



## **Workshop Report**

# **An approach to integrated planning of water and sanitation**

**July 2009**

Anna Norström  
Jaan-Henrik Kain  
Jennifer McConville

## CONTENT

SUMMARY .....	3
INTRODUCTION .....	4
BACKGROUND .....	5
AIM AND OBJECTIVES OF THE WORKSHOP .....	6
WORKSHOP METHOD AND SET UP .....	6
<i>The Strategic Choice Approach</i> .....	7
THE WORKSHOP AND ITS RESULTS .....	7
<i>Shaping mode</i> .....	8
<i>Designing Mode</i> .....	9
<i>Comparing Mode</i> .....	12
<i>Choosing Mode</i> .....	13
<i>Participation</i> .....	14
CONCLUSIONS .....	15
LIST OF PARTICIPANTS.....	16

July 2009

## SUMMARY

Planning of sanitation and water is a complex issue, and particularly so at the municipal level. Here, many different aspects need to be considered in close relation to the implementation of new or upgraded services. It may be argued that this complexity calls for planning as a step-by-step process of strategically choosing between available alternatives for service provision. The so called Strategic Choice Approach (SCA) has been applied, however, mostly in the context of urban areas in developed countries. The question therefore remains about the feasibility of the approach in different settings. As part of a project attempting to answer this question, the workshop “An approach to integrated planning of water and sanitation” was conducted in Adenta on 25-26 February 2009. There were 12 participants at the workshop, representing ten units of the Adentan Municipal Assembly (AdMA).

During the workshop, five priority decision areas were selected DRAINS?, AWARENESS?, WASTE?, CLEANWATER?, and INTERNREV?. The decision area WASTE? was subsequently divided into two subareas, WASTE SOLID? and WASTE LIQUID? to reflect the different waste streams and their respective options more clearly. Two decision schemes were selected for the comparing mode, Scheme D and Scheme F. For three decision areas, DRAINS?, AWARENESS? and WASTE SOLID?, there was only one defined solution per decision area since the proposed options were considered complementary rather than mutually exclusive, thus all merged into one solution. For CLEANWATER? Scheme D opted to work with the Ghana Water Company for centralised solutions for water supply, while Scheme F focused on local solutions for water supply. Moving on to INTERNREV?, Scheme D emphasized imposing sanctions for better collection of revenue while Scheme F focused on improved delivery of services to customers as a way to improve revenue collection. Finally, both Schemes selected the option to construct, operate and maintain a local treatment plant for WASTE LIQUID?.

During the workshop the choosing mode was incomplete and only a brief discussion of uncertainties was included due to time constraints. However, by using four priority comparison areas (economy, functionality, user-friendly and environment-friendly), the participants seemed to agree that the local options for service provision had the most advantages.

### INTRODUCTION

In many cities, people are living without adequate provision of drinking water and sanitation. This problem is especially abundant and growing in the peri-urban areas surrounding urban centres, where expansion of infrastructure cannot keep pace with rapid urbanization. Planning of sanitation and water is a complex issue, and particularly so at the municipal level. Here, many different aspects need to be considered in close relation to the implementation of new or upgraded services. Such aspects may be densification pressures from both housing and commercial activities and the protection of natural resources and environments, as well as diverse income levels, education, cultural habits and the state of a range of existing services. It may be argued that so called strategic planning is needed to address, and respond to, these challenges. It should be noted, however, that strategic planning does not signify a particular level of planning or a specific planning instrument. Instead the complexity calls for planning as a step-by-step process of strategically choosing between available alternatives for service provision.

In the United Kingdom, the Netherlands and Sweden, for example, the so called Strategic Choice Approach (SCA) has been applied. To date most applications of the SCA have, however, been in the context of urban areas in developed countries. The question therefore remains about the feasibility of the approach in different settings, such as the peri-urban areas of Sub-Saharan Africa. In an attempt to answer this question, CIT Urban Water Management and Chalmers University of Technology, with local support from the International Water Management Institute (IWMI) in Accra, are working in a project aiming to try out and adapt the SCA process to the local context found in peri-urban areas in a developing country, such as Ghana.

