



S4-P2

ADB

Strategic Program for Climate Resilience

Mainstreaming Climate Resilience into Development Planning

(TA 8179)

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Indigenous/Traditional Practices for Climate Change Adaptation in Water Resource

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Cases of indigenous/traditional adaptation practices

- Cases of existing indigenous/traditional practicing in responding to climate change
- List indigenous/traditional practices in agriculture collected
 - Participatory community forest protection in Mondulkiri Province
 - **Household Rainwater harvesting system (wooden tank) in Mondulkiri province**
 - Upland farming and agroforestry in Mondulkiri Province
 - Cultivation of local rice variety in Chi Kho Leu Commune in Koh Kong Province
 - Adaptation of traditional raising of green mussels in coastal communities in Koh Kong Province



A case of Household Rainwater harvesting system (wooden tank) in Mondulkiri province

Key information of the case

- **Theme:** indigenous/traditional climate change adaptation practices
- **Household Rainwater harvesting system (wooden tank)** in Norng Bour village, Norng Khiloek commune, Koh Nhek district, Mondulkiri province
- **Geographical information:** plateau and mountain ecozone
- **Climate change:** drought, increased temperature



Description of the measure

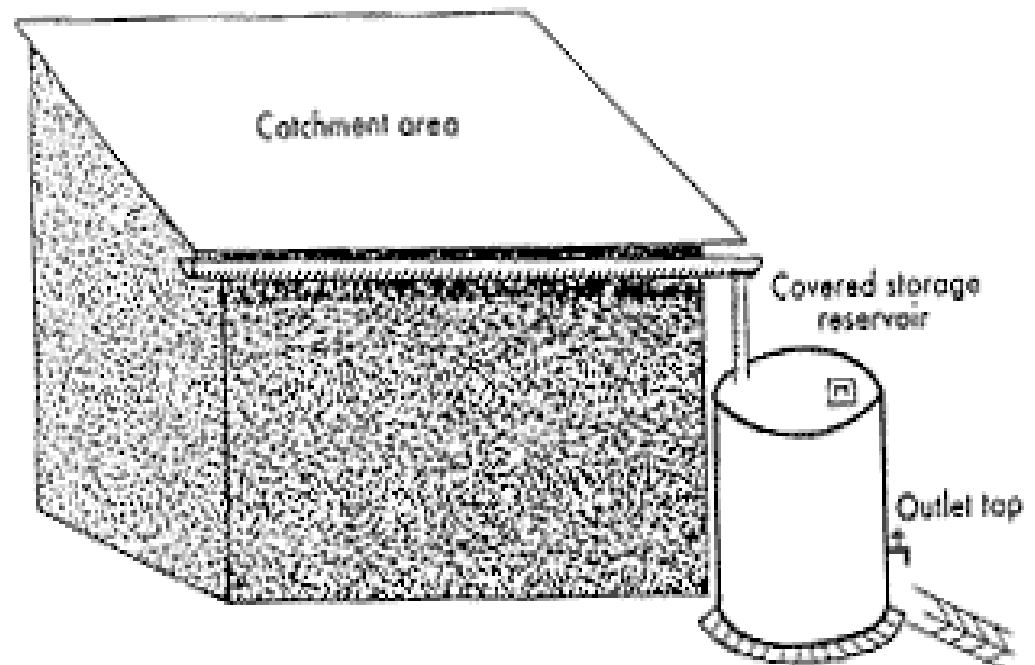
- **People:** the majority of people are of the Phnong ethnic group.
- **Livelihood practice:** agriculture including shifting cultivation, extraction of NTFP, laboring, & ecotourism
- **Problems faced:** climate change, increasing shortage of water for farming.
- **Problem addressed:** the villagers need alternative sources of income and ways to address the severe water shortage.



Description of the measure

Rainwater collection systems:

- (1) collection system,
- (2) conveyance system, and
- (3) storage system



Description of the measure



- built in 2012
- Tank dimension is 4 m long, 3 m wide and 2.5 m high
- Water storage capacity of about 24 m³
- Materials: wood, plastic liner, PVC pipe for tap
- Cost less than 300\$



- Can be used for whole dry season for cook and other domestic purpose
- But family size of about 4 persons
- Little maintenance



Benefits from the Practice

Significant impact and can potentially benefits are:

- The system can provide a water supply to use during the dry season, and in case of emergency such as fire
- Reduce expense to buy water from vendor
- It is simple and can be built to meet almost any requirements
- The construction, operation, and maintenance of the system are not costly and labor intensive
- Help to reduce the pressure on other water sources while it can provide a good water resource supplement to other water sources and utility systems
- Help to reduce rainwater storm drainage load, flooding and eroding streets



Cautions of Practices

- Water quality is poor if we have poor filter and no maintenance of system, particularly washing the container and gutter.
- The pipeline can be blocked by litter and dust if we do not have frequent maintenance
- It can be used in villages where the timber is available from nearby forest, but it is costly for lowland residents
- It is hard to store large quantity of rainwater, since wood may not be so strong

Thank You

