

December - January 27, 2023

OFFICE OF THE VICE PRESIDENT FOR RESEARCH INNOVATION AND EXTENSION



PHYSICAL ACCOMPLISHMENT REPORT FOR 2022

PERFORMANCE INDICATOR	ANNUAL TARGETS	ACTUAL ACCOMPLISHMENTS
Actively pursuing in the last three (3) years (investigative research, basic and applied scientific research, policy research, social science research)	50%	74.12% (63/85)
Number of research outputs in the last three years utilized by the industry or by other beneficiaries	9	11
Number of research outputs completed within the year	55	80
Percentage of research outputs published in internationally- refereed or CHED recognized journal within the year	50%	61.06% (69/113)
Number of trainees weighted by the length of training	1500	2056
Number of extension programs organized and supported consistent with the SUC's mandated and priority programs	10	12
Percentage of beneficiaries who rate the training course/s and advisory services as satisfactory or higher in terms of quality and relevance	70%	98.03%
Number of active partnerships with LGUs, industries, NGOs, NGAs, SMEs, and other stakeholders as a result of extension activities	9	24

INTIATIVES AND ACHEVEMENTS

To achieve the vision, and mission of institutional research, different Centers were identified and established including **Action for Greater Advancement and Knowledge Center.** The center is instrumental in boosting research engagements and milestones in the exchange of research outputs to the community.

With this, the AGAK Center took initiatives through research programs. These include the "Research-Based Establishment of Sustainable and Integrative Learning Innovations, Engagement and Nurturing Techniques (RESILIENT) Towards Immersive Flexible Education". The research program is essential in the development of the University where intensive webinars- conferences, and papers are presented. This also supported the webinar conference on Online Resources in the Delivery of FTL at Caraga State University. The main purpose of this study is to identify technology utilization in the delivery of flexible teaching learning in the University. Thus, the data presented is the extent of online resource utilization significantly varies across units and semesters.





DOST-NSTEP Lumad Spirituality Project

The project has the following accomplishment: (1) finding validators and setting the schedule for instrument and project validation, (2) Submission of quarterly report to DOST-NSTEP by filling up DOST form 6 and 8, (3) submission of Video Accomplishment Presentation to DOST-NSTEP Mindanao, and (4) Meeting Preparation for 2nd Quarterly Accomplishment Virtual Report on January 30, 2023.



DOST-NSTEP Virtual Workspace Project

The project has the following accomplishment: (1) Submission of the research documents to CHRDC, (2) Submission of quarterly report to DOST-NSTEP by filling up DOST form 6 and 8, (3) submission of Video Accomplishment Presentation to DOST-NSTEP Mindanao, and (4) Meeting Preparation for 2nd Quarterly Accomplishment Virtual Report on January 30, 2023.



Virtual Workspace during COVID-19 Pandemic: Change in working landscapes among SUCs Academics in Caraga

Project Leader	Ordem K. Maglente
Implementing Agency	Caraga State University - Caraga Center for Peace and Development
Project Duration	1 Year
Approved Budget	P1,000,000.00

DOH – Women of Reproductive Age (WRA) Project

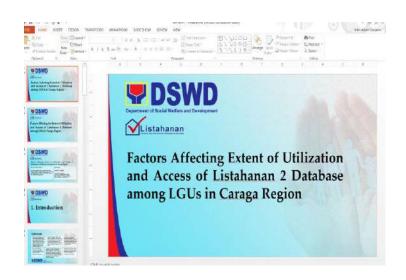
Preparation Meeting for Data Gathering. The recent update includes the issuance of an ethics certificate from the CHRDC ethics board and approval from the PSA committee. This allows the research team to proceed with the data gathering With this, the team set a questionnaire orientation for the enumerators on February 7, 2023, to be held at Kinaadman Conference Room.





CHaSS Faculty Research Consultancy with DSWD

Mr. Jan Rey M. Flores, Mr. John Albert M. Quijano, and Jan Ralde Felias, faculty members from CHaSS, presented their final output of the study "Factors affecting the access and utilization of the NHTS Listahanan database among LGUs in Caraga Region" to the internal panel of DSWD Caraga



Caraga State University Joins Forces with MSU-IIT and USTP to Launch Center for Integrated Circuits and Devices Research

Dr. Rolyn C. Daguil, President of the Caraga State University, signed a Memorandum of Agreement with the Mindanao State University-Iligan Institute of Technology (MSU-IIT) and the University of Science and Technology of Southern Philippines (USTP) to establish a Center for Integrated Circuits and Devices Research (CICDR). The project, funded by the Department of Science and Technology, aims to increase the national capability in integrated circuit competitiveness design, increase electronics and semiconductors, and create a sustainable local IC design ecosystem. The establishment of the center aligns with President Daguil's LIKHA Agenda and the three universities' leaders pledged to support research excellence in IC design. The project leader will be Dr. Jefferson Hora of MSU-IIT and was witnessed several directors, by chairpersons, and faculty members from the participating universities.









