

**NARRATIVE REPORT FORMAT  
FOR PCAARRD AND DOST-FUNDED TECHNOLOGY TRANSFER PROJECTS**

**PART I. SUMMARY OF INFORMATION**

**Program Title:** Regional Agri-Aqua Innovation System Enhancement (RAISE)  
Program: UGMARA: Uplifting the Grassroot-based  
Mindanaoans in AANR Initiative through Regional Approach

**Project Title:** Project 4. Establishment of a Regional Knowledge Management  
Hub of SMAARRDEC in Davao Region

**Implementing Agencies:** SMAARRDEC

1. University of Southeastern Philippines (**USEP**)
2. Davao de Oro State College (**DdOSC**)
3. Davao del Norte State College (**DNSC**)
4. Davao del Sur State College (**DSSC**)
5. Davao Oriental State University (**DOrSU**)
6. University of the Philippines Mindanao (**UP Min**)
7. Bureau of Plant Industry – Davao National Crop Research, Production and  
Development Support Center (**BPI-DNCRDPSC**)
8. Kapalong College of Agriculture, Sciences and Technology (**KCAST**)
9. Philippine Coconut Authority – Davao Research Center (**PCA-DRC**)
10. Southern Philippines Agri-Business and Marine and Aquatic School of  
Technology (**SPAMAST**)

**Budget:**

Total Approved Budget: Php 1,897,998.00

Total Release Budget: Php 1,897,998.00

Total Expenditure: Php 1,840,994.83 – **96.99%**

<b>Duration:</b>	Project Start	01 January 2022
	Project End	31 December 2023
	Extension	01 January – 30 June 2024

**Region/Areas Covered:** Region XI

**Rationale/Significance:** (Based on the approved proposal)

The transfer and commercialization of the research findings in various fields have demonstrable benefits for the productivity of university researchers, research institutions, and local economic development. Information about the recent advancements in Research and Development (R&D) and Science and Technology-based technologies is the cornerstone of any long-range competitive

strategy. The Department of Science and Technology (DOST) mission is anchored on directing, leading, and coordinating the country's scientific and technological efforts toward maximum economic and social benefits for the people. Thus, DOST is mandated to facilitate the technology transfer and commercialization of R&D outputs, being one of the interventions.

The Regional R&D Consortia mechanism has been integral to DOST PCAARRD's R&D management system. It has become the Council's platform for joint R&D planning, monitoring, evaluation, and sharing of resources among member institutions to develop the agriculture, aquatic, and natural resources sector in the regions. The concept of the consortium is to mirror the function of the DOST-PCAARRD as a sectoral council in the region. The Southern Mindanao Agriculture, Aquatic, and Resources Research and Development Consortium (SMAARRDEC) is at the forefront of DOST PCAARRD in Region 11. It is significant to note that for more than a decade, USEP has been the base agency of Southern Mindanao Agriculture, Aquatic and Resources Research and Development Consortium (SMAARRDEC), a 23-member consortium of line agencies and research institutions in agriculture and agri-related research and development. The collaboration and networking among the consortia member institutions (CMIs) are sought to achieve a common goal – a dynamic system of research management attuned to regional needs for development and effective technology transfer from knowledge producers to user-farmers in the rural areas where small-scale household farming dominates. The consortium serves as a one-stop hub for technology owners and generators, investors, end-users, and other stakeholders within the agriculture, aquatic, and natural resources (AANR) innovation system.

The Knowledge Management (KM) Cluster of SMAARRDEC has a system that collects, stores, and analyses relevant AANR data of CMIs within the Davao Region. It aims to consolidate important regional data related to AANR research for project alignment, decision-making, resource management and monitoring, and other relevant information. Further, the KM system provides the profile of the faculty researcher in the region to increase the visibility and impact of the generated research. See website: <http://smaarrdec.usep.edu.ph/>.

Although DOST PCAARRD provides funding support to the Consortia's initiatives under the four banner programs of strategic R&D, R&D results utilization, institution development, and policy research and advocacy, the Council also institutes capability-building measures and other means of support to ensure that the consortia can perform as "PCAARRD in the regions." The consortium feels that efforts on IP-based innovation should also be equally supported in the consortium to maximize the socio-economic potential of IP-based technologies of the CMIs. In such a manner, the proposed enhancement of a KM hub of SMAARRDEC will supplement the needs of other regional hubs like IPTBM, Agribusiness, and ATBI. It will serve as the regional repository of all IP-based technology briefs/knowledge resources for promotions and dissemination that might lead to commercialization. The faculty researcher is highlighted as well to increase the visibility and possible R&D collaboration with the industry.



**Program Objectives:**

To mirror the functions and initiatives of the DOST-PCAARRD Innovation and Technology Center (DPITC) in the Southern Mindanao Region by assisting the regional consortium member institutions (CMIs)

**Specific Objectives:**

1. Manage regional AANR technologies and intellectual properties;
2. Support regional partners in developing their respective technology transfer programs;
3. Provide capability building on technology transfer to R&D partners;
4. Provide a venue for convergence of regional AANR stakeholders from the academe, public, private sectors, NGOs, and international partners;
5. Facilitate public-private access to AANR technologies to improve the innovation ecosystem in the region; and
6. Strengthen existing and forge new Public-Private Partnerships for R&D Results Utilization (RDRU).

**Project Objectives:**

To enhance the Knowledge Management services of selected CMIs.

**Specific Objectives:**

1. To improve the Inventory of Knowledge Resources in the region by developing one Information System;
2. To populate and publish the e-Library system and Real-Time Monitoring System (RTMS);
3. To capacitate consortium member institutions on Knowledge Management and Technology Promotion; and
4. To promote matured technologies to potential users and partners.

**Expected Outputs**

<b>Publications</b>	<ul style="list-style-type: none"><li>• 1 National Training Module</li><li>• 1 Regional Training Module</li><li>• 10 IECs</li></ul>
<b>Patents</b>	<ul style="list-style-type: none"><li>• 11 Copyright of Training Module and IECs</li></ul>
<b>Products</b>	<ul style="list-style-type: none"><li>• 1 Regional Inventory of Knowledge Resources</li><li>• 1 Regional CommPlan</li><li>• 1 E-lib established/enhanced</li></ul>
<b>People and Services</b>	<ul style="list-style-type: none"><li>• Regional Commplan &amp; Inventory of Knowledge Resources Workshop</li><li>• 1 Regional Technology Promotion Mentorship</li><li>• 2 Regional Pitch Day</li><li>• Trained # CMI staff</li><li>• Assisted # CMI in KM management services</li></ul>


	<ul style="list-style-type: none"> <li>• Participate to content build-up of RTMS</li> </ul>
<b>Policies</b>	<ul style="list-style-type: none"> <li>• Regional KM institutionalized</li> </ul>

## PART II. HIGHLIGHTS OF ACCOMPLISHMENTS

Expected Outputs		Accomplishments
Publication		
	National Training Module	100%
	Regional Training Report	100%
	10 IECs	120%
Patents		
	11 Copyright of Training Module and IECs	120%
Products		
	1 Regional Inventory of Knowledge Resources	100%
	1 Regional CommPlan	100%
	1 E-lib established/enhanced	100%
People and Services		
	Regional Commplan & Inventory of Knowledge Resources Workshop	100%
	1 Regional Technology Promotion Mentorship	100%
	2 Regional Pitch Day	100%
	Trained # CMI staff	100%
	Assisted # CMI in KM management services	100%
	Participate to content build-up of RTMS	100%
Policies		
	Regional KM institutionalized	10%



