

# ECJP program achievements

## Environmental and Climate Justice Programme - Palestine

### ➤ Introduction

The Environmental and Climate Justice Program (ECJP) is a transformative collaboration between We Effect and the Palestinian Agricultural Institutions Coalition (PAIC). Established in 2018, PAIC unites six leading environmental, climate, and agricultural NGOs dedicated to advocating for sustainable development across Palestine's most vulnerable rural communities. This 48-month initiative targets the most climate-vulnerable rural areas across Palestine, including the West Bank, Gaza, and East Jerusalem.

ECJP aims to enhance environmental justice and tackle climate challenges by empowering civil society and local communities, particularly focusing on women, youth, and smallholder farmers. Through a comprehensive approach that integrates gender mainstreaming and human rights, the program addresses structural barriers to sustainable development and promotes effective environmental governance.

### ➤ Our Impact in Numbers

ECJP overall Direct outreach 2021 – 2025

2021	2022	2023	2024	Total
<b>1,256</b>	<b>8,308</b>	<b>13,081</b>	<b>133,443</b>	<b>156,088</b>

ECJP overall Indirect outreach 2021 – 2025

2021	2022	2023	2024	Total
<b>0</b>	<b>338,232</b>	<b>95,950</b>	<b>264,813</b>	<b>698,995</b>

ECJP was committed to creating inclusive and sustainable environmental solutions. A key part of our strategy involved reaching a diverse array of community members, ensuring our initiatives are accessible to all.

Through these efforts, we have directly reached 156,088 individuals and indirectly influenced an additional 698,995, encompassing a diverse group of stakeholders including pioneers, farmers, university communities, and cooperatives.

Our initiatives have extended to:

- Governorates: 12
- Localities: 45
- Grassroots: 37

PAIC Organization	Community	Governorate	Grassroots
LRC	Al Samou'	Hebron	<ul style="list-style-type: none"> <li>▪ Family Development and Charitable Renaissance Association "Tatweer wa Nahda"</li> <li>▪ Simia Rural Society for Development</li> <li>▪ Al Samou' Agricultural Cooperative Society</li> <li>▪ Bani N'aim Charitable Society</li> <li>▪ As Samu Youth Sports Club</li> <li>▪ Al Aqsa Charitable Society</li> <li>▪ As Samu Cooperative Society for Animal Wealth Development.</li> <li>▪ Al Masafir Women's Cooperative Society for Food Manufacturing.</li> <li>▪ Palm Farmers' Cooperative Association in Jericho &amp; Jordan Valley.</li> </ul>
	Deir Samit	Hebron	
	Bani Naim	Hebron	
	Jericho	Jericho	
ARIJ	Bardala	Tubas	<ul style="list-style-type: none"> <li>▪ Bardalah Cooperative Society for Livestock Development</li> <li>▪ The Charity Society for Villages of the Wall</li> <li>▪ Rural Women's Charity Association</li> <li>▪ Al Jabaa Charitable Society for Community Service</li> <li>▪ Nuba Charitable Society</li> <li>▪ Nuba association Higher Education</li> </ul>
	Al 'Aqaba	Tubas	
	Al Jab'a	Bethlehem	
	Nuba	Hebron	
	Artas	Bethlehem	
	Beit Fajjar	Bethlehem	

