

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَجَعَلْنَا الْإِنشَاءَ



WELCOME

We're Glad You Joined Us Today!

**SUPPORT OF SUSTAINABLE
DEVELOPMENT GOALS (DRINKING
WATER & WASTEWATER
MANAGEMENT)
SDG.6**

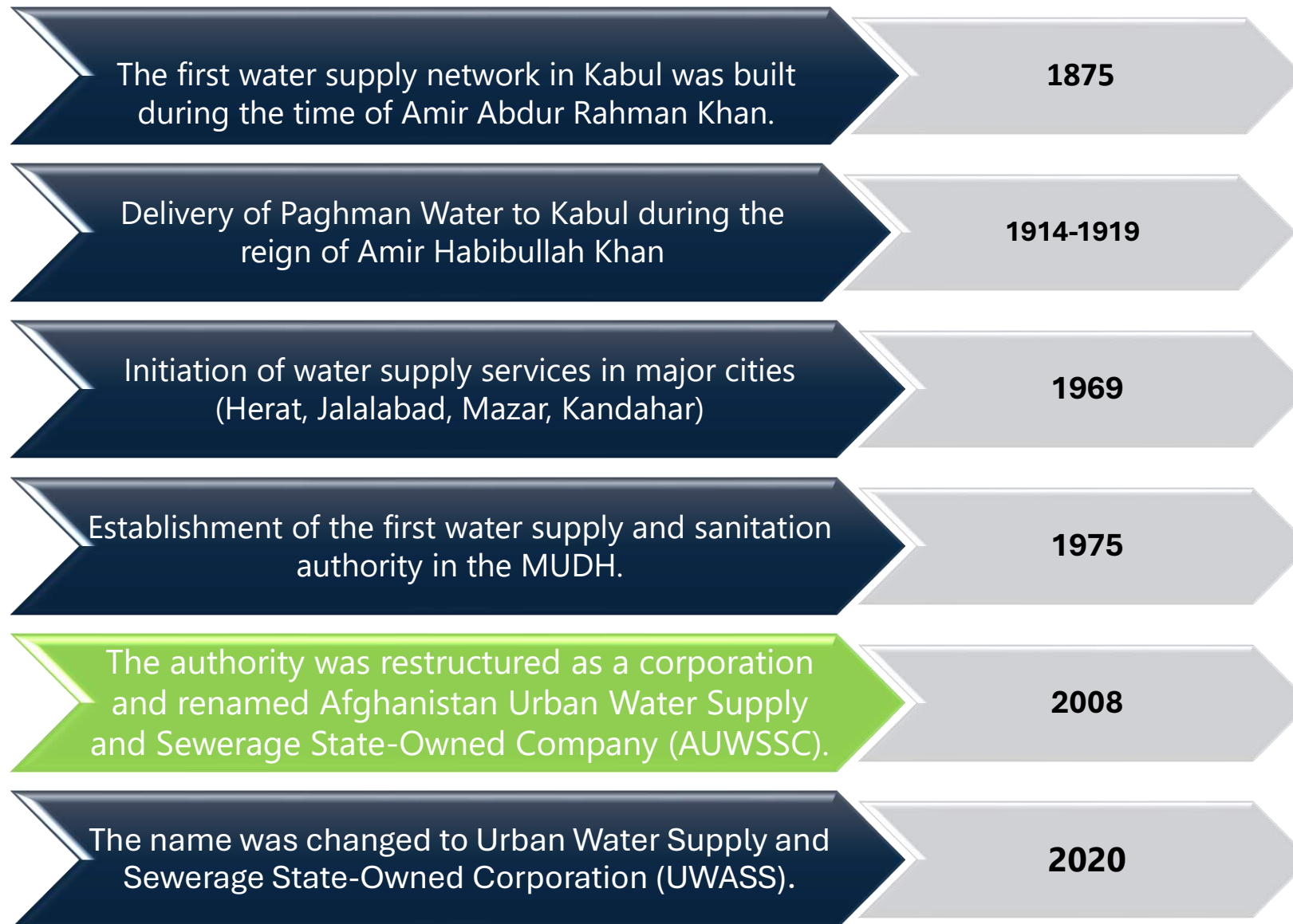
Introduction of UWASS

Urban Water Supply and Sewage State-Owned Corporation

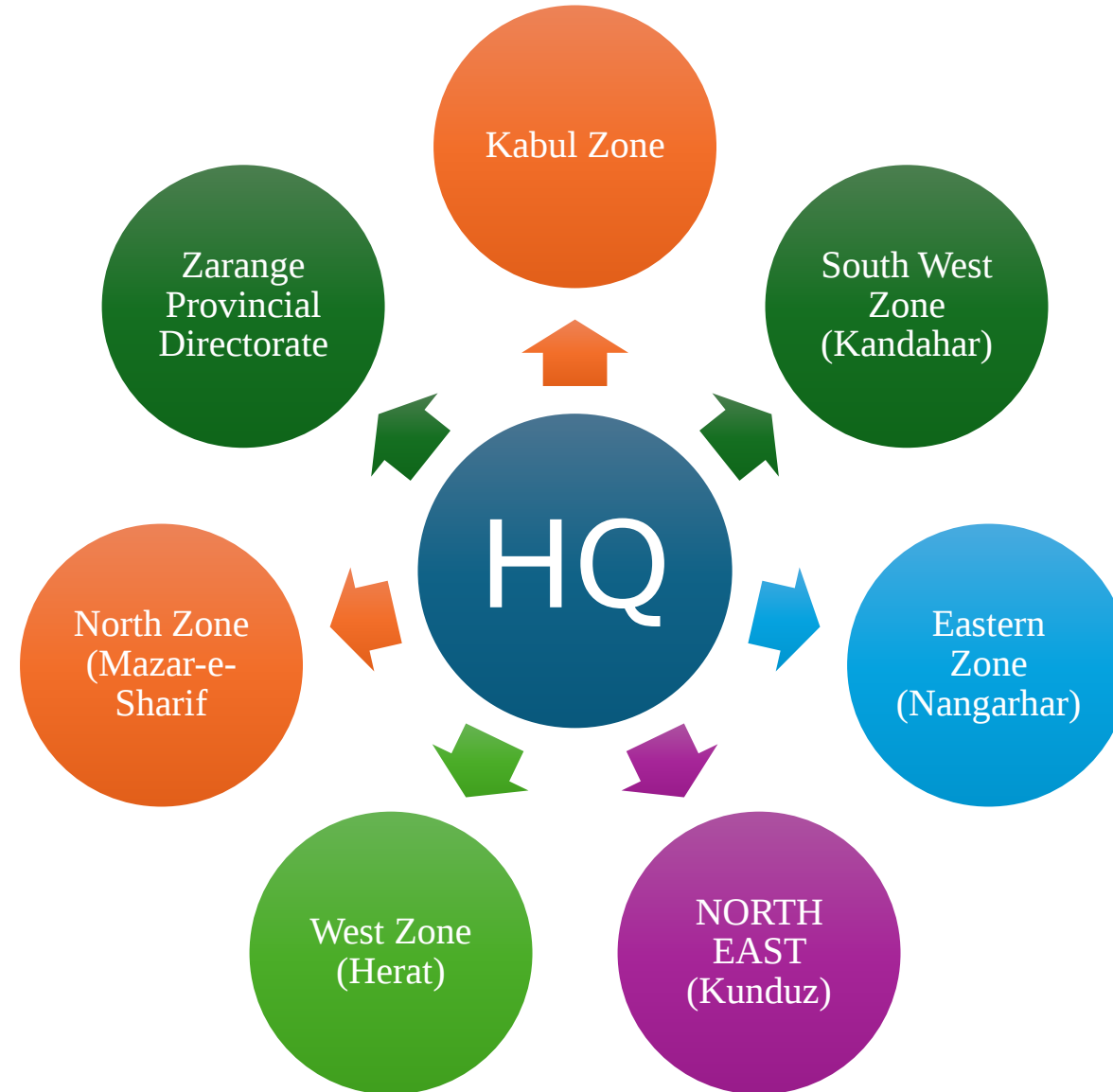
**Established since 2008 to
manage the water Supply and
wastewater at the urban and
semi-urban areas of Afghanistan
and to implement the SDG 6**



UWASS AT A GLANCE



UWASS Zonal offices OR Strategic Business Units (SBUs)





Vision

To ensure access to safe drinking water and standardized wastewater services for all citizens of Afghanistan in urban and semi-urban areas.



Mission

To produce, treat, store, and distribute safe drinking water while providing reliable and high-quality wastewater services..

Brief Introduction Of The Technical Directorate

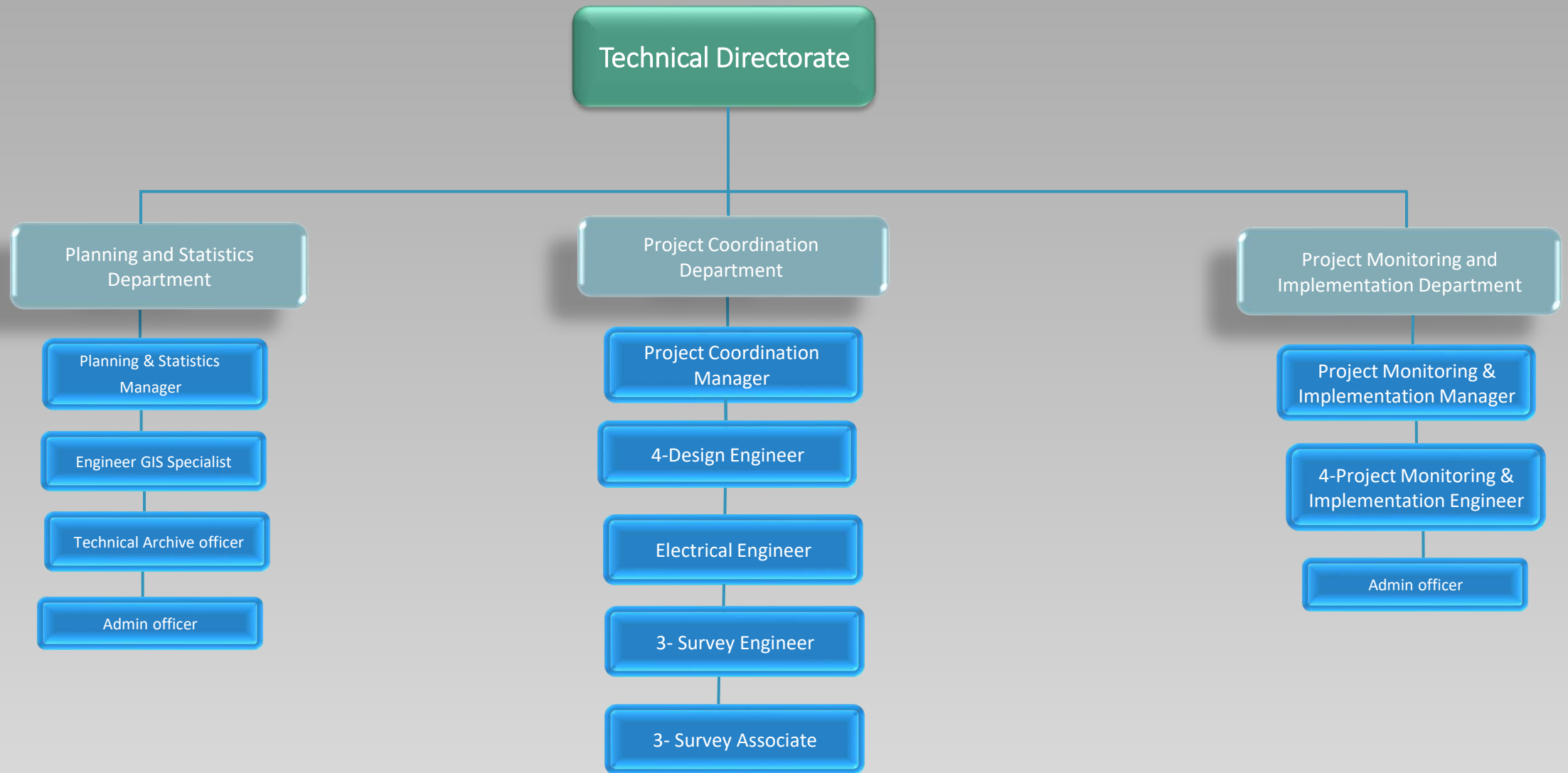
According to the UWASS statute, the technical directorate is mainly responsible for water supply infrastructure projects in urban and semi-urban areas, and its responsibilities are as follows:

- Preparation of technical plans
- Preliminary study of projects
- Social survey technical survey
- Design of water supply networks
- Implementation and monitoring of development projects
- Submission and acceptance of development projects Maintenance of technical documents such as sketches. Technical drawings are maintained in GIS (soft) and hard formats.

