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Sinamar

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FACES OF PASSION IN SERVICE. RDET staff and officials making great difference in their call of duty and practice.

inside our Maiden Issue

EDITORIAL

When the Sun Rises in the North

page 3

NEWS

CSU, Tug. City strengthen ties through MOA/MOU

page 4

FEATURE

RDET's Banner Programs & the UN-MDG: The Connecting Points toward Development

page 6

RDET HIGHLIGHTS

CSU Eyes Northern Cagayan as Pineapple Basket of the Valley

page 10

TECHNO Feature

From Garbage to Garden: Guide to Vermi Composting

page 11

RDET's Commitment to its Stakeholders: Beyond the Call of Duty and Practice

The demand for one's calling is inescapable. Once you are called, you are chosen. This is how the people behind Research & Development, Extension & Training perceive and value their work.

Five working days may exceed up to seven or eight. Eight office hours may extend up to ten or eleven. Office days may transcend from the most modernized community to the most isolated barangay. Stakeholders may diversify from the most influential to the most in need of boost of potential. Whatever the challenge the role of RDET holds, each member of the office is prepared and motivated to fulfil the calling.

The RDET's role then is not a buffet served with sumptuous meals but more of pack lunches, budgeted but assured of quality and impact. It is not the usual serving of typical meals but of serving inventive courses made from series of testing and

discovery (*research*). This is served with pride and pleasure to the 'right' customers (*extension*). However, serving the right amount of food must sustain not only hunger at the moment but will secure food consumption for a long period of time (*development*).

In *Research*, we seek for truth, probe and build relevant theories for knowledge-based application. We are 'seekers and discoverers' of realities.

In *Development*, we eye progress in a long trail of hits and turns. It is not achieved overnight. We are 'active agents' of change.

In *Extension*, we aspire to connect the people of diverse lifestyles to a more suitable way of life. We are 'community builders'.

In *Training*, we plan, design and conduct groundbreaking programs suited to the needs of the community. We are 'molders' of community agents.

RDET is not an ordinary office upholding ordinary tasks. It is composed of ordinary people but possessed extraordinary passion for work: working with enthusiasm and innovative interest while safeguarding values in research; working with passion and persistent attitude while finding life and light in development; working with delight and empathic behaviour while extending warmth in extension; and working with



message from the PRESIDENT



I am glad that the Cagayan State University-Research & Development, Extension & Training Office (RDET) has conceived a Newsletter to enable the CSU academic community and other stakeholders to keep abreast of the university's research direction and extension endeavours.

CSU hopes to join the ranks of the leading universities in the country through the sustained engagement of its faculty members in various research undertakings. By the application of its research outputs through its Extension Programs, the university hopes to maintain its relevance as a catalyst for socio-economic transformation of the countryside. It is my fervent hope that this newsletter which is a testimony to the new thrust of the CSU Research and Extension will serve as a guide so that faculty members will obtain new research insights and generate research outputs that will truly improve the quality of life the people of Region II and the entire nation.

Congratulations and I wish all the best for all who are involved in this project. May this newsletter- "**SINAMAR**" serve as the milestone by which the progress of the thrusts of the Research & Development, Extension & Training Office is measured.

ROMEO R. QUILANG, Ph.D.
University President

message from the VP for RDET



The existence of SINAMAR was once just a plan now etched into reality. With the launching of its maiden issue, I am proud to say, SINAMAR is here to stay.

The concretization of knowledge translated through Science and Technology products and services is the visualization of Research and Development, Extension and Training's (RDET's) existence. Like the sun's radiance transcending socio-economic and cultural status to bring life in its essence, RDET will cross borders and reach out the marginalized communities to promote and ensure socio-economic development, particularly in this part of the country.

The elimination of poverty, reduction of unemployment and inequality through research and extension is the heart of RDET's agenda. No community underserved and unreached will be its driving force. Services, Science and Technology, knowledge, products, and human resources- all these will be packaged and delivered to build, equip, empower and make self-sustaining communities.

SINAMAR will be a perfect mouthpiece for RDET to speak and inspire as it radiates its beam to the stretch of the Valley and the whole archipelago for development to rise into reality. SINAMAR is another endeavour of RDET in fulfilling its commitment to continually reach out. Together let us make this commitment lasting.

I want to congratulate the people behind the making of an epic paper. Inscribe a history in community development and let SINAMAR radiate in the North and beyond.

JOSE D. GUZMAN, Ph.D.
Vice-President for Research & Development,
Extension & Training

EDITORIAL BOARD



SINAMAR, an Ilocano term used to describe the 'radiant rays of the sun', is the official newsletter of Research and Development; Extension and Training Office of Cagayan State University (Central Administration) published quarterly. It highlights policy issues, developments and breakthroughs pertaining to RDET activities, research and development efforts, and extension & community services undertakings.

