



**BATANGAS STATE UNIVERSITY**  
**The National Engineering University**

## **BATSTATEU SOWS SEEDS OF SUSTAINABILITY IN TREE PLANTING DRIVES**



In 2023, a staggering total of 29,621 tree seedlings encompassing a diverse range of species including caballero, narra, red nato, bitaog, and cupang, were distributed among the constituent and extension campuses of BatStateU- The NEU. The concerted effort of students, faculty, and employees saw these saplings find their roots both on the university grounds, private land and in designated areas across the Batangas Province.

The tree planting events not only symbolized a proactive approach towards environmental conservation but also underscored the commitment of BatStateU towards sustainable development and fostering a greener, healthier future.



Source: Center for Sustainable Development

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**Building the Nation**





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### TECHNOLOGY TRANSFERS



*Students from BatStateU Lobo and ARASOF Nasugbu Campus joining the mangrove planting activity*

Over 5,000 mangrove saplings were added to the Lagadlarin Mangrove Forest at Lobo, Batangas. Being a calamity-prone country, mangrove forests can act as a powerful natural defense in our coastal area. It decreases the risk of flooding and erosion and most importantly, absorbs the storm surge impacts during extreme weather events such as typhoons.

The mangrove planting activity was initiated by Dow Philippines and was participated by volunteers from Batangas State University (ARASOF-Nasugbu, Lobo and Pablo Borbon Campuses), Batangas Coastal Resource Management Foundation, Connell, Ellsworth, Krayden, Metro Industries, Suntra, and Tradeton. It was also supported by the Department of Environment and Natural Resources, Department of Agriculture, LGU of Lobo, and Brgy. Lagadlarin and people's organization of Samahan ng Maliliit na Mangingisda sa Pangangalaga ng Kalikasan sa Brgy. Lagadlarin.



*Through the help of local community, proper handling and planting of mangrove saplings were taught to volunteers.*

Source: Center for Sustainable Development

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## TECHNOLOGY TRANSFERS



### **Design and Development of Groundwater Treatment System for Arsenic Removal**

*February 15, 2023*



The project staff led the actual training and presentation. Everything that needed to be known about the groundwater treatment system was covered in detail, including how it operates, how long it will last, and what should and shouldn't be done when maintaining the system. To completely comprehend the groundwater treatment system, a question-and-answer phase was also completed. The recipients were then handed the operations and maintenance manual and the record logbook, which contained the pertinent information and dates for both the system and its component parts.



### **Design And Development Of An Industrial Wastewater Treatment For Irrigation Using Bio-Sand Filter Linked With Granular Activated Carbon Filtration System**

*May 5, 2023*

The primary goal of this activity is to help the recipients by transferring technology with the intention of treating poultry wastewater with a granular activated carbon based on peanut shells and a bio-sand filter that has been devised and manufactured. It also seeks to fulfill DENR Administrative Order 2016-08's recommended parameter content for irrigation. The initiative or operation attempts to guarantee poultry-safe water by treating it for use in irrigation.





## TECHNOLOGY TRANSFERS



### **Design And Development Of Solar-Powered Seawater Desalination Machine With Uv Sterilizer Using Reverse Osmosis System**

*March 27, 2023*

The training and seminar activity aims to provide individuals and residents from Brgy. Sampaguita, Bauan, and Batangas with insights and thorough understanding of the developed solar-powered seawater desalination machine with a UV sterilizer using a reverse osmosis system. All of the activity's recipients were given a thorough explanation of the solar-powered desalination equipment, including all pertinent features. It was also detailed how to operate the machine and all of its system components, as well as the dos and don'ts of system operation, correct system maintenance, and the lifespan of each system component.



### **Design And Development Of Seawater Desalination System Using Forward- Reverse Osmosis**

*May 5, 2023*

The main objective of this project is to provide assistance to the beneficiaries through technology transfer that aims to develop a desalination system that will supply more clean water sources for the resort's use and guarantee that the water's quality is within allowable bounds. The creation of a system utilizing forward-reverse osmosis is covered in this study. Its objective is to find a solution to the problem of how to remove pollutants from seawater by using this membrane material. It will be addressed by emphasizing the advantages of using clean, safe water production in this procedure.