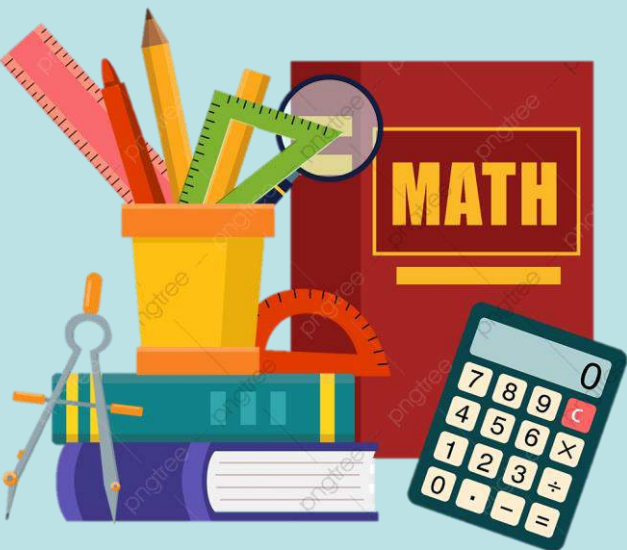
The Technical Directorate is divided into the following departments to carry out its daily affairs in accordance with the approved structure.

- Planning and Statistics Department
- Project Coordination Department
- Project Monitoring and Implementation Department

Technical Directorate Organizational chart



Main Activities



Problems

- 01- Lack of water resources and lowering of groundwater levels
- 02- High electricity prices
- 03- Existence of worn-out and depreciated networks
- 04- Lack of sufficient budget for the development of water supply networks
- 05- Presence of septic tanks on sidewalks
- 06- For using surface water and building treatment plants, we need to build capacity for UWASS.soc Engineers

UWASS.soc Completed Projects since 2020



Project price: 460,908,317 AFG
Population covered : 568,120
Number of implemented projects: 15



Project price : 91,000,000 AFG
Population covered : 87,500
Number of implemented projects: 1



Project price : 4,198,260 AFG
Population covered : 38,750
Number of implemented projects: 3



Project price : 4,179,990 AFG
Population covered :130,000
Number of implemented projects: 2



Project price : 31,533,250 AFG
Population covered : 30,000
Number of implemented projects: 1



Project price : 6,574,750 AFG
Population covered : 9,500
Number of implemented projects: 1



Project price : 3,478,066 AFG
Population covered: 310,000
Number of implemented projects: 1



ICRC

Project price : 142,427,217 AFG
Population covered : 827,680
Number of implemented projects: 22

UWASS.soc Completed Projects since 2020

Total NGOs

Number of NGOs: 8

Amount of NGOs' donation: 744,299,850 AFG

Population covered (family): 200,155

Number of implemented projects: 46

Other partner institutions

Project price: 1,219,060,548 AFG

Population covered (family): 83,500

Number of implemented projects: 12

Ministry of Finance

Project price : 586,055,830 AFG

Population covered (family): 20,800

Number of implemented projects: 3

UWASS.soc

Project price : 97,048,854 AFG

Population covered (family): 545,730

Number of implemented projects: 67

Ongoing Projects

No.	Project Name	Location	Project progress	Population covered	Project price (AFN)
1	Extension 400 mm polyethylene transmission pipeline from the Chaman-e-Hozori area to the back of Ibn Sina hospital.	Kabul	98%	25,000	30,000,000
2	Replacement and expansion of the water supply network behind the (UWASS.soc) office.	Kabul	20%	9,000	225,000
3	Replacement and expansion of the water supply network from the Shahid square to Dehbouri area, 110 mm in size and 1100 meters in length.	Kabul	10%	10,000	320,000
4	Extension of the new 110 mm network from the Kabul university station to Silo Road, with a total length of 550 meters.	Kabul	20%	8,000	130,000
5	Replacing the 150 mm AC pipes from Now Abad-Deh Mazang to Pul Artan, with a total length of 550 meters.	Kabul	25%	21,000	191,000
6	Solar power system for the UWASS.soc building.	Kabul	60%	660	5,651,366
7	Replacement and expansion of water supply networks (SARANWALI area) of Jalalabad city.	Nangarhar	5%	50,000	191,000
8	Water Supply Project in 13th part of Charikar city	Parwan	25%	29,000	88,000,000

Ongoing Projects

No .	Project Name	Location	Project progress	Population covered	Project price (AFN)
9	Project to drill three deep water wells in (Kabul and Khan Abad district of Kunduz).	Kabul & Kunduz	30%	34,000	5,187,616
10	Solar power system for Bagrami Pump Station production site (Kabul). No. 8 and 10 and booster pumps in Jalalabad city and connect wells No. 2 and 3 to the municipal electricity system in Laghman province.	Kabul, Nangarhar & Lagman	5%	42,000	22,192,706
11	Extension of 12 Km of pipes and installation of water meters.	Kandahar	98%	8,000	200,000,000
12	Solar installation & repairs to the solar system of the 9th District production site and Kandahar Office.	Kandahar	98%	21,000	1,219,400
13	Extension of 9 Km of water supply network in the 12th district.	Kandahar	65%	4,330	13,500,000
14	Kandahar City First and Second District Project	Kandahar	10%	30,000	5,467,050
15	Mirbazar Project, Seventh District.	Kandahar	90%	11,000	33,000,000
16	Solar systems in six production sites in Qadis district.	Badghis	20%	62,790	3,435,735

Ongoing Projects

No .	Project Name	Location	Project progress	Population covered	Project price (AFN)
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12	Solar installation & repairs to the solar system of the 9th District production site and Kandahar Office.	Kandahar	98%	21,000	1,219,400
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16	Solar systems in six production sites in Qadis district.	Badghis	20%	62,790	3,435,735

Ongoing Projects

No.	Project Name	Location	Project progress	Population covered	Project price (AFN)
17	Fence wall project in Gulran area.	Herat	98%	0	840,147.5
18	Amir Karvar Town Transmission and Distribution Network Extension	Herat	45%	10,000	8,150,000
19	Drilling and equipping two wells for drinking water at two production sites of the Farah City.	Farah	90%	12,500	2,989,656

Proposed projects

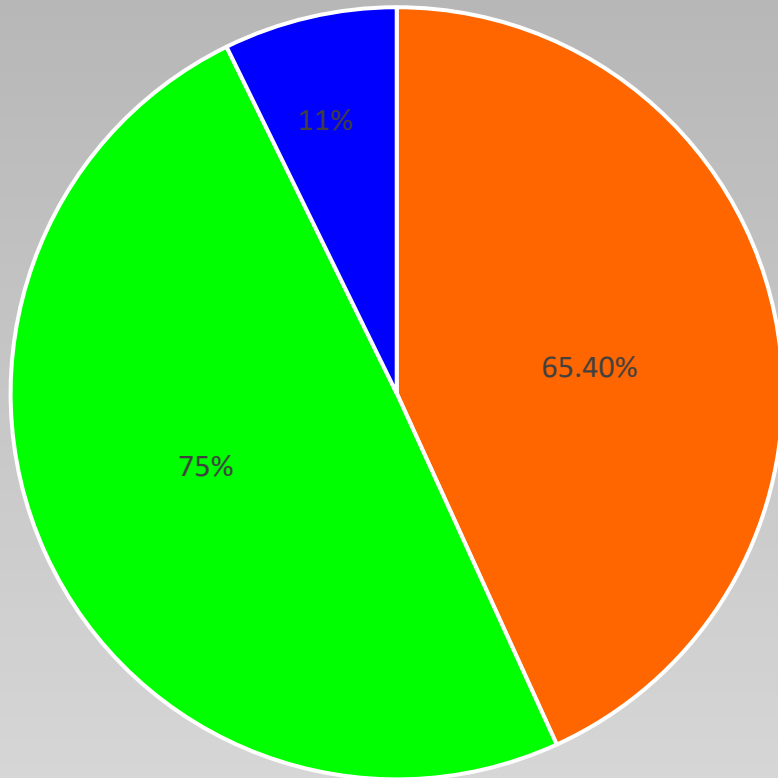
No.	Project Name	Location	Project progress	Population covered	Project price (AFN)
1	Hairatan Port Town Water Supply Project	Balkh	0	25,000	151,635,569
2	Maidan Shahr Drinking Water Supply Project	Maidan Shahr	0	29,000	308,000,000
3	Shindand District Distribution Network Replacement	Herat	0	95,000	1,850,000
4	Distribution network replacement project for the second and third districts of Herat city	Herat	0	21,000	22,000,000

Proposed projects

No.	Project Name	Location	Project progress	Population covered	Project price (AFN)
5	Transmission Pipe, Wells and Pump Station in Nili Project (First Phase)	Daykondi	0	60,000	127,055,555
6	Water supply project for the first and second parts of Ghazni city	Ghazni	0	13,580	212,220,000
7	Water supply project for the refugee settlement town	Ghazni	0	77,500	350,000,000
8	Qalat City Drinking Water Supply Project	Zabul	0	45,000	281,000,000
9	Water supply project for the ninth district of Kandahar city	Kandahar	0	60,000	180,000,000
10	Replacing the distribution water supply network from the Logar pump station to the 5,000 cubic meter Karte Nou reservoir	Kabul	0	230,000	182,000,000

Mid-Term Program 1(MTP1)

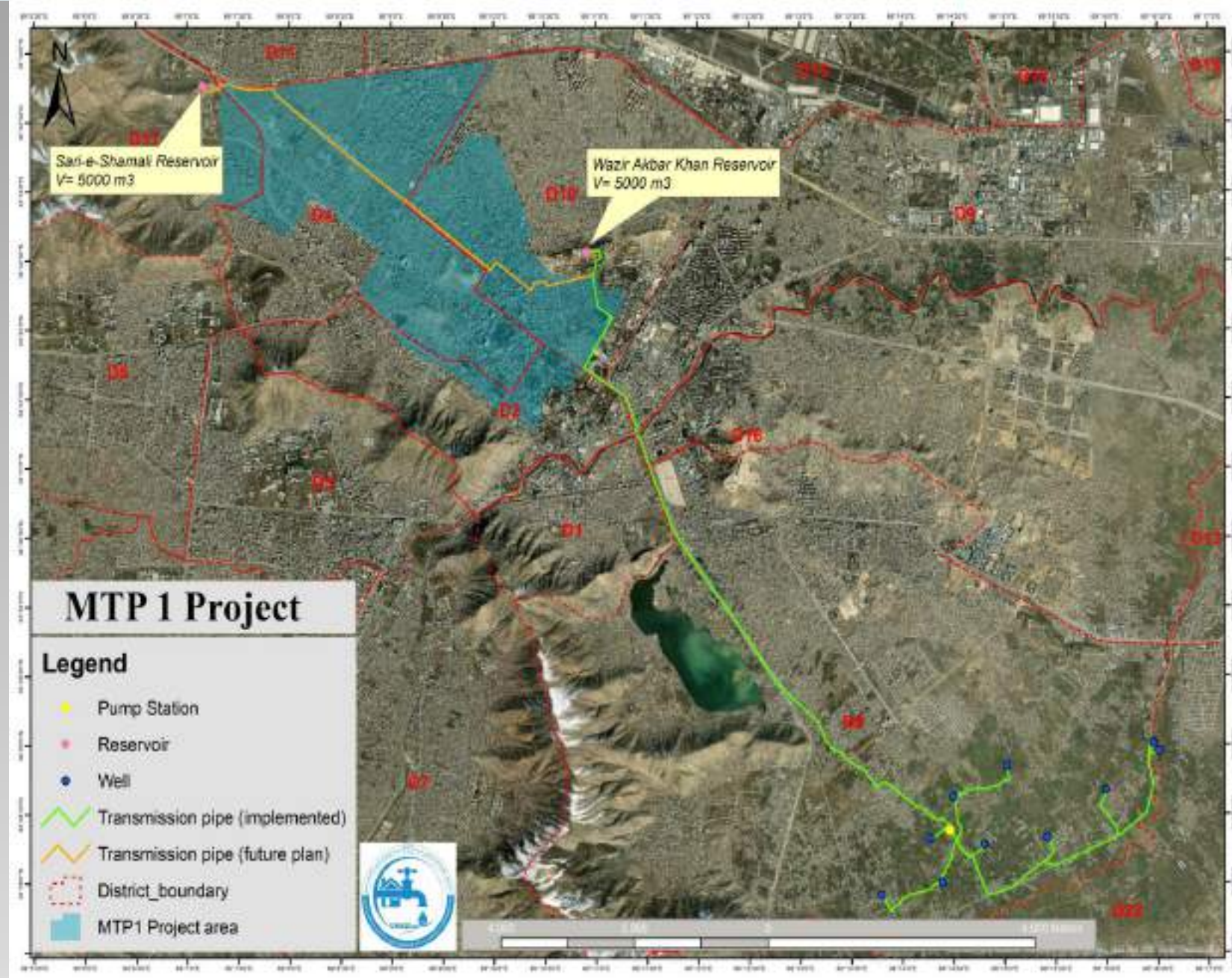
Physical progress work



■ MTP1-002/Lot1 (Pump station & 11 wells)

