



Ministry of Energy and Water Resources
of Republic of Tajikistan

16th meeting of the Steering Committee National Dialogue on Water Policy in the area of the IWRM in Tajikistan

National Water Supply and Sanitation Program until 2030

Dushanbe, Tajikistan, 15. February 2023

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The Consultant' scope of work for formulation of the National WSS Program

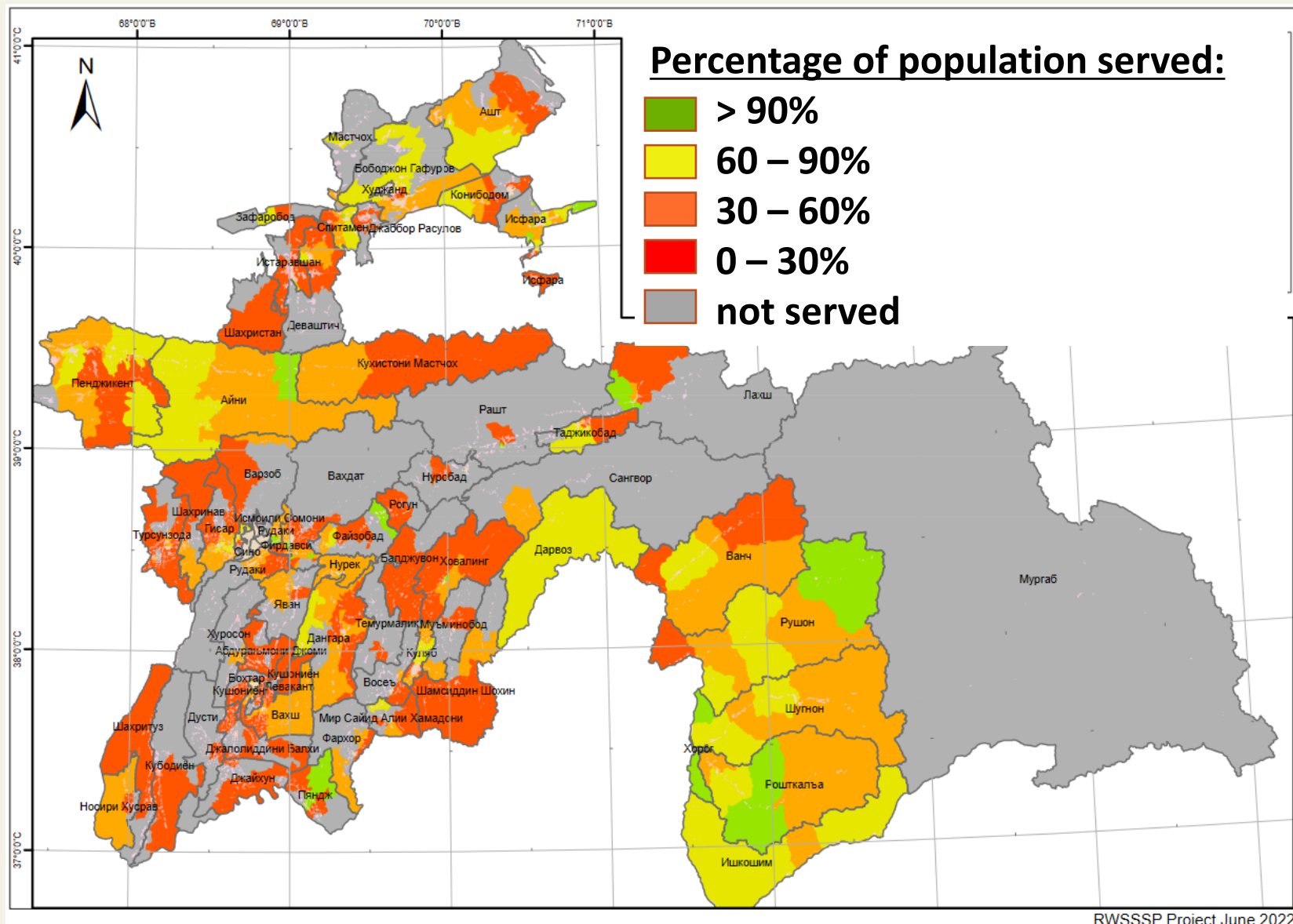
Green (done) – Yellow (in progress) – Red (not yet done)