- **INTELLECTUAL PROPERTIES GENERATED**

<b>COPYRIGHT APPLICATIONS FOR IECs</b>		
	<b>TCCR Number</b>	<b>Title</b>
<b>1</b>	<b>2024-01951-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for CocoClimber
<b>2</b>	<b>2024-01953-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Rosanna
<b>3</b>	<b>2024-01955-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Hatts
<b>4</b>	<b>2024-01957-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Musa de Vino
<b>5</b>	<b>2024-01959-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for BioTrichoF
<b>6</b>	<b>2024-01961-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Multi Plate Grating Device
<b>7</b>	<b>2024-01963-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for FungOryctes
<b>8</b>	<b>2024-01965-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Trichoderma in Coco Coir Dust
<b>9</b>	<b>2024-01967-A-TCCR</b>	SMAARRDEC Tri-Fold Brochure for Lactic Acid
<b>10</b>	<b>2024-02654-A-TCCR</b>	Smaarrdec tri-Fold Brochure for Tilanggit
<b>11</b>	<b>2024-02656-A-TCCR</b>	Smaarrdec Tri-Fold Brochure for Tuna Skin
<b>12</b>	<b>2024-02658-A-TCCR</b>	Smaarrdec Tri-Fold Brochure for Okara Coco Nugget
<p><b>SCAN THIS QR CODE TO VIEW CERTIFICATES</b></p> 		

#### a. Regional RTMS & Inventory of Knowledge Resources Database

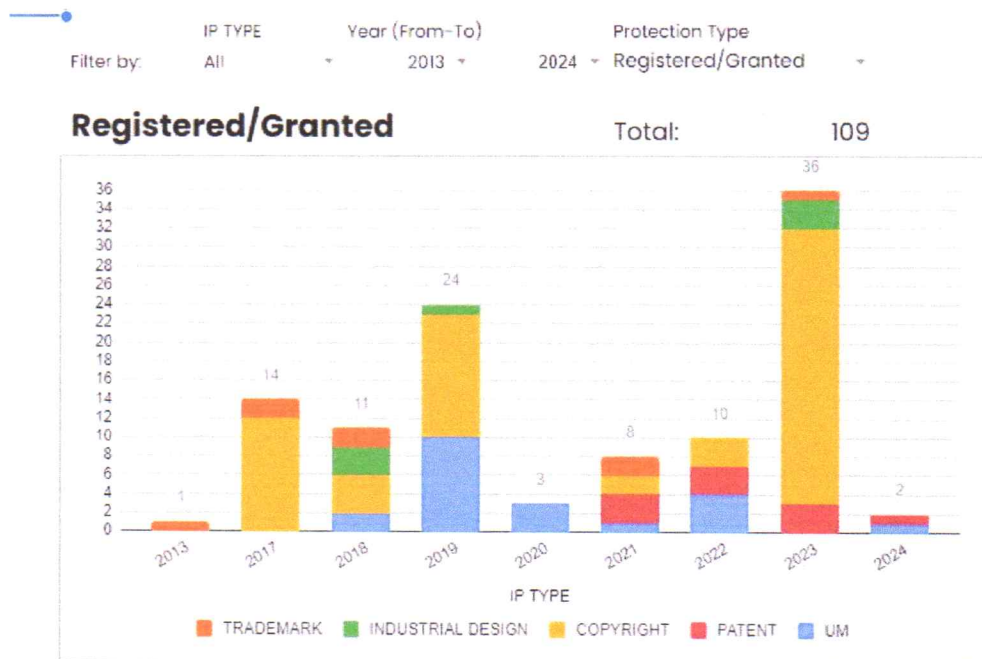
In preparation for the RTMS website, the project created a database for the technologies existing within the region to streamline the uploading process. This database includes information on IP applications, commercialization status, and the TRL and IRL levels of each technology. It was also designed to serve as a unified inventory of knowledge resources, acting as a repository for all researchers and available IECs related to the technologies. This central resource allows the consortium to easily select technologies for their promotion activities.



b. The KTTD ITSO IP Monitoring Sheet was transformed from a basic single-tab format into a comprehensive, organized, and automated database. The new system incorporates custom functionality through Google Apps Script, streamlining processes and enhancing efficiency.



A dynamic dashboard was added to provide easy reporting at a glance, and a "Latest Updates" table was created to allow for real-time tracking of ongoing IP applications. Additionally, individual sheets were developed for each application, enabling seamless linking of documents and detailed tracking of actions taken at every stage of the process. A dedicated table for annuity payments was also included to ensure efficient tracking and management of IP annuity payments, ensuring continued protection of intellectual property. This overhaul significantly improved the monitoring and reporting capabilities of the system, providing a more structured and user-friendly experience.



### Latest Updates

Filter by Transaction Filter by Date (From-To) 5/1/2022

IP Type	Application #	Title	Author	Latest Transaction	Date
Patent	I2023050168	Modular Block For The Re	Allan E. Botuyan	Certificate of Registration Rec	8/22/2024
Patent	I2019000298	A System and Method fo	Franch Maverick Lorilla, Anth	Revival Order	8/19/2024
Patent	I2023050798	A System for Controlling	Keno M. Mendoza, Orvil M. Bc	Request for Early Publication	8/13/2024
Patent	I2022050447	A System for Using Energ	Reyman M. Zamora, Filmanr	Substantive Examination Repo	8/12/2024
Patent	I2022050294	Soil Sampling Probe	Kathleen C. Cedeño	Request for Substantive Exami	8/5/2024
Patent	I2022050686	Multifunctional Nursing B	Sarrah Mae B. Villoria	Notice of Publication	8/5/2024
Patent	I2019000310	An Enhanced Vermicast	Ryan Abenaja, Roger Montej	Issued Letters Patent	7/31/2024
Patent	I2024050277	Mathematical Learning A	Hannah Locatan, Raquel Aln	Early Search Report Request	7/26/2024
Patent	I2024050302	Modified Junction Box wi	Rave Evangelio, Philip Despc	Early Search Report Request	7/26/2024
Patent	I2023050898	A System For Transparen	Manzoor A. Hashmani, Meha	Formality Examination Report	7/1/2024
UM	22022050544	Method of Producing Pec	Arggie Roy G. Busalla	Formality Examination Report f	3/26/2024
UM	22022050572	Process of Producing Sar	Ma. Joy G. Soriano	For Issuance of Certificate	3/26/2024
UM	22022050578	Method of Producing Glu	Sharon L. Binoya	Formality Examination Report f	3/26/2024
UM	22022050584	Process of Preparing Che	James L. Antonio	For Issuance of Certificate	3/26/2024
UM	22022050621	Process of Making Juice	Elisa E. Braganza	For Issuance of Certificate	3/26/2024
UM	22022050622	Process of Making Shrim	Suzzette C. Quico	For Issuance of Certificate	3/26/2024
Trademark	4202450798	SePhi	University of Southeastern P	Filed	3/22/2024

