



Palestinian National Authority  
Palestinian Water Authority

# **National Water Policy for Palestine**

**Final Draft Water Policy**

**2013-2032**

# 1. Background

## 1.1 National Water Policy

The purpose of this document is to present the Palestinian National Authority framework of action in the water sector for the sustainable management of water resources in the Occupied State of Palestine. It outlines the keys objectives and policy statements for this sector for the period 2013-2032.

Sustainable management of water resources is vital to the Palestinians' long term prosperity. Water is essential for human and other life and crucial for the development of agriculture and industry, as every sector depends on secure and sustainable access to water.

Despite the limited water resources available and the importance of water to a healthy future, there have been instances where the value of water has been overlooked. The sustainable management of water resources does not offer easy solutions as the country is suffering from water scarcity, as Israel is hindering Palestinian access to natural water resources. Thus, legal and administrative measures need to be continually updated based on a plan developed from a strategy, which is in turn the expression of a national water policy.

In addition, this strategy forms part of a framework derived from an integrated water resources assessment carried out by the Palestinian Water Authority (PWA) in consultation with the key stakeholders identified by the Government, the major promoter of both the policy and strategy.

Responsibilities for implementing the measures proposed in this policy/strategy document will be shared between various stakeholders, including:

- Office of the Prime Minister
- Ministry of Finance
- Ministry of Agriculture
- Ministry of Environmental Affairs
- Ministry of Local Governorate
- Ministry of Health
- Water Service providers and their representative association
- Negotiations Affairs Department

The policy title is referred to as the National Water and Wastewater Policy. This policy have been developed under the auspices of the Palestinian Water Authority, with the involvement of all major stakeholders of the water sector in the Occupied State of Palestine.

## 1.2 Purpose statement

The national policy provide the planning and management framework necessary for the protection, conservation, sustainable management and development of water resources and for the improvement and sustainable management and provision of water supply and wastewater services and standards in the Occupied State of Palestine. The policy aim to:

- (a) Reinforce the Palestinian Authority's approach to sustainable water resources management by ensuring that all arms of government work together in the pursuit of shared water resources management goals; and

(b) Establish a framework for the coordinated development, regulation and financial sustainability of water supply and wastewater services to ensure concerted efforts towards improved water systems management, rehabilitation and maintenance.

The National Water Policy and Strategy will also act as a platform for ensuring close collaboration and cooperation among all water-related agencies and stakeholders at the national, governorate, municipal and local levels. As such, the National Water Policy and Strategy should be treated as a living document to accommodate changes that will further strengthen the national framework and reflect water management at all levels.

### 1.3 Previous Reference

The National Water Policy are in line with the Strategy for the Water and Wastewater Sector (2011-2013), the Draft Water Resources Management Strategy (1997), the National Water Policy (1995), Water Sector Strategy Planning Study (WSSPS, 2000), Water National Plan (NWP) 2000 and Coastal Aquifer Management Plan (CAMP)1999-2004.

### 1.3 Applicability

The Policy refer to all natural water resources (groundwater and surface waters, fresh, brackish and salt waters), as well as to the water and sanitation services provided to the People of Palestine.

The Policy apply to . Occupied State of Palestine including international territorial waters, East Jerusalem.

### 1.4 Effective date

The National Water Policy is expected to take effect and come into force from the date of approval by the Cabinet of Ministers.

The Palestinian Water Authority will facilitate implementation of the National Water Policy, with the assistance of identified key stakeholders. Both the policy and the strategy will be reviewed annually to verify implementation progress and full independent evaluations will be carried out every three years.

### 1.6 Formulation process

The National Water Policy was formulated in consultation with relevant government ministries, authorities, Water and Wastewater service providers, universities, institutes, associations and Non-Governmental Organizations active in the water sector were also consulted.

### 1.7 Water Policy

To develop and manage water resources in an integrated and sustainable manner in the Occupied State of Palestine to fulfill existing and future water needs.