1. Detailed assessment of current conditions of WSS infrastructure - Nationwide field survey, assessment of institutions and financial aspects
2. Gap analysis
3. Formulation of strategic targets based on gap analysis
4. Action plan for restructuring of institutional framework
5. Identification of priority areas for investments based on Multi Criteria Matrix
6. Definition of service levels to be achieved in priority areas: Basic – Advanced – Modern
7. Definition of criteria for WSS investments in priority areas based on size of settlements
8. Formulation of Investment Plan and Financing Plan
9. Formulation of Action Plan for implementation of the National program
10. Inter Ministry Consultations - Approval of program by Presidential Decree

Whole process coordinated and monitored by IAWG under leadership of MEWR

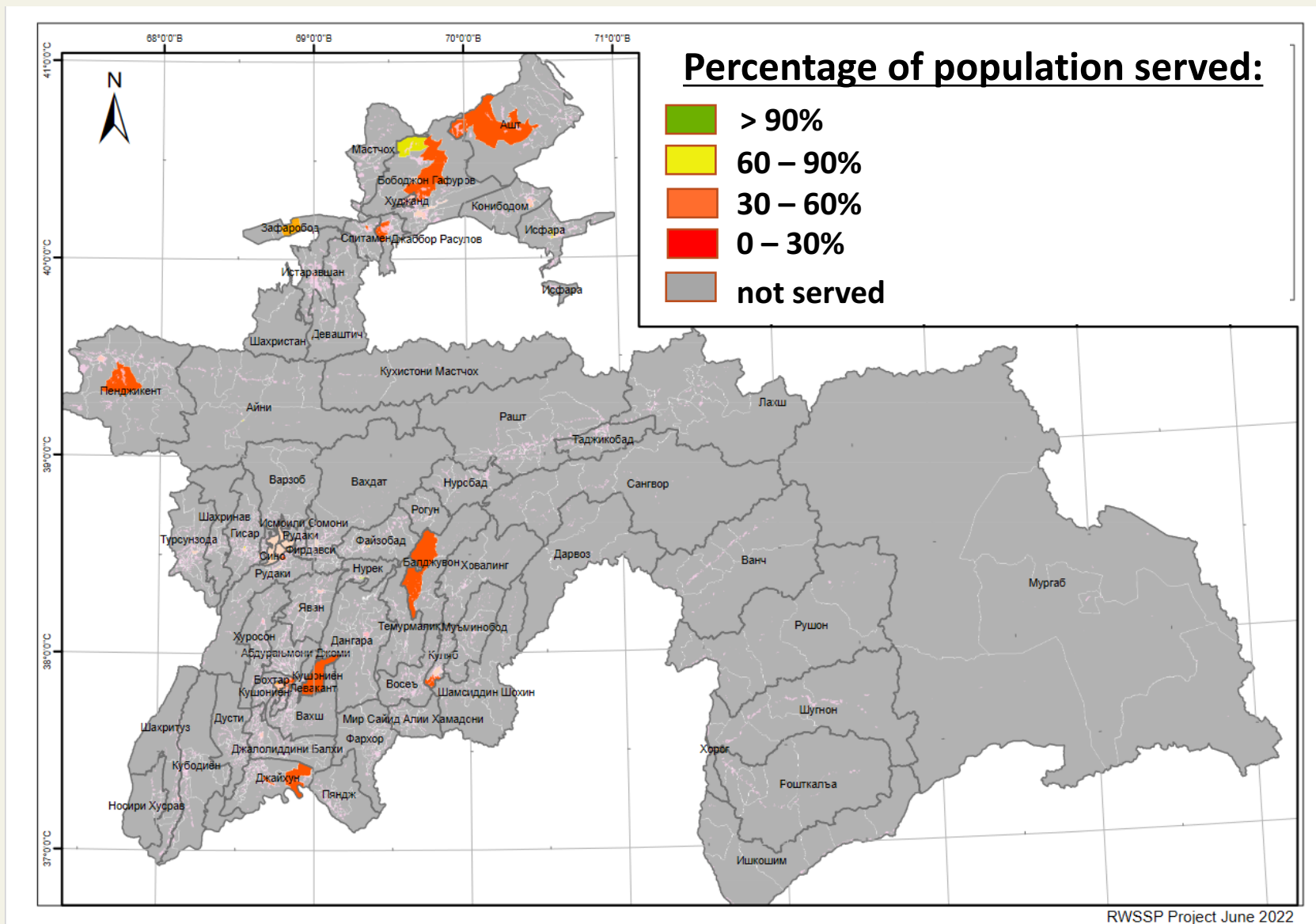
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Current coverage by Water Supply Services in Tajikistan



