

# Integrating environmental issues into the planning and management of cities: IHS<sup>1</sup> experience

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This brief article depicts the experience of the Institute for Housing and Urban Development Studies, a Dutch training and education institution based in Rotterdam, in addressing the challenges of sustainable urban development. It first introduces how environmental management and sustainable urban development has become an area of concern of the institute. It further explains how the learning from the actual practice of cities through documentation, case study development and on-the-job training are used to strengthen capacities of practitioners from government and non-governmental organizations in order to enable them to address the challenges of sustainable urbanization in an effective manner.

## Introduction

From the beginning of the 90's onwards the Institute for Housing and Urban Development Studies-IHS started broadening its approach to urban management and planning by integrating new concepts and new approaches to resolve the problems of cities in a fast urbanising world. By that time it had become clear that the urban environment needed to be tackled from a different perspective, with greater understanding of the environmental impacts of urbanisation and how to mitigate or prevent them to take place, and involve local authorities and citizens in the solution and approaches if sustainable urban development had to be accomplished.

The response came through the design of a global research programme that was financed by the Dutch government entitled "Best Practices in Urban Environmental Management" which helped giving birth to the "Best Practice" programme endorsed and incorporated by the United Nations Human Settlements Programme a few years later. Basically, IHS and local partners in various parts of the world were documenting and systematising the way cities were addressing problems like air pollution, garbage, traffic, waste water, water management, etc. and disseminating this knowledge through publications and workshops. This was linked with the development of a master programme on urban environmental management in cooperation with the Wageningen University-WU. Rather than approaching the environmental problems from an environmental science and engineering viewpoint (which was the strength of WU), IHS has focused on the policy, planning, management, financial and citizen participation aspects of the problem.

This is in line with the tradition and long stand experience of the institute with different development projects and programmes in various parts of the world. The axiom "think globally and act locally" that emerged with the United Nations Conference on Environment and Development (UNCED, Rio de Janeiro, 1992) matched perfectly the approach IHS was pursuing. There was a belief that under a rapid process of

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<sup>1</sup> The IHS-Institute for Housing and Urban Development Studies is an international education and knowledge-based institution associated with the Erasmus University Rotterdam, founded in 1958, and with the mission to improve the quality of life in cities at global scale. See [www.ih.nl](http://www.ih.nl)

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urbanisation – the world is actually moving towards an urban planet – the global environmental problems like global warming, air pollution, etc. had to be tackled locally, at the city level. And for this to take place, local governments and various stakeholders had to have the capacities and instruments to start acting. Thus the ambition and challenge was to tackle this through a capacity building agenda and ultimately exercise the mission of the institute.

The chapter 7 of Agenda 21 – approved and endorsed in the UNCED – reinforced the need to address the role of cities in sustainable development. Sustainable urban development had also become part of an environmental agenda.

The association with the Sustainable Cities Programme – SCP was very strategic in that respect. Since its early days, more than a decade ago, IHS has been collaborating with the Sustainable Cities Programme (SCP). On one hand, IHS staff worked on the preparation of the programmes in various cities providing technical assistance and expertise, by that SCP benefiting from the international expertise of IHS. On the other hand SCP provided direct access to the knowledge and information on environmental planning and management strategies generated in more than 60 cities in the world. This collaboration has triggered the development of case studies and training support materials used by IHS in its different training programmes. Furthermore this has helped to promote the methodologies and approaches and the wide dissemination of the EPM<sup>3</sup> approach amongst practitioners from local governments, non-governmental organisations and higher education institutions that regularly enrol in the international courses offered by IHS in Rotterdam. The Netherlands Ministry of Development Cooperation has facilitated this win-win situation by providing valuable support.

IHS has also been closely involved in Localising the Agenda 21 – LA21 in cities of Peru and promoting it through its training programmes in the Netherlands and abroad. The LA21 promotes participatory and long-term strategic planning focusing on priorities that will help cities to address sustainability of local development. It is embedded into a governance approach that enables citizen participation as well as the involvement of various stakeholders. A 2002 survey carried out by ICLEI revealed that there were 6400 local governments in 113 countries involved in LA21 activities over a 10 year period<sup>4</sup>.

