



CARAGA STATE UNIVERSITY



# 3RD

# QUARTER REPORT

## JULY – SEPTEMBER 2023

OFFICE OF THE VICE PRESIDENT FOR RESEARCH  
INNOVATION, AND EXTENSION



# PHYSICAL ACCOMPLISHMENT REPORT 2023

PERFORMANCE INDICATOR	ANNUAL TARGETS	Q1	Q2	Q3	TOTAL (Q1 + Q2)
Actively pursuing in the last three (3) years (investigative research, basic and applied scientific research, policy research, social science research)	50%	79.01% (64/81)	79.01% (64/81)	79.01% (64/81)	<b>79.01% (64/81)</b>
Number of research outputs in the last three years utilized by the industry or by other beneficiaries	9	4	0	2	<b>6</b>
Number of research outputs completed within the year	40	7	36	14	<b>55</b>
Percentage of research outputs published in internationally-refereed or CHED recognized journal within the year	40%	53.33% (16/30)	66.66% (24/36)	115.38% (15/13)	<b>69.62% (55/79)</b>
Number of trainees weighted by the length of training	1500	748	714.75	417.5	<b>1880.25</b>
Number of extension programs organized and supported consistent with the SUC's mandated and priority programs	10	4	4	0	<b>8</b>
Percentage of beneficiaries who rate the training course/s and advisory services as satisfactory or higher in terms of quality and relevance	70%	98.74% (314/318)	97.18% (380/391)	98.36% (180/183)	<b>97.88% (694/709)</b>
Number of active partnerships with LGUs, industries, NGOs, NGAs, SMEs, and other stakeholders as a result of extension activities	9	9	2	4	<b>15</b>



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## Scientific Forum and Collaborative Discussion

In a notable Scientific Forum and Collaborative Discussion held at Caraga State University, an esteemed guest, Professor Sigbjorn Hervik from the University of Stavanger in Norway, paid a visit to the Center for Human-Computer Interaction (CHCI) on July 3, 2023.

Dr. Jaymer M. Jayoma, the Director of CHCI, warmly received Prof. Hervik, along with Engr. Jeffrey Dellosa, the Vice President for Research Innovations and Extension, and a group of esteemed faculty researchers from Caraga State University.



During the visit, Dr. Jayoma showcased the ongoing and completed projects of the center, highlighting their innovative contributions across various fields. Among the notable projects discussed were the **DSWD Records Management System**, the **Geographic Information System for Agriculture Infrastructures and Fisheries Machinery (GEOAgri)**, and **Mining Augmented Reality and Virtual E-Learning Technologies**, better known as [MARVELTechnologies](#).

Beyond the confines of CHCI, the visit of Professor Hervik signifies the growing recognition of Caraga State University's prowess in research and innovation. It serves as a testament to the university's commitment to forging collaborations with renowned international institutions, thereby bolstering its reputation as a hub of innovation and academic excellence.



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## Navigatu TBI received visitors from MAPUA's Think and Thinker Labs

On July 4, 2023, Think and Tinker Labs, the Technology Business Incubator, conducted a visitation, benchmarking, and consultative meeting with Navigatu. This meeting aims to understand the processes of Navigatu, from the pitching competition to the incubation program of the winners of the pitching competition. Dr. Jonathan L. Salvacion, Mr. Jeric Esplana, and Ms. Kristel Aron Mercene, the TBI project development officers led the party from the Think and Tinker Labs.





# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CHASS boosts research and extension engagement through Human Intelligence forum with Dr. Pietschnig

The College of Humanities and Social Sciences (CHASS), led by the Department of Psychology, is taking research and extension initiatives a notch higher! The Scientific Forum on Human Intelligence with Dr. Jakob Pietschnig, a Professor at the University of Vienna, Austria, has concluded on August 11, 2023, with pivotal discussions for its faculty members and students.

The activity promises expanded knowledge of theoretical foundations and translate them into research and extension interests in psychology and social sciences. It also targets possible collaborations for more academic opportunities. Professor Jeffrey T. Dellosa, the Vice President for Research, Innovation, Extension, and Innovation, was present in this undertaking to show full support for the initiative.

Dr. Jakob Pietschnig leads the University of Vienna's Individual Differences and Psychological Assessment Unit. His research focused on human intelligence, particularly on generational test score changes (i.e., the Flynn effect) and biological bases of intelligence.



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU probes sustainable development in annual RDE In-House Review

In the pursuit of academic excellence and a steadfast commitment to continuous growth, Caraga State University (CSU) places Research, Development, and Extension (RDE) at the forefront of its endeavors. A testament to this dedication was the annual RDE In-House Review last August 30, 2023, organized by the Office of the Vice President for Research, Innovation, and Extension (OVPRIE) and led by the Director for Research and Development Publication Office (RDPO), Dr. Joycelyn C. Jumawan. The event served as a platform to assess the effectiveness and impact of the university's RDE initiatives. This 2023, the theme for the RDE In-House Review was "Driving Sustainable Development: Exploring Industrialization and Innovation in Fishery, Agroforestry, Mining, and Ecotourism (IFAME) for Economic Growth and Environmental Stewardship."

A total of 35 papers on research, development, and extension projects were presented for the three (3) sessions by their thematic areas, namely, 1) Food, Security, and Climate Change; 2) Health, Education, and Biodiversity; and 3) Energy and Technology.



This year's RDE In-House Review Keynote Speaker was the Regional Director of DOST-Caraga and CSU BOR Member Engr. Noel M. Ajoc. In his message, Engr. Ajoc strongly emphasized the significance of empathy and service in research and innovation. Driven by technology and data, researchers should keep in mind the human factor and the potential influence their efforts can wield on the well-being of others.



## INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

In August 2023, the TBI Director, Prof. Melbert R. Bonotan, attended the MindSET 4 Innovation ReSEED Startup Ecosystem Meeting at the Administration Building of the University of Science and Technology of Southern Philippines (USTP). At that time, Navigatu was still considered part of the MindSET for Innovation Consortium.

During the meeting, the Startup Ordinance for Cagayan de Oro and Legislation Amendments on RA1137, or the Innovative Startup Act were presented. Additionally, members of the advisory council for the Innovation Ecosystem Consortium were elected, and the Technical Working Group (TWG) for the consortium was appointed. The insights and takeaways from this meeting will be utilized in the development of the Caraga RISE consortium development project.



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU signs MOA with the Semiconductor and Electronics Industry of the Philippines, Foundation, Inc. (SEIPI)

In a significant move designed to bridge the gap between academia and the fast-evolving semiconductor and electronics industry, Caraga State University (CSU) has entered into a Memorandum of Agreement (MOA) with the Semiconductor and Electronics Industry of the Philippines, Foundation, Inc. (SEIPI), held August 18, 2023, at JPark Island Resort & Water Park, Mactan, Lapu-Lapu City, Cebu.

Dr. Rolyn C. Daguil, CSU President, was represented by Engr. Jeffrey T. Dellosa, D.Eng., PECE, the designated VP for Research, Innovation, and Extension of CSU, in the MOA signing ceremony. This activity was attended by the officials of SEIPI, which included Mr. Perry Ferrer, SEIPI Chairman/Chairman & CEO Gruppo EMS; Dr. Danilo C. Lachica, SEIPI President.