### Annuity Payments/Renewal Payments

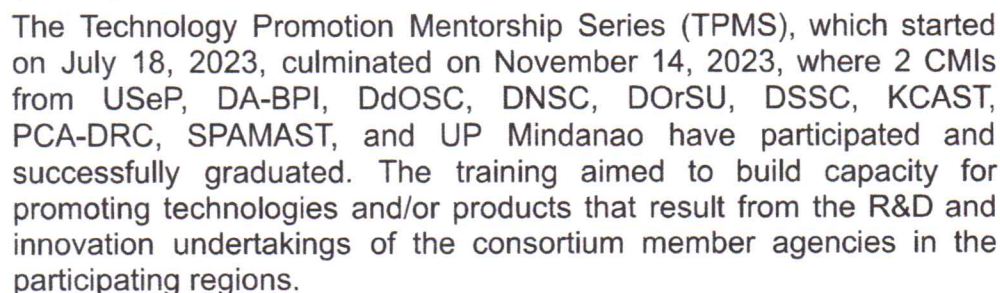
IP Type	IP No.	Title	Author	Filing Date	Publication Date	Registration Date	Expiration Date	Annuity Payment Due Date
UM	22017001046	Universal Filter Wrench	Virgilio Ombao Jr.	7/2/2017	3/6/2019	6/18/2019	7/2/2024	3/6/2024
UM	2201600111	Mechanical Pummelo Fr.	Roger Montepio, Jr.	4/11/2016	3/14/2018	8/20/2018	4/11/2023	3/14/2024
UM	22019050131	Process of Producing But	Karl P. Campos	3/11/2019	3/14/2019	4/22/2019	3/11/2026	3/14/2024
Patent	12018000305	A Mechanical Banana Bu	Roger C. Montepio	8/10/2018	4/13/2020	6/10/2022	8/10/2038	4/13/2024
Patent	12015000363	Pusher-Type Swaging To	Clawee Albrando	10/19/2015	4/24/2016			4/24/2024
Patent	12017050082	A System for Regulating	Filmann T. Simpao	11/17/2017	4/29/2019	9/22/2021	11/17/2037	4/29/2024
UM	22017001047	Payment System for Usin	Filmann T. Simpao	12/19/2016	4/30/2018	3/14/2018	12/19/2023	4/30/2024
Patent	12015000364	Adjustable Duster	Marites O. Bersabo	10/19/2015	5/2/2017			5/2/2024
UM	22015000805	Fruit Opener	Johnny C. Gallardi	10/19/2015	5/2/2017	9/16/2019	10/19/2022	5/2/2024
Patent	12014000309	Shredder Machine	Rommel V. Gador, Di	5/11/2014	5/23/2016	9/13/2022	5/11/2034	5/23/2024
Patent	12014000311	A Modified Fruits Picker	D. Roger C. Montepio	5/11/2014	5/23/2016	5/24/2023	5/11/2034	5/23/2024
Patent	12014000317	Animal Castration Holder	Ariel D. Abastillas, I	5/11/2014	5/23/2016	7/4/2022	5/11/2034	5/23/2024
UM	22016001110	Mechanical Cocoa Fruit	I. Roger Montepio, Ki	5/10/2016	5/23/2018	6/28/2021	5/10/2023	5/23/2024
Patent	12014000310	Automated Hot Water Tri	Roger C. Montepio	5/11/2014	5/27/2015	5/24/2023	5/11/2034	5/27/2024
Patent	12014000314	Level Type Flame Device	Arvil John P. Bordic	5/11/2014	5/27/2014			5/27/2024
UM	22014000785	Mechanical Coconut Spli	Raedavy T. Opisan	5/11/2014	5/27/2016	7/3/2019	8/17/2022	5/27/2024
Patent	12014000315	Irish Smoother Machine	Isidro Antonio H.	6/11/2014	6/27/2016	6/11/2021	6/11/2034	6/27/2024

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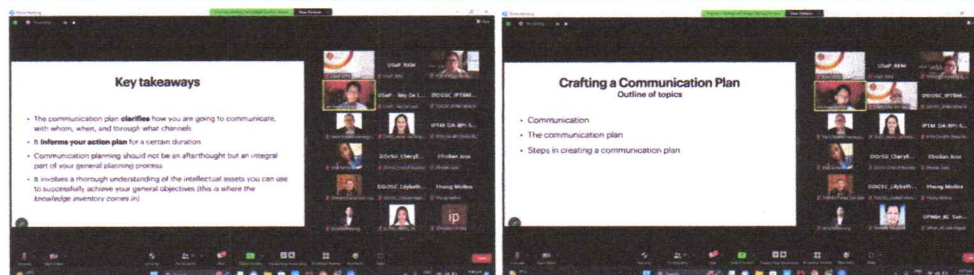
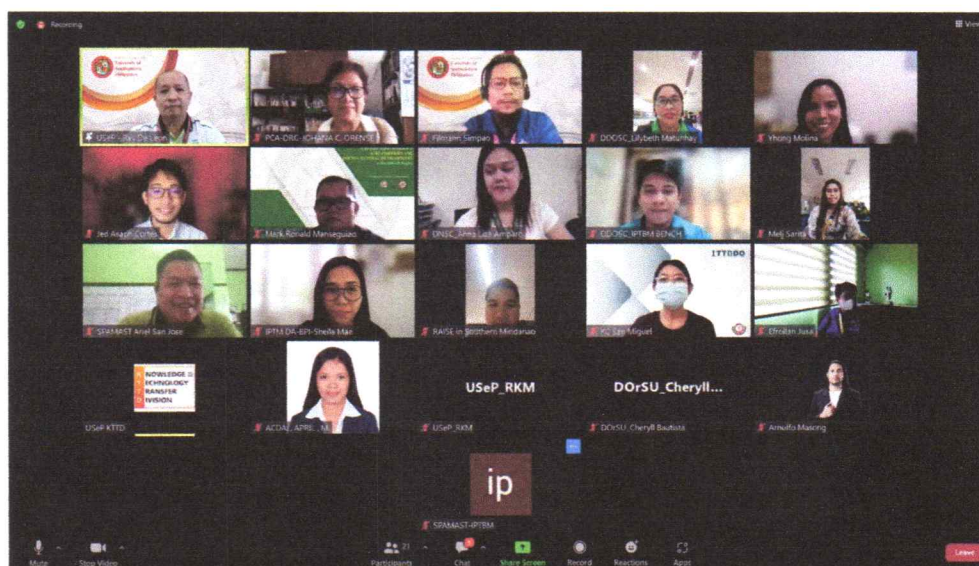


As the lead agency, the University of Southeastern Philippines (USEP) is committed to implementing Regional Knowledge Management under the RAISE UGMARA program in Southern Mindanao.



## b. Overview Lecture on Inventory of Knowledge Resources & Communication Plan

To enhance agencies' understanding of crafting effective communication plans for technology promotion, the project organized a webinar featuring Mr. Jed Asaph Cortes, an expert in Development Communication from Visayas State University. Mr. Cortes shared his valuable experience and expertise in crafting a communication plan and emphasized its significance in promoting technology initiatives. He also discussed the practical utilization of an Inventory of Knowledge Resources for each agency. The webinar engaged all CMLs, providing valuable insights to enhance their technology promotion efforts.





**c. RAISE UGMARA Midyear Review and Strategic Planning**

To enhance agencies' understanding of crafting effective communication plans for technology promotion, the project organized a webinar featuring Mr. Jed Asaph Cortes, an expert in Development Communication from Visayas State University. Mr. Cortes shared his valuable experience and expertise in crafting a communication plan and emphasized its significance in promoting technology initiatives. He also discussed the practical utilization of an Inventory of Knowledge Resources for each agency. The webinar engaged all CMIs, providing valuable insights to enhance their technology promotion efforts.

During the second quarter of Year 2, the program organized a Midyear Review and Strategic Planning session at Malagos Garden Resort, Davao City. The purpose was to showcase each agency's accomplishments and address any challenges. The goal was to strategize and identify opportunities for collaboration among the projects to achieve their respective deliverables. Additionally, on the event's final day, Project 4 conducted a Communication Plan drafting session where all agencies presented their plans for critique and improvement by the guest speaker. The outcomes from this session were collected to create one regional communication plan, which will be incorporated into the project's sustainability plan.





**d. IEC Development Training**

The "IEC Workshop on Banner Techs" took place on July 17-18, 2023, at The Ritz Hotel at Garden Oases. The event was facilitated by Dr. Franch Maverick Lorilla, TBI Manager of CDO bites at the University of Science and Technology of Southern Philippines. Participants included representatives from various CMLs and four attendees from USEP.