As one important part of the project, a workshop was organized where local municipal actors were invited to discuss their perspectives on the planning of sanitation and water. The aim was to highlight local challenges, barriers and opportunities through the support of the SCA. This report provides an overview of the SCA, and presents outcomes and conclusions from the workshop “An approach to integrated planning of water and sanitation”, conducted in Adenta on 25-26 February 2009. The authors would like to thank all participants for their contributions to the process.

July 2009

## BACKGROUND

Accra is one of the fastest growing cities in West Africa and the legal boundary of the city has been redefined several times in the past. The Structure Plan produced for Accra in 1992 provides a framework for guiding the current and future development of the cities of Accra, Tema and Ga in an integrated manner. The plan, however, does not provide any measure for dealing with the areas which have already developed in a haphazard manner without any spatial planning, nor does it consider the peri-urban areas, characterized by an increasingly sprawling cover of large one-family housing at various stages of completion, which is at places mixed with fairly compact and preserved indigenous villages and high density settlements.

In 2007, new districts and municipalities were created by the former president. Hence, Adentan Municipal Assembly (AdMA) was inaugurated on 29 February 2008. This area was, and in some ways still is, considered as part of peri-urban Accra, and before the new districts were created this area used to be a Zonal Council belonging to Tema District. Due to the elevated status, a whole new administration had to be put in place as well as new district plans and policies produced. For the project, AdMA with its high-set ambition and willingness to try new working modes provided a unique opportunity for collaboration.

In Ghana, the district assembly is the highest political and administrative authority. Regarding the water and sanitation sector, the responsibilities of the assembly are defined in two different national policies. According to the National Water Policy<sup>1</sup>, district assemblies are responsible for the planning, implementation, operation and maintenance of water and sanitation facilities and the legal owners of communal infrastructures in rural communities and small towns. For urban water supply, however, the Ghana Water Company Limited (GWCL) is responsible for overall planning, managing and implementation. According to the Environmental Sanitation Policy<sup>2</sup>, district assemblies have the overall responsibility for: i) waste management (covering collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, health-care and other hazardous wastes; stormwater drainage; and cleansing of thoroughfares, markets and other public spaces); ii) public health management; iii) environmental monitoring; iv) provision of works related to environmental sanitation facilities; and v) planning, monitoring and public relations.

The responsibility lies with the assembly, however, within the assembly there are several units and departments that are involved and affected by water and sanitation issues. Therefore, one challenge is to find ways to cooperate, and make sure that various points of view, knowledge and experience from the different units contribute to the overall planning process. This is one of the goals of the Strategic Choice Approach.

---

<sup>1</sup> National Water Policy, June 2007. Government of Ghana, Ministry of Water Resources, Works and Housing.

<sup>2</sup> Environmental Sanitation Policy, draft final May 2007. Government of Ghana, Ministry of Local Government, Rural Development and Environment.

July 2009

## AIM AND OBJECTIVES OF THE WORKSHOP

The aims of the Adenta workshop were two-fold. One aim was to go through one cycle of a Strategic Choice Approach (SCA)-process together with local municipal officers in order to discuss challenges and possibilities when it comes to sanitation and water provision in the district. The second aim was to get input, reactions and contributions to the SCA process in itself from the participants.

Objectives:

- Expose participants to a new planning approach, i.e. the SCA
- Discuss the experiences of the different steps of the SCA-process
- Contribute to the making of a roadmap on how to work with water and sanitation

## WORKSHOP METHOD AND SET UP

SCA was developed in England in the field of operational research<sup>3</sup> and is a framework tailor-made for dealing with complex planning issues. It can thus be used by decision-makers and planners in planning for sustainable water and sanitation systems.<sup>4</sup> The emphasis of the SCA is on the ability to support incremental (stepwise) decision-making over time through a systematic management of both uncertainties and diverse knowledge input. SCA sees planning as a non-linear process and stresses that the process is continuously shifting between four complementary modes of planning and decision-making. A more detailed description of these modes and the process is provided in the following chapter “The Strategic Choice Approach”. During the workshop, a condensed version of the SCA was used as support for the process of discussing water and sanitation in Adenta. The reason for this simplification was the aim to go through a cycle of SCA, in spite of limited resources in terms of time and money.

