



Palestinian Hydrology Group

For Water and Environmental Resources Development



ANNUAL REPORT

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1. Palestinian Hydrology Group (PHG) in Brief

PHG is an NGO established in 1987 and registered in 2001 in accordance with the Palestinian NGO Law number 1 of the year 2000 under registration number **QR-156-A**.

Vision

"Striving to achieve water and environmental justice for all Palestinian People"

Mission Statement

PHG is a nongovernment organization strives to maintain its lead position in delivering quality and innovative actions that contributes to sustain local water and environmental resources and related ecosystems, builds local human capacity and ensures just allocation of water and sanitation services as well as improves water, food and energy security for all Palestinian communities. Furthermore, to promote gender mainstreaming and empowers the vulnerable groups, including women, to participate in decision making and to promote the right to water and good water governance.

Strategic objectives

- 1) contribute to building effective civil society and to ensure equity and the involvement of marginalized groups, specifically women in decision-making and promote good governance especially in water sector.
- 2) work to achieve sustainable and integrated management of water resources and the environment in Palestine
- 3) Adopt water as a human right principle to achieve just an equitable distribution of water sources and improve water and sanitation services for the Palestinian communities
- 4) Establish partnerships and alliances with various sectors and relevant authorities in the areas of research and implementation to ensure the development of the water sector.
- 5) Training and preparation of qualified technical staff able to manage and operate water facilities on a sustainable basis.

Quality Objective 2016

To enable (10) Palestinian villages serving 15,000 citizens to improve water and wastewater services for these communities as well as to promote the right of the individual to get (70 liters / person / day) of drinking water (according to the Palestinian specifications) at affordable price and to raise the productivity of water in 4 sites raise community awareness in 10 locations while training 20 technicians and adopting the principles of good governance in the field of water management in national institutions and to issue a report to document the water situation in 100 localities during the year 2016.

2. Report of the Board of Directors

In response to the political, social and economic challenges facing the Palestinian civil society, and out of the need to maintain the institution to its leading role as one of the important institutions in the water sector and the environment and civil society in general, the Board has provided the necessary means to carry out the new projects to maintain the leading role of the institution and give it a value-added excellence.

Despite the harsh political and economic conditions in Palestine, PHG was able to achieve the goals set for the year 2016. This was evident from the type of interventions implemented by PHG that contributed to the improvement of social and economic conditions of the target communities.

The Board of Directors held during the year 2016 (5) meeting formally and a number of consultative meetings, the Board has taken several decisions, including procedural and strategic in nature, namely:

- Adoption of the 2017 budget
- recommending adoption of audited financial and administrative report for the year 2015
- Conduct internal evaluation of some branches
- Approve the idea of upgrading ISO 9001 - 2008 quality management system to the new one of 2015. Requested the offer and cost of upgrade for the process. Agreed to perform staff evaluation according to ISO format.
- Approve the organization of water as human right conference
- Approve Financial rewards proposed by director general to the staff
- Discuss possibilities of cooperation with Arab Development project in Jericho
- Discussed the decline in funding and the need for forming investment committee to discuss income generating activities and improve financial situation. Also discussed the possibility of more benefiting from the existing assets (Old Office space, Land in Gaza, Building at Bani Zaid))
- Discussed the need for improved internal communication between headquarter and branches and agreed to improve branch capacities as needed.

The board extends its sincere appreciation to all the partner organizations, donors and supporters of PHG who enabled us from accomplishing what we accomplished this year. Moreover, the Board continue its refusal to the conditional and politicized funding, and seeks to develop the role of the institution in defending the values of a genuine civil society.

Chair of the Board

Dr. Dima Amin

3. Executive Summary

PHG has carried out many activities, which contributed to improve water and sanitation services in the Palestinian communities. The main activities implemented during this year can be summarized as follows:

- **Groundwater Wells:** PHG rehabilitated 2 groundwater artificial recharge wells in Sanour Plain - Jenin - West Bank to help drain agricultural land and also store the flood water in the underneath aquifer.
- **Spring Rehabilitation:** Two springs were rehabilitated one in Tubas, Al Himmeh and one in Nablus Tana - Beit Fourik West Bank for the benefit of 65 beneficiaries and 793 dunums.
- **Ponds:** Complete the Rehabilitation of Arroub Roman pond of 25000 m3 capacity, in addition 3 earth ponds were constructed / rehabilitated with capacity of 2500 m3 .
- **Cisterns:** 118 new cisterns were constructed and 25 rehabilitated in the West Bank to improve access to water for agricultural and domestic purposes for the benefit of 5107 beneficiaries including 4372 students (3018 male and 1354 Female students and teachers).
- **Integrated Irrigation Water Management:** 27376 m length of irrigation pipes and 18 steel reservoirs with total volume of 10800 m3 was implemented to improve irrigation and irrigate new areas in the north and south of the West Bank.
- **Drinking water supply improvement:** PHG has constructed and rehabilitated 2 domestic water supply systems with total length of 5500 m of various diameters in the West Bank which served nearly 1000 persons.
- **Food Security:** 17 home gardens were constructed for the benefit of 130 beneficiaries in Hebron area, 50% of which are female.
- **Agricultural Roads:** PHG has rehabilitated and reconstructed 3.2 km length of agricultural roads in Jiftlik Area - Jordan Valley.
- **Wastewater - Gray water Collection, treatment and Reuse:** PHG has implemented 13 gray water treatment units in Gaza. In addition PHG has rehabilitated Nuba wastewater treatment plant and constructed 1800 km length of sewer lines in Hebron area. PHG has also constructed one reservoir with 100 m3 capacity for treated effluent reuse.
- **Emergency Response: WASH;** PHG as part of its role in emergency response to the needs of affected people from Israeli acts against Palestinian communities especially in area "C", it has supplied 3 latrines.
- **School Wash:** PHG has implemented 17 new school sanitary units in 17 schools in the West Bank and Gaza to serve nearly 15,526 students and teachers with nearly 7511 of them are female.
- **Solar Energy: Construct 6 small water desalination units run by solar energy in Gaza for six schools.**
- **Public Awareness:** To help raise awareness towards the preservation of water resources, environmental and behavioral change, PHG has implemented 8 workshops awareness-raising and training activities to the beneficiary groups and students in addition to wall drawings at 7 schools in West Bank to help promote water conservation and hygiene. This will ultimately contribute to positively to improve durability of the implemented activities.

- **Training and Capacity Building:** PHG through its Water Training Institute has accomplished more than 221 hours of training where nearly 693 trainee benefited of whom 90% male and 10% female.

The total beneficiary number from PHG activities in 2016 was nearly 40000 persons of which 58% male and 42% female including 15526 students. Moreover, the agricultural water activities assisted in developing 6773 dunums.

The main obstacles faced the work of PHG during the year can be summarized as follows:

1. Escalated Israeli restrictions on access and work in marginal area in the West Bank especially those classified as Area C.
2. Poor economic conditions and low beneficiary contribution.

However, the organization through its experience and its distinguished relations with the local communities and stakeholders has eased the impact of these obstacles mentioned above and managed to maximize the benefit from the projects implemented during this year.

4. General Overview of the Situation in oPt

Despite the efforts of the Palestinian Government to develop strategies, plans, laws and regulations through the continued reform process started back in 2013, where a presidential decree for new water law # 4 for the year 2014 has been issued and new management and regulatory bodies have been created to help plan and manage water sector properly in Palestine, the continued Israeli restrictions and the increasing expansion of settlements in the occupied Palestinian territory (oPt) - occupied State of Palestine are considered the biggest factors in hindering the proper implementation of these plans and preventing the various bodies from assuming their roles entrusted to them by the new water law #4. Hence, hindering the improvement of environmental, social and economic conditions of the Palestinian People. The impact of settlements is not only through the direct act of land confiscation and expansion of settlements but also beyond that. The more dangerous is the act of settlers in preventing people from developing their land in area C and prevent them from accessing their local resources (eg. Springs) and destroy infrastructure and means of Palestinian livelihoods (destruction of wells, roads and cutting trees).

Israeli Authorities continued its acts against the communities living in the seam zone and in marginal areas such as northern Jordan Valley, Tubas Governorate, Masafir Yatta and Tana East of Beit Dajan - Nablus. Some communities such as Makhol and Tana were obliged to leave their locations and their properties were destroyed several times. All emergency assistance for these affected communities were also threatened by the Israeli Army and some equipment and cars were even confiscated by the Army including items of assistance supplied by Humanitarian Organizations. Beneficiaries and workers involved in delivery and installation of various humanitarian assistance substances have also been arrested and beaten by the Army.

The consequence of the war on Gaza of last year 2014 is still there and nearly 29000 people are still living in partially damaged houses or displaced living with their relatives, tents or other areas and their homes are not rehabilitated. The blockade on Gaza is still imposing severe restrictions on entry of construction materials and other WASH related materials. The Gaza Reconstruction Mechanism (GRM) is still not as effective as it should be and the Israeli Authorities so called list of dual use items still complicating the entry of wash related materials on to Gaza.

