



# Green Ramallah Project

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نحو رام الله صديقة للبيئة

# Climate Change Affects Ramallah city



Increased urban heat

Desertification

Decrease in the Annual  
Precipitation and  
Change in the  
Precipitation Patterns  
decreasing 10%

Receiving Heavy  
Snow and Rain  
Storms  
Flash Floods



Public Health  
Threat

Increased Food  
insecurity

Water Scarcity

Increased Energy  
Demands

## Green Ramallah Project

Innovating  
New Water and Energy  
resources

Decrease urban heat and  
Runoff flood risk

Increase Green Spaces

Raising Environmental  
Awareness



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# Climate Emergency Network



- **Resilient Ramallah 2050 Strategic Plan**  
Climate Change Adaptation is an essential component of it.



- The municipality has developed an **emergency network** with relevant stakeholders to deal with the arising hazards resulting from severe weather conditions



- **Flash floods**
- Expansion of the storm water network
- Building **retaining walls**



# Renewable Energy



1. **Solar energy panels** on the roof tops of municipal infrastructure
2. **Low energy consumption** LED lights (streets, schools, municipal facilities)
3. Promoting use of **solar water heaters** in households
4. **Electrically charging municipality vehicles**
5. **Solar lighting** in streets, public gardens



**Results- achieved**  
**43% reduction in electricity bill**  
**Electricity outcome: 70 MW(IN 3 years)**  
**CO<sub>2</sub> reduction emissions: 150 ton**  
**32% of energy consumed is generated from solar water heaters.**





## Innovating New Water resources



### **Wastewater management**

1. Connecting 83% city with sewage water network
2. Installing an advanced WWTP by MBR technology

### **Wastewater reuse**

Pumping reclaimed wastewater from Ramallah city wastewater treatment plant to 6 tanks in the highest points in Ramallah city.

The reclaimed wastewater is used in :

- Public parks irrigation
- Privately owned gardens irrigation
- Irrigation of public green areas as the streets median islands
- Fire fighting
- Providing water for the Roads paving needs

### **Rationing Water Use**

1. Awareness activities
2. B. L. B: rainwater harvesting cisterns



# Solid Waste Management



## 1. Solid Waste Recycling Pilot Projects

1. Replacing open community waste collection containers with curbside collection system including closed plastic bins for organic waste, recyclables and remaining mixed waste.
2. Support the operations of a composting plant in neighboring rural community with the provision of separated organic waste.
3. Supporting the establishment of proper small enterprise for plastic recycling.
4. **Paper and Cardboard separate collection** from commercial establishment.

2. Introducing **new vehicles** with low CO<sub>2</sub> emissions for waste collection –Euro 6 Standards.







## Green Spaces



- **Trees planting campaigns**
- **At least 10% of the built up areas** are planted
- Increase the number of **public parks**, with an annual rate of 2 parks per year(21 existing parks)
- The municipality operates a **nursery** (produces: 50 thousand plants/year)
- **Intensive planting of the public areas** as the parks, roads median islands, squares, municipal facilities
- Replanting **uprooted olive trees**
- **Plants exhibitions** to encourage domestic planting





# Environmental Awareness



## Community engagement for shared responsibility

1. Environmental raising awareness projects- **Environmentally friendly and healthy school program**
2. **National cleansing day**
3. **Environmental play contest**
  - The awareness projects are institutionalized in the municipality and are conducted with all the city schools (23 schools)
  - **Ramallah green city committee** (15 members from local community meet once per month to discuss the environmental issues in the city)





**Thank you**