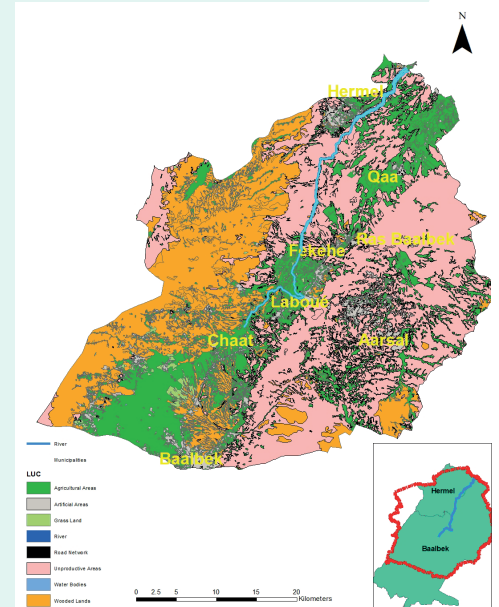


# Al-Assi River Basin Management Plan - Snapshot

## Al-Assi River Basin Study Area

Al-Assi river rises in the northern section of Bekaa Lebanon, with Ain Zarqa Spring being the main contributor; it flows to the north through Syria and empties into the Mediterranean Sea in Turkey. Its Lebanese basin is a rolling land between Mount Lebanon and Anti-Lebanon Mountain chain, with an altitude between 500 and 3100m and an estimated area of 1,870 km<sup>2</sup> which makes it the second largest drainage area in Lebanon. It is influenced by a Mediterranean climate that has a cold, windy and wet winter and warm and dry summer. The river basin accommodates a total of 416,716 persons and the population is projected to reach a total of 489,470 persons in 2035.

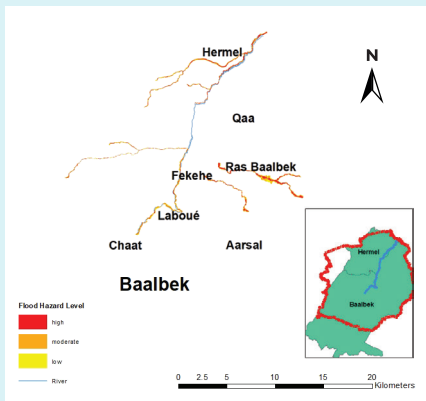
Area	1870 km <sup>2</sup>
Average Annual Run-off	10 m <sup>3</sup> /s
Average Precipitation	360 mm
Minimum Temperature	-6.8 °C
Maximum Temperature	46 °C



