Green Ramallah Project

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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
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*
1. **Solar energy panels** on the rooftop 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)
CO₂ reduction emissions: 150 ton
32% of energy consumed is generated from solar water heaters.
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
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 CO₂ emissions for waste collection – Euro 6 Standards.
- 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
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