After consultations with the Chief Executive of Adenta Municipal Assembly (AdMA), the geographical focus of the workshop was decided to coincide with the administrative boundaries of Adenta Municipality. Hence, through the Chief Executive, officers representing the different units at AdMA were invited to the workshop. In total, there were 12 participants at the workshop, representing ten units, along with two process facilitators and two observers (one from Chalmers University and one resident from IWMI). The workshop was scheduled over two days, starting at lunch one day and finishing at lunch the second day, where the joint lunches gave opportunities for informal discussions outside of the workshop. The agenda set out to cover the four steps of the SCA, with a focus on showing how the process could be conducted rather than on choosing a final solution for water and sanitation services. The emphasis during the workshop was on provision of water and sanitation for all individuals, including urban, peri-urban and rural areas.

---

<sup>3</sup> Friend J. K. and W. N. Jessop (1969) *Local Government and Strategic Choice: An Operational Research Approach to the Processes of Public Planning*. Tavistock Publications Limited, London, UK.

<sup>4</sup> Kain J.-H. (2003) A process-oriented approach to infrastructural change. In: Söderberg H. and E. Kärman (eds) *MIKA – Methodologies for Integration of Knowledge Areas*. Report from Dept. of Built Environment and Sustainable Development, Chalmers University of Technology, Göteborg, Sweden.

## The Strategic Choice Approach

In short, the SCA distinguishes between four interconnected stages or basic modes of planning and decision-making:

**The shaping mode** – during which strategically relevant questions “decision areas” are selected to shape the focus of the planning problem.

**The designing mode** – during which plausible options are identified and potential solutions “decision schemes” for addressing the questions are designed.

**The comparing mode** – during which the potential solutions are evaluated and compared; this involves:

- selecting criteria and indicators for use in assessing the strategies,
- introducing relevant information to aid the comparison, and
- integrating knowledge of involved stakeholders.

**The choosing mode** – by choosing among the potential solutions the process moves towards a phase of decision-making and building of commitment among stakeholders. Here, critical uncertainties (lack of knowledge) are also identified.

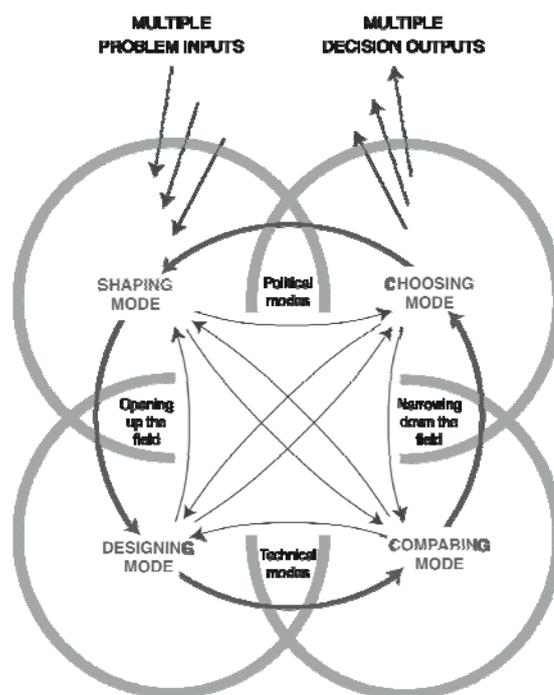


Figure 1. The Strategic Choice Approach.<sup>5</sup>

One of the most important features of the SCA is that the process is not linear or even cyclic, but fully iterative – it is both possible and necessary to move freely between the four modes in a way which best suits the planning task at hand. SCA also supports planning under uncertainty and emphasizes that partial decisions should be taken whenever possible – that complex realities call for a step-by-step building-up of strategies and commitment.

## THE WORKSHOP AND ITS RESULTS

The agenda for the workshop basically divided the four modes between the two days. The first day thus mostly covered the shaping and designing modes, and was used to open up the discussion and to make it as inclusive as possible. The second day was more focused on narrowing down, and emphasis was on selecting among decision schemes to be compared, and to enter into the comparing mode. The choosing mode was not much dealt with during the workshop, except for a brief discussion on uncertainties.

<sup>5</sup> Modified from Friend J. and A. Hickling (2005) Planning under pressure: the Strategic Choice Approach. 3rd edition. Butterworth-Heinemann, Oxford, UK.

