

HARNESSING HYDROLOGIC ANALYSES FOR EVIDENCE-BASED WATERSHED MANAGEMENT

A hallmark of USAID's approach to water resource management is the use of science and data to inform local governments' policies and plans to manage critical watersheds and develop water sources.

What Are We Addressing: Monitoring of water conditions from surface or groundwater sources is generally not practiced due to capacity and financial constraints. Planning for water resource management and water supply provisioning is also disconnected.



Watershed management planning and water supply source development is not informed by hydrology studies that could provide reliable data on water **availability** and high groundwater **recharge** areas



Allocation of water permits are not monitored vis-à-vis water availability



Policy and decision makers are not informed of how serious and urgent are the **threats** to water resources

Harnessing Hydrologic Data: USAID through its Safe Water Project initially developed hydrologic studies for five (5) critical watersheds. These studies provided project partners and local stakeholders with compelling information that:



Mobilized stakeholder actions: Awareness and information of the state of watersheds and threats to water security, established by evidence and data, motivated stakeholders to pro-actively plan and act for the conservation of watersheds.



Grounded water source development planning: The studies provided critical information on surface bulk water development, to diversify current sources and ease dependence on groundwater sources.



Optimized prioritization of watershed protection, conservation measures: Prioritization of investments/ activities in the watershed for higher cost/benefit ratio is facilitated by the identification/ mapping of high groundwater recharge areas

Sustaining the USAID Effort: USAID is completing **60 more hydrology studies** to broaden the benefits of evidence-based watershed management in all watersheds within the three provincial sites of Safe Water Project. USAID is also conducted **training of trainers on hydrologic studies** for national and local government institutions that would help scale application in other sites.

USAID'S Safe Water Use of Hydrology Studies at a Glance



The initial **five** (5) hydrology studies facilitated buy in for the preparation of **Provincial Integrated Water Security Plans**, establishment of **watershed management councils**, and get active support for the formulation of **watershed management plans**.

As of **December 2021**, the studies have enabled:

14 policy instruments on watershed management including creation of various bodies overseeing planning and implementation of watershed protection and conservation measures

17 institutions gaining knowledge in computational hydrology, thereby capacitating them to replicate hydrology studies for other watersheds

24,000 hectares of forestlands covered by watershed management plans under improved management



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**Forthcoming Sixty (60)
Hydrology Studies
in 2023**



**Palawan
23**



**Negros Occidental
13**



**Sarangani
24**



What Have We Done: USAID has conducted the following activities in 2021 to harness hydrologic analyses for evidence-based watershed management.



Initial hydrologic studies:
Safe Water initially did five (5) studies for major watersheds, namely: Montible in Palawan, Bago and Malogo in Negros Occidental and Buayan-Malungon and Siguel in Sarangani and South Cotabato, supporting the water supply needs of highly urbanized cities, serving as economic hubs in the three focal provinces of the project.

Training of trainers:
Safe Water trained over 59 national and local representatives from Department of Environment and Natural Resources, National Water Resources Board, local government units and academic institutions on computational hydrology, and mentored them in doing actual studies for selected watersheds.

Scaling hydrology studies:
Safe Water is completing 60 more hydrology studies, covering all watersheds in the three focal provinces of the project. These studies will be useful in the formulation of the Local Watershed Conservation and Restoration Plans of city and municipal governments.

What Do Partners Say About this Work: USAID's work on hydrologic analyses got the attention and interest of stakeholders to further protect water resources.



Department of Environment and Natural Resources - Forest Management Bureau:
Recognized the findings of the hydrologic studies as vital evidence in prioritizing high recharge areas for its National Greening Program, and in informing watershed management planning.

National Water Resources Board:
Recognized the value of the findings in relation to their regulatory function of granting water permits and its responsibility for monitoring water extractions.



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