Editor/Graphic & Lay-out Artist
Mr. Jan Justin C. Rodriguez
Communications Development Specialist

Editorial/Circulation Staff
Mrs. Avelina T. Antonio
Education Program Specialist

Contributor
Prof. Quirino Jara
PDTC Coordinator

Editorial Advisers
Dr. Nelia Z. Cauilan
Director for Research & Development

Prof. Eladia R. Salabaoan
Director for Extension & Training

Consultants
Dr. Jose D. Guzman
VP for RDET

Dr. Romeo R. Quilang
University President

We encourage you to participate in our newsletter. Share with us your human interest articles, opinions and feedbacks.
Address all contributions to Mr. Jan Justin C. Rodriguez (ComDev Specialist), CSU-Andrews, Caritan, Tuguegarao City, Cagayan
The Editorial Board has the right to choose and edit articles for publication.

<https://www.facebook.com/csurdet>

0927-383-1212

csurdet@yahoo.com / rjanjustin@yahoo.com

EDITORIAL

When the Sun Rises in the North...

The overall aim of the RDET Office is to bring development at the doorstep of its stakeholders and the community it serves. We have always stood firm in our commitment in harnessing the region towards a better quality of living. Through our scientific and technological capabilities, we remain committed in responding to the agro-industrial needs of the province as competitive providers of knowledge and innovations.

In RDET, we are committed not only at bringing development closer to reality but also at initiating convergence with our stakeholders to help us in the realization of this commitment. Being at the frontline of service, we recognize the vital role of communication in development. Evidently, communication is important in spreading and promoting development, be it in Research or in Extension, thus, we use this as a catalyst in all of our efforts. Effective communications as according to the United Nation's Food and Agriculture Organization (UN FAO), could change the lives of millions by "planting the seeds of

knowledge, and hope, among the world's poor." This is the reason of SINAMAR's existence.

SINAMAR, an Ilocano term meaning "radiant rays of the sun", signifies the perfect picture of RDET. It bears the image of our organization. Just like the golden rays of the sun, SINAMAR reflects RDET's mission in bringing development to our clientele through knowledge transfer and generation. This is our compendium of significant and noteworthy undertakings, a testimony of hard work and contribution to national development. SINAMAR will serve as the source of light to the valley, a source of light to the RDET's promise: enlightening lives through research and extension.

SINAMAR, is your avenue in obtaining relevant information, scientific and scholarly narratives as well as source of inspiration in every development endeavour.

Everyone is encouraged to read, contribute and share the knowledge for development. Anticipate now, the 'light' of development will radiate when the sun rises in the north. ■

RDET NEWS

CSU Aparri Launches its Business Centre

by JJ RODRIGUEZ

CSU Aparri Campus took another big thrust in fulfilling the university's mission of transforming lives through education, research, extension and production in the launching of its Campus Business Centre on July 1, 2014, the first in the history in the entire campus.

The launching event greeted the stakeholders, administrators, faculty, students and different sectors of the community with a 'fiesta atmosphere' in front of the newly renovated building now billed as CSU-Aparri Campus Business Centre.

According to Dr. Eunice A. Layugan, Campus Executive Officer of CSU-Aparri, the business centre was realized to respond to the university's thrust in strengthening production along with CSU-Aparri's banner program: the fisheries and marine science. "For all these years fisheries have been existing in this campus. We sell products but as far as SUC levelling is concerned the university needs to produce and showcase to the public that our products are our results, our outputs of research," she quoted.

She boasted the CSU-Aparri post-harvest technology and other possible products that can be processed when the 'produce' are hauled from the respective sites. Tilapia fillet, alamang ice cream and alamang okay are among of those few that are mentioned. She added that participation of all the

departments is essential to strengthen the sustainability of this endeavour.

Meanwhile, Dr. Jose D. Guzman, Vice President for Research and Development, Extension and Training extended his congratulations in behalf of the University President, Dr. Romeo Quilang, in pioneering such activity as according to him, 'a very noble duty that is actualized'. He pointed out that RDET is getting good scores at present as they slowly thrive at its best through resource generation activities. "Our investments

should be able to give us considerable returns for the sustenance of the university for the welfare and development of the institution as a whole. Yung mga gawaing ganito, baka pwede na tayong magland sa SUC level 4, and we are about to land on that," said Guzman.

He concluded by sharing his 'big dream' of having a business enterprise incubation centre in every campus. For example, an

page 8 >



THE SEAFOOD FESTIVAL. Students, Faculty and guests taking souvenir shots of live crabs and shrimps at the launching of CSU-Aparri Business Center. Inset: Dr. Jose D. Guzman, VP for RDET showcasing a king crab.



CSU, Tug. City strengthen ties through MOA/MOU

✍ JJ RODRIGUEZ



(From L-R) CSU President Dr. Romeo R. Quilang, Mayor (former) Jefferson Soriano and Vice Mayor (now Mayor) Engelbert Caronan eagerly signs the MOA/MOU.

June 25th, 2014 marked the official partnership of the City of Tuguegarao and the Cagayan State University as they tightened up their collaboration in addressing different issues affecting the lives of every Tuguegaraoños through the Memorandum of Understanding/Memorandum of Agreement signing held at the Tuguegarao City Hall Lobby.