The workshop started with a short introduction and a brief discussion about the SCA and planning under uncertainty, after which the participants introduced themselves and stated their visions for the future of Adenta. Examples of such visions were to better develop human resources, to attract tourism and business, to improve municipal infrastructure, to develop a strong economy and to improve living conditions for all. Later during the discussion, environmental concerns were also added as very important for the future. Several of the municipal officers had taken part in a previous participatory workshop, when the Assembly carried out its vision building.

## Shaping mode

When entering the shaping mode, decision areas (i.e. different planning problems) are formulated as questions that need to be addressed by the ongoing planning and decision-making process. Formulating specific questions in this way helps to focus on more particular issues rather than on a too general issue, such as “the water and sanitation system in this area is not working satisfactorily”. This activity is also known as “expressing the problem situation”.

### *Decision areas*

The shaping mode started with a brainstorming session about problems within the municipality. All participants contributed to the decision areas, usually with something from their own area of interest. As was the intention, the decision areas therefore covered a wide range of issues that is, in one way or the other, connected to water and sanitation provision. During this session planning problems were formulated as questions, which were subsequently given abbreviations in order to simplify the reporting and structuring of the continuing discussions.

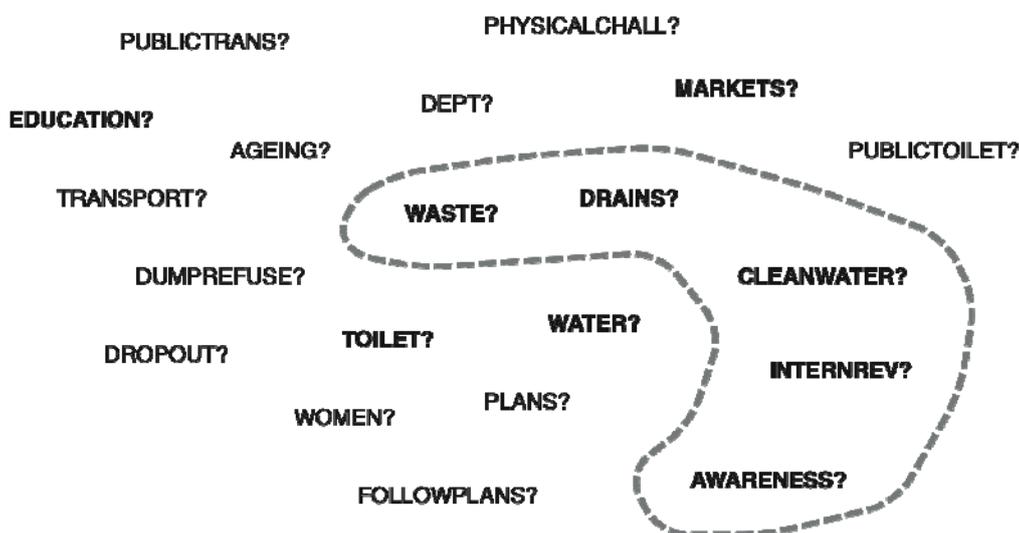
**Table 1.** *Decision areas that came up during the session and their abbreviations.*

<b>Decision Areas</b>	<b>Abbreviations</b>
How to make sure that every household has water ?	WATER?
How to make sure that every household has clean water?	CLEANWATER?
How to get necessary departments in place?	DEPT?
How to make sure that every household has a toilet facility?	TOILET?
How to make sure that the planning procedure is complete?	PLANS?
How to make sure that plans are followed?	FOLLOWPLANS?
How to make sure that solid and liquid waste is collected and managed and properly disposed off?	WASTE?
How to improve drainage?	DRAINS?
How to empower women (finance, education, decision power)?	WOMEN?
How to make sure that there is enough education (schools, teachers, levels) in the district?	EDUCATION?
How to take advantage of the in-moving ageing population?	AGEING?
How to improve public transport?	PUBLICTRANS?
How to decrease transport?	TRANSPORT?
How to stop unauthorized dumping of refuse?	DUMPREFUSE?
How to reduce school dropout (junior and senior high school)?	DROPOUT?
How to improve internal revenue?	INTERNREV?
How to improve attractiveness of local markets?	MARKETS?
How to improve awareness of rights and obligations?	AWARENESS?
How to provide public toilets for non-residents?	PUBLICTOILET?
How to empower the physically challenged?	PHYSICALCHALL?