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Current coverage by Sanitation Services in Tajikistan



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Population served by WS and WW service providers in different sizes of settlements (centralized systems only!)

Number of population in settlement	<1.000		1.000 – 5.000		5.000-15.000		15.000-50.000		50.000-150.000		>150.000	
	No	People	No	People	No	People	No	People	No	People	No	People
without WS and WW services	1.678	703.206	1.373	2.982.061	132	904.352	6	139.733	0	0	0	0
with at least partial WS and no WW services	307	143.187	442	1.012.804	71	570.649	17	395.922	1	63.986	0	0
with at least partial WS and WW services	22	12.673	118	303.788	29	270.050	23	646.980	6	420.393	2	1.393.310
Total	2.007	859.066	1.933	4.298.653	232	1.745.051	46	1.182.635	7	484.379	2	1.393.310

WS – water supply; WW – waste water; No – number of settlements

Settlements served by WS and WW service providers (centralized systems only!)

Service level	Number of settlements	Number of population (persons)
<u>without</u> WS and WW services	3.189	4.729.352
<u>with</u> at least partial WS and <u>no</u> WW services	838	2.186.548
<u>with</u> at least partial WS and WW services	200	3.047.194
Total	4.227	9.963.094

WS – water supply; WW – waste water; No – number of operators

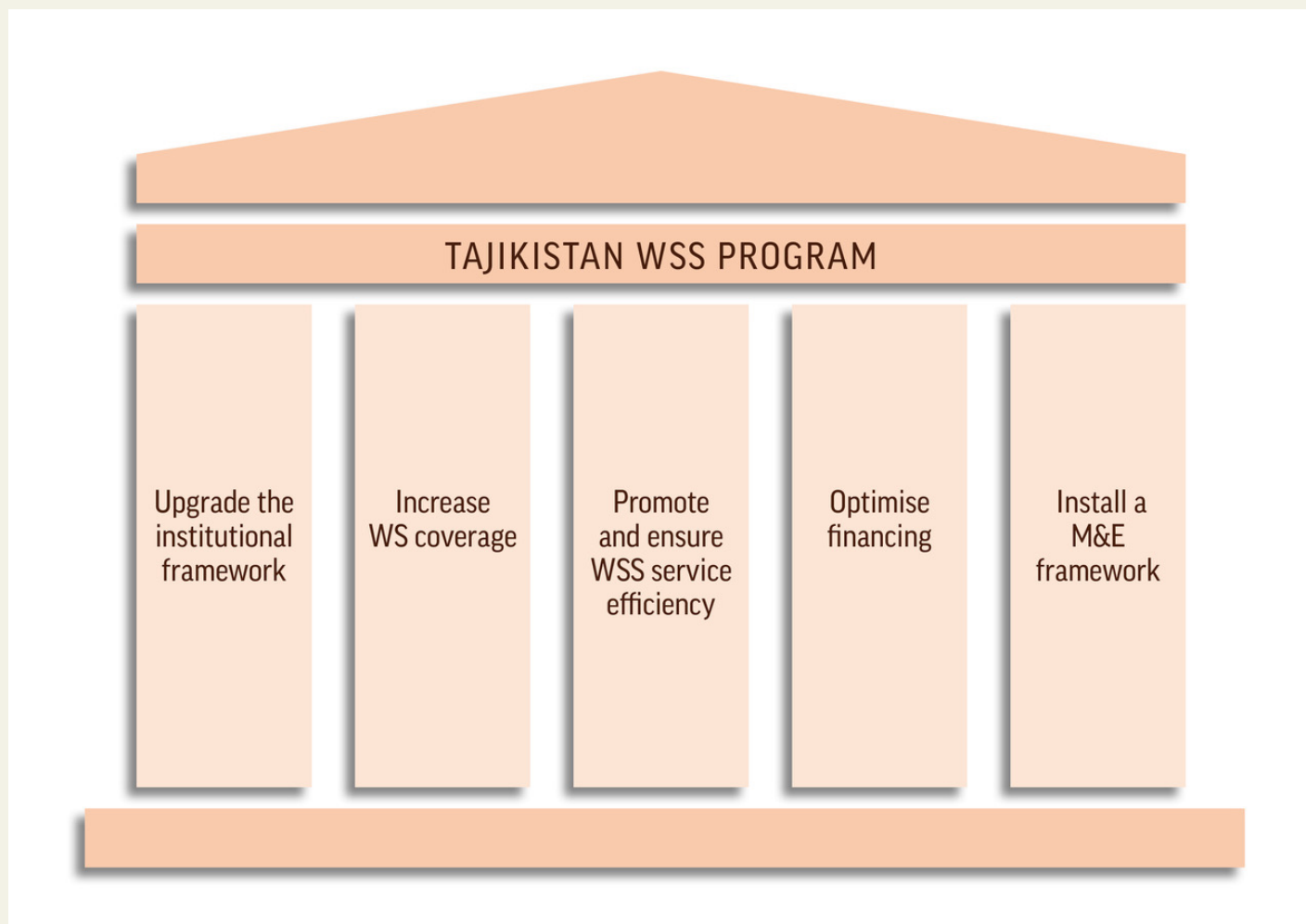
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Identified gaps upon baseline assessment

- Low service coverage in access to water supply centralized systems operated by Service Providers - nationwide only **41 % of population (acc. to survey in 2022)**
- Low service coverage in access to sanitation centralized systems operated by Service Providers – nationwide only **15 % of population (acc. to survey in 2022)**
- Institutional framework not organized efficiently:
 - Diversified service provider portfolio without strategic management by government
 - No separated sector regulatory function established
 - Unclear distribution of responsibilities
 - Position of public enterprise KMK not sufficiently clarified
 - No strategic planning unit for sector development
 - Policy making by involvement of 9 Ministries
- Delays in project implementation due to administrative challenges during the last decades ca. 30 – 40 MUSD WS and WW investments realized per year
- Existing facilities partially deteriorated due to lack of financing in maintenance and repair works

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Output from Baseline Assessment: An adjusted Institutional and Regulatory Architecture is needed to ensure a substantial and countrywide improvement of WS and WW services!



Extract from

NATIONAL WATER STRATEGY FOR THE PERIOD UNTIL 2030

"WATER FOR SUSTAINABLE DEVELOPMENT"

Mission:

