Institutional Settings

Integrated Water Management To Tackle Floods And Droughts In Lum Pha Chi subriver basin, Ratchaburi Province, Thailand

- Water Resources



Implementing Organisations: Local Administration Office and Department of

Stakeholders: River Basin Committee representing local Communities, Civil Society, Private Sector, Agricultural Sector

Starting Point

- 70.000 residents suffer from water scarcity during dry season and flash floods during rainy season
- Flash floods caused by:
 - Runoff due to steep topography in upstream area as well as unregulated deforestation
 - Meandering water channels and increasing sedimentation hinder water flows
- Droughts for sub-river basin caused by: Increasingly unstable precipitation patterns. Longer drought periods

Approach

- Construction of small weirs in the upstream area to store the water and reduce velocity
- Construction of large weirs to store water and dredge up the sedimentation to increase water flow capacity
- Monitoring and management of land use by communities to protect river banks trespass
- Construction of water retention areas
- Groundwater management as well as water supply management for remote areas

Outputs

So far, the sedimentation removal and weir rehabilitation in the • midstream areas have increased water capacity in dry seasons





Lessons

- Reforestation and monitoring of land use should be implemented in the upstream areas
- Public and private sectors require integrated land use management, since touristic sites are located in the downstream area and suffer from flash floods
- Capacity building and dissemination of knowledge on conservation of ecosystems are important for domestic water users and farmers.
- Future water scarcity has to be monitored because of the city expansion

Follow up

- What should be the content for capacity building on flood preparedness for local people?
- How to increase the capacity of the river ecosystem to store water?