Caraga State University Cabadbaran City — Research Development and Extension conducted a Patent Draft Writeshop and Target Setting for 2023 with Support from University President Dr. Rolyn C. Daguil, Engr. Jeffrey T. Dellosa, Vice President for Research, Innovation and Extension, and Dr. Deomila A. Basnig, Chancellor of CSU Cabadbaran City.

Training on Policy Brief Development and Dissemination of Research to the Community

The Caraga State University, in partnership with the DOST-NRCP RD LEAD Program, DOST Caraga, and the CSU Department of Biology, organized a four-day training event on policy brief development and dissemination of research to the community.

The event aimed to help individuals and organizations effectively communicate their policy recommendations to decision-makers, improve critical thinking and analytical skills, and ensure that voices and perspectives are heard in the policy-making process.

The training took place from January 10-13, 2023, and was held in both CSU HERO Learning Commons Auditorium and Municipality of Jabonga, Agusan del Norte. The format was hybrid with participants from different universities and agencies.











Publications through RDPO:

Journal of Ecosystem Science and Eco-Governance (JESEG). Articles published for 2022:

June 2022:

Young, C. E., Mallari, M. R., Ladaga, S. M., Almadin, F. J., Anunciado, L. G., & Rosal, J. (2022). Phytochemical Screening, Anticancer, and Antiangiogenic Activity of Bahai (Ormosia calavensis) and Yakal yamban (Shorea agsaboensis) used as Ethnomedicine of the Manobo Tribe in Brgy. Anticala, Butuan City, Philippines, Journal of Ecosystem Science and Eco-Governance, 4(1):1-10. http://jeseg.carsu.edu.ph/filePortal/1.MS 63 2022 Rosal%20et%20al.pdf

Jumawan, J. H. (2022). Mangrove Biodiversity, GIS Weighted Overlay Analysis, and Mapping of Suitable Areas in Alabel, Sarangani Province, Philippines Journal of Ecosystem Science and Eco-Governance, 4(1):11-23. http://jeseg.carsu.edu.ph/filePortal/2.MS 65 2022 Jumawan.pdf

Pascual, G.L., Napala, J.J.O., Tomol, R.P., Oyong, L.J.L., Alfante, J.M.P., & Lumain, J.P.L.M. (2022). Crown-of-Thorns starfish (COTS) outbreak in Sogod Bay, Southern Leyte, Philippines, Journal of Ecosystem Science and EcoGovernance, 4(1):24-30.

http://jeseg.carsu.edu.ph/filePortal/3.MS 59 2022 Pascual%20et%20al.pdf

Knowledge, Attitude, and Practices on Responsible Parenthood and Family Planning Among Beneficiaries of the Family Alleviating Program on Poverty of Caraga Region, Philippines http://jeseg.carsu.edu.ph/filePortal/4.MS 64 2022 Makinano%20et%20al.pdf

Ciudad, K.L., Lucero, C.V.E., & Calonia, V.N.E. (2022). Solid Waste Characterization and Assessment of the Pre-Covid19 Pandemic Solid Waste Management Practices in Caraga State University, Ampayon, Butuan City, Philippines. Journal of Ecosystem Science and Eco-Governance, 4(1):43-53. http://jeseg.carsu.edu.ph/filePortal/5.MS 62 2022 Ciudad%20et%20al.pdf

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Villahermosa, K. L., Estaño, L. A., Calagui, L. B., & Paylangco, R. A. (2022). Acanthocephalan and Trematode Endoparasites in Rabbitfish Siganus fuscescens from the Selected Coastal Areas of Surigao City, Surigao del Norte, Philippines, Journal of Ecosystem Science and Eco-Governance, 4(2):1-7. http://jeseg.carsu.edu.ph/filePortal/DOI%2010.54610jeseg4.2.2022.001.pdf



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Agtong, R. J. M., Laudiño, F. A. R., Jumawan, J. C., & Elvira, M. V. (2022). Knowledge, Attitude, and Practices Towards Utilization, Conservation, and Marketing of Economically Important Fish Species Among the Local Communities of Lake Mainit Watershed, Philippines Journal of Ecosystem Science and Eco-Governance, 4(2):8-19.

