Decentralization of formal water sector institutions in Yemen from IWRM perspective

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The implementation of decentralization varies among the water sector institutions so the Ministry of Water and Environment and its affiliated authorities and corporations needs to cultivate the lessons learnt for better water resources management and services sustainability. These lessons learnt from urban sub sector reform started in 1997, decentralized approach of rural sector, basin committees to manage water resources and other successful examples need to be assessed for take their benefits and constraints into consideration. The weak human capacity building and financial allocations with unclear institutional roles of different actors in water sector are considered the main obstacles. That affect the performance of different institutions and their roles and responsibilities did not meet the minimum expectation at the national and local level. The government should adapt the approach of sharing the experiences and mutual learning between its institutions for addressing the local communities’ needs and priorities.

Decentralization of formal water sector institutions in Yemen

There had been considerable debate on how the decentralization is going in the water sub-sector affiliated authorities and corporations. The Ministry of Water and Environment (MWE) is a central supervisory, planning and coordination body and its affiliated authorities and corporations are fully independent agencies. The legal framework of these affiliated authorities and corporations depend on law no. 35 for 1991 concerning public authorities, corporation and companies.

The difference between authorities and corporations are clearly legally identified as the Local Corporations (LC) for urban water supply considered as public corporations whereas National Water and Sanitation Authority (NWSA), National Water Resources Authority (NWRA) and Rural Water Supply and Sanitation (RWSS) are considered as public authorities. The sector functions can be divided to policy, urban water sector, rural water supply and integrated resources management which will be explained according to the respective institution to give a clear picture of the water institutions in Yemen.

Policy (MWE)

That new established (MWE) in 2003 reflected a political awareness in the water sector as a whole, and water management in particular, to gain the representation of water sector at the Cabinet level. The water shortage problem is worsening day after day and its impact is being felt on development in general, and agricultural activity in particular, which is threatened in a number of regions (Sana’a, Sa’dah, Rada’ and other areas). Furthermore, water problems have accumulated over long years of fragmented responsibility scattered among numerous bodies and MWE should deal with the institutional and organizational structures to address these problems. Therefore, the establishment of MWE was necessary to achieve the objectives:

- Coordinate with different governmental and international agencies to develop the water resources,
- Protect the environment from pollution, desertification, preserve natural resources and their sustainable utilizations,
- Enact the relevant legislation of water and environment,
• Promote the participation of local communities, NGOs, private sector and women in reform of water and environmental status to enhance the sustainability.

The Ministry and its affiliated corporations and authorities shall strive to achieve their objectives through exercising the powers and functions as in their legal status and manage the water and environment resources in accordance with the National Water Sector Strategy and Investment Plan (NWSSIP 2005-2009) and the related developmental policy of the country.

**Urban Water Supply and Sanitation (UWSS)**

The incapability of NWSA as a central agency for UWSS policy and strategies embodied in slow implementation of planned projects, inefficient services, weak branches to operate and maintain its equipments and machines and weak capacities in terms of financial and human resources to implement responsive interventions. That pushed the government to adopt a reform strategy in UWSS sector. The Cabinet decree No.(237) for 1997 to phase out the program of the reform policies focus on the following objectives:

- Provide adequate and safe water supply and sanitation to majority of the population.
- Strengthen the urban water sector and establish the independent LC’s to work with financial sustainability.
- Separate the regulatory and executive functions to use the resources efficiently and sustainably.
- Develop the human resources to enable the LCs to achieve policies’ objectives and provide different incentives and promotions.

The urban sector reform components focus on providing the water and sanitation services at the local level according to the following principles:

- Decentralization of services and establishment of local corporations in different governorates (15 LCs at 14 governorates and 16 Autonomous Water Supply and Sanitation Utilities at the city’s levels are established);
- Promoting commercial based institutions and the policy of cost recovery (most of LCs and AWSSU cover their operational and maintenance costs);
- Establish regulatory agency (a draft of the law under revision);
- Capacity building; and
- Promote the partnership between public and private sectors.

**Rural Water Supply and Sanitation (RWSS)**

General Authority Rural Water Supply Projects (GARWSP) aims to provide potable water for rural communities that do not exceed (15,000 persons) and islanders’ populations through promoting and supporting public in kind contributions (5-10% of the scheme cost) and providing technical support for sustaining these small scale projects. Its functions related to develop water resources’ plans and programmes to supply water in rural areas in coordination with local authorities and communities.

**Integrated Water Resource Management (IWRM)**

NWRA establishment was approved before the establishment of MWE, so some roles and responsibilities of NWRA were transferred to MWE related to policy, strategies and plans for water resources management. Its’ objective is to conserve the water resources and draw the policies, strategies and plans to manage develop these resources to ensure its sustainability for socio-economic developmental plans.

NWRA’s organizational structure divides into two main sectors to handle the issues of water management which are: Sector of monitoring, awareness & water rights and the sector of planning and studies to exercise the functions of basins’ water policy and strategies with concerned agencies at the basin level. It also carries out specific studies, surveys and researches to develop the water resources and evaluate the demand and allocation priorities between sectors.

**Decentralization of water sector institutions**

The framework of the decentralization of water sector in Yemen can be explained in Figure 1 which explains that the main inputs of capacity (knowledge, financial and human resources) and accountability
(horizontal and vertical) can influence the extent of the involvement of the actors to fulfill their tasks and responsibilities. The lessons learnt from previous decentralized processes can be built on to strengthen the capacity of actors to manage their water resources sustainably and indirectly increase their accountability.

The political awareness influences the decision making process and accountability levels to enable the actors to have sufficient capacity to carry out their functions and to participate actively with clear legal and institutional framework in policy formulation and implementation. The political awareness reflects the significance of the water resource in development and to what extent the government enhances its bodies to address the constraints for achieving desirable impacts on equity, efficiency and sustainability.