			<ul style="list-style-type: none"> <li>▪ Olive Press Cooperative Society - Beit Jala</li> </ul>
Maan	AL-Auja	Jericho	<ul style="list-style-type: none"> <li>▪ Zbiedat Youth Sports Club</li> <li>▪ Zbiedat Women Charitable Society</li> <li>▪ Al-Jalameh Agricultural Cooperative</li> <li>▪ Al-Jalameh Women's Society</li> <li>▪ Beekeepers' cooperative</li> <li>▪ Sayda Women Cooperative</li> <li>▪ Local Communities Association</li> <li>▪ Al-Awda children and youth rehabilitation Center</li> </ul>
	Marj Najj'a	Jericho	
	Zbiedat	Jericho	
	Jiftlik	Jericho	
	Al-Jalameh	Jenin	
	Maythlon	Jenin	
	Em-El-Toot	Jenin	
	Kufr than	Jenin	
	Sayda	Tulkarm	
	Al-Haffasi	Tulkarm	
	AL-Ras	Tulkarm	
PHG	Arab Al Jahaleen	Jerusalem	<ul style="list-style-type: none"> <li>▪ Arab Al-Jahalin Women's Charitable Society</li> <li>▪ Youth Charitable Association</li> <li>▪ Cooperative Society for pressing olives and marketing their products</li> <li>▪ Deir Istiya Charitable Society</li> <li>▪ Marada Charitable Association for Development</li> <li>▪ Flamia Women's Charity Association</li> <li>▪ Al-Amal Assosiation for Deaf</li> <li>▪ Agricultural Water Users Committee in Northern Furush in Furush Beit Dajan/ Nablus Gov.</li> </ul>
	Al Mazra Al Qibliya	Ramallah	
	Deir Istiya	Salfit	
	Yasuf and Iskaka	Salfit	
	Marda	Salfit	
	Flamiya	Qalqilya	
	Al-Murajat Bedouins	Ramallah	
	Tayasir	Tubas	
	Beit Duqqu	Jerusalem	
	Bruqin	Salfit	
	Furush Beit Dajan	Nablus	
	Tulkarm	Tulkarm	
	Birzeit	Ramallah	
	Abu Shukaddim	Ramallah	
	An Nabi Elyias	Qalqilya	
PARC	Anabta	Tulkarm	<ul style="list-style-type: none"> <li>▪ Yanabea Charity Association</li> <li>▪ Qaryut Charitable Association</li> <li>▪ Retaj Charity Association - Asira</li> <li>▪ Al-Sahel Development Association</li> <li>▪ Youth Development Association – Gaza</li> </ul>
	Beit Furik	Nablus	
	Qaryout	Nablus	
	Asira Al Qibliyya	Nablus	
	Misslih (Jenin)	Jenin	
	Kharas	Hebron	
	Beit Lahia (Gaza)	Gaza	
	Abasan Alkabir (Gaza)	Gaza	
	Tal Al Za'tar (Gaza)	Gaza	

➤ **Signed MoUs with:**

- 37 CBOs/ Grassroots
- 6 universities
- 2 private sectors
- 10 governmental bodies (ministries, village councils, municipalities)
- coordination and cooperation with EQA, PENGON, Swedish organisations and schools

	<b>MoU Signatory</b>	<b>Organization Type</b>
<b>1</b>	Family Development and Charitable Renaissance Association "Tatweer wa Nahda"	CBOs/ Grassroots
<b>2</b>	Simia Rural Society for Development	CBOs/ Grassroots
<b>3</b>	Al Samou' Agricultural Cooperative Society	CBOs/ Grassroots
<b>4</b>	Bani N'aim Charitable Society	CBOs/ Grassroots
<b>5</b>	As Samu Youth Sports Club	CBOs/ Grassroots
<b>6</b>	Al Aqsa Charitable Society	CBOs/ Grassroots
<b>7</b>	As Samu Cooperative Society for Animal Wealth Development.	CBOs/ Grassroots
<b>8</b>	Al Masafir Women's Cooperative Society for Food Manufacturing.	CBOs/ Grassroots
<b>9</b>	Palm Farmers' Cooperative Association in Jericho & Jordan Valley.	CBOs/ Grassroots
<b>10</b>	Bardalah Cooperative Society for Livestock Development	CBOs/ Grassroots
<b>11</b>	The Charity Society for Villages of the Wall	CBOs/ Grassroots
<b>12</b>	Rural Women's Charity Association	CBOs/ Grassroots
<b>13</b>	Al Jabaa Charitable Society for Community Service	CBOs/ Grassroots
<b>14</b>	Nuba Charitable Society	CBOs/ Grassroots
<b>15</b>	Nuba association Higher Education	CBOs/ Grassroots
<b>16</b>	Olive Press Cooperative Society - Beit Jala	CBOs/ Grassroots
<b>17</b>	Zbiedat Youth Sports Club	CBOs/ Grassroots
<b>18</b>	Zbiedat Women Charitable Society	CBOs/ Grassroots
<b>19</b>	Al-Jalameh Agricultural Cooperative	CBOs/ Grassroots
<b>20</b>	Al-Jalameh Women's Society	CBOs/ Grassroots
<b>21</b>	Beekeepers' cooperative	CBOs/ Grassroots
<b>22</b>	Sayda Women Cooperative	CBOs/ Grassroots
<b>23</b>	Local Communities Association	CBOs/ Grassroots
<b>24</b>	Al-Awda children and youth rehabilitation Center	CBOs/ Grassroots
<b>25</b>	Arab Al-Jahalin Women's Charitable Society	CBOs/ Grassroots
<b>26</b>	Youth Charitable Association	CBOs/ Grassroots
<b>27</b>	Cooperative Society for pressing olives and marketing their products	CBOs/ Grassroots
<b>28</b>	Deir Istiya Charitable Society	CBOs/ Grassroots

