



3rd ASIA PACIFIC WATER SUMMIT
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"Inclusive approach through good practices on
water governance and IWRM:
Experience of Davao River Basin, Philippines"

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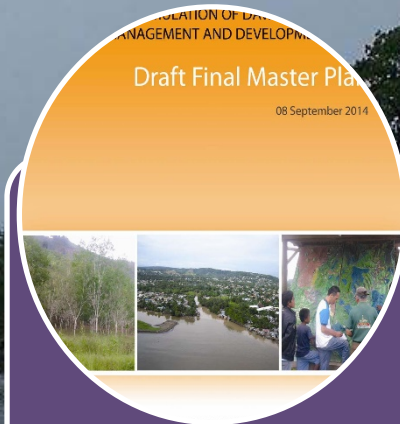
Long-Term:
**Ambisyon
Natin 2040**



Medium-Term
**Philippine
Development
Plan 2017-
2022**



**Mindanao 2020
Peace and
Development
Plan**

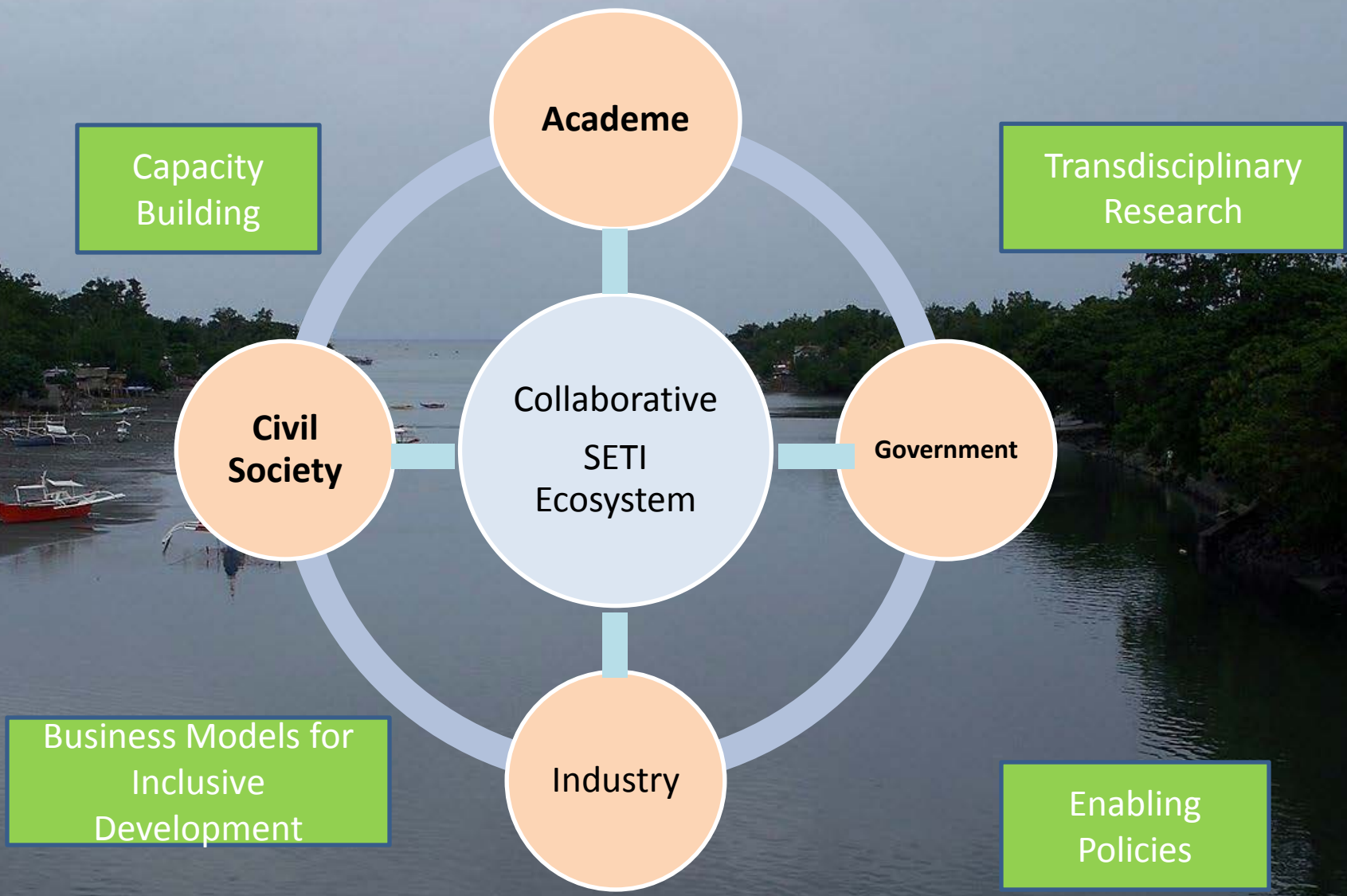


**Davao River
Basin
Management
and
Development
Plan**

Development Framework for IWRM: from National to Regional Levels

Lessons Drawn from Experiences in Davao Region, Philippines:

- (1) The need to customize and localize actions and plans to suit the existing norms and capacities.
