Fact Sheet Rainwater Harvesting from Rooftops

Definition

Collection of rainwater from rooftop catchment and storing it in a tank or barrel is well established practice in Grenada and more so in Carriacou and Petite Martinique.

Rainwater harvesting is used to collect water for potable and other household uses in Grenada, Carriacou and Petit Martnique. In Carriacou RWH for irrigated agriculture was recently promoted under a food security programme by the Ministry of Agriculture. Several 3600 to 4500 litres Polyvinyl Chloride (PVC) plastic tanks along with materials for the construction of the support platforms and catchments were distributed to some 20 farmers.

RWH has been traditionally used in animal husbandry by strategically ponding run-off for provision of drinking water to herds, and in maintenance of sanitation. In Petite Martinique however, RWH for agriculture is practiced to a limited extent since agriculture is not a key activity and most of the food is imported. However, there is potential for expanding RWH for agricultural applications if the requisite investments are made.

How does the technology/practice contribute to climate change adaptation?

RWH contributes to climate change adaptation at the household level primarily through two mechanisms:

(1) Diversification of household water supply; and
(2) Increased resilience to water quality degradation. It can also reduce the pressure on surface water by decreasing household demand. Another possible benefit of rooftop RWH is mitigation of flooding by capturing rooftop runoff during rainstorms.

What are the costs and financial requirements?

RWH can often provide household water at lower expense than other available options. If a household already has a suitable hard roof for use as a catchment surface, storage containers are the major expense. The cost of storage containers typically depends on construction quality, tank size, and other factors. A large, high quality storage container can be a major investment for poor households. In the context of climate change, increased precipitation extremes could necessitate greater storage volume, thus enabling the capture of maximum volume during intense periods and providing for household water needs during extended dry periods.

Status of the technology in Grenada

RWH is becoming a priority as the country experience longer dry periods and the national water authority is now encouraging the public to harvest rainwater. The water authority recently constructed a RHW system to serve a community, which is not served by its distribution network.

Another project is currently providing support for RWH systems for Grenada and Carriacou including a school agricultural project.