On the first day, the workshop introduced attendees to Information, Education, and Communication (IEC), explored value propositions, discussed case studies, and provided an introduction to Canva. Participants were guided through the process of developing brand kits and creating IECs using Canva. The second day involved a hands-on workshop with coaching, where participants presented their outputs and received feedback. The workshop concluded with the successful creation of 31 IECs, reflecting the practical skills learned during the two-day event.







**e. Communication Plan Consultation with Dr. Lily Ann Lando**

On December 13, a virtual activity was conducted via Zoom to review the communication plans (CommPlans) developed by the CMIs. These plans were initially drafted during the Malagos Mid-Year Catchup Planning & Workshop. The purpose of this session was to provide feedback from Dr. Lily Ann Lando, an esteemed expert in communication development and the speaker from the TPMS training.

Prior to the session, the RKM team submitted the draft CommPlans to Dr. Lando for her to review. During the morning of the December 13 activity, she critiqued the drafts and allowed the CMIs time to revise their plans. The original plan was for Dr. Lando to continue critiquing the revisions in the afternoon. However, due to health reasons, she was unable to do so and requested that the revised CommPlans be sent to her via email. The final revisions were then submitted to Dr. Lando in February for her final review.

The morning program included an introductory session, welcome remarks by Dr. Gilbert A. Importante, Director of SMAARRDEC, a rationale by Engr. Rey M. De Leon, and a review of the CMIs CommPlans by Dr. Lily Ann D. Lando. Dr. Evelyn A. Gecale was also present and gave the closing remarks. The program was emceed by Dr. Anulfo S. Masong, the Project Staff Level 1 of RKM.



**Program**

Participants in the Zoom meeting include: USeP\_2018\_18, USeP\_2018\_19, USeP\_2018\_20, USeP\_2018\_21, USeP\_2018\_22, USeP\_2018\_23, USeP\_2018\_24, USeP\_2018\_25, USeP\_2018\_26, USeP\_2018\_27, USeP\_2018\_28, USeP\_2018\_29, USeP\_2018\_30, USeP\_2018\_31, USeP\_2018\_32, USeP\_2018\_33, USeP\_2018\_34, USeP\_2018\_35, USeP\_2018\_36, USeP\_2018\_37, USeP\_2018\_38, USeP\_2018\_39, USeP\_2018\_40, USeP\_2018\_41, USeP\_2018\_42, USeP\_2018\_43, USeP\_2018\_44, USeP\_2018\_45, USeP\_2018\_46, USeP\_2018\_47, USeP\_2018\_48, USeP\_2018\_49, USeP\_2018\_50, USeP\_2018\_51, USeP\_2018\_52, USeP\_2018\_53, USeP\_2018\_54, USeP\_2018\_55, USeP\_2018\_56, USeP\_2018\_57, USeP\_2018\_58, USeP\_2018\_59, USeP\_2018\_60, USeP\_2018\_61, USeP\_2018\_62, USeP\_2018\_63, USeP\_2018\_64, USeP\_2018\_65, USeP\_2018\_66, USeP\_2018\_67, USeP\_2018\_68, USeP\_2018\_69, USeP\_2018\_70, USeP\_2018\_71, USeP\_2018\_72, USeP\_2018\_73, USeP\_2018\_74, USeP\_2018\_75, USeP\_2018\_76, USeP\_2018\_77, USeP\_2018\_78, USeP\_2018\_79, USeP\_2018\_80, USeP\_2018\_81, USeP\_2018\_82, USeP\_2018\_83, USeP\_2018\_84, USeP\_2018\_85, USeP\_2018\_86, USeP\_2018\_87, USeP\_2018\_88, USeP\_2018\_89, USeP\_2018\_90, USeP\_2018\_91, USeP\_2018\_92, USeP\_2018\_93, USeP\_2018\_94, USeP\_2018\_95, USeP\_2018\_96, USeP\_2018\_97, USeP\_2018\_98, USeP\_2018\_99, USeP\_2018\_100.

**MORNING Program**

Registration	7:30-8:15	
	8:15-8:20	Preliminaries (AVP)
Welcome Remarks	8:20-8:25	
<b>Dr. Gilbert A. Importante</b> Director, SMAARRDEC		
	8:25-8:30	Rationale & Introduction of Sp
		<b>Engr. Rey M. De Leon</b> Project 4: R-KM, Project Leader
Review of CMI CommPlans	8:30-9:30	
<b>Dr. Lily Ann D. Lando</b> Independent Consultant		
	9:30-10:15	Knowledge Session
Coffee Break	10:15-10:30	
	10:30-12:00	Workshop

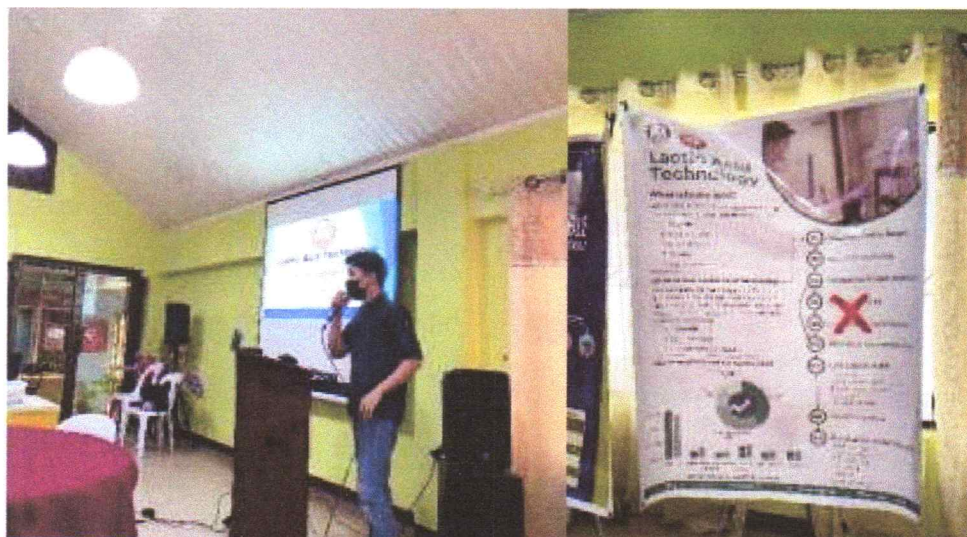
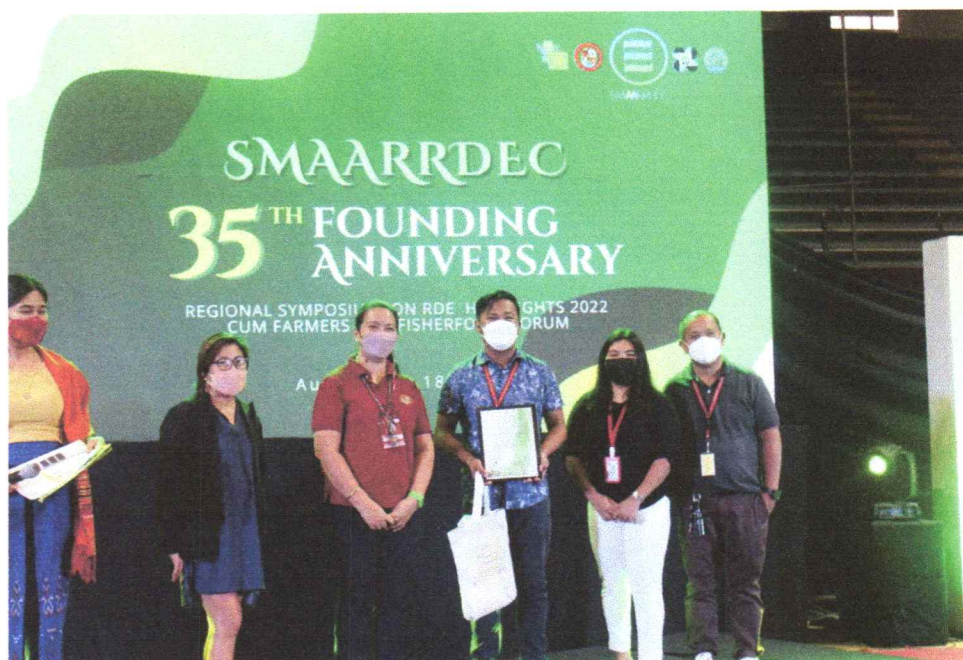


- **Promotional Activities Conducted**

- a. **Co-organized Regional Technology Pitching during the 35th SMAARRDEC Anniversary**

Co-organized the 35th SMAARRDEC founding Anniversary last August 16-18, 2022, held at USeP Gymnasium, Bo. Obrero, Davao City. The project aimed to co-facilitate the whole event, especially on the technology pitching day. It was considered a success as the CMIs of SMAARRDEC presented their research-based technologies in front of potential industry partners.