### **A Learning City: IHS and the city of Rotterdam**

IHS is closely associated with the history of Rotterdam and particularly with its post-WW II reconstruction when a building centre of excellence was found with the mission to develop methodologies and approaches to address the dramatic housing backlog, to increase housing production and develop prefab technologies among other things. That was the birth of the institute for housing studies that later broadened its scope to urban development incorporating a number of issues such as environment, finance, poverty, governance, strategic planning and other issues.

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<sup>3</sup> EPM stands for Environmental Planning and Management. The SCP is a UN-HABITAT/UNEP programme that works with local authorities to promote the sustainability of cities through the implementation of urban environmental planning and management (EPM) approaches technologies and know-how. The programme helps local authorities to identify and address urban environmental priority issues and implement well-balanced EPM strategies. The SCP-EPM methodology is a broad-based, participatory decision making process that promotes local capacity building. See details: <http://www.unhabitat.org/scp>

<sup>4</sup> International Council for Local Environmental Initiatives – ICLEI. See details: <http://www.iclei.org>

The city has undergone a remarkable urban transformation thanks to a very active and creative local government. It is a live and dynamic laboratory in city planning and management associated with its enormous port, one of the Netherlands' economic gateway. The strategic planning process that was launched in the second half of the 90's identified some issues affecting the quality of the urban environment. The attention given to non-motorised transportation and accessibility to pedestrians, particularly within the framework of the inner city development strategy, was paramount to turn the city more environmentally sound. Interesting forms of public-private partnership also boosted not only economic development but a total face lift in the city centre, all in line with better accessibility and safety for bicycles and pedestrians and better quality of the open public space.

Under the strategy to turn the city a sustainable city, more and more emphasis was given to support non-motorised transportation e.g. bikes, bike taxis, walking, electric tram, etc. In addition, all watercourses like canals and the main river Maas did undergo interventions to improve the quality of the waterfront but also to provide amenities and better quality of the water. The goal was to improve the quality of life and the urban environment. The integrated public transport and the solid waste management system in the city provide interesting lessons. On the one hand there is a garbage recycling programme that helps to produce blocks that are used in street pavement but on the other hand, there is still very little progress in getting segregated collection at the household level.

The training programmes of IHS provides a strong link with the city and allowing an interesting cross-fertilisation and real situations where participants from all over the world get to know how an European city addresses some of the same kind of problems they face in their home town, under totally different development conditions and financial constraint. It is curious that a city like São Paulo has a municipal budget that is less than half of Rotterdam's while having more than 17 times its population. However, one sees initiatives to address urban mobility and solid waste management in a very similar way but with totally different resources and mandates.

What we have witnessed is that cities are learning from each other. Rotterdam has become a learning city in that respect. But we should not underestimate that lessons from the developing countries are equally important for European cities. For example, the city of Curitiba, a 1.8 million-inhabitant town situated in the southern region of Brazil, has shown the world how an integrated and strategic type of urban planning and urban management can result in a concept of sustainable city.<sup>5</sup> Not only the garbage is segregated at the household level and the industry of recycling is boosted – saving trees and woods from the paper industry – but also the integrated public transport – linked to a well thought land-use planning and densification strategy – based on buses and interlinked terminals have helped the city to earn important prizes in energy conservation. The integrated public transport system of Curitiba helps the city not only to consume less 30% of energy than most Brazilian cities but also to attain one of the country's newest bus fleet thanks to an efficient public-private partnership. The reliability and comfort of the system seems to boost its maximum use. In the beginning of the 90's the system was carrying 1.3 million passengers/day or the equivalent of 80% of its population by then.

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<sup>5</sup> Data provided by IIPUC, 1994

So, the lesson for IHS, and for those practitioners who attend the programmes and have the chance to visit and meet with planners and policy makers in Rotterdam, is that the sustainable city concept is not only an environmental concern but it includes an integrated and strategic thinking and acting, greater citizen involvement, more transparency and making use of the environment at the same time as a resource and as an asset to be preserved.

The above is illustrated by the experiences of Enschede, a small Dutch city, where participatory planning approaches were used to rebuild a large neighbourhood which was destroyed after a firework factory exploded in 2000. The successful experiences of planning to rebuild the neighbourhood characterised by stakeholder participation and transparency were shared with Iraqi professionals from NGO's, architects and Housing sector in a UN-HABITAT course implemented by IHS and UTI, Egypt at the end of 2005.