29	Marada Charitable Association for Development	CBOs/ Grassroots
30	Flamia Women's Charity Association	CBOs/ Grassroots
31	Al-Amal Assosiation for Deaf	CBOs/ Grassroots
32	Agricultural Water Users Committee in Northern Furush in Furush Beit Dajan/ Nablus Gov.	CBOs/ Grassroots
33	Yanabea Charity Association	CBOs/ Grassroots
34	Qaryut Charitable Association	CBOs/ Grassroots
35	Retaj Charity Association - Asira	CBOs/ Grassroots
36	Al-Sahel Development Association	CBOs/ Grassroots
37	Youth Development Association – Gaza	CBOs/ Grassroots
38	Birzeit University	University
39	Palestine Polytechnic University	University
40	Al-Najah University	University
41	University of Gaza	University
42	Al-Azhar University - Gaza	University
43	Isra University - Gaza	University
44	Purex Trading & Industry Co. - Beit Duqqu village, Jerusalem Gov.	Private Sector
45	Paper Pal Company	Private Sector
46	Ministry of Education	Governmental Bodies
47	Watan Weather (Early warning system).	Governmental Bodies
48	Artas Village Council	Governmental Bodies
49	Beit Fajjar Municipality	Governmental Bodies
50	Al-Auja Local Municipality	Governmental Bodies
51	Abasan Municipality	Governmental Bodies
52	Beit Lahia Municipality	Governmental Bodies
53	Amorih Local council	Governmental Bodies
54	Asira Local council	Governmental Bodies
55	Al- Jiftlik Local council	Governmental Bodies

- **Review relevant national policies, laws, and strategies**
  - Palestine's Water Policy and Strategy Review
  - A Review of Agricultural Pesticides Policies, Laws and Strategies from a Gender Perspective Approach in Palestine
  - Analysis of the Palestinian Agriculture Sector Strategy 2023
  
- **26 Collective Community Resilience Plans that address various aspects of environmental protection and climate change for the targeted communities were developed**

	<b>Community Resilience Plans</b>
<b>1</b>	Marda Full Community Resilience Plan
<b>2</b>	Deir Istiya Basic Community Resilience Plan
<b>3</b>	Yasouf-Iskaka Basic Community Resilience Plan
<b>4</b>	Falamya Basic Community Resilience Plan
<b>5</b>	Arab al Jahaleen Basic Community Resilience Plan
<b>6</b>	Al Mazra'a al Qibliya Basic Community Resilience Plan
<b>7</b>	Bani N'aim Full Community Resilience Plan
<b>8</b>	Al Samou' Basic Community Resilience Plan
<b>9</b>	Deir Samit Basic Community Resilience Plan
<b>10</b>	Al 'Aqaba Basic Community Resilience Plan
<b>11</b>	Bardala Basic Community Resilience Plan
<b>12</b>	Bardala Full Community Resilience Plan
<b>13</b>	Al Jabaa Basic Community Resilience Plan
<b>14</b>	Nuba Basic Community Resilience Plan
<b>15</b>	Al-Auja collective climate resilience plan
<b>16</b>	Basic Resilience plan for Alhaffasi
<b>17</b>	Basic Resilience plan for Al_ras
<b>18</b>	Basic Resilience plan for Zbedat
<b>19</b>	Basic Resilience plan fo Jiftlik
<b>20</b>	Basic Resilience plan for Marj Naj'a
<b>21</b>	Basic Resilience plan for Al-Jalameh
<b>22</b>	Asira-Alqiblia Full Resilience Plan
<b>23</b>	Qaryut Basic Resilience Plan
<b>24</b>	Beit - Furik Basic Resilience Plan
<b>25</b>	Asbasan Basic Resilience Plan
<b>26</b>	Beit - Lahia Basic Resilience Plan

## **Interventions**

### **➤ Biogas Initiatives list**

Biogas technology stands at the forefront of our sustainable energy solutions, transforming organic waste into clean, renewable energy. This innovative approach not only reduces greenhouse gas emissions but also provides a reliable source of energy for local communities, enhancing their resilience and self-sufficiency

- **Units Installed:** 41 systems
- **Biogas Production:** 22,882 m<sup>3</sup> per year
- **Bio-Fertilizer Production:** 226 m<sup>3</sup> per year
- **Clean Cooking:** Enabled 68,547 hours of clean cooking