July 2009

**Priority decision areas**

It is important to highlight and identify as many decision areas as possible in the shaping mode in order to minimize the risk of something getting forgotten or overlooked. However, it is not feasible to work on all such areas at the same time. Priority areas have to be identified, where the others can be dealt with in the next round of strategic planning. To support such a temporary focus, all the abbreviated decision areas were put down on a flip chart (as exemplified below) with the purpose to help the participants choose priority areas in consensus. At first the group wanted to focus on almost half of the decision areas (marked in bold in Figure 2). However, they were only “allowed” to choose five, which are marked as belonging to the focus area inside the dotted line. As can be seen, already at this stage of the process there is a back and forth movement between the shaping (opening up) and choosing (narrowing down) modes of SCA.



*Figure 2. All decision areas and the focus area containing five priority areas.*

**Designing Mode**

For each decision area identified in the shaping mode, a range of potential courses of action will be available. During the designing mode, these options are pinpointed and explored. Before the discussion about different options took place, the decision area WASTE? was divided into two subareas, WASTE SOLID? and WASTE LIQUID?, to reflect the different waste streams and their respective options more clearly.

**Options**

At this stage the participants were encouraged to propose as many options as possible, and the intention in SCA is to find mutually exclusive options. However, at times this proved to be difficult and for some decision areas the discussed options were rather a set of possible actions that can be implemented at the same time since they target different parts of the municipality or the residents. They are thus complementary rather than mutually exclusive. This is exemplified by the decision areas WASTE SOLID?, DRAIN? and AWARENESS? in Table 2 below.

**Table 2.** Options for the decision areas inside the focus area. For WASTE SOLID?, DRAINS? and AWARENESS? the proposed options are considered complementary rather than mutually exclusive. Thus only one solution (i.e. one abbreviation) is defined for each such decision area, including all sub-options.

Decision Areas	Options	Abbreviations
WASTE SOLID?	<ol style="list-style-type: none"> <li>1. Recycling</li> <li>2. Sort at source</li> <li>3. Door to door collection/Registration</li> <li>4. Characterisation of waste</li> <li>5. Litter bins in public places</li> <li>6. Containers in public places such as the market</li> </ol>	SOLID
WASTE LIQUID?	<ol style="list-style-type: none"> <li>1. Export wastewater and/or liquid waste to neighbouring districts for treatment</li> <li>2. Construct, operate and manage own treatment plant within district boundaries (biogas potential)</li> </ol>	EXPORT LOCAL TREAT
CLEANWATER?	<ol style="list-style-type: none"> <li>1. All water supplied by centralised schemes, operated and managed by GWCL</li> <li>2. Water supplied by local schemes (potentially with local sources, such as boreholes, rain water, streams)</li> </ol>	NATIONAL LOCAL
INTERNREV?	<ol style="list-style-type: none"> <li>1. Improve delivery of services to customers</li> <li>2. Impose sanctions for better collection of revenues (incl. better data base)</li> <li>3. Build awareness among customers to increase revenue</li> </ol>	DELIVERY SANCTIONS AWARENESS
DRAINS?	<ol style="list-style-type: none"> <li>1. Cover drains</li> <li>2. Increase public discipline</li> <li>3. Expand drains and system (a regional perspective)</li> </ol>	DRAINS
AWARENESS?	Creating awareness through different communication channels: <ol style="list-style-type: none"> <li>1. Schools, churches/mosques, hospitals and work places</li> <li>2. Hospitals</li> <li>3. Communities</li> <li>4. House-to-house visits</li> <li>5. Street announcements, leaflets</li> <li>6. Sanctions to change behaviour</li> </ol>	AWARENESS

### **Decision schemes**

Once a sufficient number of options have been identified, they will need to be linked across all decision areas. The aim is now to develop potential solutions – the decision schemes – that form sequences of options that address the decision areas.

Even if only a seemingly small number of options are identified, they can be combined in various ways to produce quite a large number of theoretically possible decision schemes. When listing the options as above, these are not evaluated or assessed. However, when combining them into decision schemes some combinations of options may be mutually exclusive, some options may be more feasible than others, and some may simply be too unrealistic to consider further. As an example, an analysis of the service delivery capacity of a utility or an authority can help to eliminate unrealistic

options.<sup>6</sup> Weighing up the different option-combinations in this way can reduce the final number of theoretically possible combinations. Once again, this is an example of how we temporarily enter the choosing mode to narrow down the number of schemes.