http://jeseg.carsu.edu.ph/filePortal/DOI%2010.54610jeseg4.2.2022.002.pdf

Torralba, C.A.V., Gamalinda, E.F., & Estaño, L.A. (2022). Dietary preference of Alien Invasive Anurans (Rhinella marina, Hoplobatrachus rugulosus, and Kaloula pulchra) in Butuan City, Northeastern Mindanao, Philippines, Journal of Ecosystem Science and EcoGovernance, 4(2):20-28. http://jeseg.carsu.edu.ph/filePortal/DOI%2010.54610jeseg4.2.2022.003.pdf

Orboc, D.R.F, Jumawan, J.C., Ombat, L.A., Capangpangan, R.Y., & Seronay, R.A., (2022). Marine Benthic Macrophytes Diversity and Concentration of Heavy Metals in Thalassia hemprichii Near Mining Area of Claver, Surigao Del Norte, Philippines, Journal of Ecosystem Science and EcoGovernance, 4(2):29-39.

http://jeseg.carsu.edu.ph/filePortal/DOI%2010.54610jeseg4.2.2022.004.pdf

Balicog, J.R., Galdiano, G.D., Suganob, L.P., Seronay, R.A., & Elvira, M.V. (2022). Short Communication: Survey of Grasses (Poacea and Cyperaceae) Within Caraga State University- Main Campus, Philippines. Journal of Ecosystem Science and Eco-Governance, 4(2):40-45. http://jeseg.carsu.edu.ph/filePortal/DOI%2010.54610jeseg4.2.2022.005.pdf





AGRI-AQUA INNOVATION PITCH FEST

The TTLO team attended the Agri-Aqua Innovation Pitch Fest on December 5-7, 2022 held at Acacia Hotel Manila, Alabang, Muntinlupa City. This event was the culminating activity for the series of training conducted by APP in support of the DOST-PCAARRD funded technology commercialization and intellectual property protection and management programs.



[Left] Engr. Jeffrey T. Dellosa and Prof. Kenneth Ciudad manned the Caraga booth; [Right] Engr. Jack O. Bertulfo pitched the Sago Processing Technologies of CSU technology.

2nd National Consultation on Cacao's Technologies Patent Mining Report

The IP-TBM Project under the Technology Transfer and Licensing Office (TTLO) of the OVPRIE conducted a hybrid national consultation meeting on the PMRs for Cacao Technologies last December 9, 2022. It was attended by the Technical Experts on Cacao from various SUCs and RDIs in the Country. The ISP Managers of Cacao of DOST-PCAARRD, Dr. Fasutina C. Baradas and For. Cel Jay Jimenez, also served as Technical Facilitator during the discussion.



CSU IPTBM team presented 18 PMRs during the virtual National Consultation on Cacao





PATENT MINING TRAINING-WORKSHOP

Intellectual The **Property** Technology Business Management (IP-TBM) Patent Mining Project, under the management of the Technology Transfer and Licensing Office (TTLO) of the OVPRIE, conducted a face-to-face Training and Workshop on Patent Mining last December 2, 2022, at the Navigatu, Mechatronics Building. A total of twenty-one (21) faculty researchers, staff, and College Intellectual Property Coordinators (CIPCs) from the main and Cabadbaran campuses were present during the event.



All of five (5) groups of participants presented PMRs for their chosen technology areas, exploiting various free patent databases, capturing relevant patent documents, and coming up with more innovative recommendations.

Webinar-series on Enhancing Business Competitiveness Through Effective Use of IP

On December 20 and 21, 2022, the TTLO conducted two sessions of the webinar-series. The event was participated by partners from the Agri-Aqua sectors, MSMEs, regional offices of DOST and DTI representatives.







Webinar-series on Basics of Intellectual Property for Graduate Students (December 10, 11, 17, & 18, 2022)

The TTLO under the OVPRIE, in collaboration with the Graduate School, conducted the said event and was participated by a total of 279 participants composed of graduate students, faculties, researchers, LGU, and Private sectors representatives. The aim of the webinar is to inform participants of the current trends in IP Rights & determine the emerging issues and concerns. Matters relative to the development & registration of IMs for Materials for Copyright were also discussed.

PATENT FILING – Two patent applications were filed last December 22, 2022

- 1. A device for slicing snack-based products
- 2. A weight-based for fuel consumption metering device for engine

TECHNOLOGY UTILIZATION

Two (2) technologies were subjected to a non-exclusive licensing through a Technology Licensing Agreement (TLA) with SRS Industrial Trading. The TLAs for both technologies were presented to the BOR last December 15, 2022, but pending the TTLO's response to the Office of the Solicitor General's (OSG) on the matter related to the Fairness Opinion Report (FOR).