■ MTP1-002/Lot2 (Transmission pipes & a 5000 cubic meter reservoir located in Wazir Akbar Khan hill)

■ MTP1-003/Lot1&Lot2 (Distribution networks that cover 4 and 10 Kabul districts)





Water Supply Networks Workflow



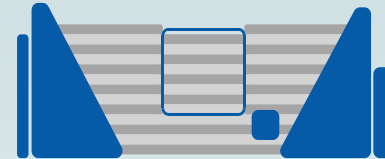
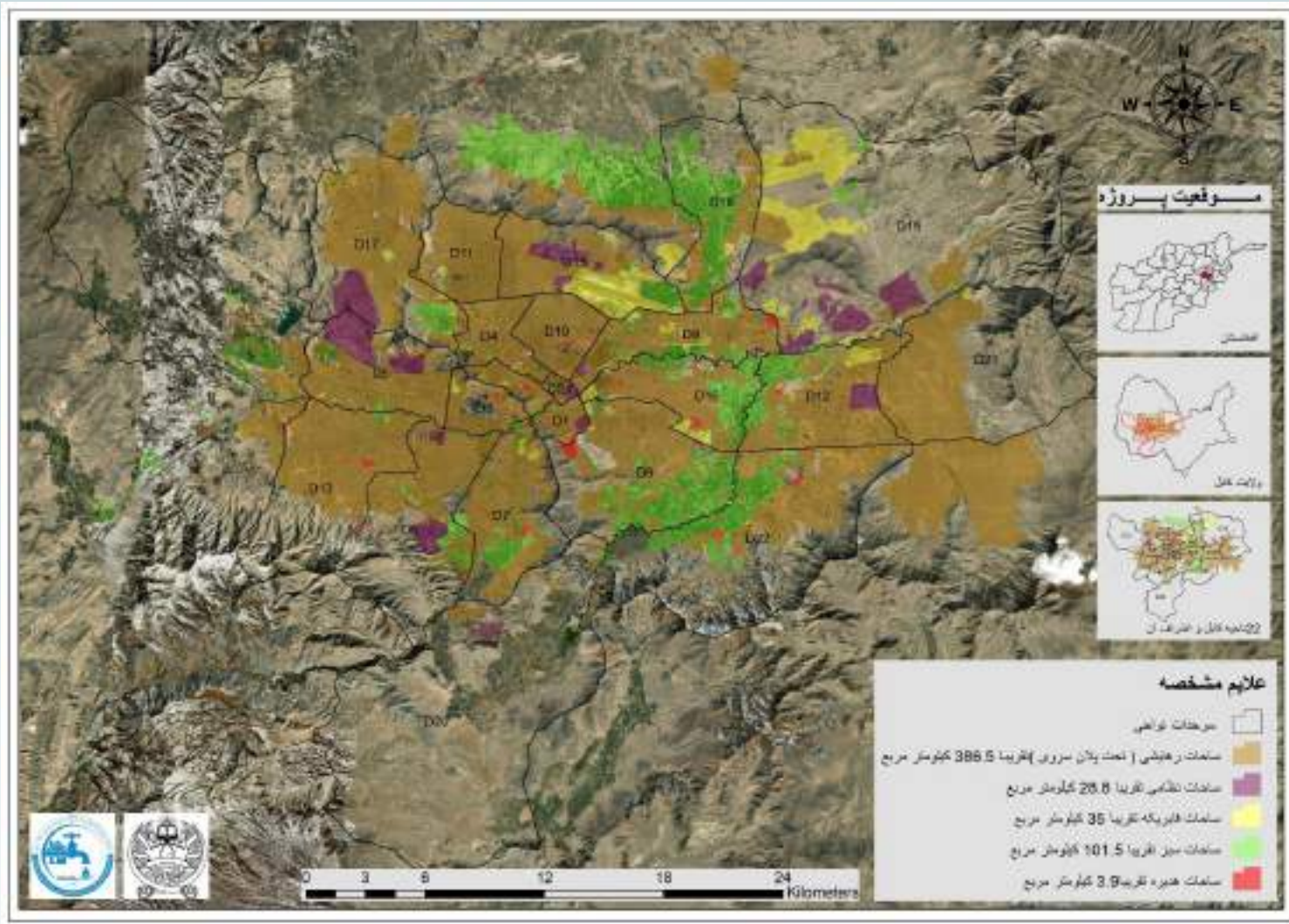
Water Supply Networks Workflow



MTP1 Project Workflow



Kabul Future Plan (Surface water)



Sha wa Arus Project

Estimated project price : 1,500,000 AFG
Population covered (person): 240,000
Districts covered: 17



Shatoot Project

Estimated project price : 8,500,000 AFG
Population covered (person): 4,000,000
Districts covered: 3-5-6-7-13



Panjshir Project

Estimated project price : 5,424,888,000 AFG
Population covered (person): 2,000,000
Districts covered: 15-11-18-21

Challenges

- 01- Lack of water resources and lowering of groundwater levels
- 02- Caused diseases such as:
(Cholera, Diarrhea ,A type of jaundice & Amoeba)
- 03- Existence of worn-out and depreciated networks
- 04- Lack of sufficient budget for the development of water supply networks
- 05- Presence of septic tanks on sidewalks
- 06- For using surface water and building treatment plants, we need to build UWASS.soc Engineers capacity.



Key Objectives of WWMD

1

Address critical wastewater and sanitation gaps in Kabul.

2

Promote scalable, low-energy, decentralized treatment technologies.

3

Protect public health and groundwater resources.

4

Strengthen climate-resilient urban sanitation infrastructure.

5

Mobilize technical and financial support for implementation through donor partnerships.

FOCUS AREAS

WASH

OUR COMMITMENT

UWASS is responsible for **Water & Sanitation** implementation in Urban and Semi-Urban areas of Afghanistan



URBAN & SEMI-URBAN AREAS



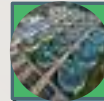
ACROSS AFGHANISTAN

UWASS PROGRAMS



WATER SUPPLY SERVICES

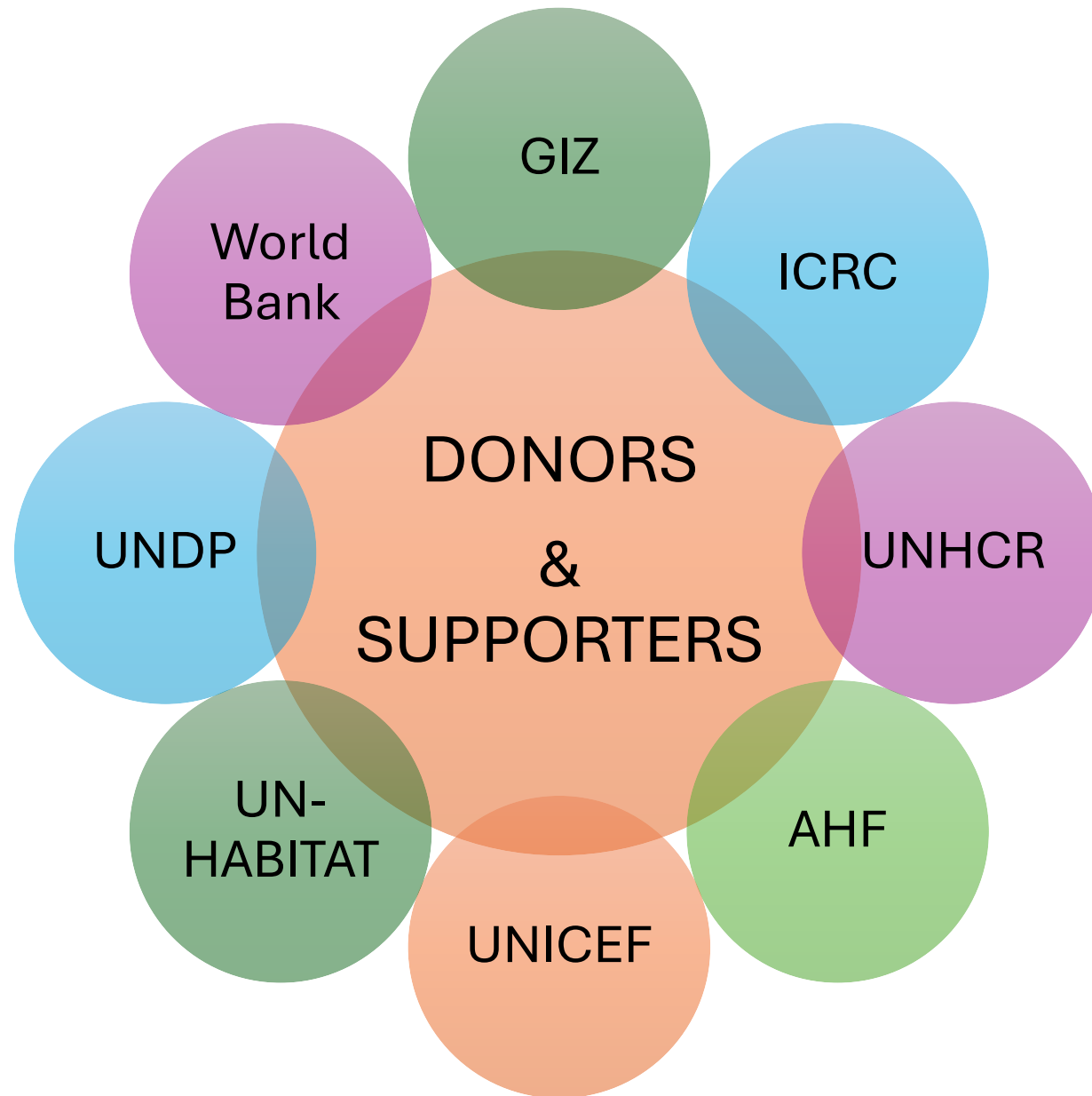
- ❖ Water Production
- ❖ Water Treatment
- ❖ Water Storage
- ❖ Water Transmission & Distribution



WASTEWATER SERVICES

- ❖ Wastewater Collection
- ❖ Wastewater Treatment
- ❖ Safe Disposal
- ❖ Reuse of Treated Wastewater

