



Foreword

Quality and excellence in education is measured in terms of maturity of an educational institution towards its four-fold mandate, namely: instruction, research, extension and production. It is the primordial concern of every state university or college to implement said mandated functions in order to achieve sustainability in the community it serves and eventually the quality of life.

This research and extension manual has been crafted thru the full support of the College President, Dr. Rafael B. Querubin. The manual defines the duties and responsibilities of the staff of the Office of Vice President for Planning, Research, Extension and Trainings (OVPRET) research and extension coordinators and faculty researchers/ extensionists.

This research and extension manual is adopted as one of the strategic approaches to realize the provisions of the newly approved Five-Year Development Plan of the College (2010-2015). It will serve as basis and lay down policies in the conduct of research activities and extension services of the college.



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GENERAL INFORMATION

Historical Background

The Ilocos Sur Polytechnic State College (ISPSC) was created on February 24, 1998 by virtue of R.A. 8547, which was authored by Congressman Eric D. Singson and signed into law by then President Fidel V. Ramos. It is a comprehensive multi-campus institution of higher learning with its main campus situated in Santa Maria, Ilocos Sur. Originally, it had eight campuses spread in the second district of Ilocos Sur. Only six campuses have remained; the other two campuses were reverted back to the Department of Education.

Its main campus was the former Ilocos Sur Agricultural College (ISAC) which had its early beginnings as a farm school in 1913. The six campuses of the ISPSC system are the: College of Teacher Education and Sciences, Tagudin; College of Agro-industrial Technology, Cervantes; College of Commercial and Social Services, Candon; College of Engineering and Technology, Santiago; College of Fisheries and Marine Sciences, Narvacan; and College of Agriculture, Sta. Maria. The latter serves as the main campus and the seat of the central administration. The six campuses occupy an area of about 95 hectares, more than 50% of which is in the College of Agriculture.

On May 3, 2010, the SUC President II Dr. Rafael Querubin implemented the provision of the newly approved Five-Year Development Plan. The remaining six campuses were clustered into two; the North and South Clusters. The North Cluster is composed of Narvacan, Santa Maria and Santiago while the South Cluster is composed of Candon, Cervantes and Tagudin.

Scope of Research and Extension

The college shall primarily provide research and extension services within its service area through its research-oriented manpower, support facilities and information and communication technology.

The classification of RDE conducted in ISPSC shall be as follows:

1. **Basic Research** is an experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular or specific application or use in view.
2. **Applied Research** is an original investigation undertaken in order to acquire new knowledge directed primarily towards a specific aim or objective.
3. **Development Research** is a systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, installing new processes, systems and services and improving substantially those already produced or installed.
4. **Pilot Testing** and **Technology Demonstration** are innovative works to confirm and demonstrate the feasibility of actually using a technology gauging end-users reaction to introduction of improved technologies and identifying potential problems related to wider dissemination, utilization and adoption so that these can be fed-back to researchers.
5. **Technology Promotion and Commercialization** is an activity involving application of technologies on a commercial scale by an identified entrepreneur or user primarily to increase his income/profits and productivity technologies utilized/produced on a pre-commercial scale including market testing jointly undertaken with a client.



I. VISION, MISSION AND GOALS

Vision

An institution for total human development.

Mission

The R and E Management shall primarily provide technical training and services in the fields of economics, agriculture, fishery, trade, home industry, engineering, education, forest research and conservation, management, finance, accounting and business administration, public administration and other relevant fields, for the promotion of scientific and technological researches (RA 8547).

Core Values

Integrity
Sincerity
Perseverance
Self-Discipline
Commitment

II. ORGANIZATION AND MANAGEMENT

Organizational Structure

The PRET Office (Figure 1) shall be a distinct office to be headed by a Vice President for PRET who shall be designated by the College President for a specific term without prejudice to redesignation, subject to the confirmation of the Board of Regents/Trustees. He/She shall be preferably with a doctoral degree with adequate years of experience in research and/or extension and an academic rank of at least Associate Professor. He/She must have at least three years of actual research/extension management experience.

Directly under the Office of the VP-PRET are the directors for research, extension, planning, management information system, gender and development, and training. The R and E Management, the lead implementers of the policies and programs of the SUC's research and extension function, shall be composed of the VP-PRET as chair, with the directors of the different offices under the R and E as members. The Secretary shall also be a member to represent the administrative staff of the R and E Management.

Functions of the PRET Office

1. The VPRET Office shall be responsible for the provision of administrative support particularly in the preparation, processing and submission of accomplishments and financial reports in research, extension, planning, training, MIS, GAD and other documents deemed necessary/requested by funding agencies and other offices.
2. The Research Office shall be responsible for generating/developing, verifying, piloting and commercializing priority technologies and economically feasible, socially acceptable and environmentally sound agricultural enterprises.
3. The Extension Office will be in-charge of facilitating the diffusion of generated technologies and adoption of appropriate agriculture, forestry, fisheries and social technologies through the use of integrated, multi-disciplinary and participatory programs and services.
4. The MIS Office shall be responsible for managing the information resources of the college, the development/adoption of appropriate information systems to automate office operations and processes and provides technical assistance in the publication of information materials of the college.



5. The GAD Office shall be responsible in managing the implementation of government policy on gender and development, and ensures the integration of a gender perspective into the policies, programs, structures, activities of the of the College;
6. The Planning and Management Office shall develops and maintain a planning process/mechanism for the college in coordination with the heads of major programs on academic, research and development, extension, production, academic and administrative units/offices and coordinates closely to the office of the president for the efficient and effective performance of its function;
7. The Training Office shall manage the implementation of training and development programs of the college, coordinates with the training needs of the different colleges, and evaluates training proposals, projects and activities;
8. The CRECO shall serve as the policy-making body of the R and E, and the clearinghouse of ideas, specifically in the priority setting, implementation and evaluation of the R and E program of the whole College. It shall spearhead the prioritization of research and extension programs which can be submitted for funding.

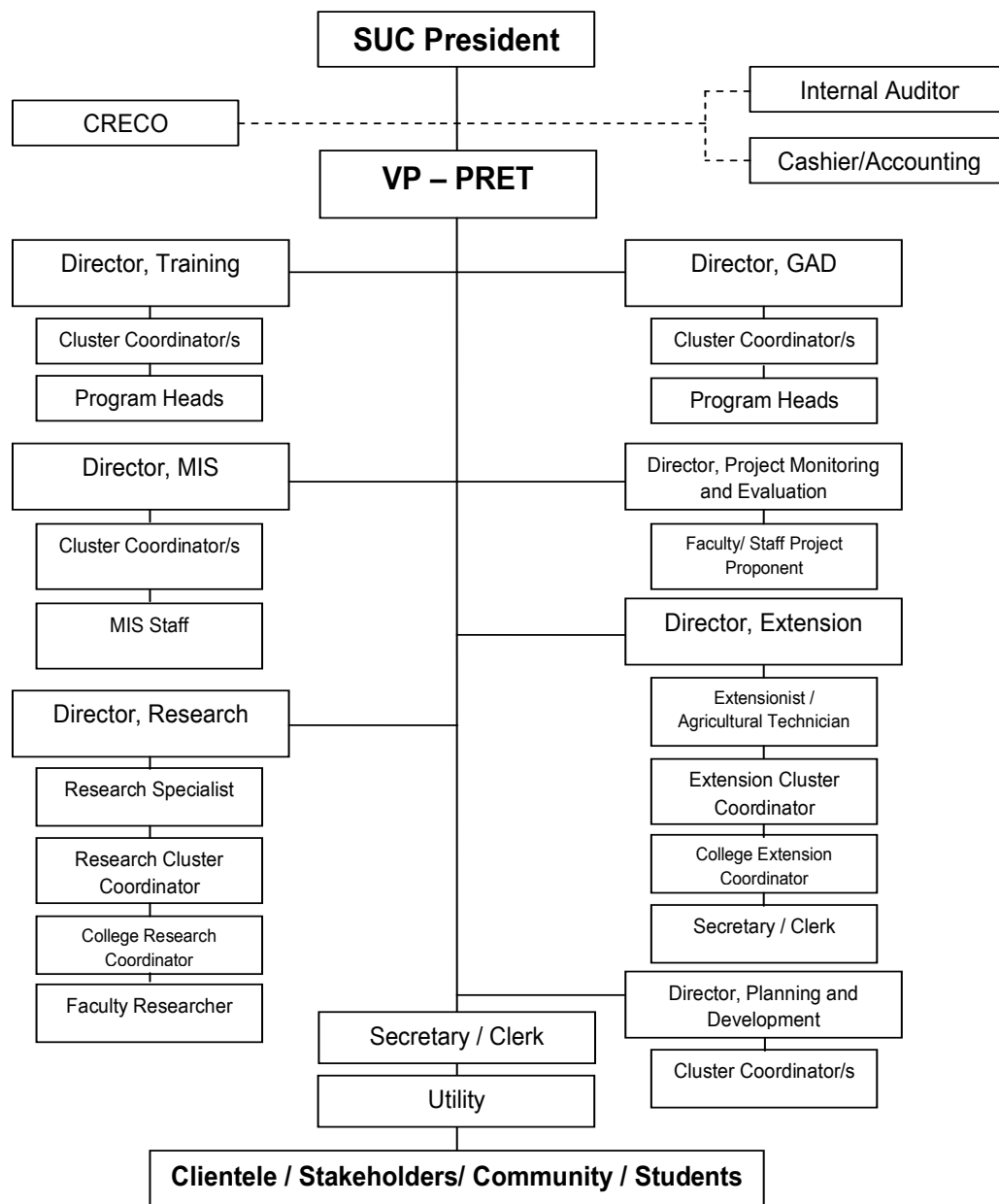


Figure 1. Organizational Structure for Planning, Research, Extension and Training

Duties and Responsibilities of PRET Officials and Staff

The duties and responsibilities of each R and E personnel are presented as follows:

Vice President for Planning, Research, Extension and Training

1. The Vice President for Planning, Research, Extension and trainings shall be appointed by the Board of Trustees based on the recommendation of the President;
2. Reports directly to the President of the College;
3. Provides administrative and supervisory functions to the Office of Planning, Research, Extension and Training;
4. Coordinates closely to the office of the president for the efficient and effective performance of its function;



5. Coordinates with the Office of VPAA and PVA for the overall management of the college;
6. Initiates linkages and networking to improve research extension and training;
7. Provides support for monitoring and evaluation of the college;
8. Provides support to the units/offices regarding the implementation of the college development plans, research, extension and trainings
9. Receives the salary and other benefits enjoyed by appointed VPs holding plantilla positions or the salary corresponding to an academic rank which is three (3) higher than the rank of the designee, whichever is higher. (DBM); and
10. Produces and submits quarterly and annual reports of activities;
11. Performs other duties and responsibilities as assigned by the immediate superior.