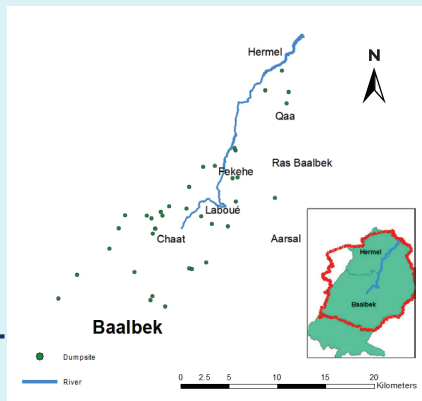
## From Research

### Hazards

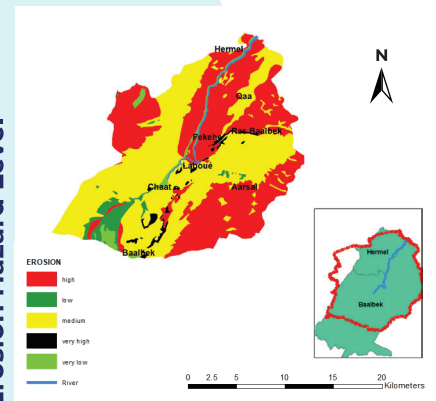
#### Flood Hazard Level



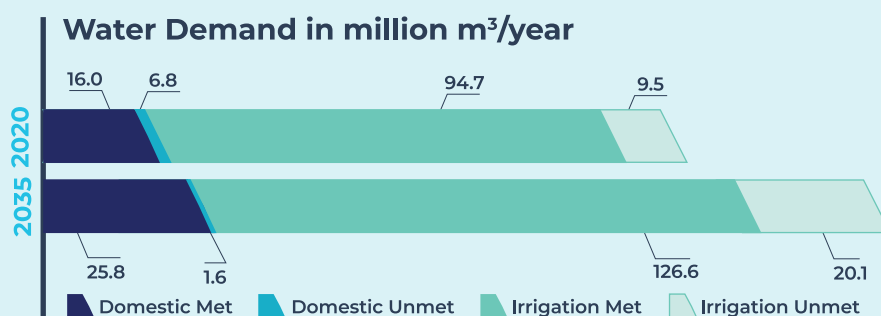
#### Dumpsite Distribution



#### Erosion Hazard Level

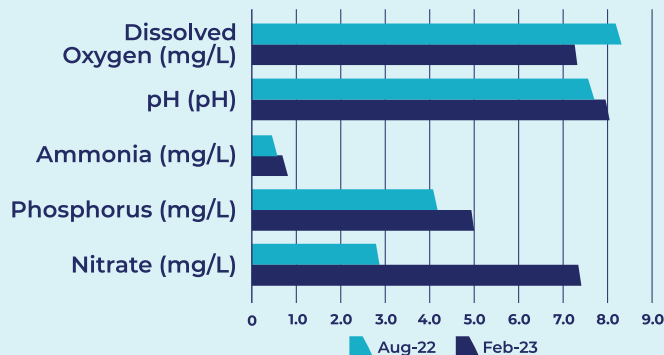
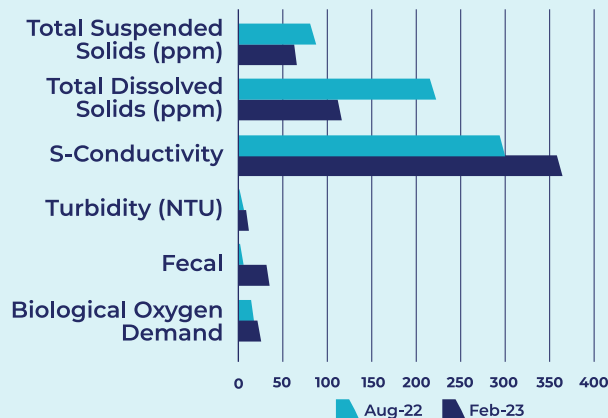


## Demand Coverage - Baseline Scenario & Future Projection



The graph illustrates the met and unmet water demand in million m<sup>3</sup>/year within Al Assi River Basin for the baseline scenario (2020) and business as usual scenario (2035) accounting for climate change and demographic projections, with no measures implemented.

## Water Quality Results - Outlet



## To Action

### Program of Measures & Policy Targets

#### Policy Targets

Increase water use efficiency and water supply reliability

Promote water conservation

Protect water resources and the environment

Foster participatory water management

Advance socio-economic development

Measures

34

Financial

Regulatory

Infrastructure

Socio-economy

Education

Urban

10

Agriculture

5

Environment

4

Cross-Sectors

15

## Recommendations

- Increase water availability through strategic infrastructure investments and projects as proposed in the Updated NWSS 2020 such as the construction of the Assi dam.
- Promote water-efficient agricultural practices, including the use of drip irrigation and sprinkler systems. Support the use of drought-tolerant crop varieties and sustainable farming practices.
- Raise public awareness about the importance of water conservation and the consequences of water scarcity and impacts of climate change.
- Improve infrastructure development by constructing/rehabilitating water supply networks, wastewater treatment plants, irrigation systems, and flood protection measures.
- Promote the use of environmentally friendly fish feed instead of poultry waste to enhance the fish health while ensuring the sustainability of the river fisheries sector.
- Improve the monitoring and data collection systems for water resources. This includes expanding the network of hydro-meteorological stations and investing in advanced technologies for data collection.
- Encourage local capacity building and foster collaboration and shared responsibility among stakeholders by facilitating meetings, platforms, and workshops.
- Establish a supervision body or assign focal points at the Ministry-level to supervise and monitor the implementation of the river basin management plan.

For more info please contact [maurizio.raineri@gvc.weworld.it](mailto:maurizio.raineri@gvc.weworld.it)

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