### **Post Disaster Redevelopment Planning and Environmental Planning: learning from practice**

A heavy and dramatic explosion in the neighbourhood of Roombeek in the heart of the city of Enschede, destroyed more than 650 houses and devastated 42 hectares, after a firework factory exploded on 13<sup>th</sup> of May 2000. Luckily it was a warm day and most of the residents were outside their houses, which limited the number of death to 22. The neighbourhood of Roombeek was one of Enschede's low-income areas. The city- and national government took this disaster as an opportunity to create a better living environment. A Plan of Action was formulated to boost social, economical and physical reconstruction in Enschede to be able to resume urban life and make it better than it was prior to the disaster.<sup>6</sup>

#### *Initial Response*

The immediate response by the city government after the disaster was to bring material and social security to the residents: housing, compensation for losses, and the guarantee of returning to the neighbourhood after the reconstruction. Also psychological assistance was given, which was available throughout the reconstruction process. This was one of the functions of the central Information and Advice Centre which was set up at the department of the council in Roombeek. The national government, through its Big Cities Policy<sup>7</sup>, supported the city government with finance and the set up of an advisory committee to support the participatory planning process. This policy, developed specifically to tackle problematic areas in the larger cities in the Netherlands, works with the vision of sustainable city development in which participation is a guiding principle. IHS often takes its course participants to cities targeted by the Big Cities Policy to learn on-site what the integrated approach to problems actually means. Because of its characteristics, Roombeek was eligible for the 'Quality Impulse', a budget which has been made available by the Big Cities Policy to finance (extra) quality services in needy neighbourhoods.

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<sup>6</sup> The data presented on Enschede is based on interviewing the Reconstruction Project Officer's Communication Expert, a field visit and a number of documents which were made available by the Reconstruction Project Office (Projectbureau Wederopbouw). The photos are also made by the Projectbureau Wederopbouw. The planning and reconstruction process is very well documented for lessons learnt and sharing and has attracted interest from both within Europe and the US. Website of Enschede: [www.enschede-stad.nl](http://www.enschede-stad.nl) / [www.enschede.nl](http://www.enschede.nl) / [www.roombeek.nl](http://www.roombeek.nl)

<sup>7</sup> Big Cities Policy website: [www.hetkenniscentrum.nl/](http://www.hetkenniscentrum.nl/)

The city council developed a 'Work Plan for Physical and Social Reconstruction' and a 'Communication Plan' which would be crucial to guide the participatory planning process. Emphasised in the Work Plan was that the physical and social components should get equal attention. The Work Plan was a sine-qua-non condition for the national government to make finance available. The city government saw the disaster as an opportunity to develop a high quality plan based on participatory planning. The city government realized from the very beginning the need to work closely with the people, to regain their trust and to ensure that people would want to live again in Roombeek: but a new Roombeek. This obviously took time.

#### *Setting up the participatory planning process*

When the Work Plan and Communication Plan were approved by the city- and national government, an institutional framework was set up to start the planning process. The city government decided that the participation process should be as independent and objective as possible. Residents should be able to give their ideas, opinions, visions independently from the ones of the council members and Social Housing Associations. This is why the city government established the Reconstruction Project Office, which would be managed and operated by independent experts.<sup>8</sup> These independent experts included an urban planner and a communication advisor (with urban planning background). The selection of these experts was done in collaboration with the Interest Groups.<sup>9</sup> The council members did play a pro-active role. They acted as listeners as well as stimulated discussion between residents in workshops. Council members were refrained from giving their own opinion. Another important feature of the institutional set up was that only one council member (Alderman) was appointed to be responsible for the whole process, which helped effectiveness and decision-making. A special Council Committee was established for the reconstruction process, where residents could also make contributions. This committee had an advisory role and it supported the information flow within the council. After all, at the end of the planning process, the Roombeek Development Plan was to be presented for approval by the Council.

Many residents were already organized via the Social Housing Associations into resident associations and in clubs. The formal community organization that existed before and was part of the institutional structure of the city government was not seen as very active and had a much larger coverage. This explains why the Social Housing Associations promoted their own participatory planning process. A working agreement was made between these resident associations and the Reconstruction Project Office to ensure everyone worked towards the same goal.