Director for Planning and Development

1. Reports directly to the VP PRET;
2. Develops and maintain a planning process/mechanism for the college;
3. Coordinates closely to the office of the president for the efficient and effective performance of its function;
4. Generates a total development plan of the college in coordination with the heads of major programs on academic, research and development, extension, production, academic and administrative units/offices;
5. Initiates the implementation of Five-Year Development Plans
6. Provides support to the units/offices regarding the implementation of the college development plans;
7. Conducts specific studies on institutional management to strengthen management capabilities;
8. Provides technical planning assistance to executive, college and associate deans when necessary;
9. Produces and submits quarterly and annual reports of activities; and
10. Performs any other related duties as may be assigned by immediate superior.

Director for Research

1. Reports directly to the VP PRET;
2. Initiates the formulation/review of institutional research & development agenda/priorities, policies, rules & regulation in cooperation with the research and extension council for effective implementation of R & D plans, programs and projects of the College;
3. Assists/prepares proposals for submission to institution, local and foreign funding agencies;
4. Assists/administers & supervises the implementation of R & D plans, programs and project;
5. Coordinates research and development activities in different activities in different colleges, departments/units, satellite campuses of the State College;
6. Plans, organizes, supervises the conduct of seminars, workshops, etc. related to research in coordination with the faculty & staff development office and agency in –house reviews in coordination with other research organizations or institutions;
7. Facilitates/supervises the packaging of matured technologies, publication of research highlights and technical report, and showcasing of generated and developed technology in demonstration farms;
8. Assists/facilities the establishment of research database for effective monitoring of R & D programs and projects of the State College;
9. Attends conferences, seminars, meetings, research reviews, etc., as authorized by the President;
10. Acts as Vice-Chairman of the Community Teams for the review of project/research proposal of the colleges;
11. Assists/establishes linkages in coordination with the Office of the Vice-President for PRET to generate additional resources to support the implementation of research & development projects;
12. Coordinates with the LGUs', ILLARDEC, NGOs', POs', etc. for development, commercialization and utilization of technologies;
13. Assists/reviews, edits/revises research reports prior to publication;
14. Acts as member of the Editorial Board of the ISPSC Research journal;
15. Supervises the Microbiology Research Laboratory, Tissue Culture and Greenhouse units;
16. Monitors, coordinates and evaluates all researches and research activities in the state college;
17. Produces and submits quarterly and annual reports of activities; and
18. Attends to other functions and duties as maybe required.

Director for Extension

1. Reports directly to the VP PRET;
2. Manages the FITS, Techno-Gabay projects and other GOs and NGOs projects;
3. Initiates the formulation/review of institutional extension agenda/priorities, policies, rules & regulation;



4. Assists/prepares extension proposals for submission to institution, local and foreign funding agencies;
5. Assists/administers, supervises and coordinates the implementation of extension programs and projects of the college;
6. Plans, organizes, supervises the conduct of seminars, workshops, etc. related to extension in coordination with the faculty & staff development office and in coordination with other organizations or institutions;
7. Assists/facilitates the establishment of extension database for effective monitoring of extension programs and projects of the college;
8. Attends conferences, seminars, meetings, research reviews, etc., as authorized by the President.
9. Acts as Vice-Chairman for the review of extension proposals of the college;
10. Establishes strong linkages and partnerships with other agencies, NGOs and LGU for resource generation and common development;
11. Initiates and coordinates dissemination of information with respect to research, development, extension for policy advocacy and information dissemination activities;
12. Coordinates with the LGUs', ILARRDEC, NGOs', POs', etc. for commercialization and utilization of developed technologies;
13. Monitors, coordinates and evaluates all on-going extension projects/activities of the college;
14. Produces and submits quarterly and annual reports of extension activities; and
15. Attends to other functions and duties as maybe required.

Director for Training

1. Reports directly to the VP PRET
2. Manages the implementation of training and development programs of the college;
3. Coordinates with the training needs of the different colleges;
4. Evaluates training proposals, projects and activities;
5. Promotes best practices on training and development of human resources;
6. Conducts training needs analysis;
7. Initiates the conduct of trainings;
8. Produces and submits quarterly and annual reports of activities; and
9. Performs any other related duties as may be assigned.

Director for Gender and Development

1. Reports directly to the VP PRET
2. Manages the implementation of government policy on gender and development;
3. Ensures the integration of a gender perspective into the policies, programs, structures, activities of the of the College;
4. Prepare and implement plans of action of programs and activities of the college regarding GAD;
5. Provides technical guidance to the different colleges to ensure efficient functioning of staff with respect to GAD programs;
6. Builds good working relations with the agencies/communities as partners in the field of gender equality and women empowerment;
7. Promotes best practices and appropriate working systems regardless of gender differences;
8. Produces and submits quarterly and periodic reports of activities; and
9. Performs any other related duties as may be assigned.

Director for Project Monitoring and Evaluation

1. Reports directly to the VP PRET;
2. Designs, develops and implements monitoring and evaluation reporting guidelines, tools and systems designed to inform the direction of the different projects of the college;
3. Consolidates the monitoring and evaluation plans of the different offices and projects of the college;
4. Compiles and submit reports overall status and progress of all projects;
5. Conducts project impact evaluation of project activities;
6. Provides technical assistance to all project leaders and staff;
7. Produces and submits quarterly and annual reports of activities; and
8. Performs any other related duties as may be assigned.

The Director for Management Information System

1. Reports directly to the VP – PRET;
2. Serves/assists in the automation of business processes/operations of the college;
3. Manages internet connectivity of the college;
4. Assists in the of database development, maintenance and safekeeping;
5. Manages, maintains, and secures all information resources of the college;
6. Initiates publication of quarterly development of the college under the Office of the President;
7. Creates and provides technical assistance in the production of bulletins, posters, etc. the public/community information about the College's vision, mission, goals and objectives,



- enrolment, student handbook, administrative manual, faculty manual, research and extension services and IGPs;
8. Coordinates with the VP for Academic Affairs; VP Administration on the implementation of policies related to MIS;
 9. Facilitates all matters relevant to the publication services of the College;
 10. Coordinates, supervises, monitors and evaluates all information dissemination activities of the different campuses in coordination with the Director for extension;
 11. Prepares quarterly and annual reports; and
 12. Performs other duties and functions as the VP-PRET may assign.

The Research Assistant

1. Reports directly to the Director for Research;
2. Develops and conducts researches on identified agenda, thrusts and priorities of the college;
3. Prepares institutional proposals for submission to government and non-government funding agencies, both national and international; - delete; same with #4
4. Assist in the coordination of research activities of the college;
5. Assist in the planning and conduct of seminars, training, symposium and other research-related activities;
6. Contributes and assists in the publication of the college Research Journal;
7. Assist in the preparation and publication IEC materials;
8. Documents workshop proceeding, training, in-house reviews and other related activities conducted by Research Office;
9. Updates and maintains database on R & D projects, R & D experts' profiles & linkages;
10. Attends RDE-related meetings, trainings, seminars, symposia and workshops;
11. Facilitates the effective translation of State College R & D thrusts and priorities into workable college level programs;
12. Submits reports promptly to the Vice-President for PRET and/or Research Director.
13. Assists the Director for Research in the monitoring, coordinating and evaluating of all research projects and activities of the College; and
14. Performs other research-related functions as maybe assigned by the Vice-President for PRET, and the Director for Research.

The Cluster Coordinators for Research, Extension, GAD, MIS and Training

1. Reports directly to Executive Dean and coordinates with the Directors under OVPRET;
2. Participates actively in the formulation of the college research agenda and policies as member of the Research and Extension Council;
3. Assists/facilitates the effective translation of the college research agenda into workable cluster-level programs;
4. Assists/spearheads the systematic and accurate implementation of the College Development Plan;
5. Facilitates the conduct of PRET activities at the cluster in coordination with the PRET Directors;
6. Facilitates the prompt submission of reports;
7. Assists the faculty researcher of the College in preparing proposals and in carrying them out;
8. Monitors and evaluates projects of the cluster and be responsible in the dissemination of project results in the cluster.;
9. Submits periodic monitoring reports of accomplishment to the Executive Dean, copy furnished the Directors in the PRET and MIS Offices; and
10. Performs other functions as maybe assigned by the VP PRET and the concerned Director.