DONOR ORGANIZATIONS COOPERATING WITH THE UWASS





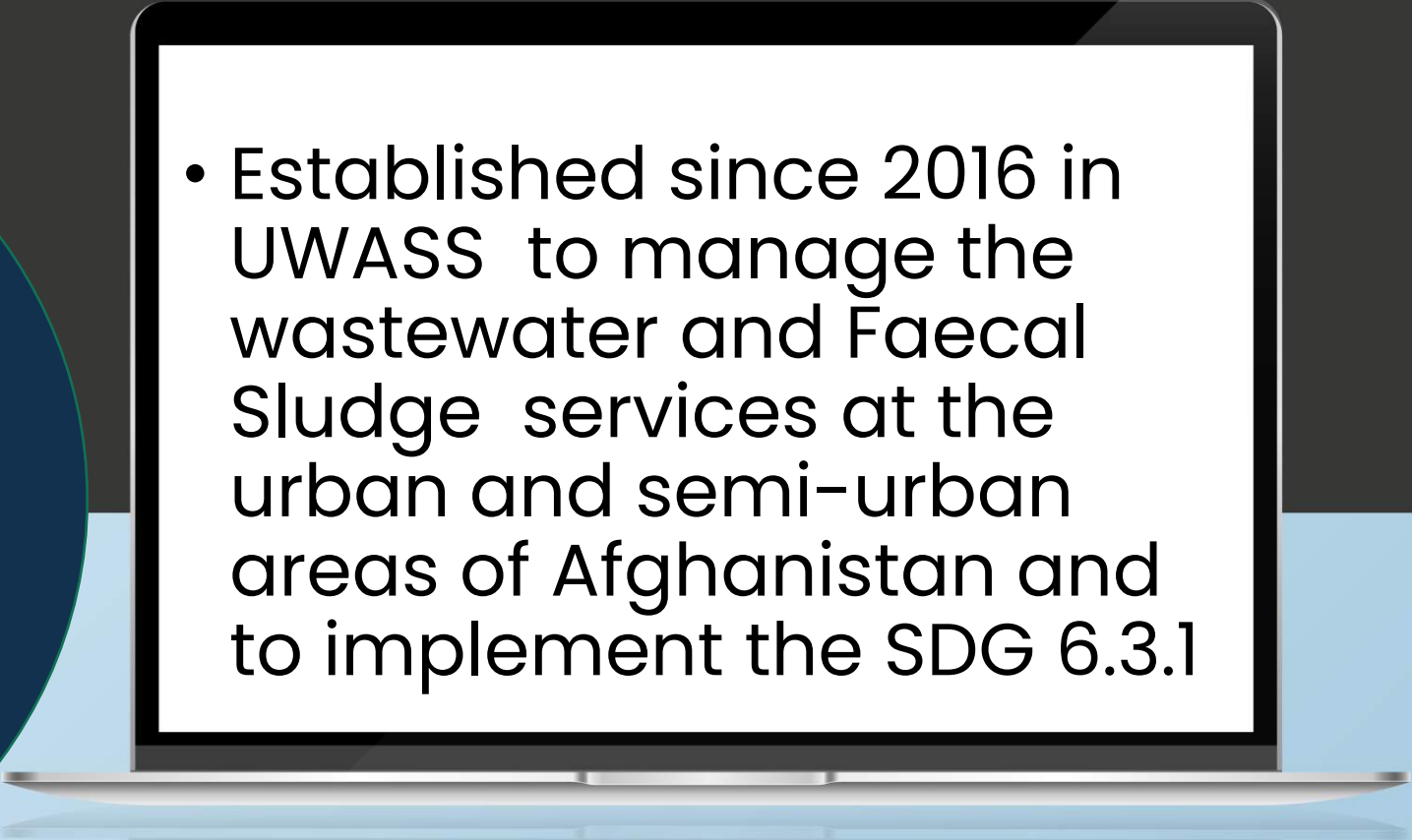
It is time to
see wastewater
as a resource
to achieve
**A CIRCULAR
ECONOMY**



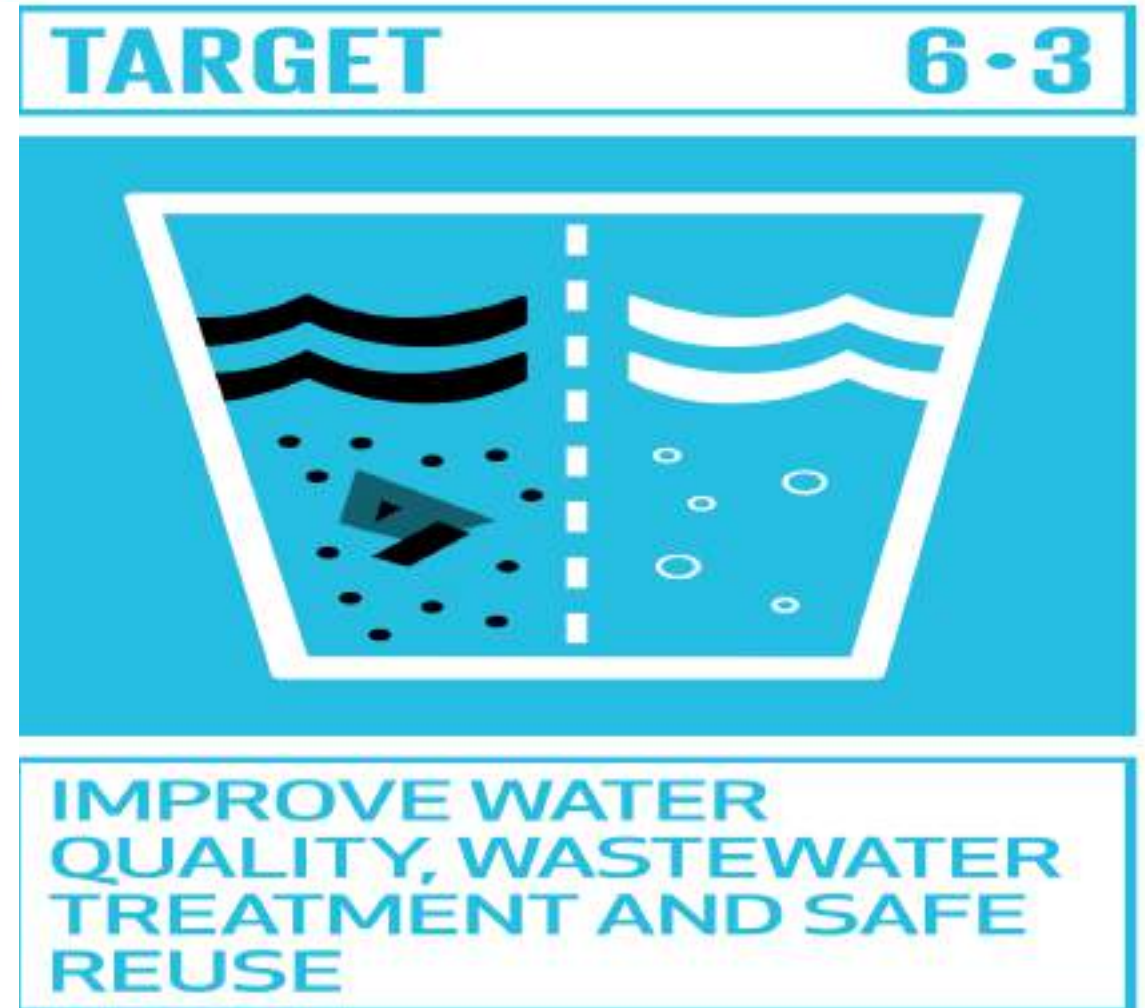
INTRODUCTION OF WWMD

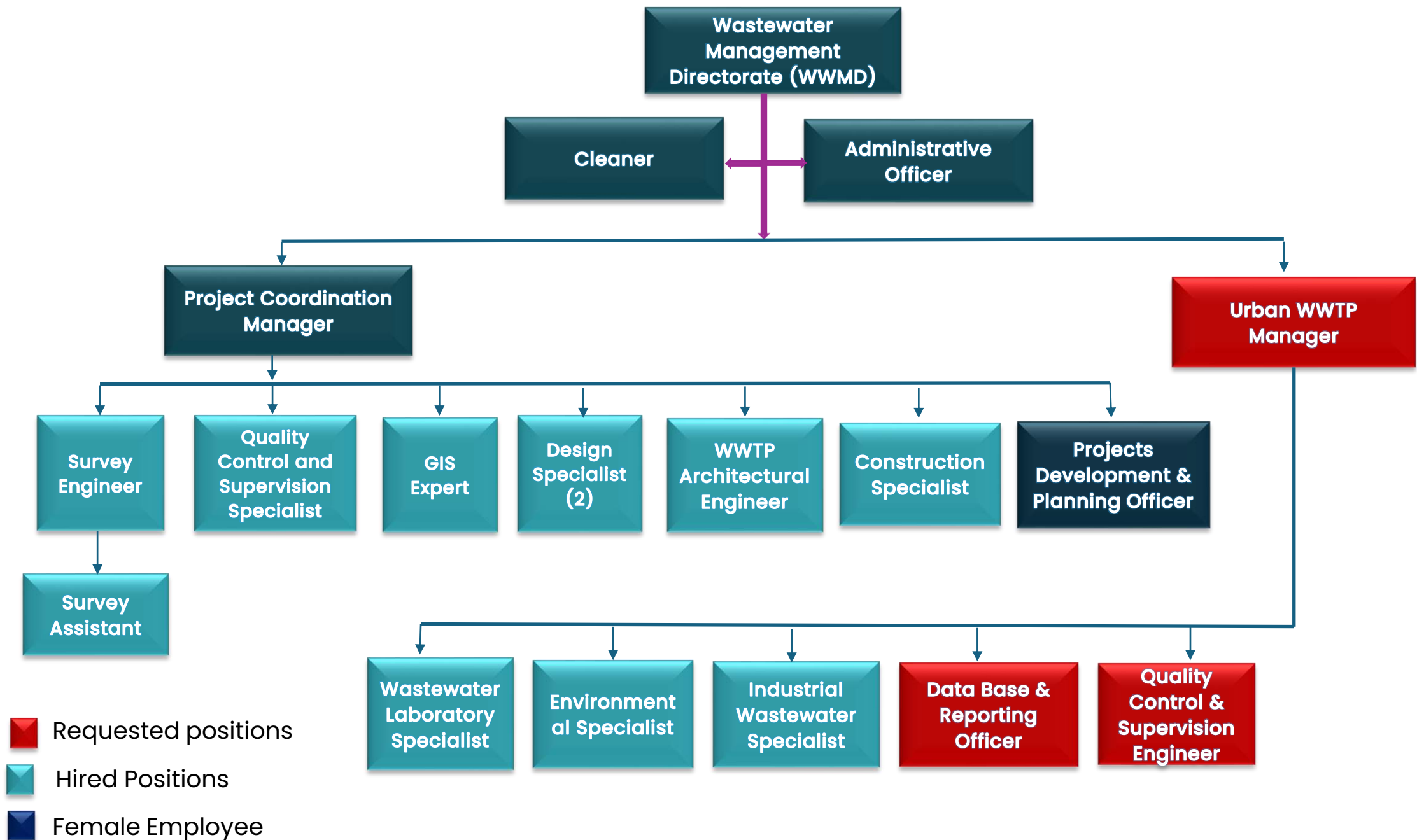


WASH

- 
- Established since 2016 in UWASS to manage the wastewater and Faecal Sludge services at the urban and semi-urban areas of Afghanistan and to implement the SDG 6.3.1

SUSTAINABLE DEVELOPMENT GOALS (SDG 6.3.1)





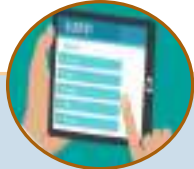
Key Activities of the Wastewater Management Directorate