These restrictions and acts have created a new challenge for local and international humanitarian NGOs in responding to the grave needs of communities leaving them very vulnerable to face very hard conditions.

5. Water and Environmental Situation in oPt

Despite all the efforts made by the government and nongovernment organizations in the field of water and environment, the needs are still huge. The situation can be summarized in the following key features:

- The gap between supply and demand is still very high and is estimated at nearly 300 million cubic meters. It is also estimated that Palestinian water abstraction from their local water resources have dropped by 14 MCM since the signature of Oslo Interim Agreement in 1993. This has increased the reliance of Palestinian on the purchased water quantity from the Israeli water company, hence reduced Palestinian water security. Moreover, Palestinian per capita water use has decline by 15% from previous years due to reduced amounts sold to Palestinians by the occupation authorities.
- The main constraint to the development of resources and infrastructure is that the Israeli occupation army and military orders are still the main controlling elements in the water and the environment sectors.
- Infrastructure is still poor where losses from water supply system may reach up to 45% on average per year.
- Poor social and economic conditions lead to lower ability of people to pay for water services and this effect the overall ability of supply providers to provide the services properly. It is good to mention that bill collection percentage varies from 20-80%. In the mean time some communities especially in the Jordan Valley doesn't pay water bill.
- There is a rising concern about the drilling of agricultural wells in the northern part of West Bank and in Jordan Valley. This needs to be regulated and controlled before it is too late and before some key traditional resources are lost completely.
- Wastewater collection and treatment is not yet up to the required level and the Israeli constraints are still hindering the development of new treatment plants. Moreover, the produced treated effluent from the existing treatment plants is not properly reused and flows either westward or eastward. It is really astonishing to know that Israel is capturing the flowing treated as well as poorly treated effluent flowing westward, treating and reusing it and charging Palestinians with the treatment cost. It was realized that Israel has charged Palestinian National Budget the sum of 83 Million NIS for treating the westward flowing effluent.

6. Activities

6.1 Conventional Water Resources Development

Most of conventional water resources in Palestine are in bad conditions due to the Israeli restrictions imposed on the rehabilitation of these resources in the West Bank. The main water sources developed during the year 2016 were:

6.1.1 Artificial Groundwater Recharge Wells:

PHG has constructed two artificial recharge wells in Sanour Plain to drain the flood water and store in the underneath aquifer



6.1.2 Spring Rehabilitation:

PHG has rehabilitated 2 springs, Tana in Beit Fourik - Nablus and AL Himmeh - Tubas area where rehabilitation included source rehabilitation, construction of 2 reservoir, installing a pumping station at Al Himmeh with main pipeline to serve the farmers and inhabitants.



Himmeh Springs during and after Rehabilitation

6.2 Non-Conventional Water Resources Development

6.2.1 Wastewater Collection, Treatment and Reuse

PHG has rehabilitated the wastewater treatment plant of Nuba and extended a 2 km sewer line for treated effluent to the agricultural land for reuse. It also constructed a reservoir of 100 m³ for the treated effluent. PHG has also implemented 13 grey water treatment units, in Gaza. In addition 3 mobile toilets have been installed in Tana.



6.2.2 Water Harvesting:

Water Harvesting is one of the priorities that PHG has been promoting since its establishment. Such projects are relatively cheap and traditionally known and they secure sufficient and safe water quantities to the communities. PHG has implemented number of water harvesting projects as follows:

- **Ponds:** PHG has constructed 2 and rehabilitated one earth pond with volume of 2500 m³ in the West Bank.



- **Cisterns:**

PHG has implemented 118 new cisterns for domestic and agricultural use were constructed and 25 were rehabilitated. The cisterns has benefited nearly 5107 beneficiaries.



6.3 Food and Water Security Projects: Improve Access to Water and Food

PHG has targeted poor and marginal families in West Bank to improve their food security through developing home gardens. During 2016 a total of 17 home gardens were implemented for the benefit of 130 beneficiaries .