## 2. Policy principles

### 2.1 Sustainable management of water resources

- Fresh water is a finite and vulnerable resource, essential for sustaining life, development and the environment
- Water is part of larger ecological systems. Realizing the importance and shortage of fresh water, it has to be treated as an essential element for sustaining all life forms.
- Water supply must be based on the sustainable development of all water resources (conventional and non-conventional, shared and endogenous).
- Water resources development must be based on data collection and evaluation of all water resources as well as balancing between water availability and water needs for all sectors.
- Water has an economic, social and environmental value.
- Environmental goals must be achieved through rationalization of water use and protection of all water sources from pollution.

### 2.2 Integrated water resources management

- Water resources must be managed in an integrated manner, taking the needs and viewpoints of all existing and potential users and the long term sustainability of these resources into account.
- Just, equitable, and sustainable allocation to all legitimate users will be best ensured by the State.
- Agricultural, industrial, and other development and investments must be aligned to the water resource quantity and quality available or to be developed.

### 2.3 Water rights

- The Palestinians will pursue their interests in connection with obtaining Palestinian water rights, including the fair right-of-access, right-of-control and right-of-use to water resources shared with other countries, in line with international law

### 2.4 Access to water and wastewater services

- Water has a unique value for human survival and health. Each citizen has the right to sufficient and affordable water of the required quality for the purpose of use.
- Each citizen has the right to hygienic sanitation services.
- The needs and interests of all gender groups (marginalized, poor, restricted access, women, etc.) will be taken into account.
- The water integration concept will be applied Water supply and sewage treatment services.

### 2.5 Financial sustainability of water utilities

- As water has an economic, social and environmental value in all its competing uses, water services are not free.

### 2.6 Governance and Management

- All water resources are considered as a public property.

- Water resources development and management should be based on a participatory approach, involving all stakeholders (users, planners and policy-makers) at all levels.
- The responsibilities for water resources governance, being a ministerial and regulatory function, and water services management, being an operational function, should be separated institutionally.

## 2.7 Sustainable wastewater management

- Water polluters should be made to pay for the damage they have produced.
- Safe disposal of wastewater requires treatment to eliminate biological, chemical and physical hazards.
- Treated wastewater effluent is considered a water resource and is added to the water balance. This is deemed feasible in light of the semi-arid climate, the modest freshwater resources, the high demand for domestic water, the deficit in the trade of food commodities and the marginal cost of such resource development.

## 3. Policy statements

### 3.1 Sustainable management of water resources

It is the National Water Policy of Palestine to:

1. Ensure that the abstraction rate from water resources is sustainable unless specifically sanctioned by the Government, where there is no alternative source for meeting basic needs.
2. Prioritize the prevention of groundwater pollution (including non-point pollution by fertilizers and pesticides) and ensure the protection of aquifers and in the meantime, improve the quality of fresh water in water bodies that have been degraded by human activities.
3. Undertake to continuously control the quality of water resources, identify pollution sources and polluters and enforce the polluter pays principle.
4. Develop additional quantities of water from non-conventional water resources without infringing upon Palestinian Water Rights.
5. Increase storm water infiltration at upper elevations to recharge the aquifers.
6. Develop flexible strategies to deal with the impact of climate change on water resources, to limit the water sector's carbon footprint and reduce the water footprint through the most efficient use of water.
7. Support the regular collection of all hydrological and other water water-related data in a centralized data base and to make this information available to the public, for to (a) ensure the efficient management of water in Palestine, (b) ensure the optimal irrigation planning of irrigation by the Ministry of Agriculture and relevant stakeholders, and (c) to document priority investments in the sector.
8. Encourage community involvement in the various stages of water resource development projects, including public awareness and training campaigns, to create an environment for effective management and ensure an educated public understands their roles and responsibilities in the effective management of water resources.
9. Recognize water users' associations (including farmers' associations) as formal entities entitled to negotiate and manage shared national water rights on behalf of their members.
10. Raise public awareness on water and wastewater issues and increase participation in water sector management, involving them the people in the process of public participation processes and developing their understanding of their rights and role.