**6- PROVINCES
CSP**



**Survey & Design of
decentralized
WWTP for
government
Institutions.**



**Survey & Design of
decentralized
WWTP for
commercial and
residential high
rise buildings.**



**Construction of
FSTP for Kabul city
and provinces**



**Preparation of
Sludge Flow
Diagram (SFD),
Kabul city and
provinces**



**Monitoring of FSTP
in Kabul city and
provinces**



**Plan to convert
septic/sok pit into
standard
treatment plants**



**Preparation of plan
for clustering of
Kabul city**



**Decree No. 3
Degree No: 3018**

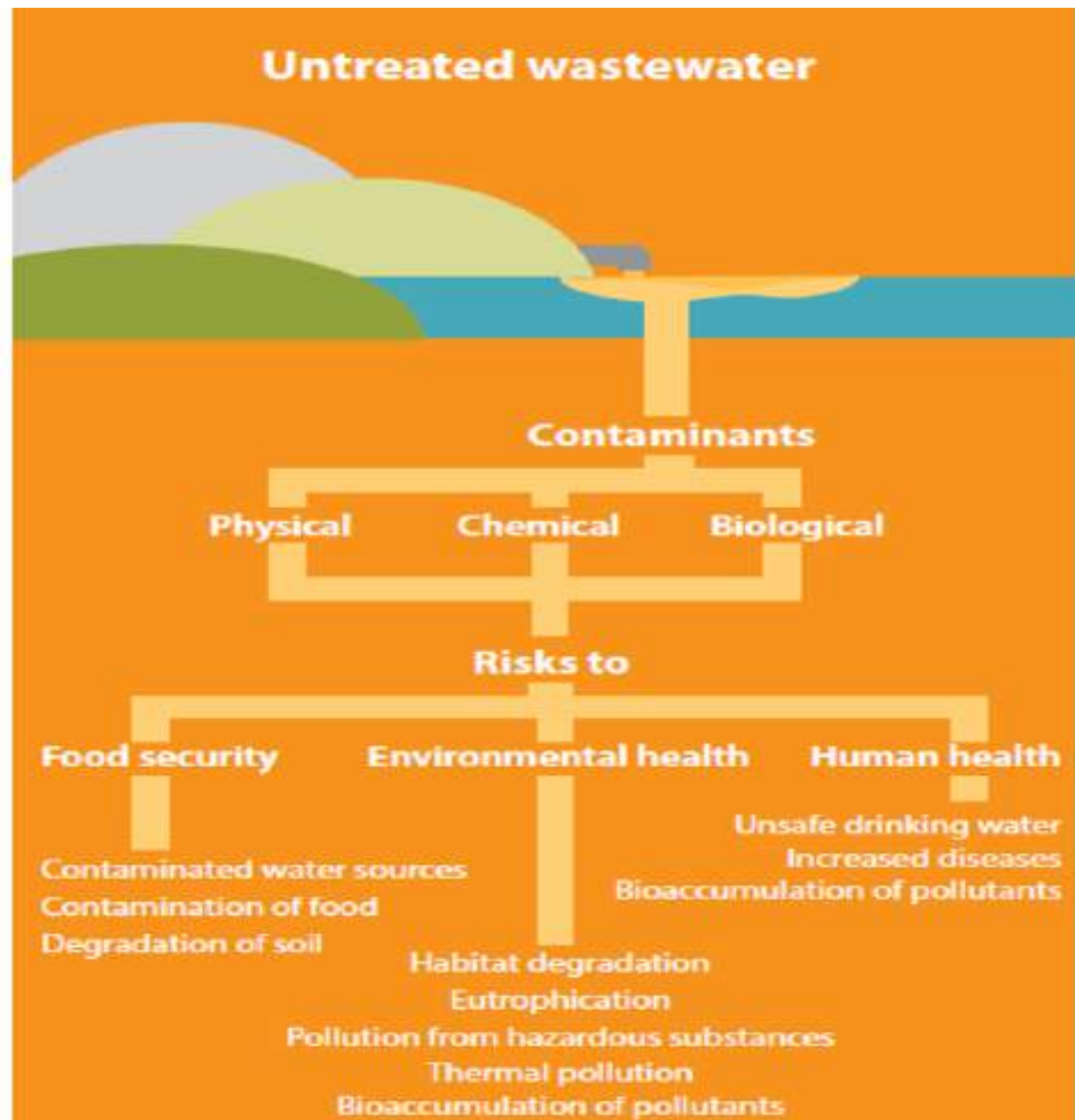


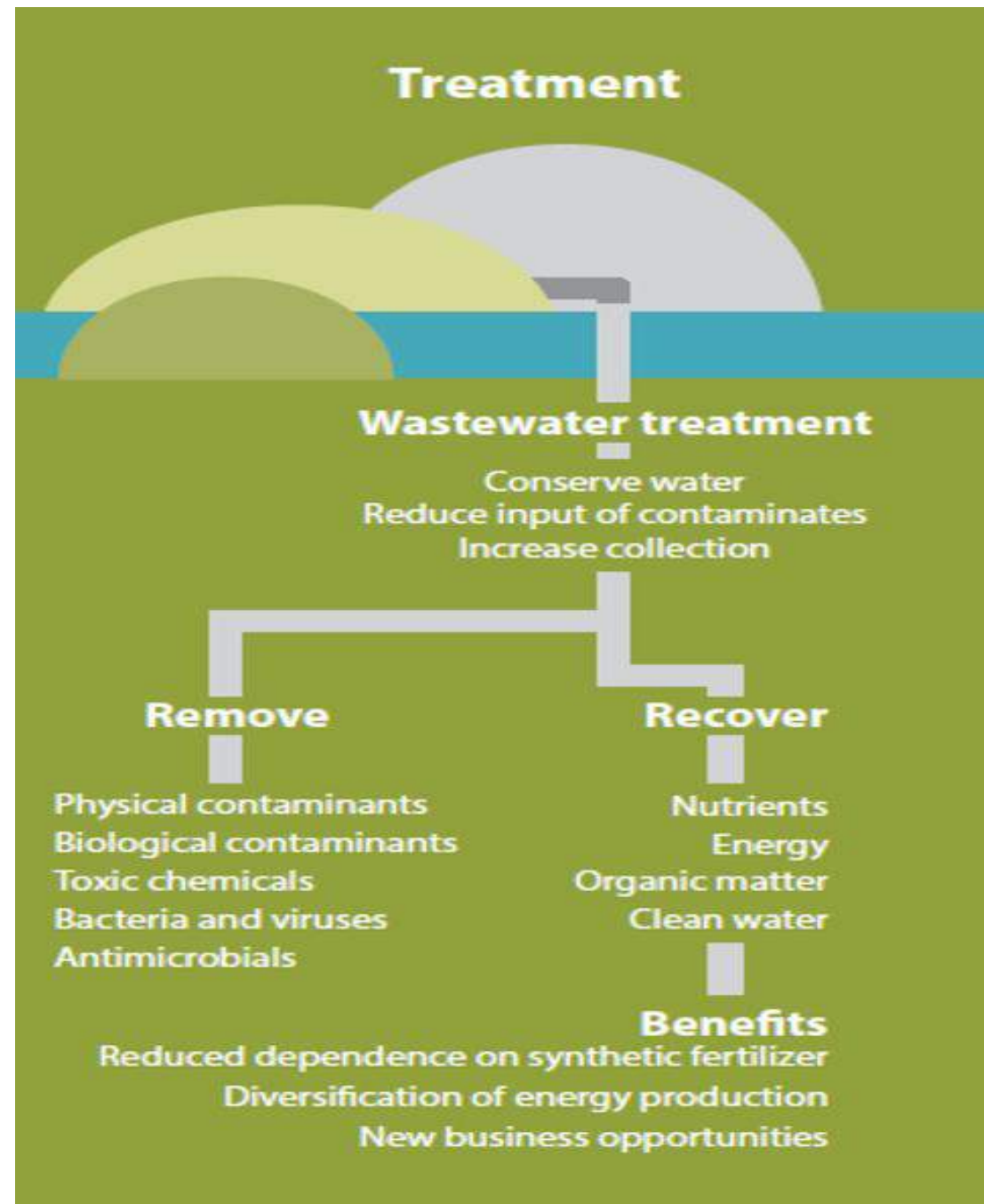
**Prepare Concept
Note for Industrial
WWTP**

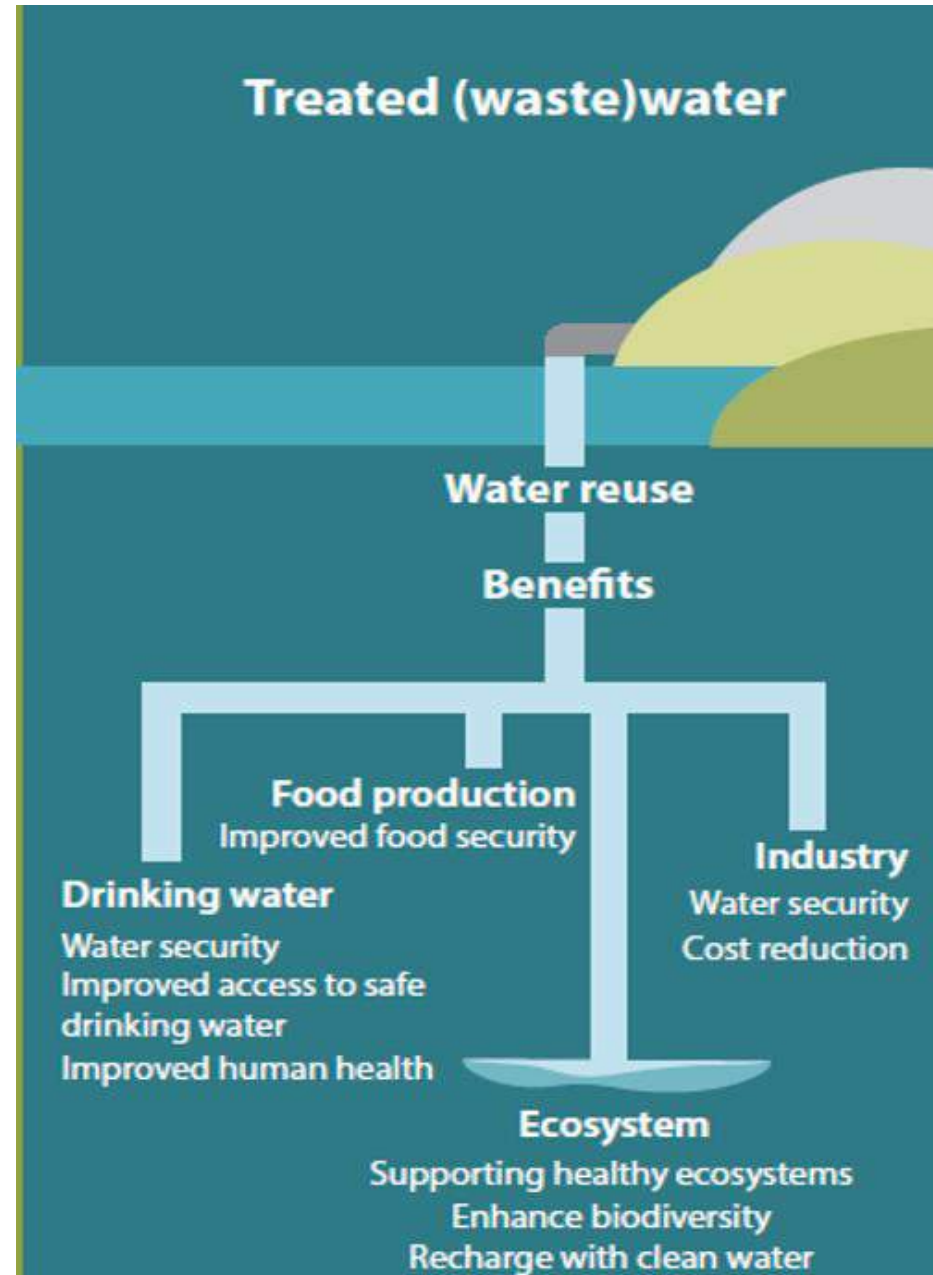


**DEWATS for
Hospitals**

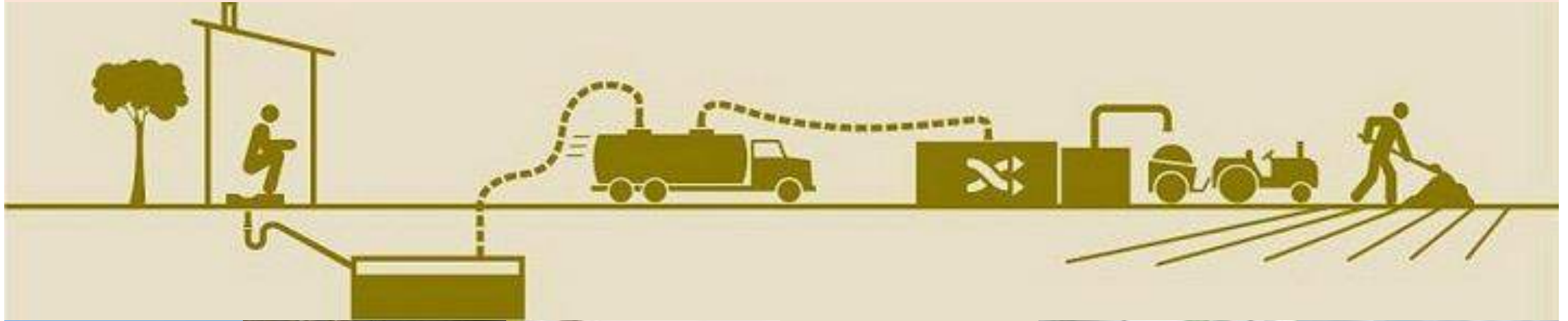
Source	Wastewater Production		
Name	M ³ /d	Million M ³ /y	LPCD
JICA (2013)	166,410	60.7	57.0
GIZ (2016)	168,650	61.5	41.0
KUDF (2018)	140,800	51.2	34.5
AUWSSC (2019)	165,112	60.2	40.0
Consultance's estimatae (2020) - low scenario	251,103	92	52.0
UWASS.soc (2025)	245,000	89.4	50.0







SANITATION SERVICE CHAIN ACCESS



WASTEWATER



Kabul River: Pollution Driven by Inadequate Wastewater Management BY MERCY CORPS

80% Of Households

- Rely on pit latrines, allowing untreated sewage to seep into ground

Untreated Wastewater

- From household and industries WW is discharged directly into the environment and contaminate water resources