The event was attended by the CSU delegates composed of deans, faculty staff and students led by Dr. Romeo R. Quilang, University President and Dr. Jose D. Guzman, VP for Research & Development, Extension & Training. City officials also graced the event which includes different sectors of the community and the press.

The activity was geared up to foster the link between the city government and the university

through the MOA/MOU signing in achieving the ultimate fulfilment of their goals as well as in implementing programs to address the needs of every Tuguegaraoños. Furthermore, this was one way of CSU's strategic shift in its thrust of promoting its mission – transforming lives through quality instruction, research, extension and production.

Hon. Engelbert “Jojo” Caronan, Municipal Vice Mayor (now Mayor), highlighted the purpose of the collaboration (CSU & Tuguegarao City) in his welcome remarks. “Through this partnership, there will be sharing of expertise and contributions between the two parties in fostering development for the city through providing impartial services to the people,” Caronan said.

CSU President Dr. Romeo R. Quilang underscored in his speech the worth of this ‘alliance’ towards

enhancement of development endeavours in the city and the region as a whole. The “One Town, One College” program of the university is one perfect example on how this partnership with the Local Government Unit will be actualized. This suggested a similar approach of the “Adopt-a-Barangay” program where a particular CSU campus will adopt at least one town that will serve as their beneficiary to their programs and projects.

Quilang also bestowed his 100% commitment to the pursuance and realization of programs stipulated in the MOU/MOA with the city government. “Pagtulong-tulongan po natin ang mga project ng CSU at LGU, rest assured our 100% commitment to this. Kahit ano pong mangyari, makikipagtulongan po kami (to LGU),” he quoted.

He reiterated that CSU and the city government are only after service. “CSU is for Cagayan...we are only after service, service for the people of Tuguegarao City, Service for the people of Cagayan!” he ended.

Meanwhile, the city mayor (former) Hon. Atty. Jefferson Soriano extended his gratitude to the Cagayan State University for supporting the local government to their development undertakings especially on the fulfilment of human potentials as well as for promoting environmental conservation among others. He saluted the University for entering into such partnership and for serving as technical and service provider to every LGU initiatives such as training facilitators and the like.

It is hoped that the partnership between CSU and Tuguegarao City government is not only now for the taking but a long-standing commitment: commitment as a catalyst for change and development in the lives of every Tuguegaraoños and every Cagayanos. ■

Organic Agri to boost in the City

✍ JJ RODRIGUEZ

In response to the mandate of agencies of government to promote, propagate and implement the practice of Organic Agriculture in Tuguegarao City, the Cagayan State University-Extension and Training Office in coordination with the Department of Agriculture-02 and LGU Tuguegarao City conducted a 2-day training on organic based vegetable production last June 24-25, 2014 held at Farmers' Training Center, Tuguegarao City, Cagayan.

Themed as “Maximum Utilization of Local Resources for Food Security and Safety, the training was attended by farmers, housewives and members of civil society organizations from the different

barangays in Tuguegarao City. Also, it was graced by CSU and Tuguegarao City officials namely: Dr. Jose D. Guzman, the Vice President for CSU-RDET, Hon. Maila Ting – Que, City Councillor-Committee on Agriculture and Hon. Engelbert C. Caronan, City Vice Mayor who all gave inspirational messages to the participants highlighting the benefits and advantages of Organic Vegetable Production.

A series of lectures and hands-on activities were conducted during the first day by different experts in the university which were as follows:

“Situationer on Organic Agriculture” by Dr. Junel B. Guzman (Department Chair, College of Agriculture,

CSU Carig); “Soil Nutrient Management of Organic Vegetables” by Prof. Imelda S. Salazar (Professor & Extension Staff, CSU Andrews); “Organic Seed Production” by Prof. Geovanni Stanley Malab (Faculty, College of Agriculture, CSU Piat)

Day two was reserved for the visitation of the city dumpsite at Carig, Tuguegarao City as well as the organic garden and vermin-composts of some organic fertilizer producers in the city. The training concluded with two lectures on “Vermi-composting” by Mr. Mario Vallejo (CSU Extension Staff) and “Marketing of Organic Vegetable Products” by Dr. Vilma Conrado (CAS Faculty, CSU) respectively. ■



CSU, D.A. and LGU Tuguegarao lecturers and organizers guide the participants with enthusiasm during the “Training on Organic-based Vegetable Production”



R&D spearheads Seminar Series

by AVELINA T. ANTONIO

CSU-Andrews, Tuguegarao City - A series of seminar-workshops were designed and conducted by the Research and Development Office (RDO) to enhance the skills and knowledge needed in sharpening the research capabilities of faculty and staff in the University. Also, it aimed to train faculty particularly on Research Ethics and Patent Drafting. This was to cope with the R&D Targets for SUC Levelling, Performance Based Bonus (PBB) and Normative Financing.

On June 18-20, 2014, a seminar-workshop entitled "Analysis of Basic Experimental Designs and Social Sciences Research using STAR" was presented by guest lecturers from the Institute of Statistics, University of the Philippines - Los Baños namely Ms. Maria Salve C. Vasquez, Ms. Marie Joy F. Lopez and Ms. Olympia O. Tumolva.