**Environmental Impact:**

- **Trees Saved:** 6,628 trees
- **CO2 Equivalent Mitigated:** 173,010 tons per year"

Type of Biogas System	No. of Units Provided	Standard Unit Capacity (Kg/ Day)	Average Daily Input Amount of organic waste/ manure/ wastewater (Kg/ Day)	Input organic waste kg/year	Type of Output (product environmentally friendly products)	Output
Bio-Toilet System	2	kg	6	4,380	Biogas produced (m3/year)	252
					Treated wastewater (m3/year)	21.9
Biogas System	39	kg	86	226,300	Biogas produced (m3/year)	22,630
					Bio-fertilizer produced (m3/year)	226

#### ➤ Solar Panels

Solar panels capture sunlight to produce electricity, helping to cut down on harmful carbon emissions and support community energy needs. Highlights of the solar panel projects include:

- **Total Systems Capacity:** 168 Kw/h
- **Yearly Energy Output:** 262,080 Kw/h

#### **Environmental Impact:**

- **CO2 Reduced:** 131 tons per year

System Capacity (Kw/h)	yearly Output (Kw/y)	The average cost of electricity per kWh - NIS	CO2-eq mitigated (ton/year)	Annual Savings
168	262,080	0.6	131	157,248

### ➤ Wastewater Treatment Units

The program has established three wastewater treatment units—two in Bani Naim, Hebron, and one in Al-Jabaa', Bethlehem—that annually convert 56,618.75m<sup>3</sup> of water into clean supplies specifically used for irrigation. This initiative not only supports local agriculture by providing a sustainable water source but also reduces environmental pollution.

- **Bani Naim Treatment unit:** The full capacity of the treatment unit is 150 m<sup>3</sup> and the current actual treatment capacity is 50 m<sup>3</sup>/day with the potential to become more than 90 m<sup>3</sup>/day in the future. This treatment unit was established as a way to solve the issue of random sewage disposal in the town, the targeted group are the people who have a silent cesspit system and clear them using sewage tankers which then dispose the sewage in open areas, gravely affecting the environment and the health of people, soil and air. The system is anaerobic and the treated wastewater will be pumped using a drip irrigation network for subsurface irrigation of the soil.
- **Bani Naim Domestic treatment unit:** This activity is a pilot, the wastewater treatment unit is an alternative to the usual cesspits used in houses. The daily average treated water flow is 750 liter (0.75 m<sup>3</sup>) which is the capacity of the wastewater collection tank and it's the treatment capacity. The unit is capable of treating domestic wastewater from at least 11 people. It utilizes an activated sludge method of water purification and it is fully automated and controlled by a controller with a special program, and the data is transferred to an application on smart devices. The produced treated water will be used for irrigation of a home garden which the family has next to their house.



- **Al-Jaba'a treatment unit:** The full capacity of the treatment unit is 3 m<sup>3</sup>/day, providing an environmentally friendly solution to wastewater generated by Al-Jaba'a park facilities. This treatment unit was established to address the issue of sewage disposal from the park buildings, preventing pollution and minimizing environmental impact. The system will not only eliminate contamination risks but also convert the treated wastewater into a reusable water resource. The treated effluents will be utilized for irrigating the park's trees, ensuring sustainable water management and enhancing the park's green spaces.

**Add a paragraph for PARC and their work on the established units.**

➤ **Water Harvesting Activities**

- **Well Rehabilitation:** Well rehabilitation projects at 14 wells in Bani Neim, Samou', Simia, Beit Fajjar, and Asira al-Qibliya have significantly enhanced local water collection. These efforts collectively yield 4,020 m<sup>3</sup> of water annually, strengthening community water supplies.
- **School Roof Water Harvesting:** Innovative projects at Marj Naja School, Zbedat School, and Jiftlik School have utilized a total of 520 square meters of school roofs to collect water in three dedicated wells. This system supports the irrigation of both front and back school gardens, collecting an annual total of 110 m<sup>3</sup> of water.
- **Pressure-Compensated Irrigation Systems in Frush Beit Dajan:** Interventions with farmers in Furush Beit Dajan area in the central Jordan Valley - Nablus governorate involved upgrading and replacing outdated high-flow irrigation systems (8 l/h) by replacing them with more efficient regulated irrigation lines (2.8 l/h). The initiative included installing 70 km of regulated irrigation networks with a 16 mm diameter, along with 3,150 meters of 50 mm diameter pipelines, 1,000 meters of 75 mm diameter pipelines, and 63 valves. These upgrades benefited approximately 23 farmers and improved irrigation efficiency across 70 dunums of agricultural land.
- **Innovative Water Pressure Systems in Deir Samit:** A system has been introduced to 15 households in Deir Samit, Hebron that incorporates a water pressure regulator blending air with water. This technology reduces water

consumption without compromising water pressure, exemplifying innovative approaches to sustainable water use. Here are details of the families:

	Name	Total Individuals	Females	Males	Youth	People with Special Needs
1	Mahmoud Ahmed Haroub	10	5	5	3	0
2	Leila Khalil Sharawneh	12	5	7	8	0
3	Inshirah Mohammed Haroub	10	5	5	4	4
4	Sujoud Yasser Haroub	6	5	1	0	0
5	Fatima Ibrahim Sharawneh	4	4	0	2	0
6	Mazal Ramadan Awawdeh	16	11	5	1	1
7	Palestine Abdul Aziz Al-Yamani	5	2	3	0	1
8	Fatima Ibrahim Abdul Rasoul	5	2	3	3	1
9	Saeed Mohammed Al-Sharha	17	7	10	4	0
10	Amina Nayef Haroub	7	5	2	4	0
11	Muntaha Issa Sharha	7	3	4	2	0
12	Azbaida Saleem Sharha	7	3	4	4	0
13	Riham Mohammed Rayan	6	2	4	0	0
14	Samira Abdul Hameed Sharawneh	5	3	2	1	1
15	Youssef Khalil Haroub	19	10	9	11	0
	<b>Total</b>	<b>136</b>	<b>72</b>	<b>64</b>	<b>47</b>	<b>8</b>

- **Drip Irrigation Networks:** Drip irrigation networks have been installed for farmers in Nablus, Jenin, and Gaza, optimizing water use and improving agricultural efficiency across these regions.
- **Agricultural Support in Artas:** Artas village's agricultural **water spring** has been rehabilitated, enhancing water availability for farming. Additional support includes balanced irrigation pipes for safe agriculture practices and water-saving devices. Here are details of the interventions carried out:

#### 1. Rehabilitation of the Spring

To improve water flow and ensure a more efficient distribution of water resources for irrigation, several restoration activities were carried out at Artas spring. These included:

- **Clearing debris and sedimentation** from inside the spring and the inner channels, leading to a **30% increase in water flow**.

- The **current estimated water flow rate is now approximately 50 m<sup>3</sup>/h**, ensuring a more reliable supply for irrigation.

## 2. **Rehabilitation of the Yard in Front of the Spring**

- The **yard area of 130 m<sup>2</sup>** in front of the spring was rehabilitated, improving accessibility and beautifying the spring area.
- The work included **removing plants from the cracked floor, and grouting the stone pavement** to protect the floor long-term durability.

## 3. **Rehabilitation of Irrigation Channels to Reduce Water Loss**

- **A total of 550 meters of irrigation channels were rehabilitated** to minimize water losses caused by seepage and structural deterioration.
- The channels were **cleaned, repaired, and reinforced** to enhance water distribution efficiency.
- This intervention **improved water delivery to agricultural lands, ensuring that farmers could benefit from more water supply due to increase in water flow and reduction of water losses.**

## 4. **Replacement of Clogged Pipes with Open Irrigation Channels**

- **200 meters of clogged pipes were removed** and replaced with open channels, restoring the traditional practice of utilizing open irrigation systems.
- This decision was made to **prevent blockages caused by sediment accumulation** and to allow for easier maintenance.
- Open channels ensure **better water distribution, reduce maintenance costs, and align with traditional water management practices in the village.**

## 5. **Balanced Irrigation Pipes and Farmer Support**

To enhance irrigation efficiency and ensure equitable water distribution among farmers, balanced irrigation pipes were provided to **a specific group of farmers covering multiple agricultural plots.**