6.4 Integrated Irrigation Water Management

This activity aims at optimizing the use of agricultural water resources and to maximize the benefits of farmers through reducing the cost of purchased water, reducing losses and improve irrigation efficiency. PHG installed 9 tensiometer and implemented eighteen metallic circular reservoirs in Hebron area with 500 m3 capacity each. In addition, implement 8 integrated irrigation systems in the northern part of West Bank which included main irrigation pipelines of 27367.8 meter length and eleven circular metallic distribution reservoir with the size of 500 m3 and 1000m3 as well as 3 pumping stations and 280 water meter as can be summarized in the table below:

Location	Irrigation Pipe ML	Main	Metallic Reservoir 1000 m3	Metallic Reservoir 500 m3	Pumping Station
Al Aqrabniyeh	2393.8			1	1
Annazla El Gharbiyeh	4302.6		1		
Jayyous	4500		1		1
Shufeh	1008.2			1 of 250 m3 volume	
Beit Hasan	4339			1	1
Hableh	4712.8				
Bardala	4406		1		
Nasariya	400				
Jaloud	707.6				
Annazleh Al Shrqiyeh	597.8				
Hebron Area				12	400m3 each

The integrated system included the installation of water meter for each farmer to facilitate operation and management of the water used by each one of them.



6.5 Water Supply Development

PHG has implemented three domestic water supply systems with total length of 5500 m as follows: 1400 m in Al Musaffah with metallic reservoir of 400 m³ capacity and 4100 at Abu El Ajaj in Jiftlic area in the West Bank. In addition, PHG has implemented 6 solar powered desalination units for the schools in Gaza and rehabilitated two water distillation units for schools in Gaza as well.



6.6 School Sanitation Improvement

PHG in cooperation with UNICEF has implemented 19 school sanitation systems in both West Bank and Gaza where 199999 child (boys and girls) benefited.



6.7 Agricultural Road Rehabilitation

PHG has rehabilitated and constructed 2.1 km length of agricultural roads in AL Jiftlic Area- Jordan Valley.

6.8 Solar Energy

PHG in cooperation with UNICEF has implemented 6 solar energy powered small desalination units to serve six schools in Gaza. In addition to rehabilitate 2 solar distillation units for two schools in Gaza.



6.9 Awareness and Capacity Building



Moreover, raising the awareness of various constituency of society helps promote the best practice in water use and management as well as help in protecting the environment. In this context, PHG has accomplished more than 221 hours of training for the target beneficiaries on issues such as cisterns operation and maintenance, water supply network

PHG believes that capacity building of beneficiaries is an important component of any project in order to ensure its sustainability. Training the beneficiaries on the operation and maintenance of the interventions improves the sustainability of these projects and serves them better.



for the target beneficiaries on issues such as cisterns operation and maintenance, water supply network

O&M, wastewater and grey water system operation and maintenance, good hygiene practices, water conservation, gender and water management, water user association, etc. while trained them on how to maintain home gardens and how to make composting. The total beneficiaries from these activities were 693 trainee out of which 64 were females.

Workshops and Conferences

PHG has conducted 4 workshops for various target groups where nearly 120 beneficiaries participated (75 female).

In addition, PHG in cooperation with PENGON has organized national conference on "Water as Basic Human Right" under the patronage of his Excellency Eng. Mazen Ghnaim - Head of Palestinian Water Authority" and Mr. M. Tomas Niklasson Deputy head of EU delegation to West Bank and Gaza. The conference was attended by more than 100 participants including representative of EU and other local and international organizations and government bodies.



6.10 Research and Studies

PHG has participated in a number of local and international research projects to help improve water management at local as well as at Mediterranean Basin Level. PHG is involved in several EU funded research projects among which the (ENPI_CBCMED) funded Water Drop project which aims at improving water and wastewater management in the Mediterranean Basin and exchange of best practice. In addition, PHG continued the implementation of its EU funded project on Water as a human right and in this context it published number of policy papers and also developed 3 video spots on the water issue in the Jordan valley. PHG also accomplished number of local research and assessments related to the existing water access and water quality as well as state WASH of vulnerable communities in marginal areas.

6.11 Lobby and Advocacy

PHG has always played a major role at the national level and through the effective participation in several committees and also public events. Moreover, PHG has initiated several activities to help promote the water awareness to decision makers as well as international visitors. PHG has accomplished the following:

- PHG has given more than 8 lectures to local and international delegates and groups on the current water problems and the impact of Israeli water policy on Palestinian Water Security.
- PHG is also one of effective institutions in civil society issues, whether performed individually or through its presence in the Coordinating Committee for NGOs Network PNGO or PENGON (Environmental NGO Network). In this regard the role of PHG was as follows:
 - Represent civil society in many local committees and international forums.
 - Coordinate among the local and international agencies working in the water and sanitation in oPt under the coordination mechanism known as EWASH.
- Finally PHG in its endeavor to advance water justice, it empowers people to act positively toward realizing their water rights and to raise their capacity to demand their right to access water.