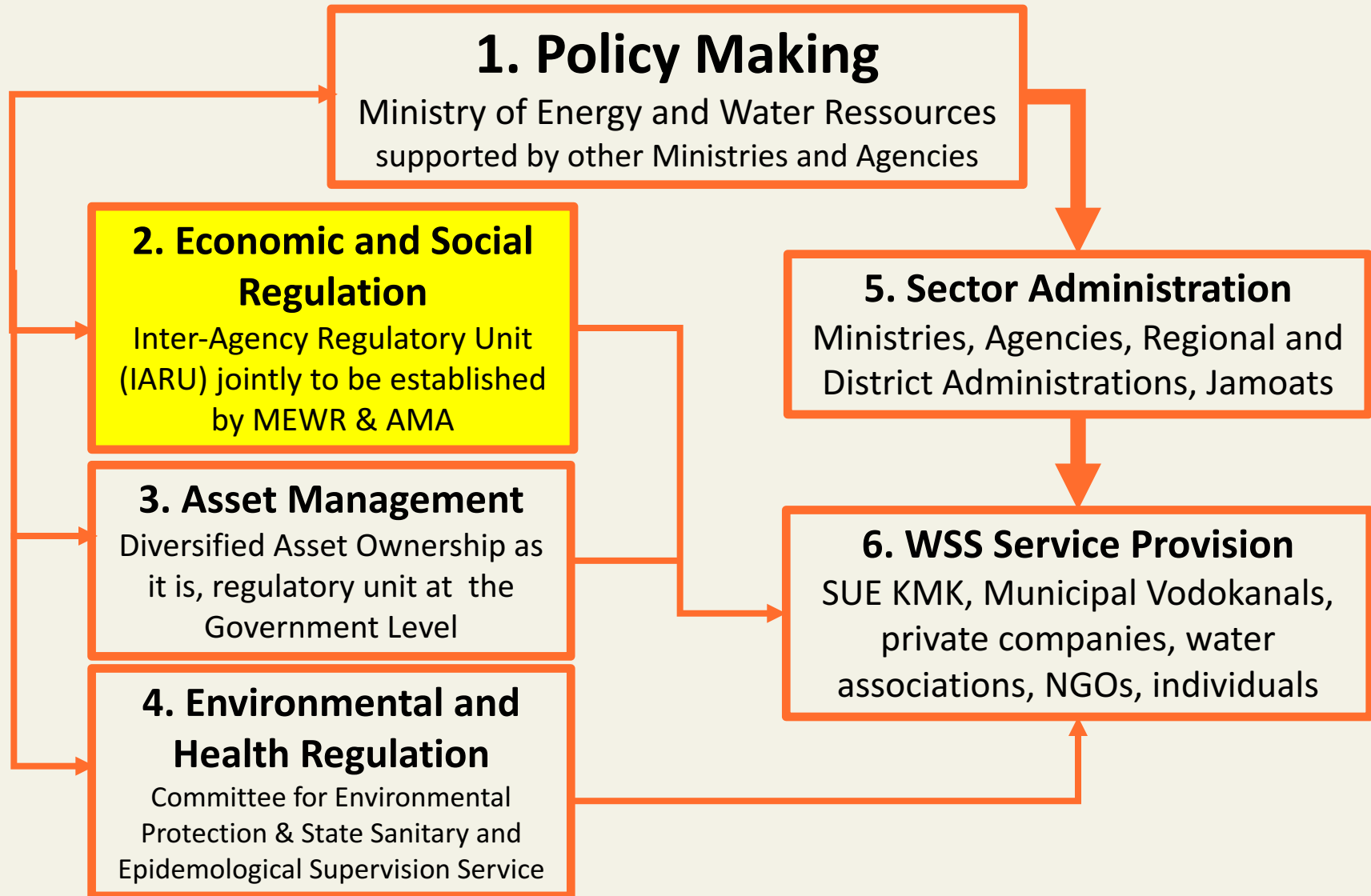
to organize the water sector in a way to ensure efficient, reliable, environmentally friendly and economically sustainable production, use and regulation for the benefit and welfare of the citizens and the involvement of all national, regional and local stakeholders

Vision:

to have a dynamic sector organization with focus on efficient service provision adapted to the for all customers/citizens throughout the country recognizing different regional and local situations

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The proposed Institutional and Regulatory Set-Up (6 functions)