- (2) Collective engagement and commitment of all stakeholders concerned.
- (3) The commitment and empowerment of primary actors who shall take lead in implementing actions.
- (4) The need for sharing and complementation of available information, human resources, technologies, infrastructures, programs and other resources.
- (5) The need to continuously enhance and integrate information and data for science-based decision making.
- (6) Sustaining implementation efforts thru enabling policies and frameworks.
- (7) Foster inter-linkages and global partnerships.



QUADRUPLE HELIX

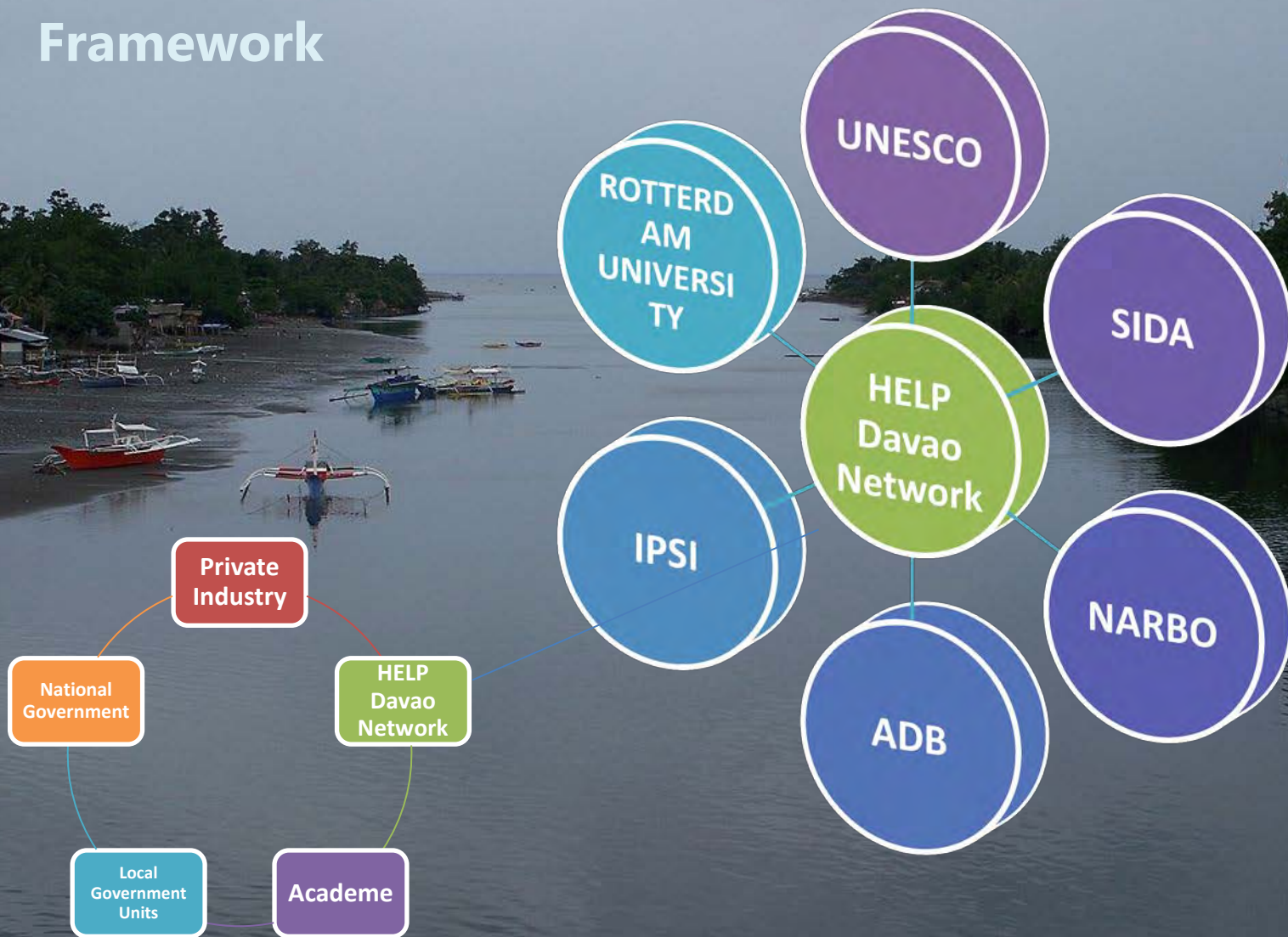
Furthering Cooperation thru Partnerships