- **Total Number of Benefiting Farmers: 22**

#	Name	Area (m <sup>2</sup> )
1	Ibrahim Mahmoud Ayesh	1000
2	Khaled Hussein Ismail	600
3	Ahmed Salem Ahmed Ayesh	500
4	Ahmed Issa Ahmed Ayesh	500
5	Fares Ahmed Issa Ayesh	1000
6	Ismail Issa Ahmed Ayesh	500
7	Ibrahim Issa Ahmed Ayesh	500
8	Tawfiq Mohammed Ahmed Saad	600
9	Hamed Ibrahim Ayesh	1000
10	Ibrahim Abdul Mohammed Rabaiah	1000
11	Hamdi Ibrahim Ayesh	1000
12	Ahmed Khalil Ismail Abu Ali	500
13	Faiz Mahmoud Khalil	500
14	Ahmed Mohammed Khalil Saad	500
15	Qasem Mohammed Ayesh	500
16	Mohammed Khalil Mohammed Ayesh	500
17	Mahmoud Khalil Issa Asaad	500
18	Adel Jabr Khalil Saad	500
19	Imad Shaheen	700
20	Saed Hussein Issa Sand	600
21	Basem Issa Ahmed Ayesh	400
22	Mohammed Khalil Issa Asaad	1000
<b>Total Area</b>		<b>14,400 m<sup>2</sup></b>

- **Total Area Covered:** *14.4 Dunums*

- Each farmer received a **balanced irrigation pipe system** tailored to their land size, allowing for **optimized water use and improved agricultural output**.

### **Impact of the Rehabilitation Efforts**

The rehabilitation of the Artas spring and irrigation system has led to several key improvements:

✓ **Increased water flow by 30%** (now 50 m<sup>3</sup>/h), ensuring a **more reliable supply for irrigation**.

✓ **Reduced water loss** through channel rehabilitation (550 m) and replacement of clogged pipes (200 m).

✓ **Improved irrigation efficiency** by restoring traditional open-channel irrigation methods.

✓ **Enhanced accessibility and protection** of the spring by rehabilitating the 130 m<sup>2</sup> yard.

✓ **Support for local farmers** with balanced irrigation pipes, improving resource allocation and sustainability.

- **Agricultural Support in Marda:** The pilot project involved the rehabilitation of the **water spring** source in Marda, including the balance tank located at the site. A submersible water pump with a capacity of 10 m<sup>3</sup>/h was installed at the spring source, reaching a depth of 12 meters. The installation included all necessary components, such as pipes, valves, an electrical flow switch, and an electrical pressure switch, all of which were connected to the electrical control panel. Additionally, an electrical ball float was installed inside the balance tank and linked to the same control panel.

To enhance the irrigation system and optimize the use of spring water, 800 meters of 4-inch diameter metal pipes and 800 meters of 2-inch diameter metal pipes were supplied and installed. This included all required accessories, parts, and valves. As a result, spring water was successfully delivered to most of the downstream agricultural lands, benefiting over 45 farming families. A letter from Marda Village Council, estimating the number of benefiting families, is attached for reference.

➤ **Through dedicated reforestation efforts, 27,745 trees have been planted, contributing significantly to the restoration and enhancement of local ecosystems**

- Six nurseries have been established to serve as centers for the distribution and production of seedlings. Some nurseries focus on cultivating essential medicinal and aromatic plants without using pesticides or chemicals. Others specialize in growing rare and endangered trees and seedlings, adapted to thrive in dry climates. Together, these nurseries play a crucial role in preserving and enhancing local plant diversity.

	Governorate	Location	Size of the Nursery	Types of seedlings produced	Number of seedlings produced per year
1	Salfit	Deir Istiya	720	Ceratonia Siliqua/ Carob. Pine. Eastern strawberry/ Maple	600
2	Hebron	Al Samo'	463	Ornamental trees, Forest trees, Vegetables	94,000
3	Hebron	Bani Naim	200	Jacaranda, Melia, Cupressus, Carob	1,000
4	Gaza	Abasan	1000	Forest trees	1,800
5	Gaza	Beit Lahia	1000	Forest trees	480
6	Nablus	Beit Furik	500	Rose	25,200

- Focused on enhancing and revitalizing the role of environmental clubs, 32 schools/CBOs have established clubs dedicated to serving their local communities in environmental endeavors. These clubs actively engage students in meaningful activities that promote environmental awareness, responsibility, and action within their localities.