Program/Project Leader

1. Helps the Director carry out objectives of the research/extension project through the performance of the following duties and responsibilities:
 - a. Formulates research/extension project plans and operational schemes;
 - b. Provides advice to unit head on the direction and evaluation of staff performance;
 - c. Carries out research/extension project plans and oversee their full implementation;
 - d. Identifies problems that may adversely affect the unit's stability and institutes measures to solve or put them under control;
 - e. Prepares preliminary reports on the research/extension project and helps finalize terminal reports and other write-ups that may be requested;
 - f. Sees to it that the welfare of the research/extension project staff is properly taken care of; and



- g. Observes/evaluates research/extension project staff performance.
2. Attends in-service training programs and participates actively in unit meetings/activities;
3. Represents coordinators in appropriate offices/bodies and prepares reports on results of such representation;
4. Chairs meetings with regards to project implementation; and
5. Performs other duties and responsibilities as required.

Study Leader

1. Prepares and assists in the preparation of RDE proposals;
2. Conducts experiments/surveys on RDE priority areas; - this is not his function
3. Carries out plans/proposals specifically assigned to him/her and makes necessary reports on activities undertaken;
4. Supervises enumerators in the conduct of project activities; and
5. Performs other duties related to the conduct of the RDE and other tasks as required by the program/project leader.

Monitoring and Evaluation Officer

1. Develops monitoring and evaluation plans and procedures;
2. Implements evaluation programs of research, extension, training, GAD, MIS and special projects of the college;
3. Keeps records of project activities and makes periodic status reports of projects;
4. Evaluates performance of project staff; and
6. Monitors and documents RDE related activities including seminars/ symposia/ workshops/ meetings and gatherings.
7. Conducts surveys on RDE priority areas;
5. Performs other duties and responsibilities as directed/ required



III. RESEARCH AND EXTENSION AGENDA

Based on national, regional and local thrusts and as mandated by its charter, the College RDE agenda, thrusts and priorities shall be as follows:

I. AGRICULTURE

A. *Ex situ* Conservation of Indigenous and Vanishing Vegetable Crops, Fruit Trees, Ornamentals and Forages

1. Survey, identification and documentation
2. Identification and classification of potential varieties or cultivars of indigenous vegetables for domestication and commercialization.
3. Adaptability trials and multiplication of indigenous vegetables for commercial utilization
4. Mass production and gene bank establishment for vanishing ornamentals, forages, vegetables, and fruit trees.
5. Herbage assessment of indigenous forages.
6. Establishment of archives of indigenous crops.
7. Effects of Climate Change on rate of vanishing indigenous crop species.

B. Livestock and Poultry Improvement and Development (Cattle, Carabao, Goat, Sheep and Poultry)

1. Genetic Improvement (Protecting the gene pool of vanishing breeds and improvement of genetic makeup of existing animals with high production potential)
 - a. Conservation of indigenous breeds and strains of poultry and livestock in the Ilocos through gene bank establishment.
 - b. Growth and productivity performance testing and selection of indigenous and exotic breeds of poultry and livestock.
 - c. Improvement and maximizing benefits from local animal resources.
 - d. Development and improvement of local native chicken (local and regional preference).
2. Improved Production and Management Practices for Efficient and Sustainable Animal production
 - a. Feeds and Feeding
 - a.1. Documentation and benchmarking of available indigenous feedstuff and feed resources in Ilocos Sur
 - a.2. Utilization and nutrient improvement of locally available and cheap feed materials
 - a.3. Utilization of drought tolerant crops as source of alternative feedstuff in response to climate change
 - Pigeon pea
 - Sorghum
 - a.4. Utilization and nutrient improvement of farm crop residues for ruminants
 - b. Pasture and Forage Management
 - b.1. Herbage yield assessment of exotic forages under local condition
 - b.2. Documentation of different tree legumes and herbage yield assessment
 - b.3. Rapid rotational grazing assessment
 - b.4. Establishment of diversified forage pasture model
3. Care and Management Practices
 - a. Evaluation of different housing systems and management practices in response to climate change
 - b. Gathering benchmark information on the indigenous housing system and production management



4. Health Management Practices

- a. Utilization of different herbal plants as source of antibiotics and botano-anthelmintics
- b. Gathering benchmark information on the indigenous animal health management practices

5. Environmental Concerns

- a. Processing and utilization of waste for fuel, fertilizer and pesticide

6. Livestock enterprise and development

- a. Supply chain study
- b. Profitability analysis
- c. Identification and packaging of technologies
- d. Improve production practices

7. Improvement of post-production technologies

- a. Product development, packaging and standardization.

C. Soil and Water Management

1. Soil fertility evaluation and nutrient management system
2. Site specific nutrient management
3. Soil and water degradation and control
4. Irrigation water evaluation (e.g. soil salinity and other related irrigation water problems)
5. Climate change and carbon sequestration
6. Ground water resources development and conservation
7. Alternative water saving technologies

D. Crop Production Technology

1. Varietal trials of different annual crops
2. Adaptation studies of promising high value crops and fruit trees
3. Improved crop production technologies
 - 3.a. Cultural management practices
 - 3.b. Integrated and sustainable pest management system
 - 3.c. Improved nutrient management
4. Off-season production of crops, vegetables and fruit trees
5. Product development and management, processing, handling, packaging, storage, transport and standardization
6. Aerobic Rice Technology in response to Climate Change
7. Varietal evaluation of different crops for seed production

E. Farming Systems

1. Organic farming technologies.
2. Labor management, farming systems and GAD
3. Conservation agriculture
4. Diversified rice farming

F. Post Production and Utilization of Technologies

1. Identification, documentation and evaluation of indigenous knowledge or practices in post-production of different crops.
2. Design and development of post-harvest technologies
3. Increasing utilization for food, feed and biofuel
4. Role of women in post-production technologies

II. ICT, TECHNOLOGY AND ENGINEERING

A. Information Communication Technology



1. Office Automation
2. Database Management
3. ICT Services
4. Knowledge Product Generation (Content Development)
5. Biometrics
6. Web Applications
7. Information Systems Development and Testing

B. Technology and Engineering

1. Industrial Prototype Design
2. Processed Engineering
3. Material Engineering (*ceramics, etc.*)
4. Agricultural Engineering
 - 4.a. Agricultural Machineries Prototype Design
 - 4.b. Underground Water Exploration
 - 4.c. Improved Housing Design for Animals in response to Climate Change
 - 4.d. Area and Feed Maximization
5. Recycling
6. Loom weaving
7. Metalcraft
8. Material Resources management

III. FORESTRY, ENVIRONMENT AND NATURAL RESOURCES

- A. Waste Management
- B. Biodiversity and Ecotourism
- C. Renewable Energy and Conservation
- D. Environment and Biodiversity Conservation
- E. Screening and Biodiversity Components for Bioactive Compounds
- F. Monitoring of Environmental Pollution
- G. Health and Nutrition: Development of Traditional Herbal Medicine
- H. Establishment of Tree Park
 - I. Establishment of Bambusetum
- J. Agroforestry farming system
- K. Supply Chain of Bamboo and Other Forest Products
 - L. Study, Conservation, and Use of Vast Biodiversity in Plants and Animals in the Region
- M. Climate Change (adaptation and mitigation)
 - N. Protecting Forest Degradation and Afforestation (conservation and erosion control)
- O. Silviculture
- P. Forest Products Utilization
- Q. Reforestation

IV. HUMANITIES, SOCIAL SCIENCES, EDUCATION AND HRM

- A. Program Evaluation
- B. Gender and Development
- C. Faculty Instruction Capability
- D. Instructional/Resource Materials
- E. Graduate Tracer Studies
- F. Curriculum Development
- G. Model Building Studies
- H. Policy Building Studies
- I. Cost Effective studies of HEIs and Programs
- J. Indigenous People and Culture
- K. Teaching Methods/Approaches and Techniques
- L. e-learning
- M. Hotel and Restaurant Management
 - M.1. Skills competencies
 - M.2. Product development and standardization



V. SMALL, MEDIUM ENTERPRISES (SMEs, Informal Sectors and NGOs)

- A. Meat, Fish and Crop Processing
- B. Enterprise Development and Improvement
- C. Financial and Marketing Management
- D. Supply Chain Analysis

VI. FISHERIES

- A. Product Development and Commercialization
- B. Marine Resources Assessment, Utilization and Conservation
- C. Inland Fisheries R&E
 - C.1. Hatcheries
 - C.2. Grow-out production
- D. Fishing Technology Development
- E. Coastal Resources Management
- F. Fishery Training
- G. Pond Engineering

BANNER PROGRAMS FOR EXTENSION

As mandated the Extension Office is mainly responsible in facilitating technology dissemination and in the utilization of available appropriate agriculture, fisheries, forestry, and social technologies. It shall help and work closely with the national extension system or partner agencies and other line departments of the national government. Based on available resources (internal assessment) and national, regional and local priority thrusts (external assessment), ISPSC shall have the following banner programs for extension:

1. **Technology Demonstration.** This will be focused on moving technologies from research and development to the demonstration phase in coordination with linkage agencies and stakeholders through the establishment of Pilot Projects/Models or Special Projects.

The College Extension shall conduct pilot/model/special projects in selected areas where the technology/project has potential for adoption. The pilot project shall be undertaken to showcase, field test and demonstrate viability and goodness of the project. It shall be properly documented, monitored and evaluated before recommended for wider dissemination and adoption. Pilot projects can focus on: a) component technology, b) package of technology, c) community development approach, d) group or cooperative approach, e) new production, postharvest and marketing system, f) model of extension delivery, g) LGU-academe partnership, and h) agribusiness model.

After piloting the model/technology, ISPSC shall identify an agency or group which will manage or continue the project to insure its eventual institutionalization.