To work visually with the decision schemes, a matrix was developed (Figure 3). As described above, the options for three of the decision areas were all merged into single solutions (i.e. WASTE SOLID?, DRAINS? and AWARENESS?). Hence, these were placed at the beginning of the matrix. For the remaining decision areas, every option had to connect to all options in the subsequent decision areas. An exception was the option AWARENESS, under INTERNREV?, which was discarded (in grey) as this issue already had a decision area of its own. During this exercise, two of the decision schemes were selected to be processed in the next step, Scheme D and Scheme F.

Both schemes contained the merged options for WASTE SOLID?, DRAINS? and AWARENESS? but then differed when it came to CLEANWATER?. While Scheme D opted to work with the Ghana Water Company for centralised solutions for water supply, Scheme F focused on local solutions for water supply. Moving on to INTERNREV?, Scheme D emphasized imposing sanctions for better collection of revenue while Scheme F focused on improved delivery of services to customers as a way to improve revenue collection. Finally, both Schemes selected the option to construct, operate and maintain a local treatment plant for WASTE LIQUID?. Based on the choice of water supply, Scheme D and Scheme F was named NATIONAL and LOCAL respectively (Figure 3).

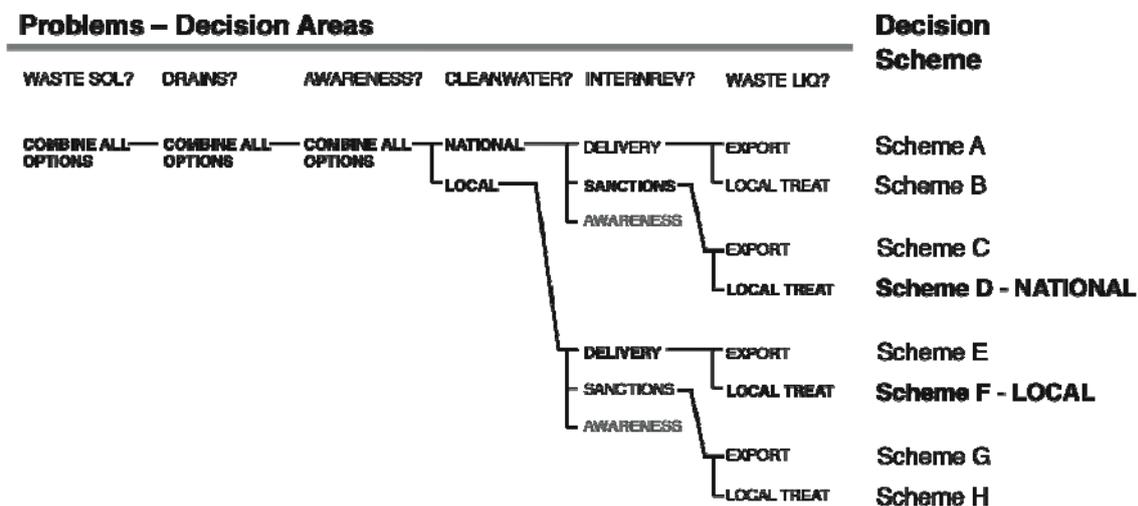


Figure 3. Matrix of Decision Areas and Options. Decision scheme D – NATIONAL and scheme F – LOCAL are marked in bold throughout the matrix.

<sup>6</sup> IWA (2006) Sanitation 21: Simple Approaches to Complex Sanitation – a Draft Framework for Analysis. IWA, London, UK.

July 2009

## Comparing Mode

When entering the comparing mode, the aim is to reduce an initially wide range of potential strategies to a limited number of principal strategies by weighing up the pros and cons of the different decision schemes. This is done using comparison areas that define the criteria for assessing the decision schemes. These comparison areas are formulated by the participants during meetings and may consist of both place-specific local criteria and generic globally-relevant criteria.

### **Comparison areas**

Due to time constraints, only a short, but still rather intense, discussion was held concerning comparison areas and criteria. The group identified seven comparison areas, which could in turn be divided into subareas or more specific criteria. For example, economy include a wide range of issues such as investment, maintenance, cost and revenue. However, for this exercise the general criteria were used (Table 3). For the next comparing step, the group selected four priority comparison areas: Economy, Functionality, User-friendly and Environment-friendly (in bold).