The signing of the MOA took place during the 3rd General Membership Meeting (GMM), attended by Presidents and Chief Executive Officers (CEOs) from numerous semiconductor and electronics companies in the country. SEIPI is the leading organization of multinational and Filipino-owned semiconductor and electronics companies in the Philippines, with at least 350 members, including manufacturing firms, allied and support industries, and the academe.



Engr. Dellosa also represented the academic community as one of the resource speakers in the meeting and delved into the importance of partnerships between academia and industry from an educational viewpoint.

This groundbreaking partnership with SEIPI seeks to foster mutual growth, and research advancement and ensure that the next generation of talent is well-equipped to drive the nation's semiconductor and electronics industry forward.



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU's MAPX and DOST linkage propels digitization of Oroquieta City Real Property Tax Mapping Operations

Through the project entitled "Boosting LGU Oroquieta City's Revenue through S&T-based Real Property Tax Mapping System - MapX, a DOST-funded technology", DOST promotes the digitization of the tax mapping operations of the Oroquieta City Assessor's Office.

MapX, developed by Caraga State University, is a complete real property mapping and assessment solution that uses advanced geoinformatics technologies. The use of the system will enable the Oroquieta City Assessor's Office to conveniently analyze and create maps of real property units.

The project supports DOST's priority strategy of ushering the transformation of municipalities and cities into smart, resilient, and sustainable communities.





# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU and LGU-Mainit sign MOA for MapX Project

The Municipal Hall of Mainit witnessed a historic event on September 8, 2023, as the Local Government Unit (LGU) of Mainit, Surigao del Norte, and CSU came together to sign a Memorandum of Agreement (MOA) for the implementation of the MapX Project.

This innovative project is designed to revolutionize real property mapping and assessment using cutting-edge geoinformatics technologies. The ultimate objective is to streamline the process of administering real property tax mapping by leveraging the power of modern technologies.

The MOA signing was graced by the presence of CSU officials, Mayor Hon. Crisanta O. Mondano, Municipal Assessor Mr. Edpher Leo M. Sindol, and the entire MapX Project Team.

With the implementation of the MapX Project, the LGU of Mainit can look forward to a more efficient and precise real property tax mapping system. This, in turn, will enable the LGU to collect more accurate and timely real property taxes, ultimately benefiting the people of Mainit.



## INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

The OVPRIE and Navigatu TBI were also invited during the third quarterly meeting for the RDC-RRDIC at the Watergate Hotel on September 14, 2023. As an active player in the innovation ecosystem in the region, Navigatu, represented by the Director participated in the restructuring of the RRDIC and RIIC where Navigatu has been recognized as an integral part. This move by the RRDIC will be crucial in implementing the Caraga RISE, with its scope being the entire Caraga Region.



### **OVPRIE, RDI Centers accepted and welcomed Interns from the Philippine Normal University-Mindanao Campus and Philippine Science High School-CRC**

The Office of the Vice President for Research, Innovation, and Extension (OVPRIE) received and welcomed the Faculty counterparts and interns from the Philippine Normal University-Mindanao Campus and from the Philippine Science High School-Caraga Region Campus. These interns were assigned in groups to various research centers and offices each specializing in different scientific disciplines. This diversity allowed students to explore their specific interests within the broad field of physics and science education. The Summer Science Internship Program was a comprehensive 20-day immersion that commenced from July to September 2023.



Interns from the Philippine Science High School-CRC together with the Food Innovation Center Director and personnel.



Interns from the Philippine Normal University-Mindanao with their Faculty counterparts.





# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU joins the 2023 SUC Fair in Iloilo

The director of the CSU TTLO, along with delegates from four SUCs in Caraga, attended the 2023 SUC Fair at SM City Iloilo Activity Center from July 10-13, 2023.



The TBI Director also presented at the SUC Fair and pitched the Financial Automation and Resource Management System (FARMS).



# INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

## CSU RDI Centers participate the 2023 Regional Science & Technology Week (RSTW) in Surigao City

The RDI Centers of the university had the chance to attend, participate, and showcase various technologies and food innovations during the Regional Science and Technology Week (RSTW) held at the Surigao del Norte Provincial Gymnasium in Surigao City.

The Caraga State University (CSU) booth was honored by a visit from DOST Secretary Renato U. Solidum. Accompanying Sec. Solidum was Engr. Noel Ajoc, Regional Director of DOST Caraga. The distinguished guests' visit to the CSU booth underscored the importance of academic and research partnerships in advancing science and technology in the region.





## INITIATIVES, ACHIEVEMENTS, & PARTNERSHIPS

The second day of the event was particularly noteworthy, featuring several highlights, including (1) The Grassroots Innovation for Circular Economy Expo; (2) the presentation and recognition of the DOST Scholars; (3) the presentation of the Policy Brief; (4) the technology pitching session where Technical Experts shared their latest innovations; and (5) the Food Innovation Forum.





# AWARDS AND RECOGNITIONS

## PATENT/UTILITY MODEL GRANTS

The Caraga State University's Technology Transfer and Licensing Office (TTLO) once again received a notification on July 12, 2023, from the Intellectual Property Office of the Philippines (IPOP/PHL) on the registration of a Utility Model (UM) application, A DEVICE FOR PROCESSING CASSAVA TUBERS.

This device is an agricultural machine for processing cassava tubers into grates which operate continuously from grating to pressing. This application was granted registration status two (2) years after its filing.



On the other hand, CSU Technologies, two (2) with patent grants and another two (2) registered Utility Models, were submitted as entries for the DOST-TAPI Mindanao-Cluster RICE:

Technology Name	IP Protection	Category
Kaong Meat Extractor	Invention / Patent	Tuklas Award
Banana Peeling Machine	Invention / Patent	Tuklas Award
Automated Cacao Bean Fermenter	Utility Model (UM) Category	Unlad Award
Snail Collecting Device	Utility Model (UM) Category	Unlad Award





## AWARDS AND RECOGNITIONS

### CSU's Food Innovation Center wins 3<sup>rd</sup> Place during the RSTW's InnovEats Pitching Competition

Recently, the Food Innovation Center (FIC) at CSU participated in the InnovEats Pitching Competition as part of the Regional Science and Technology Week (RSTW) 2023 in Surigao City. The competition provided a platform for innovators to showcase their food products to a panel of experts in food innovation.

During the competition, FIC presented Tropical Fruit Flavored Chips (TroChips), a new and innovative snack that combines traditional Filipino snacks with modern food technology. Made from locally sourced ingredients, TroChips aims to promote healthy eating habits among consumers. The judges were impressed by TroChips and awarded it 3<sup>rd</sup> place in the competition, along with monetary rewards and product optimization support. This recognition is a testament to the hard work and dedication of the FIC team in creating innovative and healthy food products.





# AWARDS AND RECOGNITIONS

## SnapScout Represented CSU at BIDA 2023 Final Round

[SnapScout](#) SnapScout, Caraga State University's representative and [Navigatú](#) incubatee, pitched their startup idea at the 2023 **Best Business Idea Development Awards (BIDA)** at the PCCI Complex, Taguig, Manila, on September 21, 2023. SnapScout, composed of **Mary Abigail Soliva, Gio Gonzales, and Klinth Jerald Matugas**, 3rd-year BS Computer Science students, coached by **Ms. Jenelyn B. Refamonte-Asis** and **Prof. Melbert R. Bonotan** came in second, missing a few markers against the representatives from Misamis University.