Ground Water Contamination

- A major public concern due to pathogens and chemical pollutants



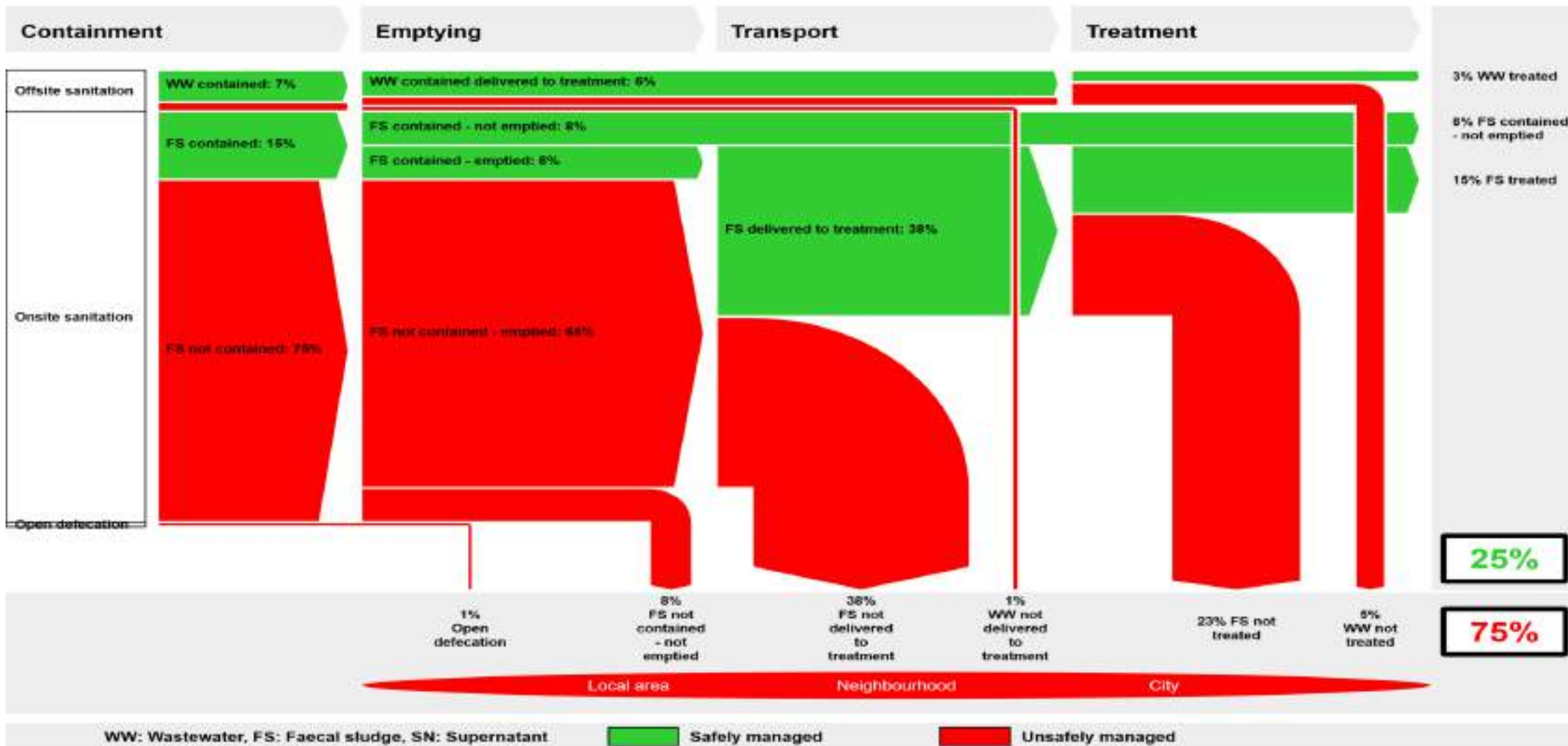
Kabul, Kabul Province, Afghanistan

Version: Draft

SFD Level: not set

Date prepared: 23 Jun 2016

Prepared by: GIZ



The SFD Promotion Initiative recommends preparation of a report on the city context the analysis carried out and data sources used to produce this graphic.
Full details on how to create an SFD Report are available at sfd.susana.org



The SFD Promotion Initiative recommends preparation of a report on the city context, the analysis carried out and data sources used to produce this graphic.
Full details on how to create an SFD Report are available at: sfd.susana.org

Kandahar, City, Afghanistan

Version: Draft

SFD Level: 2 - Intermediate SFD

Date prepared: 12 Apr 2021

Prepared by: Omid Ameri



Key: WW: Wastewater, FS: Faecal sludge, SN: Supernatant



Safely managed



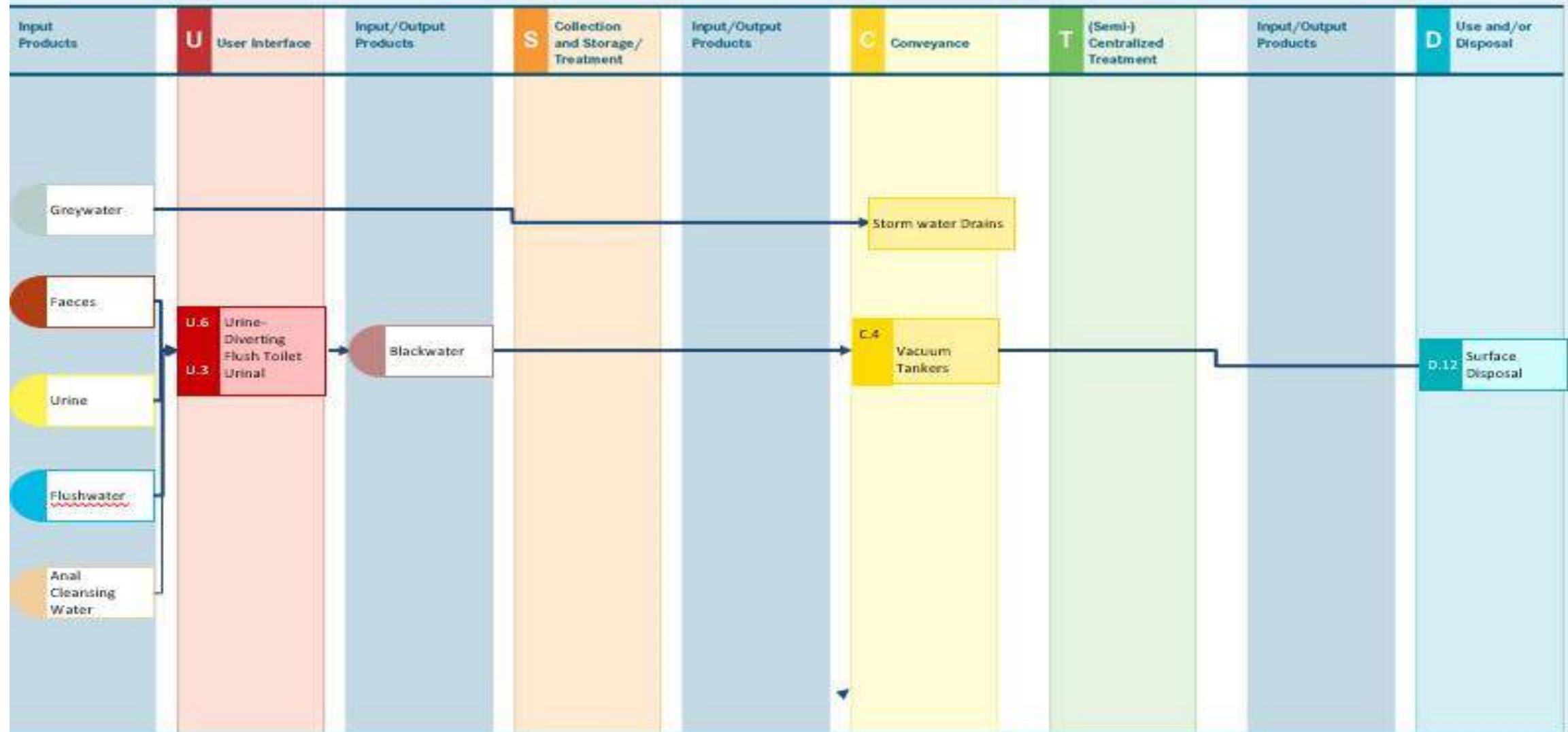
Unsafely managed



The SFD Promotion Initiative recommends preparation of a report on the city context, the analysis carried out and data sources used to produce this graphic...
Full details on how to create an SFD Report are available at: sfd.susana.org

Sanitation System:

System: Kabul city WW flow process



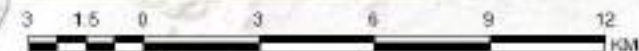
Disclaimer: This sanitation system was created using Eawag's Sanitation System Drawing Tool (Version 1). The user of this tool alone is responsible for the correctness and completeness of this system.

Kabul City Wastewater Management Plan



Legend

- G-FSTP
- Private WWTP
- Kabul River
- Trunk Sewer
- WWTP
- Decentralized Solution
- Centralized Sloution
- Home Base Solution



Map Preparation By: GIS Expert of WWMD
 Source: WWMD & KUDF
 Coordinate System: GCS WGS 84
 Datum: WGS 84
 Date: 7/4/2026

Source: Esri, HERE, Garmin, Intelmap, Imagery, Microsoft Corp., DEB CO, USGS, FAO, NPS, NRCAN, EsriBios, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, and the OpenStreetMap contributors, and the GIS User Community

Proposed Solutions-Technologies

Centralized (Kabul Jaded, new constructed town, province capitals....etc.)

Decentralized (Schools, Madrasa, University & Hostel, G. Entities, military compound, UN org...)

On-site FSM (FSTP) (vacuum tankers & regions)

Home based solution (House hold)

Centralized system

- **Treatment Capacity:** 60,000M³/day
- **Propose Technologies:** Mechanical system
- **Re-use Options:** Agriculture + Fertilizer
- **Status:** Concept Note is completed
- **Estimated Budget:** 102 M US\$
- **Beneficiaries:** more than 700,000 peoples (District 11,15 &4)
- **Current practice:** Discharge it to Kabul river or Open areas.
- **Land Availability:** Yes
- **Budget Availability:** No

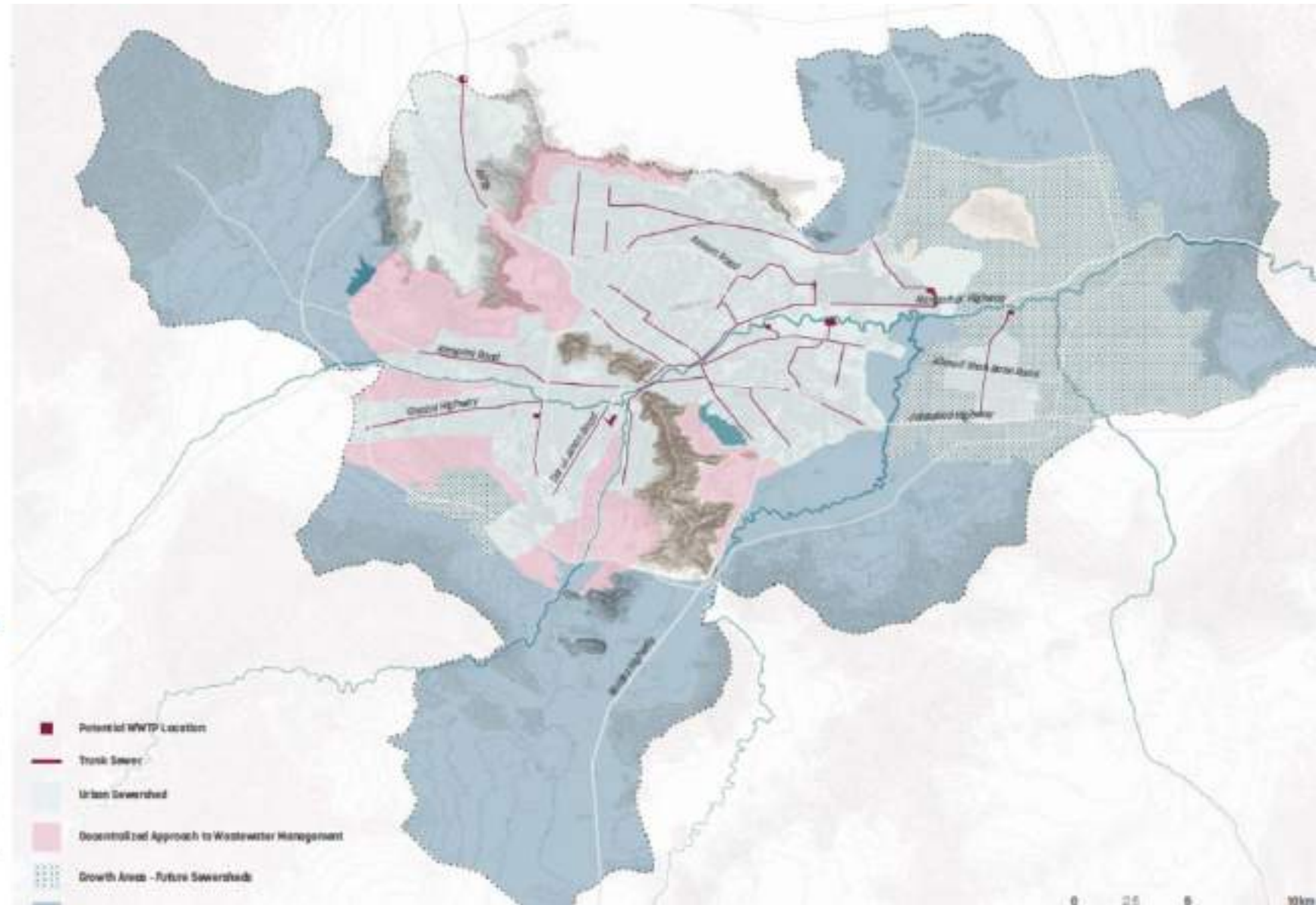


Total Phase 1 Length: 12,500 m	2020
Total Phase 2 Length: 15,800 m	2025
Total Phase 3 Length: 25,300 m	2030
Total Phase 4 Length: 33,700 m	2040
Total Phase 5 Length: 21,800 m	
Total Length: 109,100 m	