PAIC organization	Governorate	Community	Name of school	No. of Total students	No. of female Students	No. of Male Students
PHG	Salfit	Marda	Marda Secondary Girls School	15	15	0

	Salfit	Marda	Marda Secondary Boys School	20	0	20
	Jerusalem	Abu Dis	Abu Dis Boys Primary School	20	0	20
	Ramallah	Ramallah	Ramallah Girls Secondary School	22	22	0
	Jenin	Jenin	Deir Ghazal Girls Secondary School	18	18	0
	Salfit	Yasuf	Yasuf Boys Primary School Mixed	14	0	14
	Nablus	Nablus	Hajj Muhammad Ali Qarman Boys	16	0	16
	Jericho	Jericho	Abu Bakr Al-Siddiq Boys Primary School	15	0	15
	Qalqilya	Qalqilya	Muhammad Abu Ghazaleh Boys	10	0	10
	Tulkarm	Zeita	Zeita Girls Secondary School	16	16	0
	Bethlehem	Bethlehem	Khalid Bin Al-Walid Primary School Mixed	14	0	14
	Hebron	Halhul	Qastal Boys Primary School	15	0	15
	Tubas	Wadi Al-Far'a	Wadi Al-Far'a Girls Secondary School	20	20	0
	Ramallah	Beit Rima	Qasim Al-Rimawi Girls	20	20	0
	Nablus	Beit Furik	Beit Furik Boys Secondary School	10	0	10
	Nablus	Nablus	Al-Salahiya Girls Secondary School	10	10	0
	Bethlehem	Artas	Artas Boys Secondary School	25	0	25
	Bethlehem	Bethlehem	Darwish Girls Primary School	16	16	0
	Qalqilya	Qalqilya	Fatima Surur Girls Secondary School	18	18	0
	Ramallah	al Mazra'a al Qibliya	al Mazra'a al Qibliya Secondary Girls School	20	20	0
LRC	Hebron	Al Samou'	Al-Semya Elementary Mixed School	20	20	0
	Hebron	Al Samou'	Al-Samou' Elementary Boys School	20	0	20
	Hebron	Al Samou'	Al-Semya Elementary Boys School	22	0	22
	Hebron	Al Samou'	Mu'tah Girls Secondary School	20	20	0
ARIJ	Hebron	Nuba	Nuba Association for Higher Education	18	0	18
Maan	Jericho and Jordan Valley Governorate	Marj Najja	Marj Najja School	15		
		Jiftlik	Jiftlik School	10		
		Zbedat	Zbedat School	18		
PARC	Gaza	Abasan	Abasan Mixed Primary School	62	25	37
	Gaza	Beit - Lahia	Beit Lahia Girls School	50	50	0
	Nablus	qaryut	Qaryut Girls Secondary School	60	60	0
	Nablus	asira	Asira Al Qabliya Mixed Secondary School	30	0	30
<b>Total</b>						

- **Building resilient and eco-friendly community gardens, 8 green spaces have been established to enhance urban and rural landscapes. These**

**gardens serve as vital community hubs, fostering environmental awareness and sustainable practices among residents.**

	PAIC Organization	Governorate	Locality	Garden Size (m <sup>2</sup> )
1	PHG	Jerusalem	Arab Al Jahaleen	900
2	PHG	Salfit	Marda	1500
3	ARIJ	Bethlehem	Al-Jabaa'	2000
4	ARIJ	Bethlehem	Beit Fajjar	2500
5	Maan	Tulkarem	Al-haffasi	1000
6	Maan	Jericho	Al-Auja	1000
7	Maan	Jenin	Al-Jalameh	2000
8	Maan	Tulkarem	Seida	600

### **PHG**

**Arab Al Jahaleen:** The public gardens at Arab al-Jahaleen Elementary and Secondary Girls' Schools, located in Arab al-Jahaleen community within the Jerusalem Governorate, were rehabilitated. The project covered an area of approximately 900 square meters and included the planting of over 50 drought-resistant trees. An irrigation network connected to a water tank was installed, and planting basins were created. Agricultural soil was supplied, and the garden's soil quality was enhanced through the application of organic fertilizers.

To prevent soil erosion, walls and stone terraces were constructed around the garden. Additionally, interlocking tiles were used to pave parts of the garden and internal pathways. Solar-powered lighting was also installed to illuminate the garden.

**Marda:** In parallel with the rehabilitation of the spring, efforts were also undertaken to restore and rehabilitate the public gardens located near the spring, ensuring they are irrigated with spring water. The project involved two public gardens with a combined area of 1,500 m<sup>2</sup>—one adjacent to the spring and the other approximately 100 meters away.

The rehabilitation work included landscaping, planting seedlings, installing solar-powered lighting, and repairing benches, in addition to extensive cleaning and trimming. These improvements will benefit all residents of Marda, estimated to number over 2,700 people.