HELP Davao Network:

A Multi-Sector Network of Volunteers Towards Wise Management of Davao River Basin

Collaborative Framework



Major Outcomes:

- **Demonstration of technologies for rehabilitation and upgrading of water conveyance systems**
- **Improvement of monitoring systems responding to climate vulnerabilities**
- **Developed/Improved integrated management of urban water systems towards climate change**
- **Improved capacities and awareness among educational institutions and local communities in the context of climate change adaption**

Developed the interdisciplinary material –
**Customized IWRM Guideline for
Davao City and Davao Region** – which is a
relevant input to water education initiatives



UNESCO IWRM Guidelines was localized and customized based on the actual experiences of Davao City and Davao Region thru the participative engagement of all stakeholders involved in planning of the Davao Water Action Plan and drafting the resolution for the Region-wide adoption of IWRM Guidelines.



Series of Consultations and Planning Sessions among a Full Spectrum of Stakeholders in Davao Region in 2011

Outcomes



- Davao Water Partnership
- Water Vision for Davao Region
- 5-year DRR Action Plan for Matina Pangi River
- Regional Development Council Resolution for the Adoption of IWRM Davao Water Partnership Action Plan

Visit

<http://rdc.nro11.neda.gov.ph/docs/iwrm.pdf>

IWRM TRAINING FOR LGUs

“Application of Integrated Water Resources Management (IWRM) Concepts and Other S & T Approaches Towards Hydro-Hazards”

3-day event organized by HELP Davao Network, in partnership with Department of Science and Technology Region XI, Department of Environment and Natural Resources Region XI, City Environment and Natural Resources Office and Mindanao Development Authority



Sustainability Science Project



The major outputs of the multi-sector Sustainability Science Project “Demonstration Site in Enhancing Resilience of Urban Water Systems” in Mindanao” was the development and turn-over of Barangay hazard maps and distribution of IEC materials to the LGUs and key stakeholders, the identification of most vulnerable barangays against hydro-hazards, as well as the 15- year Sustainability Science Plan for Davao City.



Furthering Knowledge thru Research and Development



Title	Lead Researchers/Partners	Key Findings
Microclimate in Davao City	Van Larenstein Hall University, DOST XI, HELP Davao Network	Urbanization results to Davao City as Heat Island (increased temperature); Need for additional weather stations; and Need for improved data sharing and management
Tides and Floods and Davao City	Van Larenstein Hall University, DOST XI, HELP Davao Network	Need for improvement in drainage systems and flood control infrastructures; Need for improved reporting/recording of flood incidences
Assessment of the extent of implementation of standards and procedures for water safety in the Philippines	DOST XI, HELP Davao Network, UIC	Low level of implementation of water safety plans among drinking water providers ;Quality of drinking water in certain areas do not comply with the PNSDW of 2007; Need for development of a comprehensive advocacy, partnership and networking strategy to enforce PNSDW 2007
Assessment of the water situation and the safety of wastewater and sanitation in selected parts of Davao City	Oulo University, DOST XI, HELP Davao Network	Domestic and industrial waste management practices affect the level of contamination of the wastewater of the locations; There is need for reinforcement of the laws on waste management should be strengthened; Conversion from waste to energy is highly needed