The Business Idea Development Award (BIDA) is an annual pitching competition by the Philippine Chamber of Commerce and Industry (PCCI) incepted in 2007. This competition encourages Filipino youths to become proactive in economic development by exploring innovation and startup development. This year's competition is centered on "Nurturing Youth Entrepreneurship Towards National Development." Student participants will compete in one of the four categories: Food, Non-food, Service, and Technology.

[SnapScout](#) was selected as one of the top 3 finalists for the Technology Category, along with Nanotek from the University of Science and Technology of Southern Philippines (USTP) and Bamboost Essentials from Misamis University. Bamboost Essentials was declared the best business idea under the Technology Category.





# ACCREDITATION & REGULATORY STANDARDS

## OVPRIE underwent 2<sup>nd</sup> Surveillance Audit

Caraga State University (CSU) is committed to maintaining the highest standards for its ISO 9001 Certification. To achieve this goal, the university has scheduled a 2nd Surveillance Audit on August 31, 2023, for CSU Cabadbaran City, and on September 1, 2023, for CSU Main Campus. The Office of Research, Innovation, and Extension (OVPRIE) underwent an on-site audit conducted by Mr. Kevin Castillon, the ISO Auditor, to ensure that the office's processes and operations comply with the ISO standards.

During the audit, Mr. Castillon conducted a thorough review of the office's documentation and observed the office's processes and operations in action. He also held interviews with the staff to gain a better understanding of the office's policies and procedures. As a result of the audit, certain areas for improvement were identified, and the OVPRIE has developed a plan to address these issues. The OVPRIE is committed to maintaining the highest standards of quality and will continue to work to improve its processes and operations.





# NEW RESEARCH & NON-RESEARCH PROJECTS

**OVPRIE recorded new research projects approved for the quarter:**

No	Title	Researchers	Funding Agency	Project Cost
1	Facile Synthesis of Smart Thermo-responsive Sago Starch/Poly(N-isopropylacrylamide) Hydrogels Crosslinked with Methacrylated-TiO <sub>2</sub> for Heavy Metal Valorization and Photocatalysis	Dr. Temmy Vales	DOST-PCIEERD (Balik Saliksik Grant)	1,741,984.00
2	Selective Electrochemical Detection of Mercury ions using PEDOT-wires functionalized silica nanochannel	Dr. Deomila A. Basnig-Mamaoag	DOST-PCIEERD (Balik Saliksik Grant)	2,549,496.00
3	DA-BIOTECH-R2306: Towards Management of Abaca Virus Disease Using Sensitive Tools: Updating Nature of Diseases and Incidence	Dr. Elizabeth P. Parac	DA- Biotech	2,897,816.22
4	Development and Optimization of Cacao Processing Technologies	Engr. Aljun E. Bocobo	GAA-FLR HERIP	248,334.00
5	Design and Development of a Monitoring System for Floating Solar Photovoltaic System through a Wireless Sensor Network	Engr. Edgardo B. Sajonia	GAA-FLR HERIP	270,500.00
6	Minesite Airborne Particulates Matter Measurement and Monitoring	Jessa T. Lazarte	Libjo Mining Corporation	262,000.00
7	Biological Profiling of Can-agtiw Watershed in Malimono, Agas-agas Watershed in Taganaan and Baoy Watershed in Claver and Gigaguit, Surigao del Norte	Dr. Romell A. Seronay	SEDMFI / USAID	1,500,000.00
8	Development of a Community Based Psychosocial Support Program for Rural Communities in Caraga Region	Loressa Joy Paguta	GAA	1,970,000.00
9	Communication Pathways of Falcata Adoption among Farmers in Agusan del Sur, Philippines	Mark Vincent Vergara	GAA	1,613,000.00
10	Biodiversity Assessment of the Poposed Local Conservation Area in Barangay Sumile, Butuan City	Eve Fernandez-Gamalinda	GAA	558,000.00



# NEW RESEARCH & NON-RESEARCH PROJECTS

## New non-research projects approved for the quarter:

No	Title	Researchers	Funding Agency	Project Cost
1	Regional Intellectual Property and Technology Business Management (IPTBM) in Caraga through the RAISE Program	Kenneth L. Ciudad	PCAARRD	3,983,650.00
2	Establishment of the Regional Agri-Business Hub (ABH) in Caraga through the RAISE Program	Genesis Jared A. Cutamora	PCAARRD	2,278,800.00
3	Establishment of a Regional Agri-Aqua Technology Business Incubator (ATBI) in Caraga through the RAISE Program	Melbert R. Bonotan	PCAARRD	5,562,480.00
4	Establishment of a Regional Knowledge Management Hub (KMH) in Caraga through the RAISE Program	Meycel C. Amarille	PCAARRD	2,279,000.00



# PUBLICATIONS

## OVPRIE recorded newly published journal articles:

Article / Title	Authors	Date of Publication	Title Of Journal or Publication	Vol. No. & Issue No.	ISSN / ISBN
A multiple linear regression model of student's performance in calculus in the new normal	Breix Michael Agua, Junar Lingo	June 2023	JRPPTTE		ISSN:2232-0458
A Path Model of the Research Productivity and Instructional Performance of Secondary School Master Teachers in Caraga Region, Philippines	Fernando T. Herrera, Alma R. Velasco	June 2023	International Journal of Membrane Science and Technology, 2023	Vol. 10, No. 2 775-787	
Printed Modular Resources for Mathematics Education: Enhancing Distance Learning in Rural Public Junior High Schools during the COVID 19 Pandemic	Fernando T. Herrera, Angeline Nolasco	June 2023	International Journal of Membrane Science and Technology, 2023	Vol. 10, No. 2 775-787	
Mapping the Path to Sustainable Education: Critical Dimensions of Locally–Established Higher Education Institutions	Alvic A. Arnado	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No. 2	ISSN: 2410-1869
Spirituality and Academic Performance: Exploring the Interplay for Students	Gladys L. Lagura and Vitalian Christophere L. Napone	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No.3	ISSN: 2410-1869
Level of Challenges in the Implementation of Online Learning Classes among the Teachers	Trixie E. Cubillas, Ariel U. Cubillas, Clair Joy M. Amor, Janin B. Comon, Maria Cindy Grace A. Jamorol	July 2023	International Journal of Studies in Education and Science (IJSES)	Vol. 4 No. 2	2767-9799
Assessing the Project READINNG Implementation: A Focus on Learners' Reading Proficiency	Trixie E. Cubillas, Ariel U. Cubillas, Clair Joy M. Amor, Janin B. Comon, Maria Cindy Grace A. Jamorol	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No. 3	2410-1869
Teachers as Researchers: An Emphasis on the Readiness and Attitude towards Action Research	Leo L. Codilla Jr., and Hannah Yangson-Barot	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No. 3	2410-1869