A three-day capability building entitled "Seminar-Workshop on Research Ethics & Intellectual Property" followed on July 30-August 1, 2014. Speakers were Fr. Ranhilio C. Aquino, CSU Professor and the then Vice President for Academic Affairs, talked about "Intellectual Property, Academic Honesty and Integrity; Ms. Sandra Sangab, retired nurse at the Department of Health - Region 02, lectured on the Importance of Ethics Review, Principles and Guidelines in Research Ethics, Evaluation of Risks

and Benefits Procedures for Subject Recruitment & Compensation of Research Participants, Informed Consent, and Ethical Issues Arising from the Use and Misuse of Research Methodologies; Dr. Marlyn Martinez from the Cagayan Valley Herbal Processing Plant, Tuguegarao City, discussed the Protection of Vulnerable Subjects (with case studies) and Epidemiological Research on Traditional and Complementary Medicine; Dr. Pastor Tumaliuan, Tuguegarao City Veterinarian highlighted the Animal Care and Animal Use Requirements; Dr. Maria Michaela Rose B. Ponce, Veterinarian from the Office of the Provincial Veterinarian, lectured on Laboratory Animal Quality Assurance; and Dr. Nelia Z. Cauilan, Director for Research, CSU, presented the Proposed Roles, Functions and Composition of the CSU Research Ethics Review Board.

The "Training-Workshop on Patent Drafting" concluded the seminar series on August 12 - 14, 2014. Engrs. Emmanuel M. Mendoza and Eric C. Paden,

Area Managers of Northern Luzon and Visayas, and IP Field Operations Unit, IPO Philippines, shared their knowledge on the Overview of Intellectual Property, Patent Documents: An Aid to industrial Development, Requirements for Patentability, Basic Patent Search, Technology Development Process and Registration of Utility Model/Industrial Designs, Claim Drafting and Drafting Patent Specification, respectively.

Evidently, the seminar series had produced a growing number of submitted creative and innovative outputs from CSU faculty-researchers for copyright and patent applications. ■



The participants, RDET officials and guest lecturers during the "Training-Workshop on Patent Drafting" held on August 12-14, 2014 at CSU Andrews.

Extension initiates IEC Training and Workshop

by JJ RODRIGUEZ

To continuously capacitate the Extension workforce of the university, the Extension and Training - CSU Central Office conducted a three-day seminar-workshop billed as Crash Course on Technical Communication for IEC Materials Development & Production last August 6-8, 2014 held at CSU Sanchez Mira Campus. It was attended by the extension coordinators, faculty-extensionists and personnel from the eight campuses of CSU.

The seminar-workshop was initiated to capacitate extension workers' skills in developing and producing IEC and other communication materials intended for publication, likewise, to provide new ICT skills in graphic design and lay-outing.

Dr. Jose D. Guzman, the VP for Research and Development, Extension & Training together with Dr. Nelia Z. Cauilan, Director for Research & Development, Prof. Eladia R. Salabaoan, Director for Extension & Training and RDET staff led the participants during the opening ceremony.

Day one was allotted on the topics on "IEC Materials Development & Production" (Mr. Jan Justin C. Rodriguez, Communications Development Specialist), "How to Write a Compendium" (Prof. Ruth Maguddayao, Professor, CSU Carig), and "Crash Course on





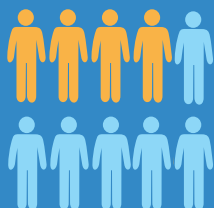
FEATURE

The region's rise has allowed hundreds of millions to escape poverty. But a large population means that there is still much work to be done.



40%

of the world's child deaths under 5 occur in Asia



UN MILLENIUM DEVELOPMENT GOALS

- Halve Extreme Poverty & Hunger
- Improve Maternal Health
- Achieve Universal Primary Education
- Combat HIV/Aids, Malaria, & Other Diseases
- Promote Gender Equality & Empower Women
- Ensure Environmental Sustainability
- Reduce Child Mortality
- Global Partnership for Development



RDET'S Banner Programs

The Connecting Points to

Cagayan State University sets a trail in mapping a new RDET Framework, the Innovations Paradigm. Innovation is the new buzz word which will attend to the United Nation's Millennium Development Goals. The MDGs are not simple responses to 'poverty reduction, human nutrition, environmental protection and related issues.' Allies are called for the realization of these goals. With this, RDET and CSU strive to link with Cagayan's development goals to gain more relevance and significant impact. From the traditional linear technology transfer model, RDET is beyond affirmative in pursuing the participatory approach model in their development activities. This calls for involvement among the varied stakeholders who will have roles to play in development. In addition, RDET eyes partnerships & external linkages, resource generation & mobilization and capacity & capability expansion as strategic steps in achieving development in Cagayan and the Region.