The proposed Economic and Social Regulation: Legal aspects

- The Economic and Social Regulator is an **Inter-Agency Regulatory Unit (IARU)** to be established jointly by MEWR and AMA through a Governmental Resolution;
- Existing and relevant functions and competencies of MEWR and AMA to be performed through the **IARU**;
- Additional functions and competencies can be added through the Governmental Resolution (within the proposed new set-up) and statutes;
- License or permit to operators for provision of WS and WW services: amend the current legislation on licensing **or** introduce this competence via the Governmental Resolution in the **IARU** regulation

Implementation of further institutional reforms to be included in the National WSS Program until 2030

Establishment of an economic and social regulator function, separated from operators level

Target: ensure safe, affordable and equitable access to WSS services for the Citizens

Establishment of a strategic WSS department within MEWR

Target: Provision of all policy making steps which are required for an efficient function of the WSS sector and achievement of the strategic goals based on results of rationale sector monitoring (National Water Information System)

Enhance capabilities of local and regional administration as well as service providers

Target: assure efficient and reliable functioning of the WSS sector

Intervention Logic for Investments

- Prioritized Jamoats for Water Supply – New Construction: 117 (with unserved population of 2,5 Mio persons)
- Prioritized Jamoats for Waste Water – New Construction: 154 (with unserved population of 3,7 Mio persons)
- Different technological levels of service applied for new constructions
WS and WW:

WS	Application range	WW	Application range
not included	< 2000 cap	not included	< 10000 PE
Scenario 1	2000-5000 cap	Scenario 1	10000-15000 PE
Scenario 2	5000-75000 cap	Scenario 2	15000-75000 PE
Scenario 3	> 75000 cap	Scenario 3	> 75000 PE

Scenario 1: basic

Scenario 2: advanced

Scenario 3: modern (more or less in compliance with international standards for developed urban systems)

Number of Jamoats: 370

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WSS Sector Investment Program	
A	Water Supply
A.1	Elaboration of integrated regional water master plans
A.2	Modernization and Extension of existing WS systems
A.2.1	Upgrade / extension of existing basic supply systems
A.2.2	Upgrade / extension of existing advanced supply systems
A.2.2	Upgrade / extension of existing modern supply systems (Dushanbe, Khujand)
A.3	New Construction of WS systems
A.3.1	Construction of basic supply systems
A.3.2	Construction of advanced supply systems
A.3.2	Construction of modern supply systems
B	Sanitation
B.1	Elaboration of integrated regional sewage master plans
B.2	Modernization and Extension of existing WW systems
B.2.1	Upgrade / extension of existing basic sewage systems
B.2.2	Upgrade / extension of existing advanced sewage systems
B.2.3	Upgrade / extension of existing modern supply systems (Dushanbe, Khujand)
B.3	New Construction of WW systems
B.3.1	Construction of basic sewage systems
B.3.2	Construction of advanced sewage systems
B.3.3	Construction of modern sewage systems

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	WSS Sector Development Support Program
C	Institutional and Economic reform actions and Capacity Building
C.1	Establishment of Inter-Agency Regulatory Unit (IARU) jointly with MEWR & AMA
C.2	Establishment of Policy Making Department at MEWR
C.3	Enhance capabilities of local and regional administration as well as service providers and state agencies
C.4	Establishment of National Water Sector Development Funding scheme
C.5	Establishment of National WSS Information System
D	Education and Training
D.1	Enhancement of basic skills of all staff-members at Operators level
D.2	Enhancement of vocational qualification and advanced skills of operational staff in the WSS sector
D.3	Enhancement of the qualification of customer relation staff in the WSS sector
E	Public Awareness Program
E.1	Mass media campaigns at National level (radio, TV, newspaper, social networks)
E.2	Regional awareness campaigns
E.3	Specific stakeholder campaigns

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The WSS Program 2030 – Financial figures