# PUBLICATIONS

## OVPRIE recorded newly published journal articles:

Article / Title	Authors	Date of Publication	Title Of Journal or Publication	Vol. No. & Issue No.	ISSN / ISBN
Exploring the Obstacles Faced by Teachers and Their Coping Strategies in Mother Tongue-Based Education	Leo L. Codilla Jr., Junnah Mae P. Andig, Catherine A. Aray, Giezza Mae P. Boncato	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No. 3	2410-1869
Cultivating Early Childhood Success: Kindergarten Teachers' Professional Needs, experiences, efficacy Beliefs and Performance	Marichu D. Tulang	July 2023	International Journal of Membrane Science and Technology	Vol. 10 No. 3	2410-1869
Diversity Index of Species in Sandbar present in estuarine ecosystem of Agusan River, Philippines: Its threat, management, and Conservation	MINIE L. Bulay, Rissa L. Mercado	August 2023	International Journal of Biosciences	Volume 23, Number 2, 2023	ISSN: P 2220-6655 E 2222-5234
Predicting Cytotoxicity of engineered nanoparticles using regularized regression models: an in silico approach, SAR and QSAR in Environmental Research	Jay Macalalag	August 2023	Taylor and Francis		
The FASSSTER SEIR Model	Jay Macalalag	August 2023	Springer		
Medicinal Properties of Tree Leaves as Bioindicator to Assess Air Pollution Based on Using Composite Proxy Measure	MINIE L. Bulay	September 2023	Nature Environment and Pollution Technology	Vol. 22 pp. 1331-1341	e-ISSN: 2395-3454
Evaluation of Guso seaweed as potential material for the development of edible drinking straw	Marjun C. Alvarado, Sheilla Grace N. Polongasa, Philip Donald C. Sanchez	September 2023	Asia Pacific Journal of Science and Technology	Vol.28, Issue 5	
Emerging Rapid and non-destructive techniques for quality and safety evaluation of Cacao; recent advances, challenges, and future trends	Marjun C. Alvarado, Sheilla Grace N. Polongasa, Philip Donald C. Sanchez	September 2023	Journal of Food Production, Processing, and Nutrition	Vol.5, Issue 40	



# PUBLICATIONS

**OVPRIE through RDPO recorded newly published journal articles:**

Article / Title	Authors	Date of Publication	Title Of Journal or Publication	Vol. No. & Issue No.	ISSN / ISBN
Updating Biodiversity Status and Changes in the Permanent Monitoring Stations of San Roque Metals Incorporated Mining Areas, Tubay, Agusan del Norte, Philippines	Roger T. Sarmiento* , Kevin D. Balagon, Fritz Floyd T. Merisco, Mhar Christian V. Medrano, and Kyle Kitche	June 29, 2023	Journal of Ecosystem Sciences and Eco-Governance (JESEG)	Vol. 5, No.1	PRINT ISSN 2704 4394   ONLINE ISSN 2782 8522
Records of Odonata in the Riparian System of Andanan Watershed Forest Reserve, Philippines	Venus M. Guerzon, Nick Anthony R. Burias, and Ian Niel B. dela Cruz*	June 29, 2023	Journal of Ecosystem Sciences and Eco-Governance (JESEG)	Vol. 5, No.1	PRINT ISSN 2704 4394   ONLINE ISSN 2782 8522
Estimating Households' Willingness-to-Pay for an Improved Solid Waste Management in Butuan City, Philippines	Karen B. Burdeos 1,* , and Meycel C. Amarille 2	June 29, 2023	Journal of Ecosystem Sciences and Eco-Governance (JESEG)	Vol. 5, No.1	PRINT ISSN 2704 4394   ONLINE ISSN 2782 8522
Natural Red Lake Pigments Extraction from Selected Plants in Agusan Del Norte, Philippines: Characterization using Fourier Transform Infrared Spectroscopy	Banias, Mystic P., Ciudad, Kenneth L.,	June 29, 2023	Journal of Ecosystem Sciences and Eco-Governance (JESEG)	Vol. 5, No.1	PRINT ISSN 2704 4394   ONLINE ISSN 2782 8522
Geospatial Distribution Pattern of Xanthostemon F. Muell. Species (Iron Wood) in the Philippines Based on Updated Literature and Internet Digital Checklist Platforms	Ruales, Jeco Jed J., Jumawan, Jess H.,	June 29, 2023	Journal of Ecosystem Sciences and Eco-Governance (JESEG)	Vol. 5, No.1	PRINT ISSN 2704 4394   ONLINE ISSN 2782 8522





# IP APPLICATIONS & OTHER IP SERVICES

## Patent Filed

Type of IP	Title	Inventors	Date Filed
Invention	A Device for Drying Natural Fiber	ACASO, Ivy Rose D., HIQUIANA JR., Rogelio G, Apdohan, Arnold G.	August 8, 2023
Invention	An Integrated Machine for Processing Potatoes	MONTIL, Carl Patrick B., ASNA, Edgen Mae B., CAPILITAN, Jobelle J.	August 8, 2023

## Patent Searches

Conducted patent searches for deliberation of its patentability:

- A Device for Drying Natural Fiber
- A Device for Harvesting Agricultural Compost
- A Device for Extracting Latex from Rubber Tree
- A Device for Splitting Palm Oil Frond
- An Automated Cage System for Chick Brooding
- An Integrated Machine for Processing Sugar
- An Integrated Machine for Processing Potatoes
- An Automated Biomass-Fueled Crop Drying System
- Hybrid Cacao Roaster
- A Fruit Bagging Machine for Edible Mushroom
- Mine Geotechnical and Environmental Assessment Robotic System (*Prelim search*)
- Ventilator and its Method of Ventilation Operation
- Near-infrared Cacao Roaster

## Patent Drafted

Conducted Patent Draft for the following technologies:

- A Device for Drying Natural Fiber (applied last July 17, 2023);
- A Device for Harvesting Agricultural Compost (Ready for application);
- An Integrated Machine for Processing Potatoes (applied last July 17, 2023);
- A Processing Device for Cacao Beans (Ready for application); and
- An Automated Biomass-Fueled Crop Drying System.



## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Workshop on crafting the CSU Code of Ethical Conduct for Research

The Office of the Vice President for Research, Innovation, and Extension (OVPRIE) is committed to promoting ethical research practices at Caraga State University. To this end, the OVPRIE has established the Research and Innovation Ethics Review Committee (RIERC) which plays a vital role in ensuring that ethical standards are upheld in research and innovation projects. The RIERC is equivalent to the Ethics Review Board of Caraga State University, and its role is to provide oversight in the development and implementation of ethical codes of conduct for research.

On August 7-8, 2023, the OVPRIE led a two-day event that brought together the RIERC to create the Code of Ethical Conduct for Research at Caraga State University. The goal of the event was to provide a framework for responsible research practices at the university. The Code will serve as the foundation for creating rules and policies for research within the university, ensuring that researchers, scholars, artists, and students maintain professionalism and responsibility in their work. The Code will work alongside existing university policies for intellectual property and safety, which will further promote ethical research practices.

The event began with introductions and a welcome message from VPRIE, Engr. Jeffrey T. Dellosa, highlighting the objectives of the discussion. The main focus of the activity was to bring together the RIERC members to contribute to the CSU Code of Ethical Conduct of Research Manual. The event involved detailed breakout sessions to create manual sections, followed by discussions and critiques to refine the content. The sub-committees were assigned tasks to draft their assigned sections of the ethical Code.

Each committee's progress was reported, their work was discussed, and suggestions were made to improve the content. The day ended with a consolidation of ideas led by the VPRIE, where the committee members' contributions were integrated to create the first draft of the ethical code.

The second day began with each committee chairperson summarizing the previous day's discussions. The morning session involved further guidance and mentoring. The chairs of the sub-committees were tasked with incorporating the feedback received from the previous day's discussion, which was then presented to the entire RIERC for further discussion and evaluation. The finalized entries from each sub-committee were presented, critiqued, and evaluated. The event concluded with the VPRIE expressing gratitude to the participants for their valuable insights, acknowledging their dedication despite busy schedules, and emphasizing the positive impact of their contributions to the university's research endeavors.