Fruit Opening Device and Cacao Bean Extractor.







Resource Speaker

Mr. Rodel G. Pasion served as Resource Speaker for the Reorientation of Roles of FITS Staff / MS Functions during the 6th Regional TechnoGabay Program Summit on January 17-20, 2023, at Almont Inland Resort, Butuan City. There were more than 100 participants from the different FITS centers in the region composed of FITS Managers, Information Services Specialists, Technical Services Specialists and Magsasakang Syentista. He also participated in the said summit and facilitated some activities such as workshops of FITS Staff, especially in the provinces of Agusan del Norte and Butuan City, Surigao del NOrte and Province of Dinagat Island.



PREPARED Pagatpatan

A meeting of the Technical Working Group for PREPARED-Pagatpatan, hosted by the Butuan City Tourism Office, was conducted on December 1, 2022, held at the City Tourism Office, Butuan City Hall. They have discussed the turn-over and other activities to be undertaken after. The TWG also discussed the roles and responsibilities for the Pagatpatan Wetland Learning Center (PWLC). The Caraga State University was assigned for the Interior and Landscaping Design of PWLC.









On December 13, 2022, Dr. Romell A. Seronay together with Engr. Nikko Paje and Arch. Magichael Cloribel visited Barangay Pagatpatan for a site visitation to have an idea for the interior design and other outdoor educational facilities.



Engr. Nikko Paje conducted a site survey on January 21, 2023. He was accompanied and assisted by a representative from LGU-Brgy. Pagatpatan. The data from this survey will be used to provide a design to be made by Arch. Magichael Cloribel





Extension project titled "Caraga Region Coffee Production Build-up through S&T based interventions"

The College of Agriculture and Agri-Industries is in the preparation stage for the submission of required documents for the approval and implementation of an extension project titled "Caraga Region Coffee Production Build-up through S&T based interventions" to be funded by the Department of Science and Technology - Regional Office (XIII). The proposed extension project generally aims to improve farm practices, productivity, and socio-economic status of the coffee growers in Brgy. Simabalan, Buenavista, Agusan del Norte through S&T based interventions. There will be 3 project components, the Component 1: Baseline Data Collection of Farmers Field Practices and Economic Status for proper S&T based intervention; Component 2: Boosting Farmers Knowledge and Adaptation to S&T Based Technology, and Component 3: Demo-Farm Establishment. Project will hopefully be approved by the DOST with a proposed budget of PhP 1,875,000.00. The few members of this extension team together with the DOST personnel visited the Sitio Antipolo Farmers Association Buenavista Agusan del Norte Inc (SAFABAI), the beneficiary of the project, last January 25, 2023. The purpose of the visit is to gather initial information that would help in planning out the activity for the whole year.



The CAA faculty, DOST Staff, and representative members of Sitio Antipolo Farmers Association Buenavista Agusan del Norte Inc (SAFABAI) during the coffee farm visit in Brgy. Simbalan, Agusan del Norte last January 25, 2022.



Outcomes of the various RDE Projects on Plant Health cum Molecular Biology & Biotechnology with funds from DA-Biotech, DA-BAR, and CSU-RAF 2021-2022. This lab is currently home to 10 thesis students, 3 ongoing R&D projects, and the latest Balik Scientist of CSU (



Outcomes of the 2022 RAF on Soil Health RDE Project.

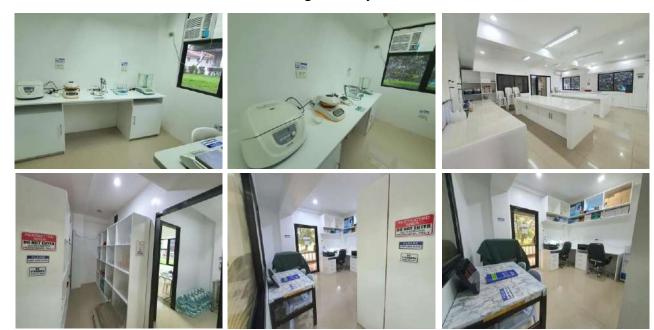








Outcomes of the 2022 RAF on Postharvest Handling RDE Project



Caraga State University Ties Up with RTI International on USAID-Funded Ecosystem Services Research Project

RTI International and Caraga State University have formed a research partnership for the SIBOL (Sustainable Interventions on Biodiversity, Oceans, and Landscapes) program, a five-year initiative aimed at improving natural resource governance, managing resources sustainably and reducing environmental crimes. RTI is implementing the program under a cooperation with USAID and consortium partners, while CSU will act as academic partner tracking the value of ecosystem services for decision-making on land and water use

The program aims to calculate the value of several ecosystem services including climate management, water regulation, soil erosion control, coastline protection, and recreational, spiritual and provisioning services. Additionally, it aims to create national fisheries and coral reef asset accounts and update the national forestry accounts.