## 3.2 Integrated water resources management and allocation of water rights

It is the National Water Policy of Palestine to:

11. Define all water resources available in Palestine as the common property of the Palestinian People. No individual or organization can claim water resources for private property. The right-of-use of these resources is regulated by the relevant national authority.
12. Define the priorities for allocating available water resources to the different types of user, e.g. domestic, agricultural, environmental, industrial, recreational, touristic, etc. and ensure that absolute priority is accorded to domestic and residential purposes over all other uses.
13. Allocate water rights for economic benefit (agriculture, industry, tourism, etc.) between different users based on the economic benefits to Palestine (in terms of revenue, job creation and food security) and in agreement with national development plans.
14. Have a national organization in place to set and review the water rights allocation at national level (defining the allocation principles and quantities designated to each activity).
15. Ensure that the allocation of limited water supplies within each specific user type is fair and equitable and that distribution among the regions is fair; where necessary, transfers will be organized from basin to basin and region to region, under the responsibility of the bulk supply utility.
16. Allocate water abstraction rights through a dedicated national authority; these rights will be limited in volume, limited in time and will be allocated for well-specified purposes; to this end, all well drilling, water production and supply will be allowed only by permit or license.
17. Organize the settlement by arbitration, and, if necessary, through the courts, of any disputes that may arise from the allocation of water rights.
18. Exclude that economic development, even inadvertently, would imply unsustainable water use, or irreversible environmental damage; the regard for resources and the environment will lay the premises for economic solutions.
19. Ensure that, water consumption in the agricultural sector adjusts to ensure cost-efficiency (choice of cultivars, use of marginal-quality water and more widespread use of improved irrigation technology).
20. Consider the separation of sewerage and storm water drainage, whenever feasible, in a cost-effective manner.

### 3.3 Trans-boundary water issues

It is the National Water Policy of Palestine to:

21. Ensure the full water rights of Palestinians to shared water resources.
22. Cooperate with regional partners to promote the optimum utilization of shared water resources, to identify and develop new and additional supplies, and to collect and share relevant information and data.
23. Promote, where expedient, an equal distribution of available bulk water supplies in Palestine, or for temporary respite during drought, by redistributing the agreed water allocations from shared aquifers and by the trans-boundary export of bulk supplies from areas with greater access to supply and trans-boundary import to areas with poorer access to supply.
24. Promote, where expedient, the trans-boundary export of treated wastewater from Palestine in return for the trans-boundary import of fresh water over and above the agreed allocated quantities for shared resources.

### 3.4 Access to water and wastewater services

It is the National Water Policy of Palestine to:\*

25. Pursue the right of each citizen to affordable and sufficient water (when available) of the required quality for the purpose of use.
26. Focus particularly on improving water and wastewater services provided to marginalized areas (suffering from poor service), including rural areas, remote villages and refugee camps.

### 3.5 Financial sustainability of water and wastewater utilities

It is the National Water Policy of Palestine to:

27. Ensure that the abstraction, transmission and distribution of water, together with wastewater collection and treatment, is financially sustainable and that providers of these services can demonstrate their financial reliability as regards the full recovery of operation, maintenance, capital investment and capital replacement costs.
28. Define and enforce clear regulations for revenue collection by utilities (including customer debts), as collecting these debts is key to ensuring the financial viability / sustainability of water and wastewater utilities.
29. Define and enforce regulations to deal with illegal connections to water systems and sewers.
30. Ensure that the services' proposed financing and funding requirements reflect the approved financial objectives and cost profiles of each service provider and that, where these tariffs do not provide full cost recovery, all sources of funding required to meet this gap are clearly identified and secured.