The commitment to the participatory planning process was further confirmed by the agreement that the urban planning expert would build upon the communication strategy. So before the actual reconstruction planning started, the experts developed a communication strategy for the participatory planning process, which was proposed to the key persons from the community, before its implementation.

Already from the beginning of the planning process the city government was very straightforward and honest towards the people. Not all ideas generated by residents and entrepreneurs could be realized (people were informed about the budget available for the

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<sup>8</sup> This institutional solution has been typical in urban renewal programmes in the Netherlands. And very often used in developing countries to start up urban reconstruction projects.

<sup>9</sup> Residents and Entrepreneurs organized themselves in 2 Interest Groups after the disaster.

reconstruction and therefore knew the limitations). Secondly the city government made clear that it had the decision-making power. The setting up of these conditions proved to be crucial to keep the planning process transparent.

An important step in the start up of the participatory planning process was the Community Profiling and the Stakeholder Analysis. Through key persons: clubs, schools, health centre, 'new leaders' of the Interest Groups etc. a further analysis was made of all stakeholders who were affected by the disaster and/or should be involved in the planning process. This analysis was very important for the participatory approach developed for each of the different stakeholder group. This made it possible that all of them got involved in the first place. A community profile was then made by these same key persons and which included neighbourhood activities, cultural identity, functions of living, services available, architecture of buildings and industry, social structures etc. It showed e.g. that the neighbourhood had a mixed population; many immigrants and elderly people; a mixture of rented and owner occupied houses; and mixed land use of residential area and working places and shops, characteristics, all of which had to be taken into account in the planning process. It all became clear at this stage that the quality of urban environment was important to all parties involved.

#### *Community participation in planning*

After the profiling and analysis, the planning strategy was further developed and the Reconstruction Project Office made use of very interesting methods and tools to involve residents and entrepreneurs in decision making. The tool books on the EPM approaches mentioned earlier in this paper could have been very instrumental in the participatory planning process in Enschede. The exchange of lessons learnt between cities we see as very relevant. We would like to explain briefly the steps of the participatory planning process in Enschede so that other cities can learn from this methodology. It is worth noting that when we presented this experience to participants from disaster stricken areas, the interest for these lessons learnt was enormous. Other European cities might be equally interested.

The photos below made by the Reconstruction Project Office illustrate some of the participatory planning methods.

#### **Step 1:**

The first planning approach was based on the community profiling in which the key persons representing stakeholder groups were asked to provide a list of all themes and topics which they believed residents and entrepreneurs would come up with as relevant in their community. More than 80 topics in 15 themes were identified and could be divided into three larger domains:

1. Physical development (traffic, green and environment, and architecture);
2. Community based Services (work activities, shops, services, education);
3. Live and Work (safety, health, social structure, recreation and play, art and culture)

The planning process and the Development Plan were developed within these 3 domains.

#### **Step 2:**

The Reconstruction Project Office initiated several planning methods and activities, which made it possible for residents and entrepreneurs to participate when convenient and appropriate for them. The aim was to create awareness on the planning process and make them familiar with this process. Idea-boxes were spread

throughout the city; a website was developed especially for the reconstruction of Roombeek; a regular newsletter was made in which forms were included to send in ideas, comments and questions. Coffee meetings were organized at ward level in which the experts of the Reconstruction Project Office participated; design workshops for artists and projects in schools took place; and the Office visited the elderly and had photo-based discussions with immigrants. After 2 months, during which many people participated in at least one of the activities, the Office initiated their 'main planning step'.

### **Step 3:**

The main planning phase consisted of direct meetings with separate stakeholder groups (elderly, immigrants, entrepreneurs, women, artists) in the different locations of the neighbourhood, concerning their specific living environment. It involved three weeks of intensive meetings at locations to provide the planning team with detailed ideas, thoughts, needs and concerns from the stakeholders.

### **Step 4:**

Based on the results of the first three steps the Reconstruction Project Office developed the Roombeek Development Plan and Vision over a period of 3 months. The Development Plan was then presented at an exhibition in the National Museum of Twenthe in Enschede and meetings were organized with all stakeholder groups. In this phase residents and entrepreneurs could give their objections and comments. Because of the intense and effective participatory planning process, the majority approved the Plan. Only 4 out of 550 people objected. After the approval by the community, the final Development Plan was presented for approval by the Council.