**b. Agri-Aqua Innovation Pitch Day**

To showcase the output and learnings of the TPMS participants, a national Pitch Day was held at Acacia Hotel, Alabang, Muntinlupa City, Manila. This event was organized by DOST-PCAARRD TTPD and was attended by various investors, including Atty. Bayani Loste, who bought the coconut climber on site, one of the technologies promoted by USEP during the TPMS. It was pitched by Mr. Ryan A. Abenoja, the inventor, who won the Best Pitch award in the pitching competition. Aside from that, the RAISE UGMARA also secured second place in the poster competition designed by DSSC for their BioTrichoF Liquid Trichoderma product.

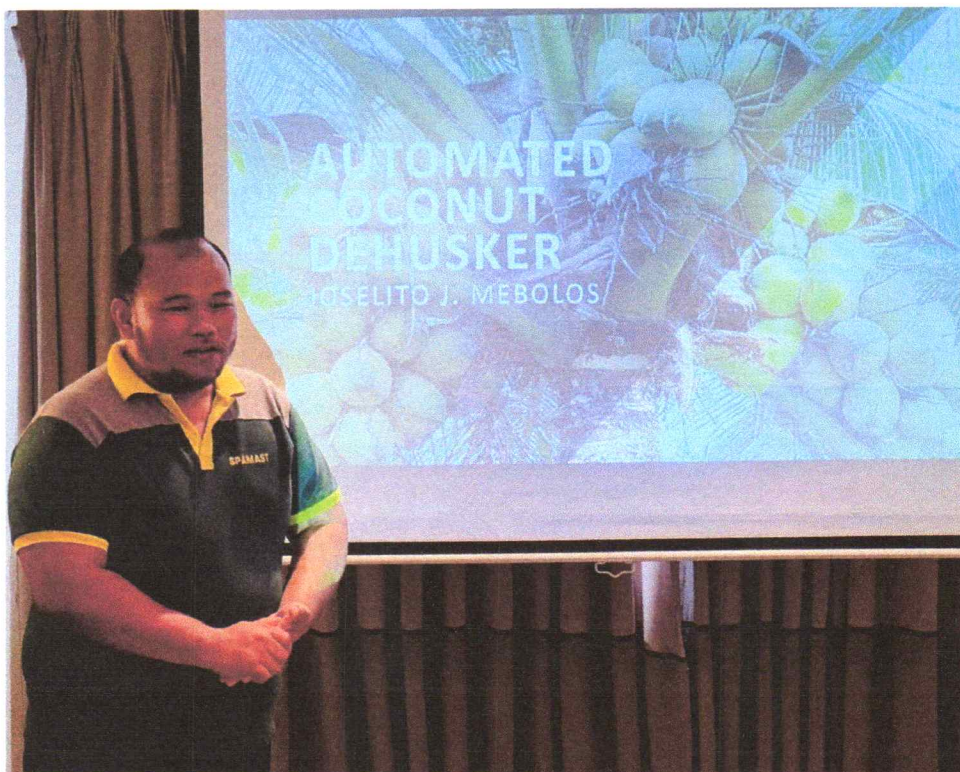




### c. InnoFiesta2022 Pitch Day

The AgiLab joined by the whole USEP KTTD, including the RKM project members organized a pitching contest in congruence with the InnoFiesta2022 activity. This was participated by the USEP incubatees and three members of the consortium—UPMin, DDOSC, and PCA. The event took place in SEDA Hotel J.P. Laurel Ave, Bajada, Davao City on December 14, 2022. Exhibited therein were the agricultural products and agri-technologies by the USEP students and the participating CMLs.





**d. Co-organized during the PAG-UGMAD Pitch Day**

The PAG-UGMAD 2023: Regional Agri-Aqua Technology Business Incubation Bootcamp and Pitching Competition took place on November 17, 2023, at The Ritz Hotel in Davao City. This collaborative event, organized by Project 3 in partnership with R-KM, showcased groundbreaking innovations in agriculture and aquaculture. R-KM contributed ₱90,000 towards the food and venue for the event, highlighting its commitment to supporting regional development and innovation.



The event brought together a diverse group of entrepreneurs, researchers, and industry experts, including participants from various CMIIs such as USeP, DSSC, DdOSC, DNSC, DorSU, and others. These innovators took the stage to pitch their cutting-edge technologies and business ventures, each hoping to attract potential investors and turn their ideas into reality. Notably, one investor pledged to support the Alalay sa Barangay entrepreneurs, a university-led program aimed at assisting local communities in food entrepreneurship.

In addition, a spontaneous product photoshoot took place during the event, with one of the investors volunteering to photograph each pitcher's products specifically for their social media pages. This impromptu photoshoot ran simultaneously with the pitching presentations, giving participants an extra opportunity to enhance their online presence and promote their ventures.







**e. SMAARRDEC promotes techs in the 2023 NSTW**

On November 21, 2023, the Southern Mindanao Agriculture Aquatic and Natural Resources Research and Development Consortium (SMAARRDEC) participated in the National Science and Technology Week (NSTW) in Iloilo City, showcasing two matured technologies from the University of Southeastern Philippines (USEP): the ROSANNA App and Coco Climber. The R-KM team generated informative brochures for both technologies, which were part of the sustainable agriculture cluster presented by DOST-PCAARRD. These brochures highlighted the applications and benefits of the ROSANNA App, adopted by industry partners in the banana sector, and the Coco Climber, which is currently undergoing patenting. The event attracted various stakeholders, emphasizing the vital role of science and technology in national development.





- f. **2023 Regional Science, Technology, and Innovation Week (RSTW)**  
SMAARRDEC featured technology from CMI at the 2023 Regional Science, Technology, and Innovation Week (RSTW) in Tagum City. The R-KM team helped create brochures representing the RAISE UGMARA products, which were showcased at the event. The R-KM team was represented by the SRA and the project leader, alongside SRAs from other regional projects, promoting the RAISE UGMARA products. These brochures played a key role in highlighting the technologies and their contributions to sustainable development.







**g. 36th SMAARRDEC RSRDEH**

At the 36th Regional Symposium on RDE Highlights & Farmers and Fisherfolks Forum, held at Davao de Oro State College, SMAARRDEC showcased the RAISE UGMARA project. The R-KM team provided IEC materials for the RAISE UGMARA booth, helping promote the project's innovations. The team was represented by the project leader and the SRA of Project 2, highlighting the synergy of AANR innovation through science and technology in the region.