The recognition of the eight RD&E banner programs namely: (1) agriculture for food security and poverty alleviation, (2) marine resources and fisheries, (3) environment and climate change, (4) health and nutrition, (5) industry, energy and emerging technology, (6) socio-economic and entrepreneurship, (7) higher education and; (8) law and

governance and related technology is not to highlight alone the expertise of each campus of the university. These new set of banner programs are mapped out in line with the university's continuous response to different opportunities and challenges of development. With the foregoing context, RDET places these development themes in a more explicable manner through identifying campus banner/flagship programs based on their commodities. Each campus banner programs is to be linked-in strategically with their projects and activities involving Research and Extension. Urban Development is one of the major concerns of Carig and Andrews Campuses which leads them to promote Environment Protection & Conservation (Carig) and Education, Business & Health (Andrews) respectively. The emergence of high yielding agricultural crops in the province makes Lal-lo Campus set High Value Commercial Crops as their banner. The expertise of Piat Campus in animal husbandry pilots them to promote meat and dairy. Cacao and Banana's abundance in the town of Lasam proved to be promising, making it as Lasam Campus' banner program. Undoubtedly, Aparri Campus proficiency in marine and fisheries proved to be worth-identifying for their banner, Aqua-Marine. Sanchez Mira Campus is gearing



& the UN-MDG: and Development

towards excellence in their Coconut Banner Program. Lastly, Gonzaga Campus is eyeing Eastern Cagayan as potential Pineapple producers in the country as well as bamboo propagation in their Agro-forestry Banner Program.

These banner programs are not for simple compliance of accreditation but a response to the United Nations (UN) Millennium Development Goals (MDGs). Thus, each banner program addresses the critical issues faced by developing countries.

The MDGs are stated in plain words to be understood by all. The United Nations may have stated the goals this way so that in our own ways, we can contribute and give our share of help. Like in our university, educating for the best is our prime concern but we also extend our services to the communities in the Cagayan Valley. Our efforts to the MDGs are not a direct response but a direct contribution to it. Small contribution as it may appear but small is better than not doing anything. It is better to be small voices that sustain longer than loud voices that fade away through thin air.

In RDET, we are a small office with high aspirations. Thus, we are taking every step toward this ideal, hoping that by the end of 2015, we have made our contribution to the fulfilment of the MDG, too ambitious for now, but not too far from reality. ■

- **Sanchez Mira**
Coconut
- **Aparri**
Aqua-marine
- **Gonzaga**
Agro-forestry
- **Lal-lo**
High Value Commercial Crops
- **Lasam**
Banana & Cacao
- **Piat**
Meat and Dairy
- **Carig**
Environmental Protection & Conservation
- **Andrews**
Business, Health and Education



RDET BANNER PROGRAMS & PROJECTS

-  **Agriculture & Fisheries for Food and Poverty Alleviation**
-  **Marine Resources and Fisheries**
-  **Environment and Climate Change**
-  **Health and Nutrition**
-  **Industry, Energy Emerging Technology**
-  **Socio-Economics and Entrepreneurship**
-  **Higher Education**
-  **Law and Governance & Related Social Technologies**

Source:
ADB, ESCAP, UNDP. 2013. Asia-Pacific Aspirations: Perspectives for a Post-2015 Development Agenda. Manila;
CSU-RDET Agenda & Banner Programs 2013 - 2016
Design: Jan Justin C. Rodriguez





CSU-IP Office & RERB opening soon

Another big leap for R&D is the establishment of the Intellectual Property Office (IPO) and the Research Ethics Review Board (RERB) in the university. The creation of the two offices arose from the requirements posed for accreditation, SUC levelling, Performance Based Bonus (PBB) as well as for achieving International Systems Operation (ISO) and Institutional Sustainability Assessment (ISA) status.

Specifically, the formulation of the Intellectual Property Office in the university will guarantee that all intellectual contributions of every member of the CSU community will be given effective access to justice, enforcement and services. Following are the designated positions for the IP Office in the university:

Atty. Michael Tamayao – (CBEA) - Chair
Dr. Cielito Malamug (CTED) – member
Dr. Ludivina Cauilan (CAS)- member
Engr. Odi Quebral (COE) - member
Dr. Gelito Dulin (CBEA) - member

Meanwhile, the RERB is formulated to serve as consultative body, to implement policies and guidelines pertaining to ethical review of research proposals, and to ensure that researches are done in accordance to ethical standards, organizational regulations, local laws, standards of professional conduct and practice, values and societal needs. At present, R&D Office is inviting members and active partners for the organization of its board. However, the office is all set with the composition and the framework for the establishment of the RERB.

While many quality and innovative CSU

outputs have been produced, these are not yet patented or copyrighted. That is why the Research and Development Office through the initiative of Dr. Nelia Z. Cauilan is very optimistic towards the establishment of the IPO and the RERB. "With this initial move, we envision to have a publication office here in the university later", she said. ■

CSU Aparri Launches...

FROM PAGE 3

aqua-business centre could train students, faculty, fisher folks and the community the A-Z of the aqua-business to create more businesses and generate job opportunities. He sees CSU-Aparri's Business Centre as a model unit in establishing a campus wide business enterprise incubation centre. "Napakaganda ito kasi nandito na kayo, we'll just bind and tie up the concepts together, nandito na ang model natin, how I wish na in the future, this will become actually the aqua-business incubation center of the university", he quoted.