### *After the planning process*

After the approval of the Development Plan and Vision, detailed plans for each domain were worked out by the responsible municipal project leaders. The task of the Reconstruction Project Office had been accomplished. The Reconstruction Project Office however was not immediately abolished and the experts worked together with the municipal project leaders till the end of 2004. The participation level of the residents and entrepreneurs had become different after the approval of the Plan. Many people were 'participation tired' after the intense planning process. Therefore no formal meetings were organized, but indirect participation as presented in step 3 continued. Representatives of stakeholders were organized in thematic groups during step 4. They advised and monitored the work of the municipality. The groups decided themselves how they wanted to participate: informed, consulted or involved.

### *Outcomes*

The majority of the residents decided to move back to Roombeek. After 3 years the first residents were able to move into their new homes. They preferred their community to be familiar again in terms of street lay-out and the architecture of their houses. Most of their ideas were exploring and new, but at the same time they expressed the wish to keep the old identity and values of the community. It was decided that the combination living and working should remain, however it was agreed that there would be no industry in the neighbourhood. Safety and quality of environment had become central in their new Roombeek. In terms of improved services the choice was to cluster health care, social services, and schools. The small shops and artist workshops should return. There was a strong consensus that the community should be a mix of functions and activities again.

The planning process did not have an isolated focus on environment, but instead environmental issues were part of an integrated sustainable approach. A thematic group

worked on the theme Green, Park and Water. The majority agreed that the open space left after the destruction of the firework factory and other industry, should be used as green area and include parks and a Children's Farm. Each area (5) of the community should have a park, all of them linked to each other. Residents were in favour of bringing back the Roombeek Stream. The water had long ago disappeared during the urban development and expansion of the city. Now the water has returned and the residents believe that the water and green in the neighbourhood improves the quality of urban living, especially for the children, youth and elderly.

The Development Plan also proposed strengthening the social cohesion in the community to improve quality of life. Old and new residents were targeted by the social programme, which aimed at building community commitment and tackling unemployment. This included house to house talks with residents, especially to identify people's capacities and skills. Activities were initiated in which residents could use their talents to help each other and the community.

The 'Quality Impulse' budget of the Big Cities Policy contributed to the above mentioned physical, economic and social programmes.

### **Conclusion**

There are several lessons to be learnt from the experiences in Enschede, which could be very interesting for both European cities and developing countries. IHS recently had the opportunity to present the Enschede lessons learnt to Iraqi professionals. The situation in Iraq at the moment is not favorable, the local conditions for development are quite adverse and the independent community- and professional organizations are new. Despite these concerns, they expressed that the planning methods applied in Enschede would be suitable in Iraq, even with limited budget.

It is interesting to see that the sense of urgency has contributed to a high commitment from all stakeholders and has turned a disaster into an opportunity to improve the urban living environment. The integration with the Big Cities Policy has been important because it promoted the participatory planning process and provided the necessary finance. This national policy provided an integrated strategy approach to include the physical/environmental, social and economic dimensions. This made it possible to work towards a sustainable neighbourhood. This is not easy since a lot of time is required when projects need to be streamlined with each other. But the benefits are great, especially in the case of constructing a cluster of services, as mentioned above.

The separation between political and planning decision making in the initial phase of the planning process was fundamental. The establishment of an independent Reconstruction Project Office and the employment of independent experts were effective in building trust and efficiency. The combination of only one accountable Alderman and a 'lump-sum' for the whole project provided a great deal of administrative and executive power which made decision-making easier and more transparent.

Crucial to the reconstruction of Roombeek has been the thoroughly developed participatory planning process. The combination of different planning methods, the direct contacts made by the experts with the residents and entrepreneurs and the early inclusion of the stakeholders has helped to build ownership and responsibility. The establishment of clear 'rules' at the beginning of the planning process in terms of decision-making was a condition for good participation.

The improvement of the urban environment and quality of life in the neighbourhood shows that planning and participation are inseparable elements of a formula of success.

The experience of Enschede has been documented by the Reconstruction Project Office and published by the Dutch Association of Municipalities Publisher for sharing lessons with other cities. Experts from Enschede Municipality are regularly invited outside the Netherlands to present the case of Enschede. Like Rotterdam, Enschede has become a learning city.