31. Set wastewater charges, connection fees, sewerage taxes and treatment fees to cover at least the operation and maintenance costs and part of the capital cost. The ultimate aim is for a full cost recovery.
32. Apply different charges for different geographical areas, as a function of use and effluent quality.
33. Assess the citizens' ability to pay for water and wastewater services and ensure that this assessment forms part of tariff reviews and includes issues related to the poor and disadvantaged sections of the community.
34. Develop and implement fair and progressive tariff systems with a view to facilitating access to the service by the poor and vulnerable groups and to ensuring cost recovery by utilities.

### 3.6 Governance and Management

It is the National Water Policy of Palestine to:

35. Regulate the water resources, water supply and wastewater collection, treatment and disposal issues, separating the institutional, regulatory functions from those of service delivery.
36. Task the regulated public organizations with the provision of domestic and drinking water supply services, and of wastewater collection and disposal services.
37. Encourage the institutional restructuring and involvement of the private sector in the funding, implementation, operation and maintenance of water supply and wastewater systems to improve efficiency and the performance of water sector and the transfer of technological expertise.
38. Encourage the involvement of formal water users' associations to ensure optimal management of shared water resources (including wells, springs and treated wastewater) used for economic purposes (irrigation, industry, tourism).
39. Ensure the adequate involvement of all stakeholders (from a gender perspective) in water and wastewater programs & projects, to support sustainability in water resources management
40. Prioritize the optimal use of water resources, including the allocation of public funds, by encouraging efficient performances.
41. Encourage water service providers to reduce the quantity of non-revenue water in order to increase the availability of scarce resources to customers and improve their operational efficiency to progressively meet national targets.
42. Develop water demand management strategies, including suitable tariff mechanisms and public awareness-raising.
43. Stipulate that the organizations responsible for the water sector produce financially and technically sound plans to meet national long-term strategic objectives and regional (within Palestine) infrastructure master planning

requirements, as well as the short-term investment requirements of the water sector.

### 3.7 Protecting the environment from pollution by wastewater

It is the National Water Policy of Palestine to:

44. Pursue the right of each citizen to have access to suitable sanitation facilities (sewerage or on-site sanitation), to collect and dispose of wastewater in a hygienic manner.
45. Promote the improvement of on-site sanitation facilities.
46. Remedy health risks associated with wastewater production and prevent environmental pollution from wastewater.
47. Prohibit roof- and storm-water connection to public sewers. Collection of storm-water shall be done separately and will be the subject of water harvesting.
48. Treat all produced wastewater to a quality suitable for safe and productive reuse, in line with national standards, and support the distribution and productive reuse of treated wastewater.
49. Priority shall be given to agricultural reuse of treated effluent. Blending of treated wastewater with fresh water shall be made to improve quality where possible. Crops to be irrigated by the treated effluent or blend thereof with freshwater resources shall be selected to suit the irrigation water, soil type and chemistry, and the economics of the reuse operations.
50. Crop nutrient requirements shall be determined taking into consideration the prevailing effluent quality. Overuse of nutrients shall be avoided. Farmers shall be encouraged to determine the rate of water application needed for different crops, taking into consideration the value of nutrients in the treated water and other parameters.
51. Accumulation of heavy metals and salinity shall be monitored, managed and mitigated. Leaching of soils shall be advocated by the irrigation authorities.
52. Farmers shall be encouraged to use modern and efficient irrigation technologies. Protection of on-farm workers and of crops against pollution with wastewater shall be ensured.
53. Improve treated wastewater reuse through sound contractual arrangements between the producers and the users.
54. Work with relevant authorities and institutions on public awareness concerning the importance of wastewater treatment and re-use, and the risk of health and environmental impacts of sewage.

### 3.8 Standards for the water and wastewater sector in Palestine

It is the National Water Policy of Palestine to:

55. Work with relevant stakeholders to develop, update and enforce national standards on drinking water quality based on the most up-to-date knowledge of potential hazards, national priorities, economics, and availability of water supplies, as well as health and other environmental implications.
56. Work with relevant stakeholders to establish and enforce national standards for discharging industrial wastewater into sewers.
57. Work with relevant stakeholders to establish and enforce national standards for wastewater reuse in agriculture and suitable crops for this reuse.
58. Work with relevant stakeholders to establish and enforce national standards for discharging wastewater into natural water courses (wadis, rivers, sea).
59. Work with relevant stakeholders to establish and enforce national regulations for on-site sanitation, as it is a potential source of pollution.
60. Work with relevant stakeholders to regulate and standardize the process for sludge collection, safe disposal and use.