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The output box indicates the expected results of interactions of the extent and forms of decentralization and the role of actors and their powers with the variables of legal and institutional capacities’ and institutional arrangements at national, regional and local levels. These outputs urge to strengthen the coordination of sub sector institutions and actors’ capacities, good utilization of water resources with improvement in water and sanitation services, and clear identification of roles and responsibilities. The outcomes will response to the reinforce the institutional aspects of water institutions to address the local needs in accordance to the resources and water policies and strategies. The ultimate impact is to reach to more efficient and equitable water resource management.

**Figure 1. Aspects of decentralized water resources management in Yemen**

**Strengths for decentralization in water sector**

The strengths and weaknesses for the decentralization are varied from one institution to another in water sector as different approaches and accumulative experience applied in this sector which still needs to have successful models. These models of decentralization approaches aims at meeting the desired outcomes and impact. The strengths and weaknesses divide according to the role of the water sector institutions as shown in the following table:
## Table 1. Strengths and weaknesses of decentralization in water sector

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy (MWE)</strong></td>
<td><strong>Weak technical and monitoring capacities</strong></td>
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<tr>
<td>• Water law and regulations</td>
<td>• Dominant role of Ministry of Agriculture (MAI) on WRM. MWE control 10% of WR and 90% used in agriculture sector</td>
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<tr>
<td>• Water awareness increase at different levels especially decision makers and planners</td>
<td>• Overlapping of policies and strategies that did not take WRM into consideration</td>
</tr>
<tr>
<td>• Water resources as key indicator in development plans</td>
<td>• Practical coordination steps are required at different levels</td>
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<tr>
<td>• Coordinate water projects and align donor interventions</td>
<td></td>
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<tr>
<td>• Strengthen affiliated authorities and corporations capacities</td>
<td></td>
</tr>
<tr>
<td><strong>IWRM (NWRA)</strong></td>
<td><strong>Limited technical and financial resources</strong></td>
</tr>
<tr>
<td>• Enhance juridical role for wells drilling</td>
<td>• Have no juridical powers and capacities for applying water law provisions</td>
</tr>
<tr>
<td>• Divide Yemen in basins to promote the participation of local stakeholders</td>
<td>• No clear coordination mechanisms with involved stakeholders (Local Authorities, governmental agencies, NGOs)</td>
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<td>• Donor interests to decentralize WRM at basin levels</td>
<td>• Water scarcity and deterioration of water quality</td>
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<tr>
<td>• Promote Water User Associations to handle water issues in their areas (79 WUAs and 614 WUGs established)</td>
<td>• Weak coordination with MAI for WRM in agriculture sector</td>
</tr>
<tr>
<td>• Capacity building for Local Authorities and basin management committees to apply water law</td>
<td>• Weak capacities of branches hinders regional planning</td>
</tr>
<tr>
<td><strong>UWSS (NWSA &amp; LCs)</strong></td>
<td><strong>Political interference in projects selection and during implementation</strong></td>
</tr>
<tr>
<td>• Decentralization of UWSS considered as successful example of decentralization in water sector</td>
<td>• Field obstacles (unsuccessful wells, quality of the water, geographical and technical problems)</td>
</tr>
<tr>
<td>• Promote the financial sustainability of LC though local cost recovery policy</td>
<td>• Sanitation services and problems associated treatment affect the LCs financial sustainability</td>
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<tr>
<td>• Local based utilities leads to better services</td>
<td>• Weak technical skills (10% of staff are technicians)</td>
</tr>
<tr>
<td>• LCs and autonomous utilities can cope with changes and their plans are simple and realistic</td>
<td>• Private sector role in water and sanitation services is not regulated</td>
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</tbody>
</table>

**GARWSP**

<table>
<thead>
<tr>
<th>Strengths</th>
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</thead>
<tbody>
<tr>
<td>• Promote the role of local communities in O&amp;M for implemented projects to ensure their sustainability to build a spirit of ownership by involving the community in monitoring and following to build up their capacities</td>
<td>• limited financial and technical capacities</td>
</tr>
<tr>
<td>• Depend on Demand Driven Approach, so local communities have their chances for water services equitably and raise their voice to decision makers</td>
<td>• Different actors in RWS&amp;S with contradicting and scattered projects</td>
</tr>
<tr>
<td>• Scarce water resources and number of high failed wells in different locations</td>
<td>• No representative of branches at districts levels to benefit from districts’ resources and coordination with other sector at grass root</td>
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<tr>
<td>• Weak water law enforcement</td>
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## Conclusion

The aspects of decentralization for formal water sector rely principally on the governmental system and the institutional arrangements are shaping the stakeholders’ interactions accordingly. Therefore, decentralization of formal water institutions required:

- Continuous monitoring of the decentralization processes and impacts must be analyzed in terms of legal, financial, administrative, economical and technical effects on different actors. This helps the actors to be well informed; transparent decisions will be consistent with higher accountability and address the local priorities.
Enabling institutional and organizational arrangements should be adopted at central/governorate and local levels to ensure water resources sustainability, equitable roles and responsibilities of all actors in the decision making and real participation.

Benefit from the learnt lessons of past and ongoing institutional reform process, to assess the required institutional arrangements to improve WM:

1. Human and financial resources
2. Actors’ participation and equitable representation of different society’s segments
3. Cooperation among cross sectors
4. Decision making processes
5. Fulfill of centralized and decentralized management systems to water needs and uses
6. Options and limitations of decentralized sub sector to enable participation and accountability
7. Participation of local water institutions to fit in the existing formal and informal institutional structures.

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