



# KatuTubig: Community-Built Filters for Safe Drinking

10/01/2025

Group : One

# KatuTubig

## Katutubo

ka·tu·tú·bo

/ka.tu.'tu.bo/

*Meaning: Indigenous; native person/people*

## Tubig

tú·big

/'tu.big/

*Meaning: water*





# Situation:

Many Indigenous Peoples rely on nearby rivers, springs, and wells. These sources are contaminated by agricultural runoff. As a result, there is lower water quality and higher health risks for families.

# Situation:

According to the World Bank (2016), agricultural activities in the Philippines contribute significantly to water pollution through runoff containing nutrients, pesticides, and sediments, which degrade water quality.

Magcale-Macandog, D.B., P.M.J. Paraiso, A.R. Salvacion, R.V. Estadola, S.G.L. Quinones, I.M.A. Silapan, and R.M. Briones. 2016. "An Overview of Agricultural Pollution in the Philippines: The Crops Sector." Prepared for the World Bank. Washington, D.C.

# Situation:

Contaminated drinking water and inadequate sanitation spread diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid and polio. When water, sanitation and hygiene (WASH) services are absent, inadequate, or poorly managed, people face preventable health risks, especially in health care facilities, where patients and staff are at heightened risk. (WHO, 2023)



# Goal:

Improve the health and safety of Indigenous Peoples in the Philippines by reducing agricultural-runoff contamination using affordable, efficient water filtration systems.



# Goal:

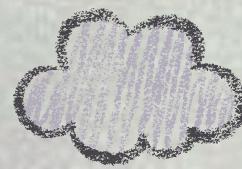
**6** CLEAN WATER  
AND SANITATION



## SDG 6: Clean Water and Sanitation

- 6.1 (safe, affordable drinking water) and
- 6.3 (improve water quality)

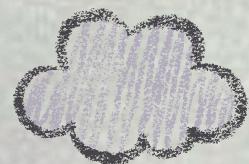
by deploying low-cost, high-efficiency filtration in Indigenous Communities.



# Program Focus:

Provide better water quality for Indigenous communities in the Philippines through community-ready filtration solutions and training.





# Audience / Stakeholders

- Indigenous Peoples (primary)
- Local Government Units (LGUs)
- Schools & youth engineering organizations

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# Our Role

We, as chemical engineers, will serve as advocates, educators, and program developers, delivering a seminar that equips Indigenous communities in the Philippines to maintain affordable, efficient water filtration systems.





# Product / Intervention (What we deliver)

A seminar that trains Indigenous Peoples in the Philippines to build and maintain an eco-friendly, affordable, and efficient water filtration system.





# Standards & Outcomes (How we'll measure)

- Participants can assemble a functioning filtration system by the end of the workshop.
- Water quality improves (e.g., visible clarity/turbidity reduction; lower *E. coli* counts).
- Participants can maintain and troubleshoot the system.

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# THANK YOU!

## REFERENCES:

Magcale-Macandog, D.B., P.M.J. Paraiso, A.R. Salvacion, R.V. Estadola, S.G.L. Quinones, I.M.A. Silapan, and R.M. Briones. 2016. "An Overview of Agricultural Pollution in the Philippines: The Crops Sector." Prepared for the World Bank. Washington, D.C

World Health Organization: WHO. (2023b, September 13). Drinking-water. <https://www.who.int/news-room/fact-sheets/detail/drinking-water>



# GROUP 1

## MEMBERS:

Agaran, John Gero Luis A.

Alcala, Jerecho D.

Baual, Leslie Sofia C.

Bulawan, Leonard Joshua

Caido, John Aeron L.

Camat, Neil Bryan A.