Overall, the event was a significant milestone in the development of ethical research practices at Caraga State University. It brought together experts from various fields to create a comprehensive code of conduct for research. This code will provide a framework for ethical research practices, ensuring that research is conducted in a responsible and professional manner.



# TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

## Workshop on crafting the CSU Code of Ethical Conduct for Research



## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Technology Brief and Patent Draft Writeshop

The CSU-Cabadbaran City Intellectual Property and Support Office (ITSO) partnered with the Research, Development, and Extension (RDE) to conduct a two-day Tech Brief and Patent Draft Writeshop on August 3-4, 2023.

The event aims to enhance the faculty's ability to do patent searches and draft, as the university moves towards becoming a digital entrepreneurial university. CSUCC-ITSO Head, Professor Flordeliza G. Alburo, highlighted the importance of IP awareness among the university's culture and the community.

The event, held at Amontay Beach Resort in Nasipit Agusan del Norte on August 3-4, 2023, was attended by esteemed panels of examiners, Engr. Juven Luzorata and Mr. Melbert R. Bonotan. The first-day presenters were Ms. Alecris V. Gregorio, Robert John D. Gipal, Leonard John V. Carrillo, Aillen Faye L. Satorre, and Julianie M. Limen. On the second day, the University's Vice President for Research, Development, Innovation, and Extension, Dr. Jeffrey T. Dellosa, discussed the RDIE Agenda of the university and the Vision and Mission of TTLO and ITSO of both campuses. He emphasized the university's potential for innovation, especially in terms of food, and how it can attract students, researchers, and funding opportunities, enhancing the institution's competitiveness.

The second-day presenters were Ms. Charisse D. Galusan, Rhea Joy C. Gusano, Gisela Mai A. Chinedo, Jefferson M. Cuadra, Rica Florabel M. Remulta, and Ms. Kimberly C. Fong. Dr. Alburo initiated the activity that fostered networking opportunities, knowledge sharing, and potential interdisciplinary research collaborations.

The event ended with Dr. Alburo's vision and enthusiasm for the capability to thrive and achieve greater heights in research and innovation, bringing CSU Cabadbaran Campus closer to becoming an Entrepreneurial Innovation University, along with the vision of the University President, Rolyn C. Daguil. All presenters for the two-day workshop acknowledged other members of the research output, including their respective student mentees.





## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Basics of Intellectual Property Seminar

The Technology Transfer and Licensing Office (TTLO) organized a comprehensive and informative seminar on the Basics of Intellectual Property (IP) last August 4, 2023. The seminar was conducted at the CCIS Auditorium and was attended by a diverse group of participants, including OJTs from various colleges.

The seminar was conducted by two assigned interns from TTLO, namely BS ABE and BS Chem, who provided a profound understanding of the fundamental principles of Intellectual Property rights. The interns shared their knowledge and expertise through various interactive activities, which made the seminar more engaging and informative.

The seminar aimed to enhance the participants' understanding of Intellectual Property rights, including the different types of IP, such as patents, trademarks, and copyrights. It also covered the importance of protecting Intellectual Property and the consequences of IP infringement.

The seminar proved to be highly beneficial, providing the participants with a comprehensive understanding of Intellectual Property rights, which will help them in their future careers.





## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Caraga FIC conducted Training on Rice-based Processing

On August 31, 2023, the Department of Trade & Industry (DTI) Agusan del Norte, in partnership with the Comprehensive Agrarian Reform Program (CARP), organized a training program to provide technical assistance to the Rosario Samahang Nayon MPC, a farmer cooperative, and DTI CARP beneficiary. The training program was held at Barangay Rosario, Las Nieves Agusan del Norte, and was facilitated by the Caraga Food Innovation Center at Caraga State University.

The objective of the training was to teach the participants how to develop new products from rice and introduce food safety measures. The training program was initiated to meet the needs of the cooperative and create additional revenue streams. The program also aimed to generate jobs for the women members of the cooperative. To support the training program, DTI Agusan del Norte, through its representative, Mr. Mikie D. Villanueva, provided raw materials and utensils.

The training program was divided into two parts. The first part started with an audio-visual presentation about the Caraga Food Innovation Center and its services. Ms. Bethel Jane N. Iligan, an MS Graduate Fellow of Caraga FIC, discussed food safety topics, including food-borne illnesses. The participants were also introduced to the different types of rice and their characteristics.

The second part of the training program was a hands-on session where the participants learned how to process rice-based products. The procedure for making rice chips puffed rice, and mochi was presented, and the participants were grouped into three teams to carry out the process. Due to the lack of materials, some samples were subjected to sun drying. All products were produced with the eagerness and determination of the participants to learn this hands-on training.

Overall, the training program was successful in providing an opportunity for the participants to have a hands-on learning experience in rice-based product processing. With the support of DTI-Agusan del Norte CARP, the cooperative can now produce rice-based products. They will continue to improve their products with the assistance of the Caraga FIC. The products will be launched at the upcoming trade event to test the market and customer acceptance, with the full support of the Agency.





## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Review and Workshop of OVPRIE Forms and Manual

In response to observations made during the Certification of ISO 9001, the Office of the Vice President for Research, Innovation, and Extension (OVPRIE) conducted a thorough 3-day review of its forms and manuals from September 26 to 28, 2023.

The review was held in the Archives section of the HERO Learning Commons of this University and was attended by the RDIE Core Group, representatives from the Quality Assurance and Management Services (QUAMS), and the Office of the Planning and Development (OPD).

The primary objective of the review was to enhance the process of the OVPRIE manuals, including the Ethics, Research, Extension, and Innovation Manual. The review aimed to ensure that the manuals are aligned with the Regional Development Plan and LIKHA Agenda, and that they meet the highest standards of quality.

During the 3-day review, the participating groups examined each manual in detail, paying close attention to the contents, structure, and format. They also identified areas that needed improvement and provided recommendations on how to enhance the manuals.

The review was a comprehensive and collaborative effort that involved various process owners. The results of the review will allow the OVPRIE to address any issues and improve the manuals, ultimately helping to advance the research, innovation, and extension efforts of the university.