Audited Financial Statement

Palestinian Hydrology Group Statement of Financial Position As of December 31, 2016		Statement - A	
	Note	2016 U.S. \$	2015 U.S. \$
Assets			
Cash on hand and at banks	4	312,079	228,320
Prepayments and other debit balances	5	22,251	36,166
Pledges receivable	6	394,201	292,038
Total Current Assets		728,531	556,524
Land	7	142,078	25,350
Property, Plant and Equipment - Net	8	1,393,312	465,032
Total Assets		2,263,921	1,046,906
Liabilities and Net Assets			
Current Liabilities			
Accounts payable	9	135,471	144,787
Accrued expenses	10	6,000	7,407
Unpaid leave	11	49,211	46,852
Total Current Liabilities		190,682	199,046
Due to Employees	12	147,131	147,131
Employees' Provident Fund	13	309,339	300,893
Employees' end of service indemnity	14	615,688	562,028
Total Liabilities		1,262,840	1,209,098
Net Assets			
(Deficit) in Unrestricted Fund		(534,309)	(702,603)
Temporarily Restricted Fund	21	--	50,029
Cumulative Change of Fair Value	22	1,039,770	--
Investment in Property, Plant and Equipment		495,620	490,382
Total Surplus (Deficit) in Net Assets		1,001,081	(162,192)
Total Liabilities and Net Assets		2,263,921	1,046,906

Reem Jaas,
Financial Manager



Abdel EL-Rahman Al-Tamimi
General Manager



The Accompanying Notes Form an Integral Part of These Financial Statements

Palestinian Hydrology Group Statement of Activities and Other Comprehensive Income For The Year Ended December 31, 2016		Statement - B			
	Note	2016		2015	
		Unrestricted U.S. \$	Temporary Restricted U.S. \$	Total U.S. \$	Total U.S. \$
Grants and Revenues:					
Grants	15,21	--	3,368,598	3,368,598	4,136,276
Unrestricted Contributions	16	185,676	--	185,676	190,388
Other Income	17	114,289	--	114,289	120,484
		299,965	3,368,598	3,668,563	4,449,148
Net Assets Released from Restriction	21	3,418,627	(3,418,627)	--	--
Total Grants and Revenues		3,718,592	(50,029)	3,668,563	4,449,148
Expenses:					
Salaries and Related Expenses		914,190	--	914,190	884,776
Other Administrative Expenses		342,872	--	342,872	455,879
Projects' Expenses		2,712,271	--	2,712,271	4,097,667
Total Expense - (Statement - E)		3,469,333	--	3,469,333	5,438,322
Depreciation		51,807	--	51,807	30,618
Currency exchange difference		23,920	--	23,920	215,507
Change in Net Assets for the Year		173,532	(90,029)	123,503	(1,235,299)
Other Comprehensive Income		1,039,770	--	1,039,770	--
Total Comprehensive Income		1,213,302	(50,029)	1,163,273	(1,235,299)

The Accompanying Notes Form an Integral Part of These Financial Statements

Palestinian Hydrology Group Statement of Cash Flows For The Year Ended December 31, 2016		Statement - D	
	Note	2016 U.S. \$	2015 U.S. \$
Cash Flows from Operating Activities:			
Grants received		3,452,111	4,179,648
Other income		114,289	120,484
Expenses paid to suppliers and employees		(3,425,596)	(5,493,710)
Cash Provided from (used in) Operating Activities		140,804	(1,193,578)
Cash Flows from Investing Activities:			
Additions to Property, Plant and Equipment	8	(57,045)	(6,269)
Cash (Used in) Investing Activities		(57,045)	(6,269)
Increase (decrease) in Cash and Banks Balances		83,759	(1,199,847)
Cash on hand and at Banks - Beginning of Year		228,320	1,428,167
Cash on Hand and at Banks - End of Year	Statement-A	312,079	228,320
Adjustments to reconcile change in net assets to net cash provided by operating activities:			
Change in net assets	Statement-B	123,503	(1,235,299)
Depreciation	8	51,807	30,618
Loss on disposal of Property, Plant and Equipment	8	--	12,397
Decrease (Increase) in Pledges receivable	6	(102,163)	(149,016)
Decrease (Increase) in prepayments and other debit balances	5	13,915	(28,669)
Increase in accounts payable	9	(9,316)	136,717
(Decrease) in accrued expenses	10	(1,407)	--
Increase (Decrease) in unpaid leave	11	2,359	(9,450)
Increase in employees' provident fund	13	8,446	23,229
Increase in Employees' End of Service Indemnity	14	53,660	25,895
Net cash flow Provided from (Used in) operating activities		140,804	(1,193,578)

The Accompanying Notes Form an Integral Part of These Financial Statements