*Table 3. Identified comparison areas (priority areas in bold).*

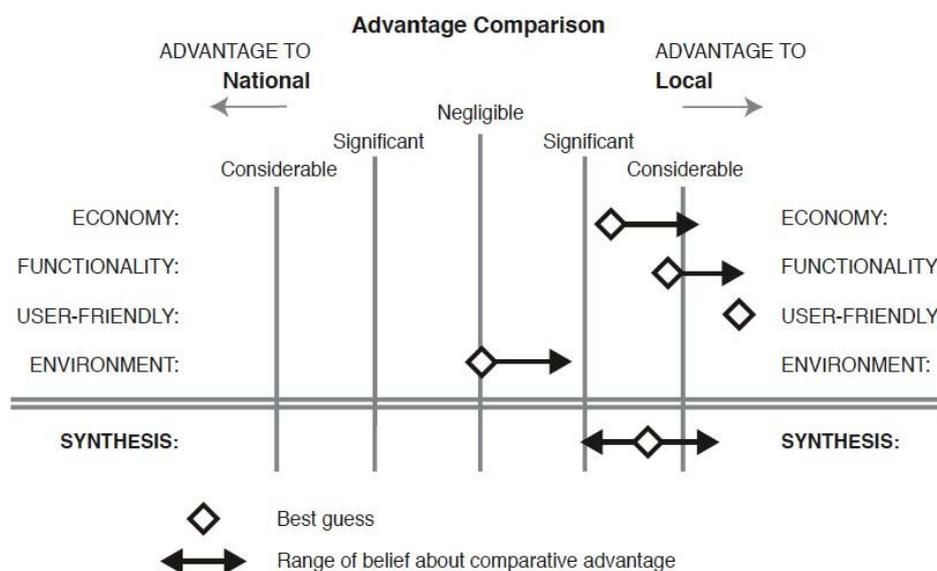
Comparison Areas
<b>Economy</b>
<b>Functionality</b>
Reliability
Accessibility
<b>User-friendly</b>
<b>Environment-friendly</b>
Vulnerability

### **A comparing example**

In a real planning situation, all feasible decision schemes would be compared against each other in order to show the advantages of the respective schemes. During this workshop, however, only two schemes were compared, the previously selected Scheme D – National and Scheme F – Local. These schemes were examined based on the four priority comparison areas (Table 3). During the comparing exercise, a series of best guesses indicating the judged advantage for one scheme over the other is marked on a flip chart, with one best guess for each comparison area. These best guesses may also be complemented with arrows showing the range of uncertainty linked to each judgement (Figure 4).

During the workshop, the participants judged Scheme F – Local to be significantly and considerably better in most comparison areas. The only exception was Environment, where the two schemes were seen as more equal, but also here with a potential advantage for Scheme F – Local. When merging the judgements across all four comparison areas, Scheme F – Local was seen as close to being considerably advantageous when compared with Scheme D – National, and only with a quite limited level of perceived uncertainty.

July 2009



**Figure 4.** Comparison between scheme D – NATIONAL and scheme F – LOCAL using four comparison areas. Indicating best guess complemented with arrows showing the range of uncertainty linked to each judgement.

## Choosing Mode

The last phase of an SCA process, the choosing mode, addresses two linked issues: (1) the management of uncertainty and (2) the process of decision-making. To manage both certainty and uncertainty in the best possible way, decisions are made step by step. When sufficient certainty regarding a matter is reached, decisions for taking action may be taken. As uncertainties are defined, also the opportunities to explore them are identified. Or, at times, uncertainties are identified that we just have to live with for the moment, for example due to lack of resources (in time or money) to investigate them.

SCA thus focuses on the timing of decisions and sorts certainties and uncertainties into immediate actions, deferred choices (decisions that for different reasons need to be taken in the future), and so called contingency planning (“if X happens then we need to do Y”). This results in “commitment packages” (i.e. what to do and who will do it) which register the various small steps taken throughout the decision-making process. Such commitment packages typically consist of the following:

- Decisions on concrete and immediate actions which implement the chosen (or parts of the chosen) water and sanitation systems, also stating who has committed to do what.
- Decisions on how (or if) to explore remaining uncertainties further before proceeding, also here stating who is responsible for each exploration.
- Characterization of choices which may be deferred for future reconsideration, if possible including the timing of such future decision-making.
- Formulation of contingency plans to deal with future events that may affect the process at hand.