The rehabilitation of the gardens was carried out in collaboration with Marda Village Council, which also contributed financially to the project



## ARIJ

**Al-Jaba:** The project intervention in Al-Jab'a village contributed positively to environmental sustainability, climate resilience, and community well-being. It provided an environmentally friendly model that promotes climate-resilient practices while addressing local environmental challenges, supporting local economies, and enhancing services for both residents and visitors, including hikers on the village trail. Additionally, the intervention improved public safety, particularly benefiting women and children.

The following activities were conducted to support the eco-friendly park in Al-Jab'a village:

### **1. Utilizing Renewable Solar Energy**

- **50% of Al-Jab'a's street lighting system and park** are now powered by a **solar energy system**, utilizing locally available renewable resources.
- This intervention provides significant **energy savings of approximately 20,400 kWh per year** and reduces energy costs by around **14,280 NIS annually**.

### **2. Improving Community-Based Tourism and Public Engagement**

- To enhance the village's green spaces and attract visitors, **40 forest trees** were planted within the park.
- An **automated irrigation network** was installed to ensure **efficient water use** and sustain the newly planted trees.
- The intervention fosters **eco-tourism** and strengthens public engagement in **climate adaptation efforts**.

### **3. Installing a Wastewater Treatment Unit**

- A **wastewater treatment unit** with a capacity of **3 cubic meters per day** was installed to **treat and recycle wastewater** efficiently.
- This solution supports **sustainable water management**, reducing wastewater pollution and promoting resource reuse for irrigation and other purposes.

### **4. Increasing Awareness of Environmental Protection and Climate Change**

- The intervention helped raise **awareness and knowledge** of environmental protection and climate change adaptation.
- **Approximately 1,300 right holders**, including **635 youth**, participated in environmental education and awareness activities.

**Beit Fajjar:** The eco-friendly public garden in Beit Fajjar spans approximately 2,500m<sup>2</sup> and has undergone multiple interventions to enhance its sustainability, improve water efficiency, and create a greener public space. The following activities were conducted to establish an environmentally friendly and self-sustaining park:

### **1. Solar Power Installation (10 kW System)**

- A **10 kW solar power system** was installed to provide renewable energy for the park.
- The system powers lighting, irrigation pumps, and other park utilities, ensuring an off-grid, energy-efficient solution.
- The solar panels were strategically placed to maximize exposure and optimize energy production.

### **2. Rainwater Collection System from Solar Panels**

- The solar panels were utilized as a rainwater harvesting system, using the panel surfaces to capture rainwater and direct it into a storage cistern.
- This system maximizes water efficiency by reducing runoff and increasing the availability of water for irrigation.

### **3. Rehabilitation of the Cistern**

- The existing cistern in the park was rehabilitated ensuring it to store and conserve water.
- The rehabilitation included:
  - ✓ Cleaning and repairing internal walls to prevent leakage.
  - ✓ Installing piping to fill the cistern from the rainwater harvesting system as well as the water source from the municipal water supply.
  - ✓ Ensuring an efficient connection to the irrigation system for tree watering.

### **4. Water Distribution System for Irrigation**

- A network of water distribution pipes was installed to efficiently irrigate trees and plants in the park.
- The system was designed to ensure equal water distribution to all planted areas, reducing water waste and manual labor.

## **5. Provision of Native Trees**

- The park was planted with native tree species, chosen for their adaptability to local climate conditions and minimal water requirements.
- These trees enhance biodiversity, provide shade, and contribute to carbon sequestration.
- The selection of trees supports pollinators, birds, and other local wildlife, strengthening the ecological balance of the area.

## **6. Provision of Compost to Improve Soil Structure**

- High-quality compost was provided to enhance soil fertility and ensure successful tree planting.
- The compost improves soil water retention, and promotes healthy root growth for the newly planted trees.
- This organic soil amendment reduces the need for chemical fertilizers, aligning with sustainable land management practices.

## **7. Installation of a Composting Toilet with Anaerobic Digestion**

- A composting toilet utilizing anaerobic digestion was installed in the park.
- The system converts human waste into:
  - ✓ Biogas, which can be used for park utilities and cooking purposes.
  - ✓ Organic fertilizer, which enhances soil fertility and reduces waste pollution.
- This initiative promotes eco-friendly waste management and introduces sustainable sanitation practices in public spaces.

## **8. Provision of Seats and Tables from Recycled Wood**

- To enhance public use and comfort, seats and tables made from recycled wood were provided in the park.
- The recycled materials help reduce waste and promote environmental sustainability.

**Maan (To add about Maan community gardens)**