Delightful Conclusions

After a delightful moment of rampage at the seafood festival held at the campus business centre, the delegates as well as the administrative staff went off for a sumptuous lunch at the conference hall.

This led to a momentous sharing of ideas, success stories and even challenges about the CSU Aparri project while everyone enjoyed the served banquet.

The two co-operators were also requested to talk for a response. Mrs. Imelda Corpuz, 41 years old and a mother of seven children, hailed from Sta. Teresita, Cagayan shared her happiness on the success of the said project. She also mentioned how this project changed their lives. "*Makunak a dakkal unay ti naitulong daytoy a project nangnangruna kadakami...makunak, a daytoy ket sibibiag a bangko nu arigem ta nu agkasapulan kami, ket agkalap kami lattan ket addan tu manen pagalaan mi ti panggastos ti inaldaw, project idiy iskwele dagitoy ubbing ken daddumpay*",

she quoted. No words can explain her gratitude to the institution for giving her the opportunity to be one of the co-operators of the project.

On the other hand, Mrs. Jenalyn Contillo, 32, mother of five children and a resident of Sta. Teresita came with a tearful address. "*Dakkal a panagyaman mi kadakayo sir, maam (to CSU) ta inikkan da kami ti gundaway, nangnangruna kadagitoy a panagririgat, ket adda latta pangalaan mi, isu agyamyaman kami unay unay ta nairaman kami ditoy nga project*", she narrated with tears of joy.

The sharing ended with a promise of the two co-operators that 'they will nurture and sustain with gladness this blessing from the heavens as they help the institution (CSU) fulfil its mission to transform lives. ■

Extension Initiates...

FROM PAGE 5

Adobe Indesign" (Prof. Peter Paul Valdepeñas, Professor, CSU Carig). Day two focused on "Crash Course on Adobe Photoshop" (Prof. Virgil Vaughn J. Pico, Professor, CSU Carig) and "Technical Communication" (Dr. Rodel Alegado, Professor, CSU Sanchez Mira). The rest of day two and three were allotted for the writeshop and workshop of the Technology Compendium.

The 3-day seminar abled the participants to put the theories obtained from the lectures into practice and updated them on the latest and relevant techniques in IEC development, thus giving birth to the university technology compendium. ■

RDET's commitment...

FROM PAGE 1

pride and joyful character while showing dedication in training. But sometimes, what is unseen is their selfless dedication: a non comparable task that is given to a chosen few.

To recognize the efforts made by an organization is to define its accomplishments next to its objectives. However, accomplishments are not the only basis for recognition. In the RDET office, accomplishment of programs is one preliminary step to assess if they are on the right track of their target. Recognition is by far not foreseen for the various stakeholders will determine if this office is highly performing or not.

But recognition and incentives are not the prime reasons and motivation of RDET's existence. These are just gratuities of extra efforts in the workplace. The most genuine price is when RDET's intended clients enriched their lives to the core of development. It is when the underserved sectors of the community had an improved living. It is when simple yet sustainable living is felt. It is when the real meaning of development is sensed. That is the greatest incentive a passionate CSU RDET member can receive beyond the call of his/her duty and practice.

All of these encompassed one office: one office with numerous functions. These functions range from the simple documentation of activities to the most exigent demand of research activities. Every achievement, accomplishment and recognition of RDET is a contribution to the development of the region and to the fulfilment of Cagayan State University's trilogy of functions: Instruction, Research and Extension.

Whatever the call of duty and practice of RDET office sustains and advocates, it is one with the university's mission of putting its stakeholders at the frontline of priorities. ■

RDET Highlights



There was an important job to be done and Everybody was sure Somebody would do it. Anybody could have done it, but Nobody did it. Somebody got angry, because it was Everybody's job. Everybody thought Anybody could do it, but Nobody realized Everybody wouldn't do it. So Everybody blamed Somebody when Nobody did what Anybody could have done.
-anonymous

Forging Strategic Partnerships for Countryside Development

Building linkages with private and public organizations is not a sign of dependency but a certain sustainability. It is marked with zealous dedication of the organization and great concern to its stakeholders. This is one of Cagayan State University's pride and commitment: the realization of collaborative partnerships as catalyst of community and nation building toward self-sufficiency and global competitiveness.

CSU has conducted different projects across disciplines and thematic programs in collaboration with its development partners like the Department of Agriculture-Region 02, Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development, Department of Labor and Employment, Department of Agrarian Reform and the City Government of Tuguegarao among others.

This inter-sectoral Public-Private-Partnership is marked with ardent commitment to help improve productivity, increase economic viability, provide sustainable livelihood and strengthen the frameworks of development.

To date, Cagayan State University continues to establish stable foundation and cooperative relationship with its development 'allies' in aiming for countryside development.