- **Implementing Mechanisms Adopted**

- a. **Inception Meeting w/ CMIs Regarding RAISE UGMARA Objectives & Deliverables**

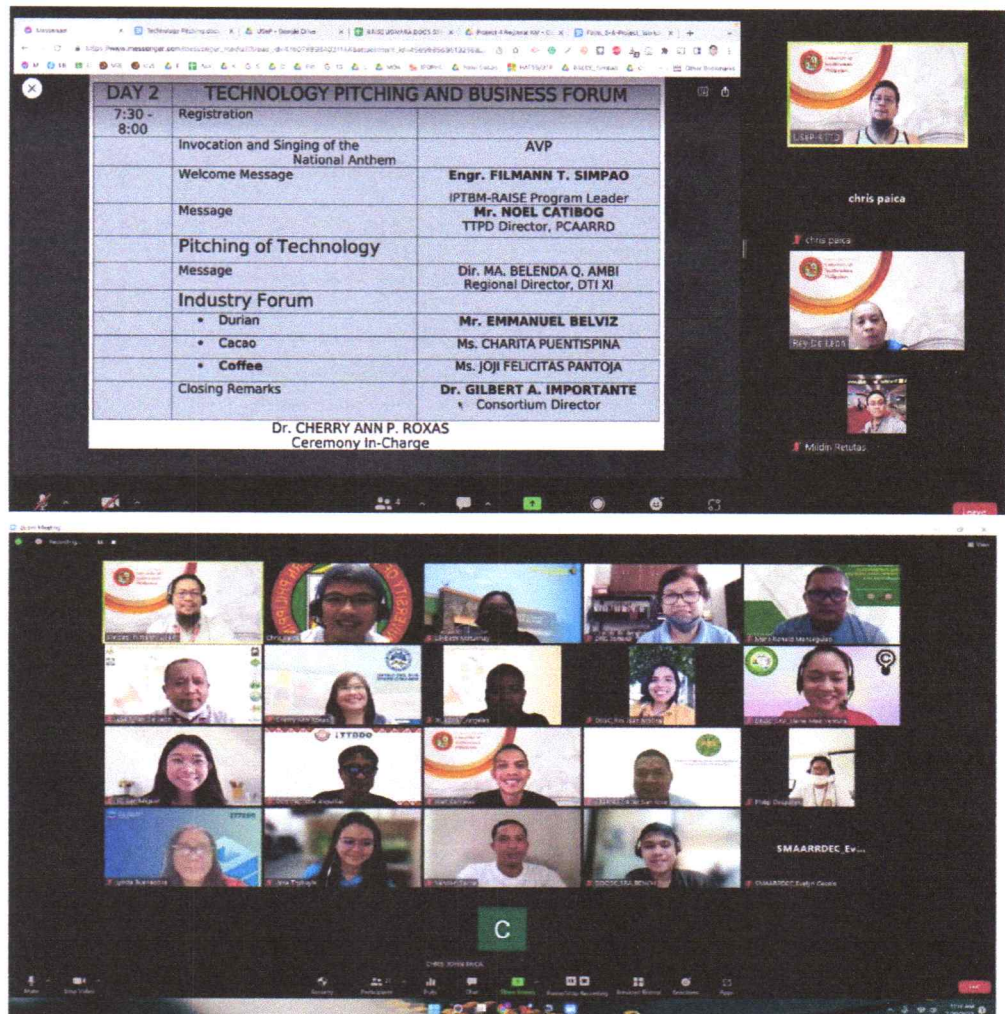
USEP initiated an inception meeting attended by all of the participating CMIs of SMAARRDEC last February 22, 2022, at USEP Hostel. The meeting intends to provide information to the participating agencies regarding the program flow, project deliverables, sharing financial practices of USEP, and the overall background/objective of the program.



- b. **Coordination Meeting w/ Program Leader**

The RKM project leader and the project leaders from the different projects under the RAISE UGMARA, including the CMIs held a coordination meeting via zoom on August 2, 2022, to review the project deliverables.





### c. RAISE-UGMARA Catch Up Planning

A Catch-up Planning was held at the Davao Bamboo Sanctuary and Ecological Park on October 13-14, 2022, where the project showcased and presented its accomplishments, discussed the project deliverables and established a schedule of future activities in sync with the other agency's calendar of activities. The whole RKM project team and the whole consortium attended this.





**d. Benchmarking Activity at PhilRice, PhilMech, Central Luzon State University (CLSU), and University of the Cordilleras (UC)**

For more effective implementation of the project and the program, the RKM project members and other consortium members conducted a learning visit at PhilRice, PhilMech, CLSU, and UC. It aimed to help the personnel of the RAISE UGMARA program to develop science and technology-based Agri-Aqua Enterprises in the AANR sector and learn the best practices of each institution visited.





**e. 2nd National ATBI Conference and the 1st Incubatee Summit**

The program's attendance at the 2nd National ATBI Conference and the 1st Incubatee Summit, spearheaded by Benguet State University (BSU) in collaboration with DOST-PCAARRD TTPD, was highly beneficial. This conference provided invaluable knowledge on various issues and top strategies employed by participating ATBIs nationwide, equipping supporters of RAISE UGMARA with essential insights. During the first day, we had the privilege of learning from Dr. Kal Kalayanamitra of the Maejo University Business Incubator (MJUBI), who shared the challenges and successes in developing AANR S&T. This session offered a deep understanding of the practical hurdles and achievements in the field. The second day focused on the diverse partnerships among ATBI partners. Dr. Santiwat Pithakpol from the University of Phayao-ATBI and Prof. Nophea Sasaki from the Asia Institute of Technology (AIT)-ATBI and University of Phayao-ATBI showcased their best practices. Their presentations highlighted the successful approaches and strategies of their ATBIs, providing Consortium Member Institutions (CMIs) of SMAARRDEC with valuable insights into addressing potential future challenges in their ATBIs. By participating in this conference, we gained a comprehensive understanding of the collaborative efforts and innovative solutions driving the success of ATBIs across the nation.



**f. KM Workshop and RTMS build-up**

Held at Aklan, Boracay, the KM Workshop and RTMS data fields finalization was attended by project leaders together with the program leaders on October 20-22, 2022. Discussed therewith are the RKM project deliverables and how each one shall be achieved throughout the following year. In addition, the data fields for the RTMS website, including security measures, were thoroughly deliberated and examined.





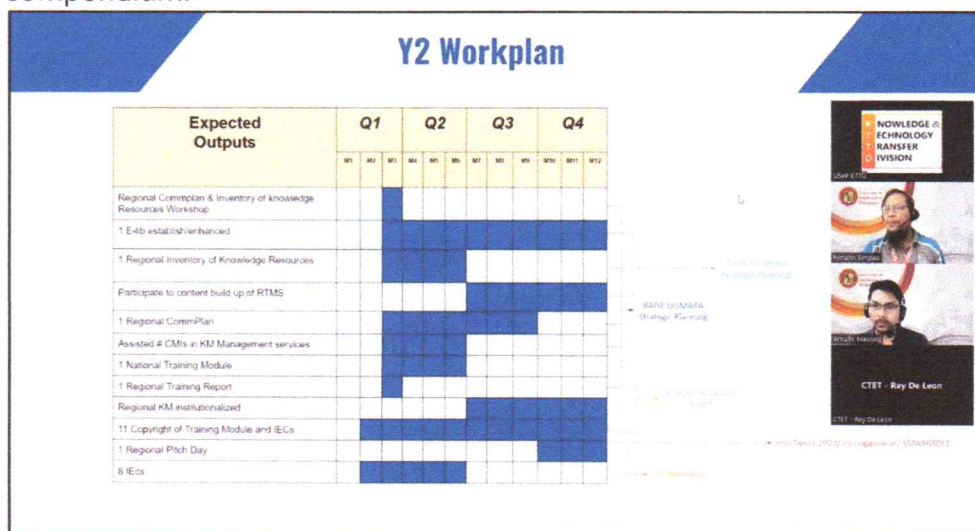
**g. Coordination Meeting with Mr. Jed Asaph Cortes**

A coordination meeting with Mr. Jed Asaph Cortes, a faculty from the Visayas State University (VSU) and a member of their region's RAISE initiative, was carried out regarding the planned RAISE UGMARA Strategic Planning 2023. Discussed therein was the program for the Regional Commplan & Inventory of Knowledge Resources Workshop to be conducted in the said regional activity.