2. **Capability Enhancement.** This aims to update the knowledge as well as enrich the attitudes, skills, behavior, leadership and culture of stakeholders and target clientele through capability building and training. The program will also continue to develop the capability of extension and development staff of the college.

The Extension Office shall plan and implement capability building projects for various groups particularly for national government employees, farmers, women, youth, entrepreneurs, people's organizations, non-government organizations and other clients. This can be done in cooperation with LGUs and existing GOs/NGOs. The concentration of the training program shall be based on the needs and interests of target groups of clientele.

It shall serve to be trainers and sources of new technologies or innovations. Projects under capability building shall include, but not limited to, the conduct of training, seminar, workshop, symposium, lecture-series, lakbay-aral, apprenticeship, exchange program, distance education, among many others.

3. **Information Support Services.** This shall involve the provision and dissemination of technology information to clients in various multi-media formats as follows:



- Broadcast – radio program
- Print – press release, IEC materials
- Interpersonal Communication – documentation of programs
- Information Campaign

The Extension Office shall make IEC materials for various clientele groups. The use of local/national radio stations and television to promote technologies shall also be explored, and when deemed possible, work out a MOA between ISPSC and the radio/TV station. Technologies can be popularized in various forms like print (leaflet, primers, posters, flyers, newspapers), videotapes, and CDs. Techno fora, press media conference, and other strategies which can create greater awareness and interest about the technologies shall also be used.

4. **R&D Results Utilization.** This shall guarantee to bring science-based information and technology services to end-users as well as link technology generators, technology service providers with stakeholders and end-users through the following:
 - Farmer's Information Services-Techno Gabay Program
 - Science and Technology-Based Farms
 - Other R&D Utilization Programs
5. **Technology Services.** This shall aim to strengthen the technical capacity and physical resources of stakeholders and design appropriate livelihood programs of clients and beneficiaries.
6. **Resource Sharing.** This shall aim to share and complement resources of government organizations, local government units, rural-based organizations, public schools and private agencies. This shall involve the following activities:
7.
 - Adopt-a-school
 - Adopt- a- Family
 - Community services – clean and green, coastal clean up, etc.
 - Lakbay Aral/Educational Tour



IV. IMPLEMENTING GUIDELINES

RD&E PROGRAM/PROJECT PROPOSAL PREPARATION, PROPOSAL SCREENING AND EVALUATION

Technology Needs Assessment

Basically the immediate priority service area of ISPSC is the Province of Ilocos Sur and Region I. The OVPRET/proponent shall coordinate with LGUs and other NGA/NGO's offices within its service area to determine the priority commodities that need to be addressed. The problems and needs of farmers, traders, brokers, entrepreneurs, millers, institutional market, and processors shall also be assessed.

Assessment of the Environment

Internal Assessment. The proponent shall take into consideration the following internal environment of the college:

- ◆ total budget for extension of the institution;
- ◆ manpower and its capabilities;
- ◆ vehicles, equipment, facilities;
- ◆ extension program/projects with approved line budget; and
- ◆ linkages and networking.

External Assessment. The OVPRET/proponent shall coordinate with the LGUs from the provincial, city/municipal down to the barangay/village level in order to assess their priority and pressing problems. The OVPRET/proponent shall work with existing political structure and existing national or local extension delivery system. Some extension projects may not involve LGUs, but in many cases, the OVPRET/proponent shall coordinate, cooperate, complement and supplement the current government programs implemented by various local and national offices.

Priorities of the College and Funding Agencies

Proponents shall align proposals with the RDE priorities of the college and funding agencies in order to have greater chance of funding support. Quality and relevance of the proposal, and sometimes the credibility of the proponent are quite important.

SUBMISSION, APPROVAL AND FUNDING OF RDE PROPOSALS

Submission and Feedback

Proponent shall submit proposals to College Research/Extension Coordinator for endorsement by the College Dean and the Executive Dean. The proposal shall then be submitted to the OVPRET for review by an Ad Hoc Committee. The reviewed proposal shall then be presented to the CRECO for validation and to be returned to the proponent for revision and feedbacks.

The proponent shall revise the proposal as required and shall be submitted back to the OVPRET through channels for endorsement to the SUC President for approval and funding and to funding agencies.

a. Approval of Proposals for Implementation

All projects approved for funding by the College President shall be submitted to the Board of Trustees for final approval and confirmation.



b. Funding Source

- ◆ External Funding. The Extension Office should continuously prepare project proposals throughout the year. If the proposals will be submitted to PCARRD, DOST, DA or international funding agencies for possible funding support or counterpart funds, the office shall follow the protocol set by these agencies in the same manner when research proposals are also submitted for possible funding consideration
- ◆ ISPSC Fund. Extension project proposals to be funded by the SUC-GIA funds shall be submitted one year before its actual implementation following the DBM schedule of budget proposal submission.
- ◆ Sponsors/Clients. Since ISPSC budget for extension is very limited, proposals for trainings/workshops shall be prepared indicating among others that the funds will be obtained from registration fees to be paid by clients/participants or sponsors.
- ◆ LGU Fund. Proposals for extension projects that require counterpart funds or full funding from LGUs must be submitted to the chairperson of the appropriate committee (Agriculture, Health & Nutrition) in the Provincial, City/Municipal Council for screening and evaluation before approval by the Sangguniang Bayan/Panlalawigan for appropriate funding support. Proposals for relatively big projects need to be submitted one year before implementation. Proposals for small projects that need small budget support can be submitted anytime of the year. When deemed feasible LGUs can possibly provide funds from existing programs with big budget allocation.

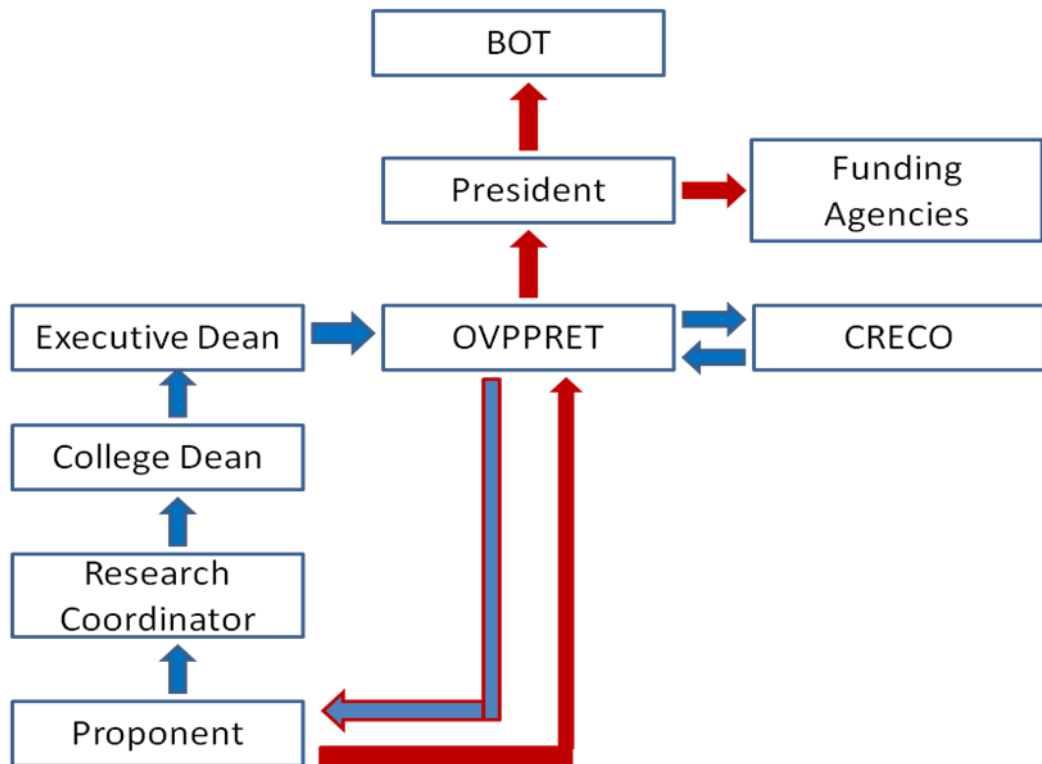


Figure 2. Proposal Submission Flow



INCENTIVE SCHEMES

EQUIVALENT TEACHING LOAD

The different programs under the RDE may involve faculty and non-academic staff with distinct and separate plantilla positions.

However, every faculty/staff must have a mother unit where he/she can be identified. His/Her involvement in research or extension functions must be approved by the head of the mother unit to gain legitimate equivalent teaching load (ETL). Appropriate designation shall be issued to each faculty indicating the ETL.

Equivalent Teaching Load (ETL) of Various Positions under the Research and Extension Program

Position/Designation	ETL
VP-PRET	18
Director	12
Program Leader	6
Project Leader	4
Study Leader	3
M/E Coordinator	3
Laboratory in-charge	3
Member	1

Honoraria

Honorarium is a form of remuneration for services rendered beyond the minimum regular workload of a faculty/staff whose broad and superior knowledge, expertise or professional standing in a specific field contributes significantly to scientific and technological research and development (PD 1502 and Accounting and Auditing Manual for Research Operations (AAMRO Book 1). It is an honorary payment or reward given as compensation for services rendered by faculty/staff on assignment to RDE projects (OCPC CPG No. 80-4, Aug 7, 1980, implementing LOI No., dated June 30, 1977). For this purpose an RDE project is an inter-agency or inter committee activity, or an undertaking by an individual or a composite group of faculty/staff from various agencies which is not among the regular primary functions of the agency concerned.

1. The granting of honoraria/incentives to researchers, technical and support personnel shall be provided to encourage productivity and acknowledge extraordinary performance and efficient delivery of services and output in the college.

