Syrian Arab Red Crescent

Regional WASH Working Sub-group
11th of November 2020

Damascus Water Cut Intervention
Presentation Plan:

1. Damascus City Water Sources.

2. The Situation of water services during crisis.


4. Lessons Learned.
1. Damascus City Water Sources:

<table>
<thead>
<tr>
<th>Source</th>
<th>Capacity during dry season</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fijeh Spring</td>
<td>179’500 m³/d</td>
<td>20 KM north west of the city</td>
</tr>
<tr>
<td>Barada Spring</td>
<td>155’500 m³/d</td>
<td>50 KM from Damascus city</td>
</tr>
<tr>
<td>Haramoon Boreholes</td>
<td>15’000 m³/d</td>
<td>West side of Rural Damascus city</td>
</tr>
<tr>
<td>Damascus City Boreholes</td>
<td>123’000 m³/d</td>
<td></td>
</tr>
</tbody>
</table>
2. The situation of water services during crisis:

- 2014 till 2016 Figeh spring and part of Barada spring main pipeline were under opposition control.

- Barada spring, Haramoon boreholes and Damascus boreholes were under the government control.

- Figeh spring and Barada spring main pipeline were hard to reach areas.

- During the mentioned period water was used for political reasons and it affected the civilians of Damascus.

- On December 2016, 4.5 to 5 million people in Damascus and its surroundings main water sources had been cut, starting from 22\textsuperscript{nd} of December for 40 days.

- The role of humanitarian actors (SARC, ICRC, NorCross & UNICEF) in cooperation with Damascus water bored.
On December 2016, 4.5 to 5 million people in Damascus and its surroundings main water sources had been cut, starting from 22nd of December 2016 until 29 Jan 2017.

<table>
<thead>
<tr>
<th>Water Source</th>
<th>Normal Situation (Dry Season)</th>
<th>During Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fige &amp; Barada Spring</td>
<td>335’000 m³/d</td>
<td>0</td>
</tr>
<tr>
<td>Haramoon &amp; Damascus Boreholes</td>
<td>138’000 m³/d</td>
<td>138’000 m³/d</td>
</tr>
<tr>
<td>Total</td>
<td>473’000 m³/d</td>
<td>138’000 m³/d</td>
</tr>
</tbody>
</table>
3. Damascus Water Emergency Response Plan (ERP):

1. ERP main goal.
2. ERP main objectives.
3. Emergency Plan Execution:
   - Applying immediate procedures (Life saving)
   - Applying Emergency procedures.
4. Long Term (post crisis intervention).
ERP Main Goal:

- Provide the minimum acceptable quantity with good quality of Water to Damascus and its surroundings.
Essential Criteria for ERP:

- Define and collect information about water and sanitation system.
- Define the role and responsibilities for institutions and humanitarian organizations working in the WASH field.
- Set up clear communication lines.
- Assure the security of the technicians and workers at water facilities.
- Define alternative water sources.
- Provision of chemicals (Sodium and Calcium Hypochlorite).
- Provision of maintenance accessories.
- Provision of alternative power source (generators).
- Enhancing Water Sources and water facilities security.
- Enhancing Water Sources security.
- Support water quality assurance and monitoring system.
Emergency Plan Execution:

Applying immediate procedures (Life saving)

Applying Emergency procedures.
Long Term (Post Crisis Intervention)
Rehabilitation of the main water source and restore the service progressively

• The plan was prepared to start the immediate rehabilitation of main water sources and main tunnels and pipelines once the area is safely accessible.