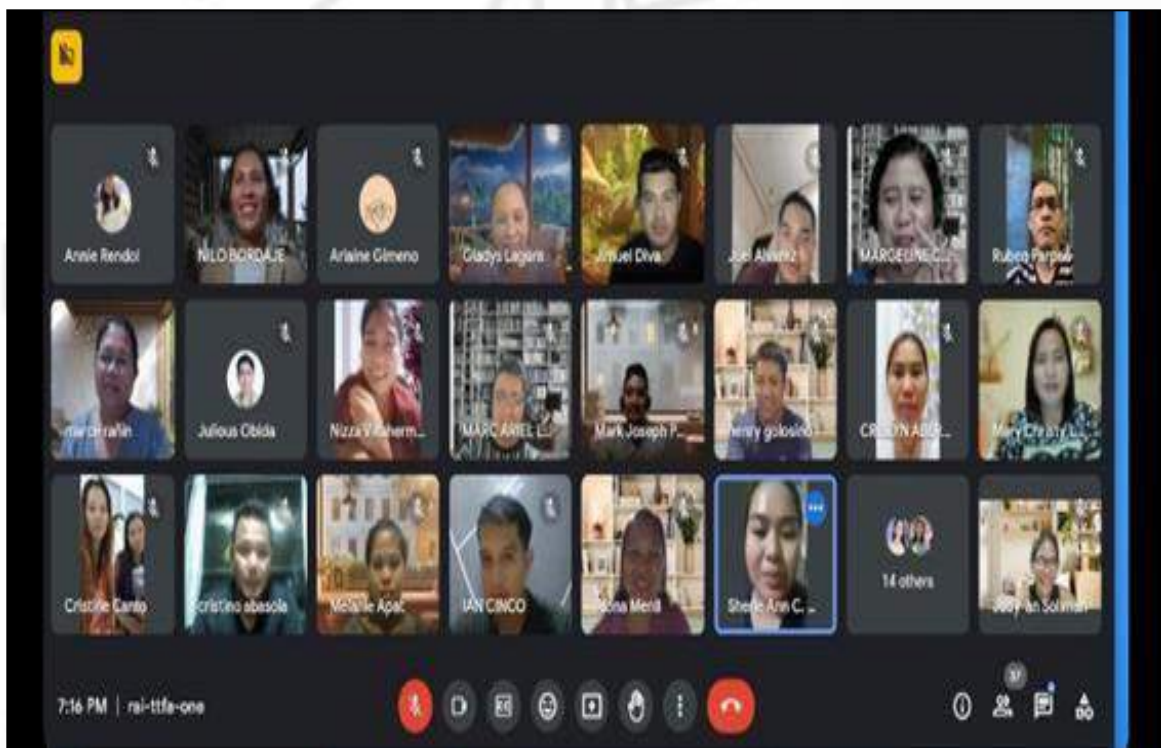


## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Workshop on the Gaps Identification Between Current and Desired Learning Goals and Conduct of Needs Assessment

The Action Towards Greater Advancement of Knowledge (AGAK) Center organized a workshop on September 23, 2023, through the Google Meet platform, focused on identifying the gaps between current and desired learning goals and conducting a needs assessment among teachers in the Department of Education. This workshop was part of the Instructional Materials Development research program.

Recognizing the importance of understanding the needs of educators and learners, the AGAK Center launched a needs assessment survey among teachers in the Department of Education. This initial phase aims to gather information that will inform future research projects and initiatives aimed at addressing the challenges that educators face in the field.







## TRAINING, SEMINARS, AND WORKSHOPS CONDUCTED

### Seminar on Basic Research Advising

On September 27, 2023, the CSUCC Office of Research, Development, and Extension organized a Seminar on Basic Research Advising. The event aimed to provide attendees with essential knowledge and skills related to research advising, a critical aspect of academic research.

The seminar drew participants from various departments and faculties within the institution, making it an educational event for everyone interested in research advising. Attendees included professors, researchers, and students, all eager to learn from Dr. Miraluna L. Herrera, a renowned expert in the field.

Dr. Herrera's expertise and experience in research advising were evident as she conducted the seminar. Her presentation covered a wide range of topics, including research ethics, project management, and data analysis. Attendees were also able to ask questions and participate in discussions, making the seminar an interactive and engaging learning experience.





## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### RDI Center Directors and other Faculty members enrolled in Wadhvani Foundation Entrepreneurship Training

During the month of July 2023, all the personnel of Navigatu, which included faculty members from the Main and Cabadbaran campuses, participated in a comprehensive Wadhvani Foundation Entrepreneurship Training for Faculty. The primary objective of this training was to help faculty members develop the necessary skills and knowledge required to teach entrepreneurship effectively. It also aimed to support the university's goal of transforming into an entrepreneurial university.

The training commenced on July 4, 2023, and continued until July 27, 2023. The training program was designed to cover a wide range of topics, including Innovation, Design Thinking, Business Model Canvas, and Go-to-Market Strategies. The training sessions were conducted by experienced professionals who provided the necessary guidance and support to the participants.

Upon the completion of the entire training program, faculty members were awarded certificates of completion. Furthermore, those who successfully completed the program and had a semester of deployment were given the opportunity to become Wadhvani Certified Entrepreneurship teachers. This involved teaching Entrepreneurship or Innovation courses using the Ignite platform.

The Wadhvani Foundation Entrepreneurship Training for Faculty was a significant step towards achieving the university's goal of becoming an entrepreneurial university. It provided the faculty members with the necessary skills and knowledge to teach entrepreneurship effectively, which would help future entrepreneurs to start their own ventures and contribute to the country's economic growth.





## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### CSUCC Faculty attends Advanced Baseline Research and Impact Analysis In-depth Training Workshop

During the five-day period from July 3 to July 7, 2023, the Advanced Baseline Research and Impact Analysis In-depth Training Workshop was held in the vibrant city of Davao. This event was attended by a group of distinguished professionals, including Dr. Flordeliza G. Alburo, Prof. Alvin M. Sevilla, and Prof. Ryan Chester G. Fong, who collectively contributed to making the workshop an immense success.

The workshop was specifically designed to impart advanced knowledge and skills in research and impact analysis, and the attendees were able to collaborate and share valuable insights across various fields. Throughout the event, participants were able to gain an in-depth understanding of the latest research methodologies and cutting-edge techniques in impact analysis.

The contributions of the attendees were instrumental in making the event a remarkable and unforgettable experience for all participants. The workshop left a lasting impression on the attendees and will undoubtedly inspire and influence their work for years to come.





## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### ICT4RM 2.0 joined the Caraga Resilient Mining Week 2023

On July 25-27, 2023, three Personnel from the ICT4RM 2.0 joined the Caraga Resilient Mining Week 2023 at Philippine Gateway Hotel, Surigao City, with various stakeholders and guests from the mining industry, related firms, and mining engineers in the Philippines. The event is bannered with the theme, “Forging a new path towards Community Resilience,” which is also aligned with the SuMMO Program's objective of focusing on “digital transformation” of mining technology such as web portal for monitoring and evaluation tools, data analytics, collective intelligence, Internet of Things (IoT) based applications, Artificial Intelligence (AI) enabled systems, and open-source and green technologies, among others, can help strive for safe, efficient, and sustainable practices in mineral exploration, extraction, and beneficiation of mining industries in the Caraga Region. The event opened by welcoming all participants and highlighting the significance of the activity. The need to emphasize the current status quo of the mining industry and ways to move forward was addressed during the preliminary sessions of the event. Engr. Marie Claire O. Virtudazo, Project Staff of ICT4RM 2.0, presented a Program brief and developments and accomplishments of the Project, highlighting “digital transformation” in mining. The event opened an opportunity for the Project to emphasize its significance to a large audience of mining engineers from various companies and institutions.

Another notable event was the Official Launching and Workshop of the Online Social Development and Management Program (SDMP) with MGB RO XIII and ComRel, which took place on August 25, 2023, at Philippine Gateway, Sagisi Hall, Surigao City. The workshop began with Dr. Vicente A. Pitogo, Project Staff, introducing the entire workflow of the system and the objectives of Project ICT4RM 2.0, followed by Mr. John Sherwin C. Tadios, Project Technical Specialist IV, presenting the workflow of Online SDMP. Online SDMP is a web-based application that gathers data on the Mining Company's project/program/activity (PPA).



## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### Training of Trainers for Good Manufacturing Practices

The Food Innovation Center (FIC) Personnel underwent a two-day Trainers Training Program on Current Good Manufacturing Practices held at the Watergate Hotel in Butuan City on August 15-16, 2023. The training was well-attended by representatives from different State Universities and Colleges (SUCs) in the Caraga Region, including Caraga State University (CSU), Caraga State University-Cabadbaran Campus (CSU-CC), Surigao del Norte State University (SNSU), North Eastern Mindanao State University (NEMSU), and Agusan del Sur State College of Agriculture and Technology (ASSCAT).

The participants were taught the core components of Good Manufacturing Practices, including the best practices in food handling, storage, and distribution. The training also covered the methods for conducting in-plant audits and hygiene assessments to ensure that all food manufacturing facilities comply with the standards set by the Food and Drug Administration (FDA).

As part of the program, the participants had the opportunity to visit Nature's Apothecary in Buenavista, Agusan del Norte, which is an FDA-accredited manufacturing plant. The visit provided the participants with hands-on experience in observing the different food manufacturing processes and the application of Good Manufacturing Practices in a real-life setting.

Overall, the Trainers Training Program provided the participants with valuable insights into the importance of Good Manufacturing Practices and how they can be applied to ensure the safety and quality of food products.





## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### CSU & CSUCC College IP Coordinators completed the intensive two-week Summer School on Intellectual Property

The College IP Coordinators from CSU and CSUCC have recently completed the WIPO-IPOPHL Summer School on Intellectual Property in Emerging Economies. This two-week program was held from September 4 to 15, 2023, at the University of the Philippines BGC Campus in Taguig City, Metro Manila. The WIPO-IPOPHL Summer School is a remarkable seminar organized by the World Intellectual Property Organization (WIPO), in partnership with the Intellectual Property Office of the Philippines (IPOPHL).

The seminar provided a platform for professionals to delve deeply into the world of Intellectual Property (IP). The participants explored the critical role that IP plays in sustainable development and gained insights into the international dimensions of IP protection and its intersections with various disciplines. The seminar was attended by approximately 80 participants from the Philippines, Malaysia, Nepal, Saudi Arabia, and South Korea.

Ms. Meycel C. Amarille, Ms. Joy Lyn D. Delacruz, Ms. Marisol Jane M. Beray, and Ms. Kimberly C. Fong, along with the other participants, engaged in a diverse range of activities that included lectures, simulation exercises, group discussions, panel talks, and case studies. The speakers were a mix of local and international experts hailing from Zimbabwe, Malaysia, Indonesia, Singapore, and Thailand. This provided the participants with a unique opportunity to learn from professionals with experience in different parts of the world and to gain insights into the challenges and opportunities in the field of IP.

Apart from the intellectual activities, the participants also had the opportunity to visit IPOPHL's main office operations and gain insights into the workings of this important organization.





## TRAINING, SEMINARS, AND WORKSHOPS ATTENDED

### TTLO Technical Experts completed WIPO Distance Learning Courses

Engr. Lordboy C. Silong and Engr. James Audrey Guian G. Rulona, both of whom are currently serving as full-time Technical Experts at TTLO, have recently completed the Distance Learning Courses organized and conducted by the highly esteemed WIPO Academy. Specifically, they have excelled in the Advanced Course on Patents, which is referred to as DL 301.

This course provided them with a comprehensive understanding of the international patent system, including the legal and administrative aspects of patent registration and management. The course also covered the latest developments in patent law and policy, as well as strategies for patent drafting and prosecution. By completing this course, Engr. Silong and Engr. Rulona has demonstrated its commitment to professional development and its expertise in the field of patents.





## OTHER TECHNICAL AND COLLABORATIVE SERVICES

- TTLO Director served as Resource Person during the Webinar Title: From Ideas to Assets: Harnessing the Value of Intellectual Property for Businesses (July 5, 2023) with DOST Surigao del Norte's MSMEs SetUp members.
- The Navigatu TBI Director was invited by NEMSU to deliver a talk during the Orientation on proper pitching
- MSCRC provided study consultations and data analysis with the College of Education
- CCPD Director is currently engaged in the ongoing project with Libjo Mining Corporation in collaboration with MinRes-affiliated researchers.





# EXTENSION SERVICES

## Impact Assessment Formulation Workshop for the Extension Projects of Caraga State University

The Extension Services Office, in collaboration with the Agusan del Sur State College of Agriculture and Technology (ASSCAT), recently organized a comprehensive two-day workshop designed to evaluate the effectiveness of the twelve extension projects carried out by the University.

The primary objective of this activity was to carefully assess and determine the positive and negative impacts of these projects, both intended and unintended, as well as their direct and indirect outcomes.

The workshop also aimed to identify the benefits and drawbacks of the projects, as well as any potential areas for improvement to ensure that the interventions remain effective and beneficial to the community. By conducting this workshop, the University and ASSCAT hope to improve the quality of the extension projects they offer and better serve their target beneficiaries.





# ACTIVE PARTNERSHIPS

## Ampayon Central Elementary School

Caraga State University- College of Agriculture and Agri-Industries distributed 11 seedling trays of vegetables ( 2 eggplant, 2 tomato, 2 hot pepper, 2 Okra, 2 basil, 1 string beans) to **Ampayon Central Elementary School**. The seedlings provided by CSU-CAA Extension Service helps to support **GULAYAN SA PAARALAN**, a program initiated by the Department of Education that aims to promote proper nutrition and mitigate hunger among learners.





## ACTIVE PARTNERSHIPS

### Barangay Baan Km.3, Butuan City

In support for GULAYAN SA BARANGAY aims to encourage individuals, families, and communities to implement community gardening activities that will eventually promote food production at the household and community level and ensure provision and access to fresh, organically produced, and nutritionally rich foods to the family, the CSU-CAA distributed 13 trays of vegetable seedlings ( 3 tomatoes, 2 eggplants, 2 chili, 1 cauliflower, cabbage, basil, string beans, and 2 okra) to **Brgy. Baan Km. 3, Butuan City**.



### AgriProd Seedling Distribution

The CAA has successfully distributed mixed vegetable seedlings to various public and private agencies. These include six schools under the DepEd: Ampayon Central Elementary School, Ampayon National High School, Sumilihon Central Elementary School, Amparo Central Elementary School, Tungao National High School, and Manila De Bugabagus National High School. One local government unit, Brgy. Baan Km.3, Butuan City, and one private agency, AFPSLAI Butuan Branch, also received seedlings.



# EXTENSION PROJECT

## Caraga Region Coffee Production Build-up through S&T Based Interventions

The CAA is co-implementing an extension project called "Caraga Region Coffee Production Build-up through S&T-based Interventions" under the RISE ADN project of DOST-Caraga. On August 11, 2023, an on-site baseline survey was conducted among coffee farmers in Simbalan, Buenavista, Agusan del Norte. The survey will help establish a strong assessment of indicators that will be used to evaluate the achievement of outcomes and identify relevant needs through research and extension in bridging the gap for coffee farmers in Simbalan, Buenavista, Agusan del Norte.



CAA-Extension Services

Baseline Survey for Coffee Farmers in the Municipality of Buenavista, Agusan del Norte, under the DOST-Caraga Project entitled "Research and Innovation Towards Achieving Sustainable Economies for Agusan del Norte (RISE ADN)".