In the first quarter of Year 2 implementation, the project members consulted with the Program Head to identify suitable activities that would help achieve the project deliverables within the original timeframe. As a result of these meetings, the following workshops were decided upon: a Communication Plan workshop, an Inventory of Knowledge Resources workshop, and an Information, Education, and Communication (IEC) Workshop, each focusing on the respective agencies' banner technologies. The outputs from these workshops will be collected and compiled by the project team into a comprehensive compendium.




#### i. RAISE UGMARA Caravan

In July, the entire RAISE UGMARA team conducted a Caravan to achieve key deliverables. The R-KM team focused on supporting RTMS content buildup by guiding each SRA on how to input information into the Google Sheet designed to initiate content development while the RTMS site was being constructed. Additionally, the R-KM team aimed to enrich the e-library by collecting IEC materials from various institutions.





  
**University of Southeastern Philippines**  
Advancing the Frontiers of Knowledge

**ACTIVITY DESIGN**

Activity Title: RAISE-UGMARA Curriculum  
Date: July 2023  
Time: Refer to the Itinerary and Program Flow  
Venue: Division Region  
Source of Fund: KTTD SP 164 RAISE UGMARA

**Rationale**

The RAISE-UGMARA Curriculum is a joint activity of regional providers that will be conducted to enhance the innovation of RAIP in the Division Region. Enhancing innovation of RAIP in the region is manifested through DOST-PCAARRD funding of the RAISE-UGMARA Program. The program acts as the vehicle for strengthening collaboration between CMOs and handling knowledge and products of innovation.

Through the said program, each regional projects are set as part of the program in existing SUCs and RDCs that contribute to the growing innovation ecosystem in the region. However, it is not apparent that SUCs and RDCs require significant innovation and focused capacity building in order to fully optimize the adoption of innovative and research institutions/institution hubs.

The RAISE-UGMARA Curriculum is organized in order to: a) encourage, transfer and collaborate with SUCs and RDCs who are willing to spearhead and improve the conduct of innovative primary management, technology business incubation, technology transfer and knowledge management in their own institution. Through the collaborative effort, the said SUCs may become more available throughout the region, thus encouraging more innovation to contribute and making the region a hub for startup processes.

**Objectives**

The activity aims to conduct capacity development training workshop to the RAISE-UGMARA Members, to wit:

- To provide in-depth understanding among the participants on the innovation services.
- To conduct an in-depth understanding of SMAARRDEC Sites and RAISE Real-Time Monitoring System (RTMS).
- To assist CMOs in commercialization services.

**Expected Outputs**

By the end of this activity, the following are expected to be accomplished:

- Participants have established solid information knowledge and reference on pre-commercialization services and incubation services.
- Participants have the in-depth understanding on current build-up of SMAARRDEC Sites and RTMS.
- Participants have an in-depth understanding in crafting the business plan.
- Completed schedule of capacity and technology transfer regarding pre-commercialization reports.

**Assessment of Outputs & Evaluation**

The RAISE-UGMARA Curriculum is conducted in a series of activities and activities. The following are:

Activity: RAISE-UGMARA Curriculum  
Participants: Consortium Member Institutions (CMIs)

**NO BUILD DREAMS WITHOUT LIMITS**

Names: University of Southeastern Philippines  
Address: P.O. Box 108, Davao City  
Region: DAVAO  
Contact: 082-221-1111  
Website: www.usp.edu.ph

• Faculty Members  
• Students, Researchers, Innovators  
• Project Staff

Date	Itinerary	Concerned agency
July 10, 2023	USP to Region	USP
July 11, 2023	Agapito to Compendio Valley	USP
July 12, 2023	Compendio Valley to Marikina	USP
July 13, 2023	Marikina to Marikina	USP
July 14, 2023	Marikina to Marikina	USP
July 15, 2023	USP to Marikina	USP
July 16, 2023	USP to Marikina	USP
July 17, 2023	USP to Marikina	USP
July 18, 2023	USP to Marikina	USP
July 19, 2023	USP to Marikina	USP
July 20, 2023	USP to Marikina	USP
July 21, 2023	USP to Marikina	USP
July 22, 2023	USP to Marikina	USP
July 23, 2023	USP to Marikina	USP
July 24, 2023	USP to Marikina	USP
July 25, 2023	USP to Marikina	USP
July 26, 2023	USP to Marikina	USP
July 27, 2023	USP to Marikina	USP
July 28, 2023	USP to Marikina	USP
July 29, 2023	USP to Marikina	USP
July 30, 2023	USP to Marikina	USP
July 31, 2023	USP to Marikina	USP

**AM Activities: RATBI Workshop**

**List of Topics**

- Fundraising Innovation and Entrepreneurship in the institution
- Establishing a technology-based TBI: The Case of USP
- Managing Learning Resources for Innovation: Students and TBI Managers

**Targets**

- Regional Training Report
- Regional Inventory of ATBI/Innovation Services
- Transfer of CMs to ATBI Services

**PM Activities: Project Deliverable Workshop**

- Validation on Final Results of the Activity
- Assessment of the Results

**Assessment of CMs in pre-commercial services**

**RTMS**

- RTMS and RTMS

**Participate in content build-up of RTMS**

**RATBI**

- Inventory of Matured Technologies
- Transfer of CMs to ATBI Services

**Regional Inventory of Matured Technologies**

Name	Designation	Project
Francisco D. Pabon	Project Leader	Regional ATBI
Kyle P. Campes	Project Lead	Regional ATBI
Yann A. Ragosa	Project Staff	Regional ATBI
David P. Torres	Project Staff	Regional ATBI
Roy W. De Leon	Project Staff	Regional ATBI
Arnold S. Muroy	Project Staff	Regional ATBI
Nikolas B. Torgue	Project Staff	Regional ATBI

**NO BUILD DREAMS WITHOUT LIMITS**

Address: University of Southeastern Philippines  
Region: DAVAO  
Contact: 082-221-1111  
Website: www.usp.edu.ph

## j. Request for permission on the use of each institution's tech information with agency representatives

To meet the target deliverable of copyrighting IEC materials, the R-KM team formally requested permission from each institution to legally use and incorporate information from their technologies. This step ensured that all content used in the IECs complied with copyright regulations and respected the intellectual property rights of each contributing institution.


**Authorization**

I, RODRIGO C. UCKMAN, JR. COLLEGE PRESIDENT  
(Name) (Position)

of the PAWANG COLLEGE OF ANATOMY, SCIENCE AND TECHNOLOGY  
(Consortium Member Institution)

herby authorize the University of Southeastern Philippines (USP), the base agency of SMAARRDEC and the lead implementer the DOST-PCAARRD funded "Project 4: Establishment of a Regional Knowledge Management Hub of SMAARRDEC in Davao Region" under the RAISE Program for Southern Mindanao, to use the information and images regarding our technology for the creation of a uniformly designed tri-fold brochure.

By signing this slip, it is understood that USP shall hold the copyright ownership solely on the layout of the information contained within the tri-fold brochure.

  
(Signature over printed name)

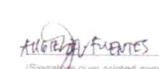
**Authorization**

I, MAGIE E. PUENTES COLLEGE PRESIDENT  
(Name) (Position)

of the DAVAO DEL SUR STATE COLLEGE  
(Consortium Member Institution)

herby authorize the University of Southeastern Philippines (USP), the base agency of SMAARRDEC and the lead implementer the DOST-PCAARRD funded "Project 4: Establishment of a Regional Knowledge Management Hub of SMAARRDEC in Davao Region" under the RAISE Program for Southern Mindanao, to use the information and images regarding our technology for the creation of a uniformly designed tri-fold brochure.