No.	Investment Program Components	Cost Estimation (USD)
	WSS Sector Investment Program	892 500 000
A	Water Supply systems	473 500 000
A.1	Elaboration of integrated Regional Water Master Plans	1 500 000
A.2	Modernization and Extension of existing WS systems	90 000 000
A.3	New Construction of WS systems	382 000 000
B	Sanitation / Waste Water systems	419 000 000
B.1	Elaboration of integrated Regional Sewage Master Plans	1 500 000
B.2	Modernization and Extension of existing WW systems	67 500 000
B.3	New Construction of WW systems	350 000 000
	WSS Sector Development Support Program	45 910 000
C	Institutional and Economic Sector reform actions and Capacity Building	42 450 000
C.1	Establishment of Inter-Agency Regulatory Unit (IARU) jointly with MEWR & AMA	4 000 000
C.2	Establishment of Policy Making Department at MEWR	2 000 000
C.3	Enhance capabilities of local and regional administration as well as service providers and state agencies	21 500 000
C.4	Establishment of National Water Sector Development Funding scheme	2 000 000
C.4	Establishment of National WSS Information System	12 950 000
D	Education and Training	2 400 000
D.1	Enhancement of basic skills of all staff-members at Operators level	850 000
D.2	Enhancement of vocational qualification and advanced skills of operational staff in the WSS sector	850 000
D.3	Enhancement of the qualification of customer relation staff in the WSS sector	700 000
E	Public Awareness Program	1 060 000

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The WSS Program 2030 – What can be achieved?

	Units	Baseline	Shortterm	Midterm
		2022	2027	2030
Population total	1000 inhabitants	9 963	11 203	12 092
Households	1000 households	1 619	1 821	1 965
Population Served WS - Basic	% of population	27%	22%	15%
Population Served WS - Advanced	% of population	14%	20%	26%
Population Served WS - Modern	% of population	0%	8%	17%
Population Served WS - Total	% of population	41%	50%	58%
	1000 inhabitants	4 035	56	6 988
Population Served WW - Basic	% of population	8%	7%	4%
Population Served WW - Advanced	% of population	5%	8%	11%
Population Served WW - Modern	% of population	2%	6%	12%
Population Served WW - Total	% of population	15%	21%	26%
	1000 inhabitants	1 494	2 353	3 174
Authorized Consumption - Private Households				
Population Served WS - Basic	1000 m3		44 981	32 814
Population Served WS - Advanced	1000 m3		81 784	113 917
Population Served WS - Modern	1000 m3		40 892	94 398
Population Served WS - Total	1000 m3/year		167 657	241 128
Per capita consumption	l/cap/day		82	95
Total Water Consumption Needs	1000 m3/year		228 852	329 140
Required System Input Volume (estimate)	1000 m3/year	319 000	389 048	411 425
Metering Ratio Households	% metered/total consumption	47	80	95
Total Water Sold	1000m3/year		214 471	313 169
Total Non Revenue Water	1000 m3/year		171 094	97 958

The WSS Program 2030 – Financial Key Indicators

Investment Assumptions per capita:

- On average: 74 USD/capita (total population 2030)
- For Water Supply: 167 USD/capita (incl. additional supplied population 3 million persons)
- For Waste Water: 259 USD/capita (incl. additional supplied population 1,7 million persons)

Potential Sources of Financing to be discussed:

- State budget
- IFI/bilateral loans
- IFI/bilateral grants
- Private investors
- Consumers contribution via tariffs for WSS services
- Steady growth of OPEX: Water Supply 1,36 – 1,91 Somoni/m³, Waste Water 0,90 – 1,27 Somoni/m³. Current tariffs partially cover, not even the OPEX

The WSS Program 2030 – Opportunities and Challenges

Opportunities in comparison to the previous WSS program until 2021:

- Good nationwide database about supply conditions available
- Intervention priorities for all settlements defined
- Technical supply / disposal standards defined
- Institutional framework restructured – efficient support of project implementation, strategic sector management and performance monitoring enabled

Challenges:

- Up to 120 million USD to be invested per year – might exceed abstraction capacity of the sector (administration, construction companies, consultancy services)
- Slow speed and delays in institutional sector restructuring
- Delays in legal adjustments and improvement of technical standardization