◆ Coverage

Honorarium is paid to a faculty, staff or to a private individual who is involved in the conceptualization of studies, projects or programs and in the implementation and coordination of RDE activities, or rendition of advisory, administrative and/or management functions in the conduct of RDE activities.

Researchers and technical support personnel authorized by the College President who render services therein shall be entitled to honorarium/incentive pay. Technical personnel shall also include accountants and personnel whose technical expertise in their own field of specialization are required. On the other hand, support personnel shall include, but not limited to clerks, typists, drivers and other of similar or equal rank as determined by the College President on a case to case basis.

Officials and employees assigned to special activities (task forces, study groups, teams, technical review panels, committees and consultancy group) which are beyond their normal workload shall be entitled to honorarium or incentive pay, provided that such funds have been allocated in the budget or made available through grants/donations, or income from outside sources.



◆ Rates

Honorarium/incentive pay must be provided in approved line item budget except in special assignments. In cases where specific provisions of rates of honorarium are stipulated in the MOA/MOU for project with foreign funding, the terms of the contract shall be followed. Payments of honorarium/incentive for project staff and other personnel concerned shall be made only after the targeted milestones are attained or after six months of project completion for activities of projects whose duration is less than six months. Payment for committee work may be based on actual performance of work.

◆ Limitations/Exemptions

No honorarium shall be paid regardless of the source of fund without prior approval by the College President. Such authority to receive honorarium shall be expressly stated in a special order signed by the College President.

No individual may be entitled to receive honorarium/incentive pay in more than one project/study/activity within the program or project. In case where the individual is assigned/designated in more than one study/project/activity within each project/program, he/she shall receive only the highest honorarium/incentive pay.

Incentives for Authors of Published Research, Scientific, Scholarly Works and Books

- a. The granting of fair incentive can be provided to encourage the publication of research, scientific, scholarly works and books by faculty and staff members aside from the self-fulfillment the author gets for the publication of his work.
- b. Guidelines for this incentive scheme can be worked out by an Ad Hoc committee constituted by the College President. Said guidelines should be presented to the College Research and Extension Council prior to presentation to the Board of Trustees for approval.

Merit System for the Scientific Career System (SCS)

Qualified and deserving faculty and staff involved in research can be recommended to avail of the Merit System for the SCS established within the Civil Service pursuant to Executive Order No. 784 dated 17 March 1982. The SCS was organized on 19 July 1983 with the issuance of Executive Order No. 901. The establishment of the SCS was further reinforced by Section 4 of R.A. 8439 entitled "Magna Carta for Scientists, Engineers, Researchers and other Science and Technology Personnel in Government".

- a. One of the objectives of the Merit System is to provide a system of rewards and recognition for outstanding career scientists to insure their continued service in scientific RDE in government.
- b. Under the SCS, researchers can be conferred with a rank to the extent they meet the minimum qualifications as follows:
 - ◆ Scientist I to IV – completion of master's degree in the appropriate field of science and ten (10) years of productive scholarship and professional RDE work or a doctoral degree and five (5) years of productive scholarship and professional RDE work.
 - Scientist I must garner at least 50 points in scientific productivity (productive scholarship and professional RDE work) measured in terms of (a) scientific findings, technologies, discoveries, inventions, major research papers, book articles, etc. and (b) acceptance of scientific findings, inventions discoveries and technologies as evidenced by citations and acceptance by end users.
 - Scientist II must garner at least 60 points in scientific productivity
 - Scientist III must garner at least 70 points in scientific productivity
 - Scientist IV must garner at least 80 points of scientific productivity.



- ◆ Scientist V – Completion of doctoral degree in appropriate fields of science and ten (10) years of productive scholarship and professional RDE work beyond the doctorate degree. He/she must garner at least 90 points in scientific productivity.
- ◆ Conferment requires that the scientist-applicant is given the minimum point-score for the rank by each rater.

Under exceptional circumstances such as awards to Filipino scientists by internationally recognized award giving bodies, by unanimous agreement, the Scientific Career Council (SCC) may confer a rank to the scientific personnel.

- c. The rate of compensation, fringe benefits and allowances in the SCS shall be in accordance with existing laws. The agency concerned shall pay the salary, allowances and fringe benefits of the scientist. The SCS shall establish a system for providing additional incentives to scientists subject to the availability of funds and existing accounting and auditing rules and regulations.

After being conferred with a SCS rank, the scientist is entitled to receive the salary grade (SG) corresponding to the rank as follows:

Scientist I – SG 26
Scientist II – SG 27
Scientist III – SG 28
Scientist IV – SG 29
Scientist V – SG 30

MONITORING AND EVALUATION

Monitoring and evaluation of on-going and completed R and D projects are important tools in seeing to it that resources invested to such projects are used efficiently and effectively. Evaluation activities should be included at various phases in the design and implementation, and completion of a project whether it is funded from external or local sources. Evaluation activities are usually organized at various phases in a project, namely:

- ◆ **Ex ante or before implementation** - to identify and define a potential project and appraise its likely results. This requires identification of a problem that the project will aim to alleviate, and an assessment of the environment within which the project will be implemented.
- ◆ **During implementation** – to monitor project activities as they are being implemented or at least to make periodic checks that implementation is covering planned activities. Monitoring includes field evaluation, agency in house reviews and integrated reviews.
- ◆ **Ex post or after completion** – to demonstrate that the objectives of the project have been achieved as planned or to verify whether the project led to the expected impact on the people who were to benefit from it.

Monitoring and *ex-post* evaluation suppose that there is a clearly identifiable activity or set of activities with specified expected results, a time frame and measurable standard of accomplishment. Monitoring of ongoing projects confirms that activities are being implemented as planned. Bottlenecks and problems are identified as they emerge and are corrected before causing too much damage. It keeps the manager aware of what is being achieved and facilitates management's task of noticing unexpected effects and problems so that implementation plans can be revised. It is possible that changes have to be made during the implementation stage or after completion, such as addition of an experiment and addition of a pilot village or survey site.

Evaluating a completed project confirms whether the activities did or did not lead to the expected results. It also seeks to explain what in the way the activity was designed and implemented, facilitated or hampered in reaching the desired results. It is therefore necessary, as with monitoring, that the activity be clearly identifiable, with well-defined expected results against which actual results can be measured.

The evaluation of a completed research activity can go one step further to demonstrate the impact of the results on the people who are expected to benefit from it. In this case, the evaluation goes beyond the activity as originally planned to see if the reasoning underlying the activity was correct and to estimate the contribution of research to development.



Monitoring is generally aimed at:

1. Determining the status of projects to ensure that progress and output are in accordance with plans;
2. Assessing project resources to determine if these are being used efficiently and effectively and are available at the right time in the required amount;
3. Promoting coordination among participating agencies by disseminating information on the scope, schedules and problems of on-going projects;
4. Providing necessary feedback in project control so that prompt corrective measures can be instituted when required; and
5. Providing feedback necessary in planning and evaluation of projects.

MONITORING AND EVALUATION METHODS/TOOLS

1. **Regular Meetings.** Offices should conduct monthly meetings so that problems can be given immediate solutions.
2. **Field evaluation.** Field evaluation consists of regular visits to experimental sites at specific dates. An evaluation team conducts these visits to discuss with the researchers the progress of project implementation. Field evaluation schedules can be synchronized with the quarterly meeting of the Regional Technical Working Group (RTWG) of the regional consortium or the Regional RDE Network. It has the following objectives:
 - ◆ To observe the actual conduct of the experiment, particularly in terms of methodology;
 - ◆ To verify information contained in technical and financial reports;
 - ◆ To recommend alternative courses of action to improve project performance; and
 - ◆ To consult with researchers on the possibility of undertaking other priority projects.
3. **Agency In-House Review.** The agency in-house review (AIHR) is conducted annually to assess the attainment of objectives of the college/university's completed and on-going RDE projects; to identify problems met during project implementation and recommend specific courses of action to these problems; to update the university's RDE plans; to identify new researchable areas, generated technologies requiring field testing, verification and piloting; and to identify mature and potential technologies ready for packaging, dissemination and/or significant information for policy formulation and development planning of the agency.
4. **Regional Review.** This is the second level review conducted annually by PCARRD through the regional consortium. Significant breakthroughs or technologies and information for dissemination identified in the agency in-house reviews are elevated in this regional integrated review.

This activity aims to:

- ◆ identify significant RDE breakthroughs which could be widely disseminated in the region;
- ◆ identify technologies or significant information for policy planning; and
- ◆ formulate regional RDE framework plans.