Table 3.5 Wastewater Load Estimate

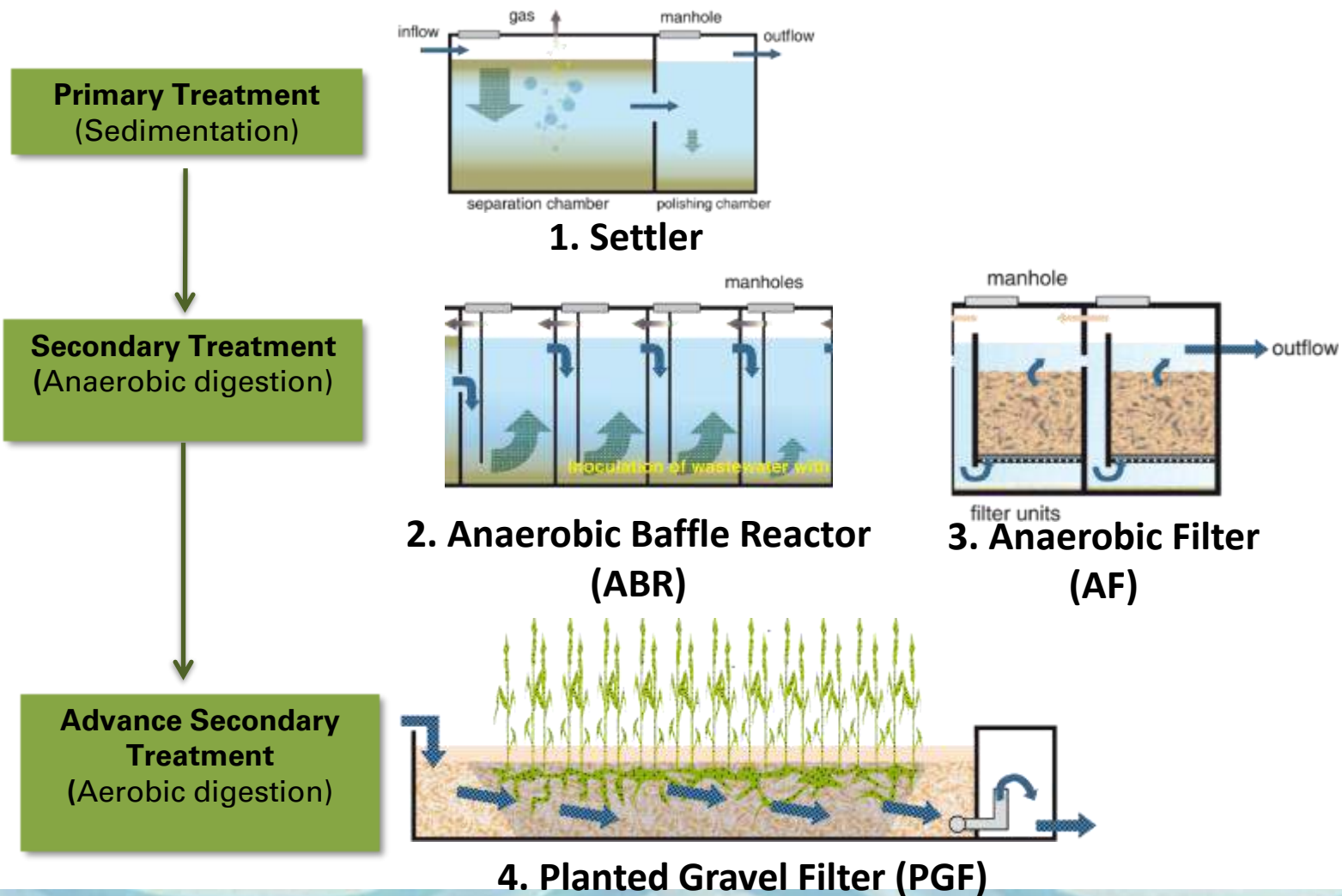
	Medium-Term Planning Scenario*			Long-Term Planning Scenario**		
	Estimated Population	Wastewater Load Estimate		Estimated Population	Wastewater Load Estimate	
		m ³ /day	MCM/yr		m ³ /day	MCM/yr
Sewered	4,880,000	30,000	10	4,870,000	390,000	140
Future Sewered	1,240,000	70,000	30	2,390,000	90,000	70
Cluster	765,000	37,000	10	780,000	60,000	20
Septic	690,000	28,000	10	770,000	37,000	10
Total Kabul	7,540,000	454,000	170	8,870,000	568,000	240

* Based on potential population growth to 7.5 million people



ON SITE TREATMENT: DECENTRALIZED WASTEWATER TREATMENT SYSTEM

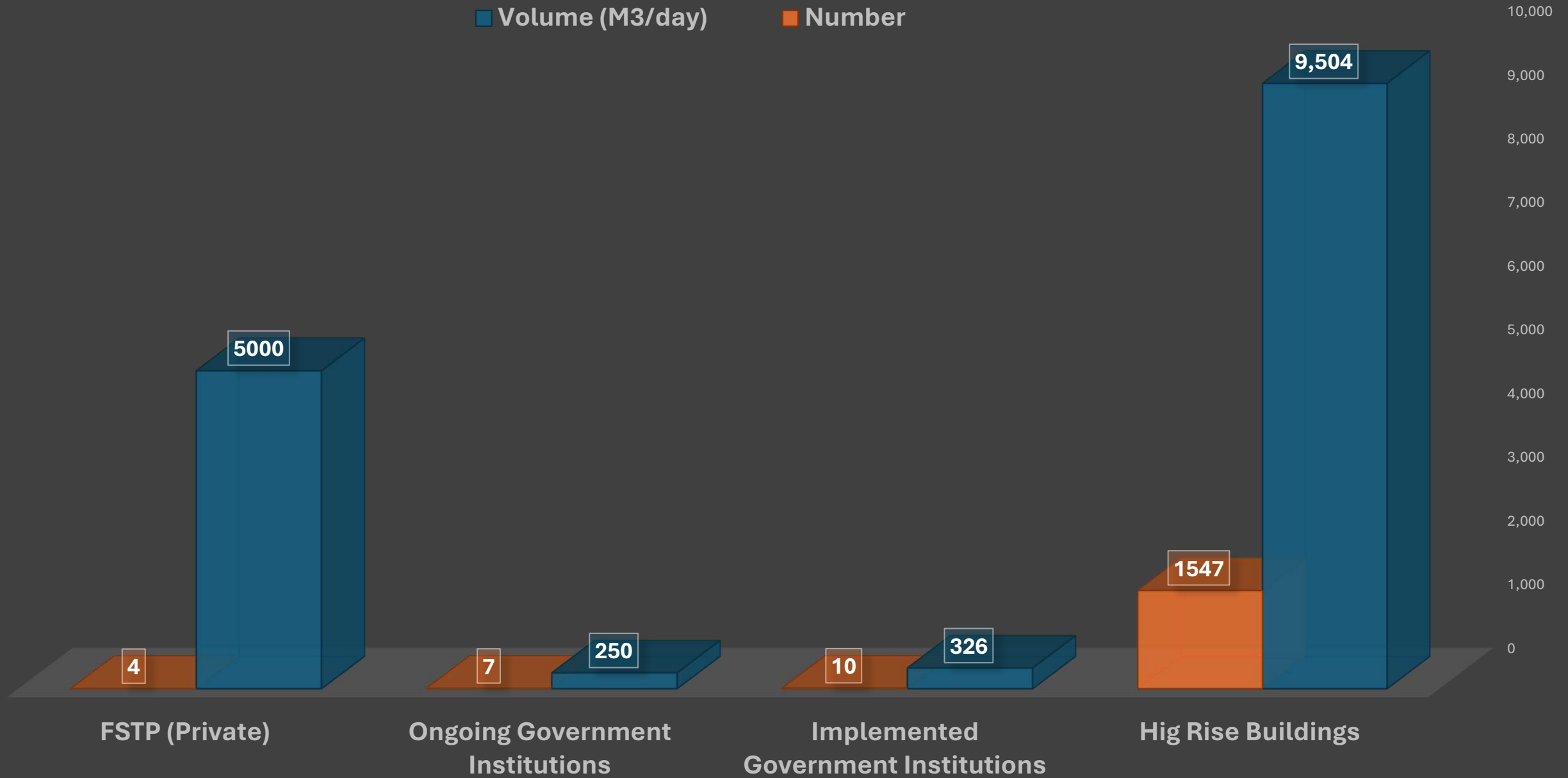
DEWATS MODULES



IMPLEMENTED DEWATS PROJECTS BY UWASS

■ Volume (M3/day)