July 2009

As previously mentioned, the focus of this workshop was to explore the process more than to arrive at a decision, thus only a short time was spent on the choosing mode. Even though this mode was incomplete, it is interesting to note that at the end of the comparing mode the participants seemed to be in agreement that the local options for service provision were the best.

### ***Uncertainties***

The main part of the choosing mode that was covered in the workshop was a brief discussion of uncertainties at the end of the second day. Although the discussion was limited and not fully developed, two participants picked up on this aspect as interesting. One declared that his favourite part in the process was arriving at the uncertainties and seeing the way forward through understanding and working with them. The other thought of uncertainties as the things that are beyond themselves; “these are the things you have to think about but that you do not have much control over”.

Uncertainties that emerged during the other steps in the process concerned the dependency on the Ghana Water Company (such as when and where they will expand their network), involvement of the Community Water and Sanitation Agency for the more rural communities, reliability of the power supply, and funding (e.g. by donors or government funds).

## **Participation**

Planning the development of urban and peri-urban infrastructure is a arduous task, where multiple levels of complexity have to be considered across a series of societal and municipal sectors. It thus becomes critical to identify knowledge gaps, uncertainties, priorities and reasons for those priorities. The most efficient way to do so is by involving local stakeholders from all levels, ranging from the household to the district and city level, as early on as possible in the process.

During the workshop, the different courses of action identified in both the shaping and designing modes reflect the different world views and interpretations of the different actors involved. The shaping of decision areas and the design of options, therefore, consist of a series of negotiations that define what should be seen as viable and what should not. Needless to say, also in the selection of comparison areas, the insight and preferences of the participating stakeholders play a significant role. A key activity when preparing for participatory planning is thus to elaborate with some care who should be invited to participate, for what reasons and at what stage of the planning process. Also, it has to be acknowledged and accommodated that different participants may have different needs, e.g. in terms of support from planning process facilitators and organisers.

July 2009

## CONCLUSIONS

Probably the most irrefutable conclusion is that introducing this type of planning process takes time. It will take more than two half days for participants to become familiar with a new approach. However, the insight and preferences of the participating stakeholders play a significant role and although expanding the process to include more stakeholders will be time consuming there might be other process gains. It should be remembered, that a key activity when preparing for participatory planning is to elaborate with some care who should be invited to participate, for what reason and at what stage of the planning process.

Refinement of the method should work to focus the process to avoid the inclusiveness that hampered the designing and comparing of options during this workshop. This workshop also showed the importance of getting each step focused appropriately before moving on to the next steps, i.e. inclusive decision areas made it hard to develop concrete options, which in turn made it hard to find mutually exclusive design schemes to compare. It was also mentioned that the process could benefit from more time to grapple with the issues, and more discussion and analysis of the individual decision schemes separately before they were compared, as it would give participants a clearer idea of the options.

The varied background of the participants contributed to many diverse and significant decision areas and pertinent inputs to the discussion. However, by choosing priority decision areas, several issues were left out that would also have been interesting to discuss in more detail in such a stakeholder group with a broad knowledge base and diverse fields of experience. Based on the selected decision areas and at the end of the comparing mode, the participants seemed to be in agreement that the local options for service provision were the best.

July 2009

## LIST OF PARTICIPANTS

- D.A. Nii-Noi Adumuah, Former Chief Executive
- Nicholas Nai Adjei, Coordinating Director
- Vida Awuku, Central Administration
- Isaac N. Biney, Budget Officer
- Lilian Baeka, Planning Officer
- Christine Osei-Bonsu, Community Development
- V.S. Nortey, Transportation Officer
- Mickson Aryeetey, Environmental Health Officer
- Mavis Mills-Pappoe, Accounts Department
- Wisdom Atiase, Social Welfare Officer
- Akpene Barnes, Internal Audit
- Edward Mba, Waste Management Officer
  
- Anna Norström, CIT Urban Water Management (facilitator)
- Jaan-Henrik Kain, Chalmers University of Technology (facilitator)
- Jennifer McConville, Chalmers University of Technology (observer)
- Eric Sarpong Owusu, IWMI (observer)