5. Report Requirements

a. Progress/Terminal Reports

After completion of the projects, submission of terminal reports should be strictly enforced. The following guidelines may be observed:

- ◆ On the last quarter of implementation, the Office of the Directors for Research and Extension should send reminders to program/project leaders to submit their terminal reports.
- ◆ Terminal reports are expected to be submitted to the Office of the Director for Research and Extension two months after project completion. This in turn should be immediately submitted to PCARRD in compliance with PCARRD Administrative Order 143-e Series of 1996.
- ◆ The Office of the VPRET should not entertain proposals from researchers with pending terminal reports.
- ◆ Completed RDE projects are published in the college RDE journal. This is an annual publication of the Research Office catering to completed and on-going RDE projects with significant information and the winners of the best graduate and undergraduate theses.
- ◆ Researchers/Extensionists shall be encouraged to submit manuscript in publishable form.



b. Accomplishment Report

- ◆ Each of the offices under the RDE should submit their accomplishment report featuring the significant R/E activities/events implemented during the period in review.
- ◆ Annual accomplishment reports are usually of two types depending on the coverage of the report.
- ◆ Annual Report – Calendar year (from January to December)
- ◆ Annual Report – School year (June of the previous year to May of the current year)

TECHNOLOGY DEVELOPMENT PROCESS

Results of monitoring and evaluation shall categorized each RDE activity based on the five phases of technology development process as set by PCARRD of the DOST as follows:

- a. **Technology Generation (TG).** This is the scientific and experimental stage wherein the PRET Office utilizes all its resources human/technical, financial, material, physical and other resources to generate a component technology or a package of technology as mandated by the college charter.
- b. **Technology Verification (TV).** A technology is classified for verification if it can be incorporated in a package of technology that has potential for improving existing farmers' practices. Specifically, it should satisfy the following:
 - ◆ It is an integrated technology conducted in the farmers' fields;
 - ◆ It has been tested for two seasons in TG trials;
 - ◆ It has shown economic and technical feasibility in TG trials. Its computed return based on TG trial is better than that of farmers' practices as shown by marginal rate of return (MRR); and
 - ◆ It is perceived to be socially acceptable and environmentally safe.
- c. **Technology Adaptation (TA).** A technology is classified as technology for adaptation if it meets the following criteria:
 - It is conducted in the station or the farmers' field and is only a component of technology;
 - It has been tested for TG research for at least one season;
 - It has shown good potential for economic feasibility as based on TG research; and
 - It has good potential for acceptance by intended end users.
- d. **Technology Dissemination (TD).** This is the stage when promoters of technologies can use varied approaches and methods in bringing technologies to end users. Technologies are ready for dissemination if these have met the following criteria:
 - ◆ General adaptability – these are replicable under field conditions;
 - ◆ Economic profitability – their percent of profitability is equal to the prevailing rate of interest on loans of formal financial institutions. Profitability also considers social costs and benefits;
 - ◆ Social acceptability – these do not contradict social norms and values prevailing in the community; and
 - ◆ Potential availability of support services – users have access to market, credit facilities, material inputs and others.
- e. **Information for Dissemination (ID).** This involves the dissemination of generated information that are very useful in the world of work. Information that are products of research is important to agricultural and rural development. Information for dissemination can be of help in the following:
 - ◆ Possess significant social and economic implications associated with technology adoption;
 - ◆ Contribute to a better understanding of research problems;



- ◆ Offer information gaps in basic knowledge of agriculture, forestry and natural resources; and
- ◆ Help policy makers formulate policies in food, agriculture and natural resources.

- f. **Technology Commercialization (TC).** Technologies that have successfully passed the piloting stage, or have passed the criteria for piloting, or have not been piloted yet, but have high potential for commercialization are considered priority technologies for commercialization.

Technologies for commercialization are selected based on the following criteria:

- ◆ Provide the best alternative for improving income and productivity of a greater majority of people; and
- ◆ Provide immediate solutions to self-sufficiency problems, environmental sustainability, import substitution, export generation and promotion of alternative sources of food.

THE TECHNOLOGY ASSESSMENT PROTOCOL (TAP)

Technology assessment is an important aspect of the whole technology development process. It requires the process of anticipation and analysis of a broad range of socio-cultural, technical, economic, environmental and political/legal impacts prior to the introduction of a given technology or even while a specific technology is being promoted. The success of the technology assessment depends on the efficient gathering and synthesis of adequate information using some recent innovations in technology assessment procedures and processes. The processes are facilitated by the use of a gap identification tool called Quick Resources Appraisal (QRA), and an intervention identification tool - the Risk Management Process (RMP). The TAP aims to increase the level of confidence of the R & D community on the technologies it will promote and transfer.

A pre-requisite to the application of TAP is the organization of an interdisciplinary team composed of at least five (5) members with two basic expertise that are critically needed: a technically competent expert who knows the technology and the commodity being assessed and an economist with capabilities in financial analysis.

a. Working Principles of Technology Assessment

- ◆ Participatory approach
- ◆ Team delivery
- ◆ No role playing
- ◆ Consensus decision making
- ◆ Iterative and time bound

b. Procedures in Technology Assessment

1. Technology Identification/Pre-Screening (Technical Feasibility Test)
 - ◆ Technology Classification
 - ◆ Technology Characterization
 - ◆ Technical Feasibility Test
2. Technology scanning to determine if the technology has the following attributes:
 - ◆ Socially acceptable
 - ◆ Technologically sound
 - ◆ Economically viable
 - ◆ Environmentally sound
 - ◆ Politically supported
3. Technology Validation

DESIGNATION OF PROGRAM, PROJECT FOR STUDY LEADER AND STAFF

PROJECT/PROGRAM LEADER

- A. Proponents of approved and funded proposals are automatically designated as the research/extension leader. If for some reason, one or two of the original proponents will no longer be available at the time of implementation, qualified personnel from Research/Extension or other academic units can be considered. Recommendation for replacement can be made by the director for research/extension in consultation with the concerned research/project leader. Said recommendation is to be endorsed to the VP-PRET who in turn should issue the appropriate designation for approval of the college/university



- president. If the proposal comes from the Extension Office, the recommendation must come from the director for extension.
- B. Personnel with academic or non-academic designation (research assistant) or equivalent can be designated as: a) program/project leader, provided that he/she has at least an MS degree with two years of research/extension experience; or b) study leader, provided that he or she has a BS degree with at least three years of research experience.
 - C. Designation of personnel from other units should be cleared with the heads of concerned unit.

Designation of Officer In-Charge

- A. For short duration of absence/official business (OB)/travel (one month or less)
- B. Designation is done by the officer concerned, copy furnished the proper authorities
- C. For longer duration of absence/OB/travel (more than one month)
- D. Designation is done by higher authority upon recommendation, if possible, of the officer concerned.

Other Designations

- A. Designation of other administrative positions below the director's level is made by the director for research/extension with concurrence of the VP-PRET.
- B. Any additional designations/assignments to be official are put in writing by designating official, unless in emergency cases where official designation cannot be immediately done.

Hiring/Termination of Personnel

1. For project personnel (research assistants, aides, laborers)
 - ◆ After thorough review/evaluation the project/study leader can recommend the hiring or termination of personnel to the director for research/extension.
 - ◆ The director for research/extension issues the designation/ termination notice to the personnel concerned.
2. For personnel with academic rank
 - ◆ A committee composed of the director for research/ extension, division chiefs, screens and recommends the personnel for hiring/termination. Recommendation is made by the committee to the VP-R and E who in turns endorses the recommendation to the office of the college/university President for appropriate action.

Promotion of Personnel

- ◆ Program/project/study leader recommends to the director for research/extension personnel for promotion based on evaluation/promotion criteria.
- ◆ Promotions committee screens and recommends personnel to the VP-PRET.
- ◆ VP-PRET endorses recommendation to the president.

Workload

1. R and E personnel with academic rank should carry a minimum teaching load per semester. The normal workload is 18-21 ETL. As per college policy, honorarium shall be allowed only after the personnel have met the normal workload.
2. Academic personnel who have not met the minimum required teaching load should inform his/her immediate supervisor so that additional assignment can be given either by the office or in other units of the college to attain the normal workload.



3. Teaching assignments other than the regular ones requested by the academic units should be coursed through the director for research/extension/VP-PRET. Decision will be arrived at upon discussion with the faculty member concerned and his immediate supervisor.

On Sales of Produce of Projects

1. For projects under trust fund and with memo of agreement as legal basis:
 - ◆ Transaction shall strictly follow the financial management and auditing procedures of the university. The income generated from the sales of the produce shall be credited to the trust fund of the project.
2. For other projects:
 - ◆ Transaction and remittance of sales should strictly follow the requirements of the financial management and auditing procedures of the college.
3. In no case shall any of the project personnel be entitled or allowed to free share of the produce unless officially allowed or sanctioned by higher authorities.

Use of Supplies

The supply officer takes charge and monitors use of supplies. As required, personnel should sign in a logbook for supplies withdrawn.

Checking of Attendance and Signing of Daily Time Records (DTR)

- a. The director for research/extension signs the DTR of all program/project/study leaders. The immediate supervisors countersign the DTR of personnel under them.
- b. Program/project leaders sign the DTR of all research assistants, research aides, enumerators, laborers and clerical staff under them. The immediate supervisor countersigns the DTR.

Problems and Grievances

All problems and grievances should be tackled first within the unit before these are elevated to higher authorities.

STUDENTS' INVOLVEMENT IN RESEARCH AND EXTENSION

1. Access/Use of RDE Facilities

- a. The R and E facilities should be under the supervision and management of faculty with plantilla item, preferably those with regular teaching loads.
- b. Students can use the facilities with some minimal fees.
- c. The R and E facilities can also be used to serve the farmers' laboratory test needs and needs of private/commercial establishments with appropriate payments (e.g. soil test, feed quality tests, etc.)

2. Undergraduate and Graduate Thesis Support

- a. Students can be junior researchers and can be involved as part of big R and E programs and projects. Financial or material supports are granted if funds are available. This shall be done to strengthen students' research capabilities by providing graduate and undergraduate thesis financial assistance.

b. Criteria for Application:

- a. Graduate and undergraduate students of the university with an approved thesis/dissertation outline can apply for thesis support.