Three CSU Faculty Researchers Attend HCVA-NCA Toolkit Training as Part of SIBOL Project

Three faculty members from Caraga State University, Dr. Sherryl Paz, Mr. Laurence Calagui and Miss Shirlamaine Calagui, attended a 4-day High Conservation Value Areas- Natural Capital Accounting (HCVA-NCA) Toolkit Writeshop in Quezon City as part of the 5-year Sustainable Interventions for Biodiversity, Oceans and Landscape (SIBOL) Project. The SIBOL Project, implemented by RTI International in partnership with the Department of Environment and Natural Resources and Bureau of Fisheries and Aquatic Resources, aims to improve natural resource governance and reduce environmental crimes in five key biodiversity areas in the Philippines. The HCVA-NCA framework is a key component of the project, providing science-based guidance for the national interpretation of High Conservation Values and aiding in decision-making for the protection and management of protected areas. The writeshop aimed to introduce the framework to experts and government agencies, further develop the toolkit, and secure collaboration between agencies





BOHOL ISLAND STATE UNIVERSITY (BISU) BENCHMARKING AT CSU

The Bohol Island State University (BISU) benchmarking activity in the OVPRIE and OVPAF was held on January 25, 2023, at the Caraga State University Hero H.E.R.O. Learning Commons Auditorium. The aim of the event was to acquire knowledge, ideas, and practices worth emulating for BISU's Research Programs, Extension, ITSO Operations and the Procurement Program and Process of the OVPAF. The event featured presentations on the accomplishments and important projects of Caraga State University's Research, Innovation, and Extension office and the TTLO. Dr. Rolyn C. Daguil, University President, led the activity with Engr. Jeffrey T. Dellosa, the VPRIE, as the main organizers. The event was attended by former VPRIE, Dr. Rowena Varela, Dr. Michelle V. Japitana, VPEOAS, and other CSU officials. The event ended with discussions and Q&A session.





BOLHOL ISLAND STATE UNIVERSITY BENCHMARKING











MEETING WITH ENGR. NOEL AJOC, REGIONAL DIRECTOR OF DOST-CARAGA

The Office of the Vice President for Research, Innovation, and Extension at Caraga State University held a meeting with Regional Director of the Department of Science and Technology (DOST) Caraga, Engr. Noel M. Ajoc, on January 25, 2023. The meeting was attended by the Research Director, Extension Service Director, RDPO Director, TTLO Director, RDI Directors, College Extension Coordinator, GS Dean, OVPRIE Staff, and DOST Caraga Personnel.





>>>>Continuation: MEETING WITH ENGR. NOEL AJOC, REGIONAL DIRECTOR OF DOST-CARAGA

The agenda was to present DOST programs, such as iSTART, EMIEERALD, and GRIND, and to align the RDIE Agenda with DOST Caraga's Agenda for the next five years (2023-2028). DOST Caraga promised to provide its agenda in March and furnish a copy of their general directions to CSU-OVPRIE for alignment.





Presentation of Accomplishments and Proposed Establishment of RIE Council / Committee

The Office of The Vice President for Research, Innovation, and Extension conducted a meeting with all RDI Center Directors, College Extension Coordinators and key Directors under the OVPRIE. The agenda of the said meeting was for all Directors to present their accomplishments for the year 2022 and the presentation of the proposed establishment of the University Research, Innovation, and Extension Council or Committee.







Concrete Block and the Method of Installation Thereof

The CSU's Technology Transfer and Licensing Office (TTLO) under the OVPRIE, together with the University's top management, congratulates its first MSME-client in the region that has been granted with a Patent Certificate by the Intellectual Property Office of the Philippines (IPOPHL) for the invention on Concrete Block and Method of Installation Thereof.

The technology owner and inventor, Ms. Charito L. Murphy of Bayugan City, who also owns a construction business, developed her novel and inventive way of producing concrete blocks with decorative tiles. The patent application and prosecution was facilitated by CSU TTLO/ITSO/IP-TBM personnel up to its successful granting.

The Letters Patent Certificate entitles the holder to the right to restrain and prohibit any unauthorized person or entity from making, using, offering for sale, selling, or importing a product and importing any product obtained directly and indirectly from such process.

Ms. Murphy expressed her sincere gratitude to the people behind the success of the application: from patent searching, patent drafting, and prosecution.