R&D in Water



Enhancing Sustainability of MSMEs and the Communities Through Low-Cost Sanitation Technology: the **Vertical Helophyte System**



Continuous professional development for scientists, engineers, managers and policy makers in the water sector



Conducted several technical for a for local actors and stakeholders of water
-continuing



Australian Awards Fellowship Program
"Disaster Risk Reduction for Community Resilience and Safeguarding Livelihoods in the Philippines"
14th October – 12th November 2015
International WaterCenter, Australia



Sent key participants to the NARBO IWRM Training Programs
2012, 2014, 2015

Furthering Understanding thru Consultations

Series of Consultation and Planning Session among a Full Spectrum of Stakeholders in Davao Region for the Development of Customized IWRM Guideline and Davao Water Action Plan (2010-2011)

Mindanao-wide consultation on priority issues and conflicts in water use and management (BIMP-EAGA Summit, October 2014) :
food, agriculture and fisheries; domestic and industrial use; energy; **climate change and hydro hazards**; special concerns of Indigenous communities, women and youth

Consultation with Local Government Units and key stakeholders on demonstrating disaster resilience of urban water system in Davao City (2016)



Sustaining Implementation thru Enabling Policies, Resolutions and Programs



Regional Development Council Resolution for Adoption of IWRM Davao Water Partnership Action Plan

BIMP-EAGA Resolution for the Mindanao-wide Adoption of IWRM

Designation of Davao River as Water Quality Management Areas

Organic Agriculture

Watershed Code of Davao City

Marine Protected Areas

Davao River Master Plan

Comprehensive Land Use Plan

Solid Waste Management Ordinance

MindaNOW (Nurture our Water) Program

Rainwater Harvesting Ordinance

Banning of Aerial Spray

Davao Water Partnership

Engaging and capacitating women, youth and grass-root communities in water advocacy programs



Establishment of community-based learning centers where local water initiatives can be shared among the youth, women, and the general public

Training indigenous people on how to safeguard upland water resources and on how to implement a sitio-level water safety plan

Encourage participation of youth and women in various initiatives

Emerging role of women as water leaders and providing avenues for continuous professional development



Mindanao STI Hubs

Innovation ecosystem conducive for creativity and participation of different stakeholders in the translation of innovations into applications and commercializations.

MINDANAO:
*One Island,
One Science*



APFAST Proposal

Fostering Partnerships in Accelerating SETI Frameworks Towards Attainment of SDG in Mindanao: A closer look into Water Security

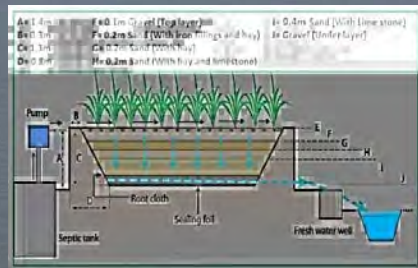


OBJECTIVES:

1. Building, strengthening and sustaining partnerships in SETI.
2. Accelerating development in SETI research, techno-transfer, commercialization, innovation and policy advocacy.
3. Harnessing SETI in the Mindanao Development Corridors.
4. Assessing outcomes and impacts of the project on the SDGs in Mindanao.

Proposed Niche Center for R&D: Water Sustainability Science

Ensuring water quality and quantity in the cities



OBJECTIVES:

1. To help achieve sufficiency in water supply in the region by adopting water harvesting and recycling
2. To promote the use of GIS-Technology Innovation Tools in agri-business farms
3. Analyze indigenous practices in conserving water and sustaining food supply in extreme events like flood and drought and propose their inclusion in the Disaster Risk Preparedness Program of the Region



Maraming Salamat!