"NUTS TO TIGHTEN THE KNOTS"

The collaboration of CSU and PCAARRD seeks to implement the project "Postharvest Mechanization and Storage Support System for Peanut". This research project aims to develop mechanization and bulk storage technologies that will improve the capacity of local farmers to process, handle, and store high quality peanuts for the local peanut processing industry.

"YOUTH SAYS YES!"

DOLE, with its YES Program provided fund assistance to the university (CSU) in the form of livelihood projects with capital assistance and common facility to create opportunities for students, youths, and out-of-school-youths. The university has been accredited by DOLE to be capable and experienced in implementing the YES Program. Some of the ground-breaking assisted projects both on-going and completed are as follows:

- a. Mushroom Production – (CBEA, CSU Andrews)
- b. Water Hyacinth – (CTED, CSU Andrews)
- c. Organic Fertilizer Products (CSU Gonzaga)
- d. Noodle (Miki) Production – (CSU Lasam)
- e. Red Tilapia Production – (CSU Aparri)
- f. Pavers Production – (COE, CSU Carig)

"PROMOTING S&T THROUGH DOST"

The collaboration of the university with the Department of Science and Technology (DOST) has given impetus on educating the countryside utilizing science and technology particularly on the development of community-based resources. Research based outputs through the different facilities funded by DOST located in all CSU campuses continue to provide trainings and technical assistance on product development. The Food and Innovation Center which is a state-of-the-art research facility is located at CSU-Carig that showcases research outputs ready for technology transfer and commercialization.

"THE GREEN ALLIES"

The Local Government Unit of Tuguegarao City is consistently realizing its forged commitment with the Cagayan State University in fostering

environmental stewardship in the city. The collaboration is forged on August 25, 2014 with the aim of addressing food security and promoting environmental solid waste management for the benefit of every Tuguegaraoño.

'Green allies' as it is billed advocates and promotes the green revolution in the community. People are taught to manage their wastes through composting, recycling, producing organic vegetables, vermi-composting among others. They are encouraged to participate in the program through massive campaigns, workshops, trainings and other educational initiatives. This can serve as strategic mitigation practice to climate change. Recently, a training on Organic Vegetable Production is initiated by the LGU and CSU to some farmers who wish to venture in organic agriculture.

"MAKING LIVES BETTER, MAKING TIES STRONGER"

The Department of Agrarian Reform – Region 2 in coordination with the College of Business Administration, Entrepreneurship and Accountancy (CBEA) launched the Business Development Partnership program aimed at providing business literacy and free consultancy to the twenty six (26) identified cooperatives in the different municipalities of Cagayan. Along with this, CSU and DAR are ardently developing local farmers as farmer technicians in their collaborative program "Extension Delivery System" in selected cooperatives in the province. ■

The university expresses gratitude for the partnerships with agencies which recognize that 'everybody' must take part, 'somebody' must be in-charged, 'anybody' must start change, and 'nobody' must be neglected.



RDET Highlights



CSU Eyes Northern Cagayan as Pineapple Basket of the Valley

✍️ QUIRINO JARA

In response to the need of developing further the potentials of the pineapple industry in the Northeastern part of Cagayan, Cagayan State University (CSU) has included a technology promotion in pineapple production and processing project in research and extension.

The development project for pineapple production and processing started with the establishment of Food Processing and Training Center (FPTC) by the Department of Science & Technology in 2001. This was supported by a resource inventory and technology assessment to determine the gap as basis of crafting the intervention to be undertaken.

To sustain the activity in the Food Processing and Training Center, production activities have to be enhanced by improving the training practices of the pineapple growers through the promotion of adaptable technologies and creating awareness/advocacy on the potentials by the industry to increase land utilization intended for the crops. On the succeeding year, DOST-TAPI implemented the consultancy for Agricultural Productivity Enhancement (CAPE) in collaboration with CSU-Gonzaga where faculty experts provided technical assistance to farmers raising the commodity. Consequently, in year 2014, the number of farmers increased likewise the area devoted to this crop also increased. In 2010, there were at least 150 hectares devoted to pineapple production in Northwestern Cagayan and bigger areas were found in Sta. Ana and Gonzaga.

Dr. Victor Balatico, Campus Executive Officer of CSU Gonzaga, stressed that the development of the commodity has bright prospects of increasing farmers' income since the crop does not require complex production system and sophisticated technologies unlike other high value commercial crops. Pineapple could adapt to varied types of soil and relatively difficult growing conditions. Besides, the presence of the Cagayan Economic Zone Authority (CEZA) and the influx of tourists in the area can add to the market opportunities for raw and processed products.

To develop the leadership, solidarity and capacity of farmers in these pineapple growing communities, CSU together with LGUs concerned organized the Diora-Zinungan and Rapuli Pineapple Growers Association. Several trainings were conducted on Product Development/Value-Adding including Fiber Decortication, Drying and Production of Novelty Items. The machines procured were funded by DOST.

Promoting Science & Technology Intervention

Sustaining production activities would entail the use of Science &

Technology intervention for programmed production throughout the year particularly for off-season production technology of pineapple.