Guidelines for Availment



- ◆ The thesis should be in line with the existing research thrusts/priorities of R and E.
- ◆ In case the thesis is not in line with the research thrusts of R and E, the following criteria will be considered:
 - a. Importance to national development considering its social, economic and environmental impact;
 - b. Originality (done by the students themselves); and
 - c. Urgency in terms of the college's needs.
- ◆ The Cluster Research Coordinator in consultation with the Dean selects the entries for their corresponding colleges.
- ◆ The thesis proposals are then submitted to the Research Office on or before the following schedules:

August - thesis to be conducted during the second semester
February - thesis to be conducted during the first semester

- ◆ Submitted proposals are then referred to the concerned divisions of the Research Office for review. The research division chiefs designate a research council to be composed of three members (division chief as chairman and two members who are experts on the concerned field as members).
- ◆ The Research management team together with the cluster research coordinators finally reviews and approve the thesis to be funded.
- ◆ Only two students per semester (one graduate and one undergraduate) who are on the stage of conducting their theses could avail of the financial support.
- ◆ Each student is entitled to a thesis support in the form of supplies and materials with a maximum amount of P 5,000.00 per semester.
- ◆ Upon approval, a written memorandum of agreement is signed by the student, thesis adviser and the director for research.
- ◆ After the completion of the research, students are required to submit two (2) copies of the manuscript to the Research Office.

Search for Best Graduate and Undergraduate Theses

The main objective of the search is to encourage students to develop outstanding thesis/dissertation by giving incentive to their work.

Specifically, it aims to:

- ◆ select one outstanding thesis for science and non-science courses in the undergraduate level and one each for MS and Ph. D; and
- ◆ provide certificate of recognition and cash awards to students with outstanding thesis/dissertation.

Mechanics of Implementation

Who May Join?

Theses of all graduating undergraduate/graduate students can be considered for the best thesis award. These include all science and non-science undergraduate theses and all MS theses and Ph. D dissertations. However, theses/dissertations which are part of any on-going government and non-government funded researches are not eligible in the search. Selection is done sequentially in three levels, namely:

- ◆ **Department Level**

Every department screens students' theses/ dissertations during the final defense. For the undergraduate level, the selection committee, composed of the chairman and the members of the faculty, selects one outstanding thesis for the department.



For the graduate level, members of the advisory committee recommend potential candidates to the department where the students belong. The selection committee, composed of the chairman and the faculty members, then selects one outstanding thesis/ dissertation for the department.

Those selected for each department in the undergraduate and the graduate levels are submitted to the head of the screening committee in the college and IGS, respectively.

◆ **College/Graduate Level**

From all nominees in each department, the selection committee composed of the dean, the department chairpersons and the cluster research coordinator selects one outstanding undergraduate thesis for the college.

For the graduate level, the selection committee, composed of the dean, secretary and chairpersons, selects the best MS thesis and Ph. D dissertation for each graduate degree program.

◆ **Final Selection Level**

The best thesis for each college and graduate programs are then submitted to the director for research for final screening.

All nominees from each college are evaluated by a screening committee composed of the Research management team and the college research coordinators.

◆ **Requirements for Participation**

The following are submitted to the chairman of the final screening committee, (the director for research) not later than three working days before the meeting of the Academic Council to approve the candidates for graduation:

- ◆ one (1) copy of the final manuscript; and
- ◆ five (5) copies of the abstract and the summary, conclusions and recommendation.

◆ **Criteria for Selection**

The following are the criteria for the selection of the best thesis award.

	Weight (%)
I. Originality (student's original proposal)	30
II. Organization (validity of approach and reliability of results)	30
III. Relevance/Significance (potential contributions to countryside development considering its social, economic an ecological impacts)	40
TOTAL	100

A cut-off point of 85 percentile for undergraduate level and 90 percentile for graduate level for the above criteria are maintained during the final selection. The candidate(s) receiving the highest point which is equal or above the cut-off point are considered winners.

◆ **Incentives**

- a. All college nominees for the best thesis are given a certificate of recognition.
- b. During the university recognition program the best theses are awarded the following:

- ◆ Certificate of Recognition



- ◆ Cash Award P 4,000 for Ph. D
 P 3,000 for MS
 P 2,000 for undergraduate

The cash awards can be sourced out by tapping sponsors or through the income generating unit of the College. The selected best theses are immediately published in the R and D Highlights.

Trainings/Seminars for Students

Departmental or college-based research/extension papers presentation can be done for information dissemination.

IEC Materials Access and Library Services

The College can establish scientific literature services apart from regular library services where specialized commodity collection data and popular IEC materials can be accessed by interested users.

Off-Campus Field Practice on Development Projects

Apprenticeship/Field Practice can be done by graduate/ undergraduate students in the barangays covered by the University Extension under the supervision of a faculty from the Extension Office/College (where the student come from) or DA-cooperating agency.

Student Assistantship

Students can be hired to work in ISPSC R and E projects as student assistants for them to get exposure to the R&D projects while earning some amount of money to augment their allowances.

USE OF FACILITIES

Persons who can Use the Research Laboratory Facilities and Experimental Area

RDE Staff/Personnel

A request form must be properly filled up by the personnel intending to use the laboratory facilities subject to the approval of the concerned director in consultation with the laboratory/facility in-charge.

Faculty/Students

- ◆ Faculty members and students from other units are allowed to use the RDE laboratory facilities and experimental area upon recommendation of the major adviser and approval of the concerned director in consultation with the laboratory/training facility in-charge.
- ◆ Undergraduate and graduate classes from other units may only be allowed in the Research laboratory upon request of the department chairman subject to the approval of the director for research.
- ◆ Students are not allowed to use any of the laboratory equipment without the assistance/strict supervision of the laboratory in-charge.
- ◆ Students undertaking laboratory work are required to provide their own chemicals/reagents and other materials needed.

Non-University Personnel including Regional Consortium Member Institutions

- ◆ They are only allowed to use the laboratory facilities upon request of the head of the agency and approved by the president and VP-PRET.
- ◆ The use of any laboratory facility is only allowed with the supervision of the laboratory in-charge.



Others

- ◆ Users are required to sign in the logbook re-use of any equipment in the laboratory.
- ◆ Users are required to report to the laboratory in-charge immediately after the completion of their work. The laboratory in-charge will in turn inspect the equipment/instrument used.
- ◆ Any breakages of laboratory/glasswares and damages done to the equipment must be replaced and repaired, respectively, by the users.
- ◆ No users are allowed to do their laboratory work beyond office hours and during Saturdays and Sundays without the supervision of the laboratory in-charge.
- ◆ No equipment/instruments are allowed to be brought out from the laboratory.
- ◆ Users are required to observe cleanliness and orderliness in the laboratory facilities.

LINKAGES AND FUND SOURCING

Funds for R and E operations given by the DBM to ISPSC are usually limited and thus, oftentimes the management relies heavily on external support. This necessitates the preparation and submission of research and extension project proposals to local, national and international funding agencies/ organizations.

1. **Local Linkage.** Within the college, the faculty and staff involved in R and E must have good working relationship since they usually complement each other. The R and E program should in itself be a unifying mechanism to ensure that all the efforts of its manpower are in concert to create impact to target communities.

The college must likewise establish a viable linkage with the provincial government where the college is located since the province is considered as the immediate impact zone of all its R and E programs and activities.

The municipal/local government units within the province can very well serve as partners in the whole technology development process i.e. from technology generation to commercialization. Oftentimes, they rely on the innovations/technologies from SUCs to uplift the economic and social life of the people within its areas of jurisdiction.

2. **National Linkage.** National government agencies involved in RET like Department of Agriculture (DA), Bureau of Agricultural Research (BAR), Bureau of Fisheries and Aquatic Resources (BFAR), Bureau of Postharvest Research and Extension (BPRE), Philippine Carabao Center (PCC), National Irrigation Administration (NIA), Philippine Rice Research Institute (PhilRice), DA-Agricultural Training Institute (DA-ATI), Department of Science and Technology (DOST), Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), PCAMRD, PCIARD, Department of Environment and Natural Resources (DENR), Department of Education (DepEd) can be tapped either as collaborating or funding agencies. Regional offices of these national agencies can be consulted and partnerships can be established. For instance, there are 14 national research and development consortia throughout the country under the realm of PCARRD and these consortia have viable mechanism for planning and administering RET in the region.
3. **International Linkage.** Linkages can also be established to provide the research faculty and staff with opportunities to work with their international counterparts/agencies. Innovations and technologies generated as a result of this collaborative undertaking may find significance not only in the Philippines but for other countries as well.

AWARDS AND RECOGNITION

- a. **Best RDE Papers**



The best RDE papers in each sector during the annual agency in-house review can be selected as a motivation and incentive to researchers in recognition of their outstanding and notable accomplishments. A modest monetary incentive and a plaque of recognition should go with the award. The criteria for the selection of best paper are as follows:

- A. Relevance/Significance of the Project (45%)
(Potential contribution to countryside development whether social, economic, ecological . . . etc.)
- B. Organization of Paper (30%)
Comprehensiveness
Validity of Approach and Reliability/Dependability of Results
- C. Presentation and Confidence (25%)
Knowledge of the content of the paper (10%)
Clarity of presentation (5%)
Composure and presence of mind (5%)
Effective use of visual aid and other medium of presentation (5%)

TOTAL POINTS	100%
--------------	------

b. **Best Poster**

As an added feature in the annual agency in-house review, the Best Poster can also be selected. It may be open to all researchers of the university engaged in research. Only one best poster may be selected among all competitors based on the following criteria undertaken by a Board of Judges selected from outside of the university:

- A. Technical Content (70%)
 - Significance/relevance of findings (30%)
 - Experimental organization; procedure or methods; resourcefulness of researchers (20%)
- B. Presentation (30%)
 - Attractiveness of poster (orderliness, neatness and good use of colors and materials) (6%)
 - Appropriateness or volume of information for effective information (6%)
 - Clarity in statement of purpose of work (hypothesis or problem) (6%)
 - Logical order in presentation of methods and results (6%)
 - Effective use of graphics (photos, maps, graphs) to support and supplement the text in terms of good blending, relevance and contribution to ease interpretation (6%)

As a general guideline, the poster should be well organized, concise, self explanatory and attractive and should fit in a 30 x 40 inches illustration board. The information contained in the poster should include among others: the title of research; name(s) of researchers; brief introduction; objectives; methodology; and results and discussion. The information should be readable from 2 meters distance. The researcher(s) should be stationed in the poster competition area during the poster session to answer queries from the Board of Judges and participants.