### 3.9 Strategies for the Water Sector

61. The National Water Policy of Palestine will guide the development of national strategies for the sector.
62. The Palestinian Water Authority is responsible for preparing these strategies, in close co-ordination with the other stakeholders.

## 4. Proposed institutional arrangements

### 4.1 Water and wastewater sector governance

The PWA has been given the mandate through By-Law No. 2 (1996) and has been stressed on in its amendments Law no.3 for 2002 to manage the water resources, execute the water policy, establish supervise and monitor water projects, and to initiate co-ordination and co-operation between the parties affected by water management. Other line ministries and agencies have leadership on specific issues:

- Ministry of Agriculture (MoA): Policy and regulation of irrigation and promotion and organization of farmers' associations.
- Environmental Quality Authority: defining environmental regulations, including standards for the discharge of treated wastewater into natural water courses<sup>1</sup>, , carbon footprint and water footprint regulations.
- Palestinian Standards Institute (PSI): standardization of rules for water facilities, sewerage, on-site sanitation.
- Ministry of Planning: lead national development plans (taking availability of water resources into account, to be assessed by the MoPW) in coordination with relevant Stakeholders.
- Ministry of Local Government: implementing and supporting Joint Service Councils (JSCs).

The PWA is in charge of the overall regulation of water producers and service providers and manage water resources, including:

- Allocation of water abstraction rights;
- Regulation of the right of use of the resources;
- Develop service providers;
- Develop Tariff setting and endorse prices;
- Providing support to PSI for the definition of standards;
- Resolving conflicts between service providers and users (including National bulk water utility versus service providers).

### 4.2 The Regulatory Water Council

A Regulatory Water Council will be implemented. It will include representatives of the main stakeholders of the water and sanitation sector (water producers, water supplier, waters users, central government).

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<sup>1</sup> Environment law (nom 7 for the year 1999). Article 28: "the ministry identifies quality standards and specifications of potable water, in cooperation with the concerned authorities". Article 29: "the ministry sets, in coordination with the concerned authorities, the necessary standards and specifications for collecting, treating, reusing, and disposing wastewater and rain water in a healthy manner in order to protect environment and public health".

The ministry does all the procedures relating to control and inspection to verify compliance with the adopted standards and specifications for environment protection (in accordance with the provisions of the Environment Act).

The ministry of environment affairs applies the Palestinian policy of environment assessment in relation to the projects that need environmental impact assessment.

The Council's role is to monitor the performance of Service Providers from technical, economical and environmental sides.

### **4.3 The national bulk water utility**

The State of Palestine will work to set up a National Bulk Utility in charge of producing and purchasing bulk water, or transporting bulk water between different regions, in the most efficient way to service providers.

### **4.4 Local water and wastewater utilities**

In order to provide effective customer service, the bulk water supplier does not serve the customers itself, but sell water to local service providers.

The Policy promotes the development of JSCs that provide water and wastewater services to more than one municipality. Ultimately, the Policy aims to support the development of regional utilities, whose concession area will include one or more governorates.

These utilities will have an autonomous status both administratively and financially, and will have to operate on the basis of cost recovery principles. On the long term, involvement of the private sector in the implementation of certain projects will be encouraged and possibly the management of services that could be contracted out by National Bulk Utility and regional utilities.

Local and regional utilities are permitted to manage production facilities provided they have been granted the relevant licenses.

### **4.5 Water users' associations**

Water users' associations (WUAs) are very important institutional partners in irrigation water management. The Policy promotes the formalization of these WUAs and the development of sound contractual arrangements between WUAs and bulk water providers, together with contractual arrangements between their constituencies.