

2.5. Action plan for reducing water leakages in water management facilities technology

Management, detection and repair of small leaks in a distribution system are critical functions of system operation and maintenance, yet they are often neglected.

This technology can improve security of water supply. The cost of this technology is by far less than the economic damages to the country caused by water losses in the water supply system.

Application of this technology lines with the country's social, economic and environmental development priorities. With regard to the country's social development priorities, it increases the livelihood of the population by reducing water scarcity risks.

A warmer climate is highly likely to result in more frequent droughts. Additionally, population growth will push many countries into water stress and water scarcity in the coming decades. Detection and repair of leaks in water systems is an important part of comprehensive strategies to reduce pressure on existing water resources.

There are no specific programmes or strategies in Azerbaijan related to application of reducing water leakages in water management facilities technology.

Main barriers of technology diffusion could be listed as follows:

Barriers	Application of reducing water leakages in water management facilities technology
Economic/financial	- High capital costs - Inadequate financial initiatives
Policy/regulatory	- Weak regulatory and legislative framework - Weak institutional basis - Lack of coordination among relevant institutions - Non-existence of mechanism for customs regulations for stimulation of import of necessary technology
Technological	- Weak access to high priority technology
Information/capacity	- Low awareness and lack of capacity of local authorities, communal units and residents on advantages of the technology

During the preparation of TAP, measures have been assessed taking into account their priorities, time scale, related stakeholders, key indicators for measuring implementation and funding resources.

TAP for the technology is provided in table 8.

Table 8: TAP for reducing water leakages in water management facilities technology

#	Measures	Priority	Why it is important	Time scale	Related stakeholders, implementers	Key indicators	Risks	Funding sources	Costs
Policy/regulatory									
1	Provision of policies and legal frameworks that facilitate application of leakage management programs to either be created or aligned, in order to ensure efficient use of water resources	High	- Improve legislative base	3 years	National Parliament, MENR, SWA, NGOs, local authorities	- Legal basis will be created to apply the technology	- State procedures may be slow to endorse proposed recommendations	State	\$ 100,000
Economic/financial									
2	Expanding financing opportunities and services for leakage management initiatives	High	- Need for financial support	2 years	MED, MOF, MENR, SWA, NGOs, local authorities	- The budget ratio spent on the procurement of survey devices	- Insufficient State funds	State	\$ 250,000
3	Determining a long-term budget plan to cover maintenance	High	- Lack of financial support during maintenance	2 years	MED, MOF, MENR, SWA, NGOs, local authorities	- Improved budget plan for maintenance	- Insufficient State funds	State	\$ 60,000
Technology									
4	Promoting devices and supporting locally-developed devices/research works	High	- Need for modern technologies	0-4 years	National Academy of Sciences, MENR, SWA, NGOs, local authorities	- Improved capacity of R & D institutions	- No major risk	State, International	\$ 100,000
5	Promoting research works in collaboration with foreign agencies/private companies in order to receive and transfer the technologies	High	- Need for modern technologies	0-4 years	National Academy of Sciences, MENR, SWA, NGOs, local authorities	- Improved capacity of R & D institutions	- No major risk	State, International	\$ 60,000
Information/capacity building									

#	Measures	Priority	Why it is important	Time scale	Related stakeholders, implementers	Key indicators	Risks	Funding sources	Costs
6	Enhancing the performance of data administrative officers to ensure they can collect and prepare data according to the standard before distributing the data	High	- There is need for capacity improvement	3 years	MENR, SWA, NGOs, local authorities	- The number of personnel capable of transferring knowledge on data collection and preparation	- No major risk	State, International	\$ 200,000
7	Strengthening capacity and supporting national and local institutions to improve effectiveness in regulating and managing water losses, including leakage detection and management	High	- There is need for capacity improvement	3 years	MENR, SWA, NGOs, local authorities	- The number of trainings/meetings	- No major risk	State, International	\$ 250,000
8	Improving the capability of utilities and potential users to understand and access leak management services	High	- There is need for capacity improvement	5 years	MENR, SWA, NGOs, local authorities	- The number of personnel in the fields of mathematic programs/geo-informatics	- Weak collaboration of personnel	State, International	\$ 150,000
Other measures									
9	Implementation of demonstrative pilot projects	High	- Demonstrate practical advantages	0-5 years	Local authorities, International and National donors, NGOs	- Practical knowledge and skills of farmers increased	- Lack of funds	State, International	\$ 600,000