo city” and has been presented as such in various fora (e.g. Expo, December conference), through visits and also recognised as such by outside stakeholders
- But once again, this could and should have been better made use of through better documentation of the experiences

Conclusions

Obj 3. Strengthen stakeholder platforms and inter-institutional collaboration

- The city assessment confirms that there would not have been an added value in establishing a dedicated LA under SWITCH, because of different pre-existing platforms for stakeholder participation in decision-making (CHE, Comisión Municipal de Agua), execution of works (Municipal volunteers, ECODES, UN office) and in information sharing (Expo, water library, etc)
- The philosophy behind IUWM was shared widely through these platforms as already large part of this philosophy existed, but this was strengthened through SWITCH
- However, sharing the specific and more practical SWITCH experiences in for example sectorization has been done in a more limited way (e.g. the work was presented at the Comisión Municipal de Agua), where it was focused only to the directly involved stakeholders, also as it was a very technical topic

Conclusions

Obj. 4: input into municipal plans and policies

- SWITCH contributed towards meeting the objectives and targets of the Agenda 21 process as part of the Municipal Strategic Plan; however, this contribution must be seen amidst all other water related activities
- The most direct contribution that SWITCH made was in the new municipal by-law, which reflects concepts and results of SWITCH (and other water related experiences in the city)
- The results of the research have the potential to also feed-back into other policies, e.g. on the tariff structure. However as data are still being processed, it is too early to say so
- Updated strategic plan???

Recomendations for Zaragoza

- General
 - Finalise the documentation of the SWITCH process and results (this city assessment)
 - Showcase the SWITCH process and results in Zaragoza to the other consortium partners, e.g. through the conference in December
 - Present all SWITCH results in Zaragoza in a structured way to the existing platforms in the city
 - There is no need for an exit strategy, as SWITCH is already well linked into other activities of the Municipality. But for some of the parts of SWITCH there is need to define specific follow-up activities.

Recomendations for Zaragoza

- Obj. 1:
 - Analysis and validation of the research results on demand management measures
 - To start research and data analysis on sectorization
 - To consider investing in a more complete documentation (systematization) of the entire trajectory that Zaragoza has followed in IUWM
 - Define a research agenda for the future. Already some elements for that were obtained and these include the following suggestions:
 - Focus reducing water losses in industries and in the network
 - Tariffs for wastewater treatment, also for industries
 - Cost-benefit analysis of water demand measures
 - Wastewater reuse

Recomendations for Zaragoza

- Obj. 2:
 - Continuing the sectorization for the parts of the city that haven't been covered
 - Agenda for other demo ideas, some of which coincide with the research agenda
 - Improve documentation of "Zaragoza, as a demo city"
- Obj 3.
 - Present the specific SWITCH work and results at the relevant platforms, so as to achieve a better dissemination of the results

Recomendations for Zaragoza

- Obj. 4:
 - Promote the approval of the new by-law
 - Give follow up to the research on water demand management and sectorization so as to include these into an updated version of the by-law
 - Promote and share the results of this work at the level of the CHE and Aragon Water Commission, for inclusion in regional water policies or in local water policies of neighbouring municipalities. This represents a potential that hasn't been take to the maximum yet

Recomendations for similar future projects

- Look from the onset for a partnership between local authorities and universities or other research groups with capacity in research and documentation
- Define clusters of cities with similar levels of development, contexts and problems, so as to achieve a higher level of mutual learning and a higher added value
- Find a balance of integrating and institutionalizing a project in an entity like a municipality, and delineating the project with its own activities, budget and products