• The projects were categorized according to:

1. Procedures required and projects timeline.
2. Priority and importance level.
3. Estimated cost.
4. Partners support.
5. End result of the project.
SARC - Water Project – Damascus Branch Team

EMERGENCY PLAN 2015

- Water Trucking
  Contingency Planning
- Technical Trainings and Stock-Renouncing
- Training included crowds management in emergencies, emergency response planning
- Water Trucking
- Plumbing Accessories
- Water Purification materials – equipments
- Water Tanks
- Provide the basic needs and logistics
- Securing / providing other Water Sources
- Isolation or/Exclusion Water resource from

Provide pure water for hospitals, offices, special needs centers
Setting up water resources

- Tanks installation
  Accessories – Water Trucking planning
  Water Purification Techniques
  Water resources maintenance
- Forming a joint well-trained team to deal with Emergency situations
- Different sizes of Water Towers and its accessories (Pumps, Hoses, etc.)
- Houses, Tanks, Tub-Stands, Irrigations
- LMS Units
  Water Filters
  Purification materials
  Life sticks
- Oxford’s Shelters
  Plastic tanks
- Other supporting projects
  The Fifth-knot junction and The eighth civil junction, southern highway
  CAF School
  Zaler – Derweish
  Barakah – E1 Salloum

- New Local boreholes inside the city
- Supporting DAWA boreholes, central water boreholes, Ministries’ boreholes
- New neighborhoods boreholes
- Increase the productivity in rigs and roadside springs (also for local stations inside Damascus) by providing pumps, generators and all other needs
- Non Civilian Actions
- Electrical outage periods / Or using Alternative energy sources (as seen available)
Pictures Before Intervention
The Figeh Spring supporting bean after collapse just beside the Roman temple

الجسور الحاملة لسقف صالة نبع الفيجة الرئيسية بعد إصابتها وانهيارها بجانب المعبد الروماني

تم التقاط الصور من قبل فريق مياه دمشق في شهر كانون الأول 2016
Damages of the main Figeh pumping station building
الأضرار في محطة الضخ الرئيسية لنبع الفيجة

تم التقاط الصور من قبل فريق مياه دمشق في شهر كانون الأول 2016
Damages of Barada spring transmission pipeline
الأضرار في خط جر مياه نبع بردى

تم التقاط الصور من قبل فريق مياه دمشق في شهر كانون الأول 2016
Pictures during & after the intervention
Filling SARC water truck from a trusted water source

Damascus water board.

تعبئة الصهريج بمياه من منهل تابع لمؤسسة مياه الشرب بدمشق

تم التقاط الصور من قبل فريق مياه دمشق في شهر كانون الأول 2016.
Rehabilitation of the wells in Damascus area.
تأهيل آبار في منطقة دمشق
تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Rehabilitation of the transmission tunnel from Figehe spring to Damascus

تأهيل نفق جر المياه من نبع الفيجة إلى دمشق

تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Figeh Spring temporary coverage to protect the spring from pollution

تغطية نبع الفيجة لحمايته مؤقتاً من الملوثات

تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Installation of Figehe spring main pumps
تركيب مضخات نبع الفيجة الرئيسية
تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Figeh Spring main pumping station building Rehabilitation
مشروع تأهيل مبنى محطة ضخ في منطقة الفيجة

تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Main water collection basin Rehabilitation
حوض تجميع مياه الينابيع في الفجية
تم التقاط الصور من قبل فريق مياه دمشق في الفجية في عام 2017
Rehabilitation of Ein Haroush Pumping station

تأهيل محطة ضخ نبع حاروش

تم التقاط الصور من قبل فريق مياه دمشق في عام 2017
Lessons Learned

1- Always have an emergency response plan, If you don’t have any start now!

2- The importance of Human resources (QUALITY & quantity).

3- Prepare your plan correctly and make sure to follow these steps:
   • Have a working group (All the stakeholders should be involved).
   • Document and well describe the city water system.
   • Define the risks that might occur.
   • Define the procedures for controlling the risk effects.
   • Set up monitoring system to monitor the response procedures.
   • Check the efficiency of the response plan.
   • Review and develop your administration procedures.
   • Update your response plan regularly and your contact list.

4- Communicate your plan with the partners and donors to secure needed funds and support.