■ Number

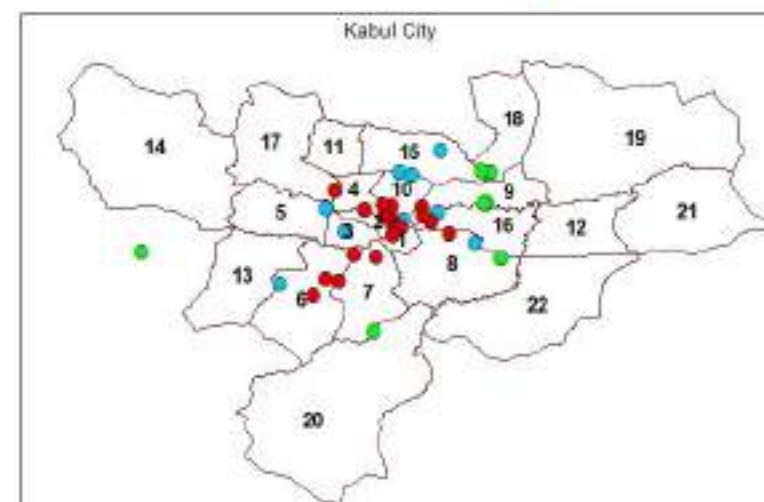


DEWATS Before 2025, Afghanistan



Legend

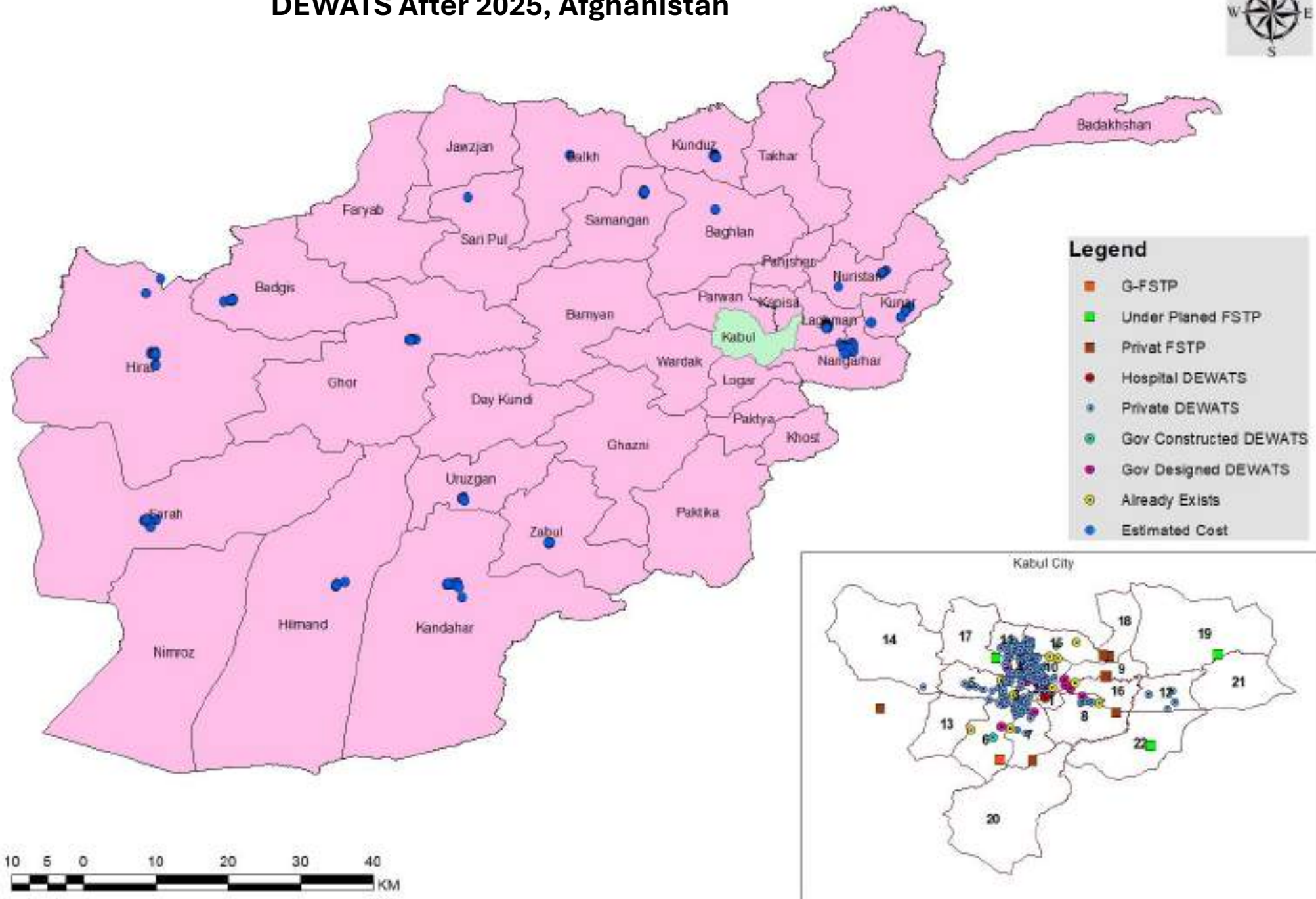
- Private DEWATS
- Private FSTP
- Existed DEWATS



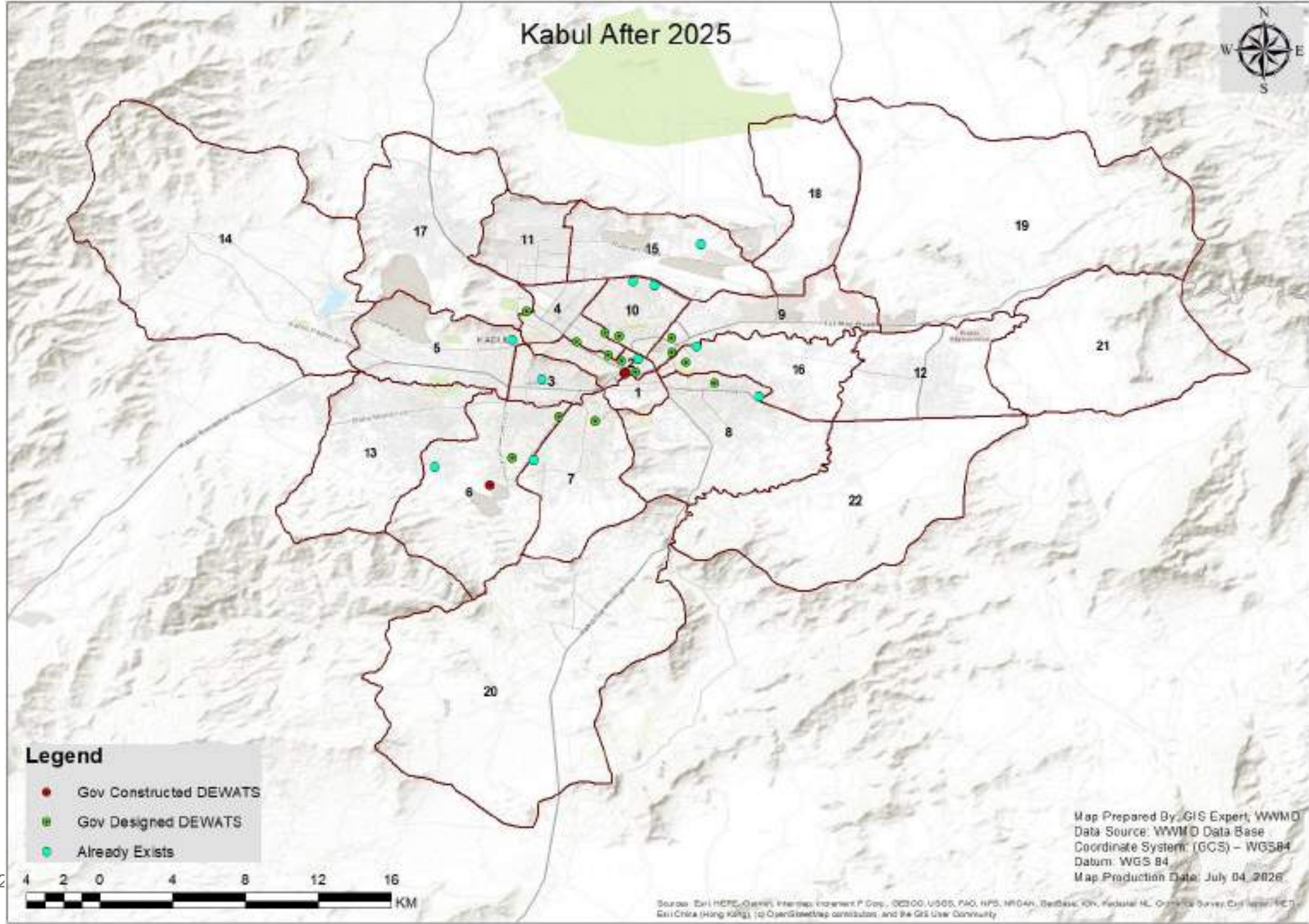
Map Prepared By: GIS Expert, WWMD
Data Source: WWMD Data Base
Coordinate System: (GCS) - WGS84
Datum: WGS 84
Map Production Date: July 04, 2026



DEWATS After 2025, Afghanistan



Kabul After 2025



Legend

- Gov Constructed DEWATS
- Gov Designed DEWATS
- Already Exists

Map Prepared By: GIS Expert, WWMD
 Data Source: WWMD Data Base
 Coordinate System: (GCS) - WGS84
 Datum: WGS 84
 Map Production Date: July 04, 2026



Source: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Esri, Swisstopo, IGN, U.S. Geological Survey, Esri, Inc., Swisstopo, Esri, China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



• Gul Bagh Faecal Sludge Treatment Plant(G-FSTP)



- **Treatment Capacity:** 2000M³
- **Propose Technologies:** Thickener + DEWATS + Aeration/CL/O3
- **Re-use Options:** Agriculture + Fertilizer
- **Status:** survey and design completed (visa process)
- **Estimated Budget:** 5.5 MUS\$
- **Beneficiaries:** more than 200,000 peoples (surrounding 4 districts)
- **Current practice:** Discharge it to Kabul river or Open areas.
- **Land** Yes
- **budget Availability:** Partially available







7/6/2026



Prepared by: Fayequallah Jamal

Afghanistan FSTP Plan



Legend

- Kabul FSTP
 - Farah Hospital
 - Jalal Abad
 - Kandahar
 - Kunduz
 - Mazar e Sharif
 - Herat
 - Private FSTP
 - UWASS DEWATS
- ## Zones

Map Prepared By: GIS Expert, WWMO
Data Source: WWMO Data Base
Coordinate System (GCS) - WGS84
Datum: WGS 84
Map Production Date: July 04, 2026



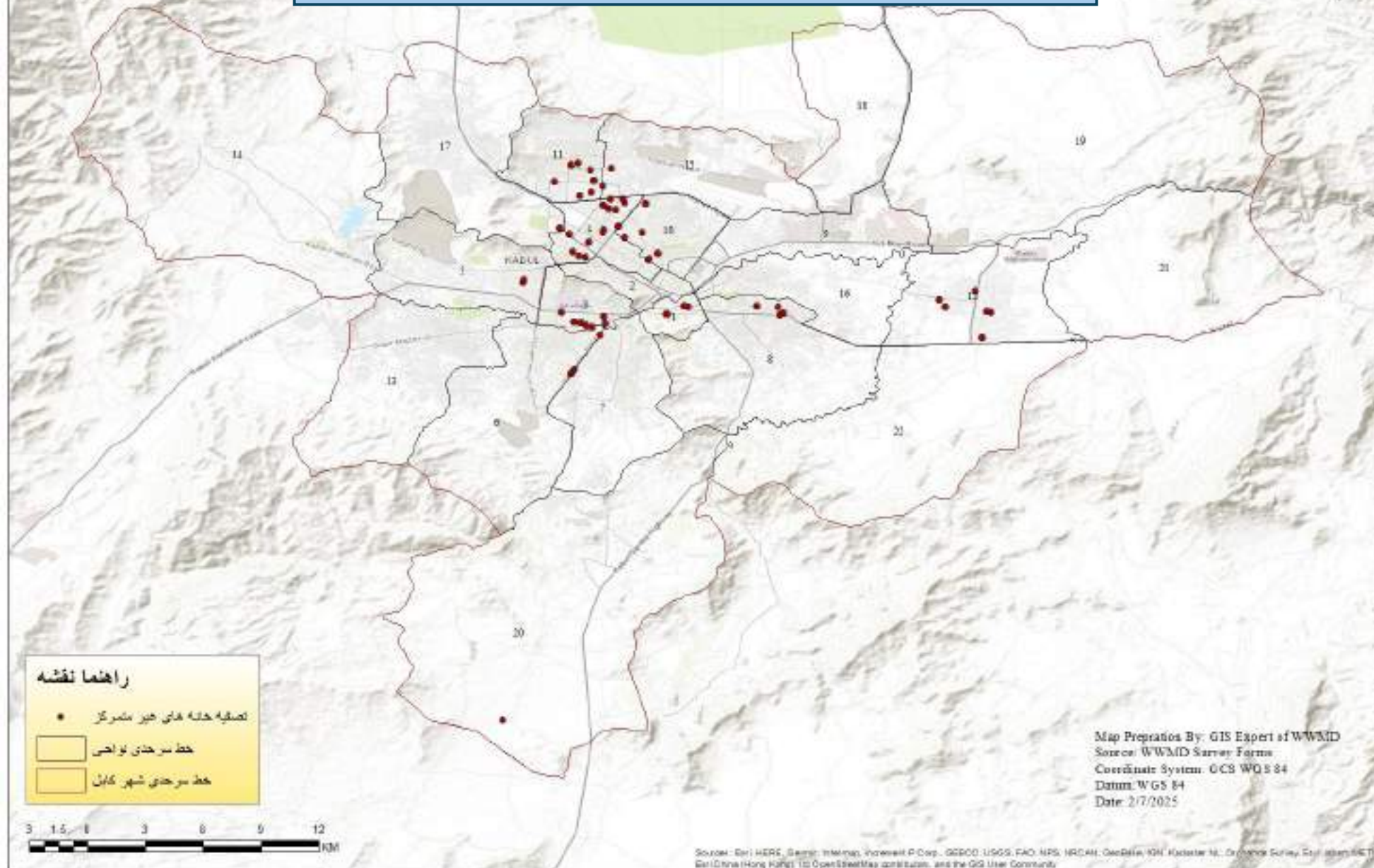


Prefabricated WWTP – Technical Specifications

Parameters	Specification
Treatment Capacity	1–100 m ³ /day
Treatment Process	Aerobic/Anaerobic biological treatment
Energy Consumption	Solar energy requirement
Installation	Prefabricated, modular, and easy to install
Operation & Maintenance	Low O&M requirements
Effluent COD	< 100 mg/L
Effluent BOD ₅	< 50 mg/L
Effluent TSS	< 30 mg/L
Application	Residential, institutional, commercial, hospitals, schools, and small communities

Prefabricated Wastewater Treatment Plant







**THANK
YOU
FOR
YOUR
ATTENTION**