Friday, August 11, 2023



CAA-Extension Services

Baseline Survey for Coffee Farmers in the Municipality of Buenavista, Agusan del Norte, under the DOST-Caraga Project entitled "Research and Innovation Towards Achieving Sustainable Economies for Agusan del Norte (RISE ADN)".

Friday, August 11, 2023



CAA-Extension Services

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Friday, August 11, 2023



# EXTENSION PROJECT

## Technology Transfer “Sago Processing Technology-Phase 2

On September 7, 2023, a monitoring activity was conducted at Baan km 3, Butuan City to assess the status of the sago processing technology that was deployed to the members of the Kaba-ang Livelihood Association. During the monitoring, the extension project team paid a courtesy call to Hon. Gemma P. Tabada, the barangay captain of Baan km 3, Butuan City. A brief meeting was held to update and plan the next step in the implementation of the extension project and to discuss the status of the utilization of the deployed technology.

At the end of the meeting, it was decided that a retrofitting activity and monthly monitoring activities would be organized to assist the beneficiaries in using and maintaining the technology correctly. Hon. Tabada expressed her support for her constituents and the implementation of the extension project.





## NEW EXTENSION PROJECTS APPROVED for FY 2024 IMPLEMENTATION

No	Title	Researchers	Funding Agency	Project Cost
1	HITSAS-TULAY (Tuyhakaw sa Kabatan-onang Lumad)	Rhea Lyn Estrosos	GAA	329,000.00
2	MUGNA Caraga: Mentoring and Upskilling Groups Towards Their Action-Response	Maris T. Lasco	GAA	345,000.00



# EXTENSION TRAINING

## BioChar Production

The "BIOCHARTILANT" project conducted a one-day training on Biochar Production and Application on August 30, 2023. The training was held at the Mycorrhizae Building of the College of Agriculture and Agri-Industries, Caraga State University.

The project leader, Mr. Reuben James Rollon, and his research assistants spearheaded the training, which was attended by a total of 40 vegetable farmers from Butuan City. Representatives from the City Agriculture Office of Butuan City were also present. During the training, the farmers learned about the production and application of three products: MycoChar, Trichochar, and Bacilluchar.

The training covered various topics such as soil fertility, microbiota diversity, incidence and severity of soil-borne diseases, and yield productivity of tomato and bitter gourd in organic vegetable production. The farmers were given the opportunity to ask questions and clarify their doubts.





# EXTENSION TRAINING

## **PROJECT TIKANG: Transformative Innovations for Knowledge and Assessment to Navigate Growth (Training Needs Assessment)**

The College of Humanities and Social Sciences of the Caraga State University-Main Campus and its faculty members successfully conducted the training needs assessment held at Taligaman National High School. The activity was held on July 13, 2023, starting at 8:30 AM. The said activity was conducted through a focus group discussion with the teachers and students of Taligaman National High School. They were divided into two (2) groups facilitated by the faculty members of CSU.

Focus Group Discussion (FGD) where the students and faculty members of Taligaman National High School were formed into two groups together with the faculty members of the College of Humanities and Social Sciences – Caraga State University-Main Campus

Rachel N. Arcede, the CHaSS extension coordinator, then summarized their discussion with the Taligaman National High School faculty members, followed by a closing remark to adjourn the program officially.







## EXTENSION TRAINING

### **PROJECT TIKANG: Transformative Innovations for Knowledge and Assessment to Navigate Growth (Presentation of TNA Results)**

On September 27, 2023, faculty members from the College of Humanities and Social Sciences presented the results of a Training Needs Assessment (TNA) conducted on July 5 at Taligaman National High School, as well as discussed their findings during a meeting at Caraga State University-Main with Mr. Reylan Alas, the Principal of Taligaman National High School last July 7, 2023. Ms. Loressa Pagutan led the presentation of the TNA Results, and along with Mr. Ian Ortojan, SST-III/TVL Subject Group Head, they outlined proposed plans in collaboration with the College of Humanities and Social Sciences faculty.

The results primarily highlighted the challenges faced by students, particularly in Research courses for Grades 11 and 12 Humanities and Social Sciences (HUMSS) students, as well as the difficulties faced by teachers who were tasked with teaching Social Sciences-related subjects, even though it wasn't their area of expertise. Consequently, both parties brainstormed strategies, mechanisms, and training programs to assist the Taligaman National High School faculty in effectively teaching HUMSS subjects.

During the meeting, the faculty members introduced their project titled "PROJECT TIKANG: Transformative Innovations for Knowledge and Assessment to Navigate Growth." Furthermore, the faculty from the College of Humanities and Social Sciences and Taligaman National High School are now planning for the imminent signing of a Memorandum of Agreement, with an announcement expected soon.





# EXTENSION TRAINING

## Skills Profiling and Organizing of Youth/Writeshop on IEC Development for Local Product Marketing Materials

The Caraga State University-Main Campus conducted its Skills Profiling and Organizing of Youth/Writeshop on IEC Development for Local Product Marketing Materials on September 29, 2023 at Mapaso Tribal Sector, Mapaso, Brgy. La Paz, Santiago, Agusan del Norte. This is part of its College extension program called HITSAS. The said activities were participated with the IPs elderly/council and youth sectors.

First, Ms. Rachel Arcede discussed the previously implemented HITSAS projects and shared an overview, followed by a writeshop. Ms. Maricel Cenabre and Mr. Mark Vincent Vergara discussed Facebook Marketing and how to use Facebook as a tool to promote and sell products. Afterward, the participants were divided into three (3) groups, and each group was assigned to make three (3) taglines. Each group was given one member to present their tagline.

After the groups presented their output, everyone selected and voted for their preferred tagline. The tagline with the highest votes will become the official tagline of their product. The official tagline of the Mapaso Tableya was "Mapaso Tableya, Puro ug Malasa". Ms. Rhea Lynne then discussed skills profiling, what it is all about, and what its purpose is. The CHASS faculty member and student intern assist the participants. After that was the evaluation, and some participants shared their feedback about the activity.





# CHALLENGES AND OPPORTUNITIES

## Technology Transfer and Licensing Office

- Funding for the TTLO operations and agenda will be greatly supported through the upcoming program on R Caraga.
- The FLR-HERIP fund for the office operation was made available only at almost the last quarter of the year. allocated budget that was designed for a year had to be obligated immediately within this quarter.
- Intermittent internet connection that delays crucial activities in the office such as Patent Searching and TTLO documents which are mostly lodged in the e-cloud.
- Short term contracts of Technical Experts create a sense of job insecurity among employees. It causes productivity and high administrative burden since it entails preparation of hiring documents all over again in spending it for accomplishing the expected deliverables.
- Talented and dedicated personnel are hired to perform IP protection and Tech Transfer activities that will establishing an innovative ecosystem in the University in support of fulfilling the Administration's LIKHA agen

## CSUCC Research, Development, and Extension

- Multiple and overlapping designations of faculty.
- Presence of research competitors that also need funding.
- Few well-trained personnel for external funding proposals and technology business incubation
- Stakeholders such as LGU offer full financial support (transportation allowance, start-up supplies, etc.) to all participants who are involved in the extension projects/training, thus participants may opt to participate in LGU extension programs rather than school-initiated extension projects.
- Limited follow-up of extension activities due to lack of manpower and multiple loads of office/personnel works in research and extension.
- Does not have a strong participation of the community. (Unable to adopt or continue the extension project).