By signing this slip, it is understood that USP shall hold the copyright ownership solely on the layout of the information contained within the tri-fold brochure.


  
(Signature over printed name)

**AUTHORIZATION**

I, LEE M. SEROT, Administrative Officer III of the Davao de Oro State College, hereby authorize the University of Southeastern Philippines (USEP), the base agency of SMAARRDEC and the lead implementer of the DOST-PCAARRD funded "Project 4: Establishment of a Regional Knowledge Management Hub of SMAARRDEC in Davao Region" under the RAISE Program for Southern Mindanao, to use the information and images regarding our technology, for the creation of a uniformly designed tri-fold brochure.

By signing this slip, it is understood that USEP shall hold the copyright ownership solely on the layout of the information contained within the tri-fold brochure.

  
**LEE M. SEROT**  
 Inventor of Multi-Plate Grating Device

Noted by:   
**LILYBETH M. MATUNHAY, Ph.D.**  
 Project Staff III, DDOSC IP-TBM


**Authorization**

I, MARIANITA N. EROY, ACTING DEPARTMENT MANAGER II  
 (Name) (Position)

of the PHILIPPINE COCONUT AUTHORITY – DAVAO RESEARCH CENTER  
 (Consortium Member Institution)

hereby authorize the University of Southeastern Philippines (USEP), the base agency of SMAARRDEC and the lead implementer the DOST-PCAARRD funded "Project 4: Establishment of a Regional Knowledge Management Hub of SMAARRDEC in Davao Region" under the RAISE Program for Southern Mindanao, to use the information and images regarding our technology for the creation of a uniformly designed tri-fold brochure.

By signing this slip, it is understood that USEP shall hold the copyright ownership solely on the layout of the information contained within the tri-fold brochure.

  
**MARIANITA N. EROY**  
 (Signature over printed name)

## ● Problems Encountered

### a. *Deviation from Workplan*

The deviation from the original work plan, which necessitated a request for an extension, stemmed from delays in budget allocation during the first year. The funds were downloaded late, resulting in the absence of a dedicated Research Assistant for the initial three quarters. Consequently, progress was initially hindered.

However, after successfully hiring a Research Assistant, the project managed to accomplish most of its target deliverables. The only exception was the institutionalization process, which encountered challenges due to unresolved conflicts within SMAARRDEC regarding the appropriate method for implementation. Efforts to address and resolve these conflicts are ongoing.

### b. *Administrative, technical, and financial issues*

Several challenges were encountered in the areas of administration, technical execution, and financial management. One significant issue was the delayed download of funds, which hindered timely financial liquidation during the first year and impacted the project's initial momentum. Despite this setback, the team worked diligently to address and mitigate these issues.

As the project progressed, 96% of the allocated funds were successfully liquidated and utilized efficiently, demonstrating effective financial management and resource allocation. Overall, the team's proactive measures ensured that all administrative and technical challenges were resolved, allowing the project to move forward productively.



### **PART III. ANALYSIS/CONCLUSION/RECOMMENDATIONS**

- **Analysis of Accomplishments**

At the onset of the project, considerable time and effort were devoted to planning and coordination meetings aimed at strategizing the achievement of key deliverables. The team initially faced challenges in synchronizing efforts with other programs and efficiently collaborating to meet targets. A notable gap existed in understanding and defining the role of the R-KM team as an integral part of the RAISE UGMARA initiative.

However, as the project progressed, these initial challenges were gradually identified and effectively addressed. The team recognized the critical importance of technology promotion and maintaining a comprehensive inventory of knowledge resources for the program's efficient operation. The development of an organized inventory and the RTMS content buildup enabled SMAARRDEC to stay informed about ongoing projects at the CMIs. This allowed SMAARRDEC to identify promising technologies and provide strategic support to maximize their impact.

Once the inventory and RTMS were established, the project was able to select key innovations for promotion. The R-KM team produced a range of IEC materials to support SMAARRDEC's promotional activities and ensure that the technologies gained public awareness. Furthermore, the team established a Facebook page to enhance social media presence and promote various program initiatives, such as pitch days and upcoming technological advancements. This platform proved valuable for engaging a broader audience and highlighting the program's milestones.

Over the project's duration, the team successfully trained 65 CMIs in various aspects of technology promotion. This training encompassed the creation of IEC materials, effective social media management, and connecting innovators with investors through pitch events. The R-KM team also played a vital role in formulating a comprehensive communication plan for future implementation, guiding CMIs to develop their own plans. These strategic efforts aimed to streamline promotional activities, set clear milestones for each institution, and ultimately drive successful technology promotion and investor engagement.

In summary, the project accomplished nearly all of its target deliverables, with the exception of institutionalization. Nonetheless, the foundation laid during this phase positions the program for continued success. The team remains committed to achieving institutionalization

in subsequent phases, recognizing it as a pivotal goal of the entire RAISE initiative.

- **Lessons Learned**

- Determining strategies to ensure timely delivery of project expected outputs,
- Understanding the endeavors of the project, and
- Identifying effective strategies to improve the Regional Knowledge Management project

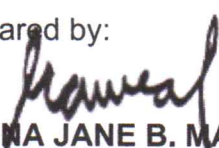
- **Recommendations/Conclusions (to include Future Plans)**

As the project concludes, the team has gained a deeper understanding of its essential role within the RAISE program, particularly in the realm of technology promotion. The team acknowledges that raising public awareness of the innovative initiatives undertaken by each institution is crucial for advancing local agricultural development. By effectively promoting these initiatives, there is a greater opportunity to attract potential investors who can support the evolution and widespread adoption of these technologies, ensuring they reach their intended users and have a meaningful impact.

Based on insights gained throughout the project implementation, the team recommends significantly strengthening the program's social media presence. Social media serves as a powerful platform to engage the public, and consistent weekly posts about new technologies would enhance awareness of institutional efforts. Moreover, adopting a dynamic social media strategy that aligns with the latest trends in social media management is essential to reach and engage a broader audience effectively.

Additionally, the team suggests closer collaboration with the Science Communication Officer of SMAARRDEC. By integrating the project into SMAARRDEC's overarching promotional strategies, the RAISE program can benefit from coordinated efforts to highlight CMI projects more comprehensively. Furthermore, increased coordination with regional projects is advised to streamline activities, enhance resource efficiency, and maximize both time and financial investments. This collaborative approach would ensure the efficient execution of activities, ultimately supporting the overall success and sustainability of the RAISE program.


Prepared by:



**HANNA JANE B. MAUREAL**  
Science Research Assistant I, R-KM



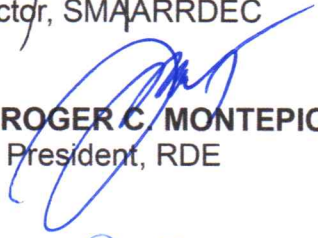
Attested by:

  
**ENGR. REY M. DE LEON**  
Project Leader, RKM

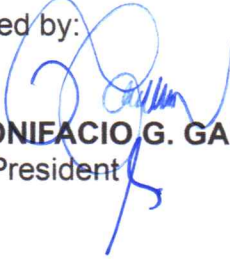
Recommending Approval:

  
**DR. EVELYN A. GECALE**  
Program Leader, RAISE UGMARA

  
**DR. GILBERT A. IMPORTANTE**  
Director, SMAARRDEC

  
**DR. ROGER C. MONTEPIO**  
Vice President, RDE

Approved by:

  
**DR. BONIFACIO G. GABALES, JR.**  
USeP President