In 2009, the PCAARD funded the establishment of the Science & Technology-Based Farms located in the municipality of Sta. Ana under the care of Magsasaka Siyentista (MS), Mr. Florante Agcaoili.

The interventions in the MS farm included the technology for off-season production with the use of chemicals to induce flowering. Double row planting was introduced with the desired distances of planting to produce the desired marketable fruit sizes.

Potentials for Increasing Farmers' Income

To validate the claims of farmers on the profit realized for this crop, cost & return analysis was made based on the data gathered from the farmers computed on a hectare basis as follows:

Cost of planting materials (30,000 pcs. @ 2.00/ pc.)	= 60,000.00
Cost of fertilizers & pesticides	= 30,600.00
Labor cost	= 17,100.00
Total expenses	= 107,700.00

Assumption: (30,000 plants @ 90% production)

Salable fruits are categorized into 3 sizes:

Large – **70%** medium – **20%** small – **10%**

Sales:		
Large	18,900 pcs. @ 10.00/pc.	= 189,000.00
Medium	5,400 pcs. @ 8.00/pc.	= 43,200.00
Small	2,700 pcs. @ 5.00/pc.	= 13,500.00
Total		= 245,700.00
Expenses		= 107,700.00
Net Income		= 138,000.00
ROI		= 56.16%

As Project Leader of CSU-DOST PDTC, Mr. Quirino Jara expressed optimism that in the next few years, he would be able to establish collaborations with other agencies to generate resources for the establishment of a Village level processing project for fruits and other by-products from the crop.

TECHNO Feature

From Garbage to Garden

Guide to Vermi Composting



What is vermicomposting?

Vermicomposting is the process of converting biodegradable materials into valuable organic fertilizer materials by compost worms. The excreta of earthworms is called vermicompost/ vermicast or worm compost. It is rich in many nutrients than compost produced by other composting methods.

The earthworm species suited in the Philippines for the production of vermicompost is the "African Nightcrawler" (*Eudrilus eugeniæ*). Earthworms not only convert garbage into valuable manure but keep the environment healthy.

Small scale vermin composting is well-suited to turn kitchen wastes into a high quality soil where space is limited.

Advantages of Vermicomposting

- Increases crop yield and reduces dependence on chemical fertilizers.
- Converts farm wastes into organic fertilizer.
- It is an environment-friendly technology. It does not have adverse effect on soil, plant and environment.
- It improves water retention, soil aeration, texture, structure thereby reducing soil compaction.
- Promotes better root growth and nutrient absorption
- It improves nutrient/soil fertility status.
- It can be made as livelihood project and become a source of extra income.

Steps in Vermicomposting

1. Select a suitable site or location that is shaded, free from flood, accessible to water source and near the source of composting materials.
2. Gather biodegradable materials to make the substrates or vermin bed. Shred or pulverize bulky materials.
3. Moisten or water the dry bedding materials before piling or putting them into the bin.
4. Lift the bedding slightly to create air spaces which helps to control odor and provide free movement of vermin. Vary the beddings to provide more nutrients for worms and to create a richer compost.
5. Cover the materials with plastic sheet/ old sacks/banana leaves for 1-2 weeks to start the "anaerobic process" or partial decomposition of substrate by bacteria.

6. Remove the cover and introduce the earthworm in the vermin bed. One kilogram of earthworm (approximately 1000 pieces) is good for 1sq.m. vermin bed with 100-200 kg biodegradable materials.
7. Fence or cover the bed or bin to protect the earthworms from predatory animals.
8. Sprinkle water regularly to maintain the moisture content of the vermin bed to 60-80% MC level.
9. Move the finished compost to one side of the bin then place new bedding in the space created.
10. Harvest when most of the materials have been consumed by the worm.
11. Separate the "vermi" from the vermicompost either manually or using a sieve or screen.
12. Pack the vermicompost in bags or sacks and store in cool dry place.



Tips in Vermicomposting

- Avoid overloading with food waste to minimize unpleasant, strong odor caused by lack of oxygen.
- Stir up entire bed to allow more air.
- Make sure that drainage holes are not blocked.
- Avoid using acidic and oily beddings like citrus peels, dairy products, fats, pet wastes, spiced foods wastes and woody stems.

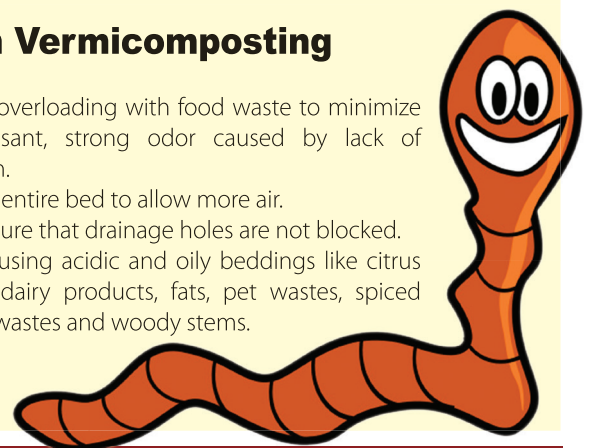




PHOTO Gallery



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