INTELLECTUAL PROPERTY RIGHTS

POLICIES RULES, AND REGULATIONS GOVERNING PATENTABLE AND COPYRIGHTABLE WORKS PRODUCED BY THE COLLEGE PERSONNEL

**A. COPYRIGHT**

The Intellectual Property Code of the Philippines under sections 172 and 173 included all literary, artistic and derivative works which are collectively referred to in these guidelines as “works”, shall be covered by these roles of copyrights. In addition, it also includes course material for e-learning and distance education.

A.1. Ownership

Ownership of intellectual property implies responsibility and liability as well as the right to control its use. The owners of intellectual property as described in this document will take reasonable precautions to assure the proper use of materials for which other holds ownership. Moreover, creator/s retains all rights to copyrightable works, unless subject to the conditions discussed in this section.

A.1.1 College Supported and Financed Development Activity

- a. If the copyrightable works was made in the course of the official duties of the creator/s, the copyright shall belong in joint ownership to the college and the creator/s.
- b. If the works to be copyrighted is not produced or done during official time of the development activity but was produced with the financial assistance the college funds, the college shall reimbursed out of the royalty derived from the work subject to conditions set in the agreement covering the assistance.
- c. If the works are supported by specific allocation of college funds or other resources other than the usual salary and resources made available to every faculty or staff, the copyright shall belong to the college
- d. If the works are created trough substantial use of the college resources such as libraries, research and laboratory facilities, buildings, utilities, equipment, experimental fields and animals, tools and apparatus including services of its employees working within the scope of their activities not for college purposes but for the personal gain or advantage of the faculty, research staff or student involved. There is presumption of substantial use of College resources if the work has in any way been done during official work hours or within the premises of the college and is related to unauthorized outside teaching or practice of profession without requisite permission therefore, the copyright shall belong to the college.

A.1.2. Commissioned development activity

- a. If the works was created at the direction and control of the college through its officials or designates for the purpose of a specific project or purpose the works shall belong to the college.
- b. If the work is commissioned by an outside entity, whether public or private, ownership of the copyright shall depend on the agreement between the two donors, extentionists and the college.
- c. If the work is commissioned by the college, the copyright shall belong in joint ownership by the college and creator/s jointly.



A.1.3. Collaborative works among institutions

- a. Absent of any contractual stipulation to the contrary, if the object of the copyright is the result of collaborative efforts of the college, an outside entity and the creator/s, the copyright shall be jointly owned by the College, the creators and the outside entity.

A.2. Production, Distribution and Marketing

If the work in which copyright subsists is financed in full or in part by the College, or if the work is commissioned by the College, the work shall be submitted to the Office of the President through the office of the Vice President for Research, Extension and Planning (VPREP). The VPREP shall review and evaluate the work and shall determine the manner of production, marketing and utilization of the product.

A.3 Royalty

In the absence of contractual stipulations to the contrary, the royalty shall be shared by the owners of copyright, subject to the following guidelines, unless there is an expressed agreement to the contrary.

- a. The share for the party who undertakes the production, distribution and marketing of the work shall not be less than twenty percent(20%) nor more than eighty percent (80%) of the gross sales.
- b. If the sharing is based on net income;
 - b.1. Thirty percent of the net income shall be given to the college.
 - b.2. Thirty percent of the net income shall be given to the project to which the author/s belongs. The sales shall be used in the improvement of the project.
 - b.3. Forty percent of the net income shall be given to the author/s. Collaborating author/s shall share in accordance with the determination of their participation.
- c. The share in the royalty of an external agency which is co-owner of copyright pursuant to these rules shall be subjected to the policies of both the College and the external agency concerned.

A.4. Utilization of Revenues

- a. The revenue derived by the college and its units from copyrightable works shall be used to encourage the production of intellectual property and to promote its utilization
- b. The college shall establish a revolving fund from the income earned to assist the creator/s in the distribution, and marketing of copyrightable works.

B. PATENTS

All inventions which may be or may relate to a product, process, or an improvement of any of the foregoing, that is new, involves an inventive step, is industrially applicable and potentially patentable, including utility models and industrial designs referred to in these guidelines as inventions shall be covered by these rules of patent.



B.1 Ownership

B.1.1 College Supported and Financed Development Activity

- a. Inventions and discoveries resulting from College- financed extension project conducted in the course of the inventor's employment with the College and / or with the use of the College facilities and resources shall belong to the college and the inventor/s jointly.
- b. Where the assistance extended by the College is substantial in terms of facilities and resources, the entire right, title or interest and on patent shall be assigned to the college for a period of time as may be determined by the proper college authorities which shall not be less than ten (10) years reckoned from the date of approval of the Patent.

B.1.2 Commissioned Research

- a. Inventions produced at the direction and control of the college in pursuit of a specific project or purpose regardless on the source of funding.
- b. Inventions and discoveries resulting from research projects commissioned by the college shall belong to the college and the inventor/s jointly.
- c. Where the invention and discovery is produced under the sponsorship of an outside entity or under externally funded project, the outside sponsoring agency may be considered co- owner with the creator and ISPSC, unless there is an agreement made between the two agencies.

B.1.3 Collaborative Work

- a. Inventions and discoveries resulting from experiments or development projects undertaken in collaboration with an outside entity shall belong to the college, the inventor/s, and the outside entity in joint ownership. Provided that the collaborator is a government entity; and, provided, further that the contribution of such entity is substantial.

B.2 Invention Disclosure and Assignment Procedure

- B.2.1. Creators of commissioned inventions should disclose and assign the patent to these works to the College.
- B.2.2. All inventions and discovery produced by the college personnel/unit/center shall be immediately disclosed in writing to the office of the College president. For this purpose, the College shall devise a form to be filled out by the personnel/unit/center/institute to be known as "Invention Disclosure Form".
- B.2.3. Where the innovations and discoveries belong to the College, solely or jointly with others, or where the right to the patent is assigned to the College, the College shall act in all matters, concerned with patenting, promotion, management and protection of patents, including the use of such inventions of discoveries for the purpose of industry or commerce.

B.3 Royalty

- B.3.1. In all cases of inventions and discoveries, the actual inventor/s shall share in the gross income or revenue at the rate of not less than twenty percent (20%) nor more than eighty percent (80%) depending on the following:
 - B.3.a. Nature and type of invention of patent.
 - B.3.b. The extent of assistance or contributions of the College and or outside entity.
 - B.3.c. The nature of appointment of actual inventor/s in the college
- B.3.2. The share in the royalty of an outside funding entity, collaborator or cooperating entity which made a substantial contribution to the invention



or discovery, shall be at the rate to be mutually agreed upon with the College and the outside entity.

B.3.3. The unit or where the invention is made shall share in net royalties accruing to neither the College at the rate of not less than fifty percent (50%) nor more than seventy percent (70%).

B.3.4. In case the College incurred unusual expenditures relating to patentable work, such as cost shall be deducted from the gross income and before the distribution of royalties to the inventor or the College.

B.4 Utilization and Revenues

B.4.1. The revenue shall accrue to the fund of the College for use in the promotion of invention or discovery, particularly research development; provided that the actual inventor/s shall have the preferential use of such funds to finance his/their research undertaking and enhance his/their research capability.

B.4.2. The revenue shall also be used to shoulder all expenses related to patenting, application, including legal expenses.

B.5 Disposition

After a period of assignment to the College, the disposition of all inventions generated at the College, regardless of funding sources, shall be subject to review by the office of the president from which the invention originated to determine if any contractual obligations exist in connections with, or as a result of the funding of invention.

After the review by the Office of the President and appropriate office in the College, and if no third party is contractually entitle to exercises control over the propriety rights in the invention, the inventor shall be so advised and will be free to dispose of the invention.

C. ADMINITRATIVE MECHANISM

The Office of the President through the Office of the Vice President for Research, Extension and Planning shall be primarily responsible in the formulation of standards, guidelines, rules and regulations relating to copyrightable and patentable works with the assistance of legal Officers.

The ISPSC campuses, through the office of Campus Executive Officer, shall be responsible for the implementation of the standards, guidelines, rules and regulations on copyrightable and patentable works.

Functions of the VPRET in the Implementation of Intellectual Property Rights

1. To implement this policy and to ensure compliance therewith by all College personnel and third parties;
2. To promulgate rules and regulations and devise forms to effectively and efficiently implement these policies;
3. Assist the College President in the formulation of additional incentives to encourage the production of intellectual property, patentable invention, designs, utility models and discoveries.
4. Assist the College President in the establishment of trust fund or revolving funds in the system and campus levels to finance the production marketing and utilization of copyrightable and patentable works.
5. Monitor the progress of Royalty payment
6. Evaluate and screen copyrightable works, patentable and commerciable technologies by the College needing protection.
7. Supervise the disclosure of works created and inventions conceived or first reduced to practice by all College personnel;



8. Coordinate and monitor the production, marketing and utilization of copyrightable and patentable works;
9. Perform such other functions as may be assigned by the College President.

Functions of the Intellectual Property Rights Office

1. Assist the faculty, staff, and students of the Campus in registration and marketing of the copyrightable and patentable works.
2. Conduct market studies as often as necessary to determine the types of copyrightable and patentable works that should be produced, including the identification of clients, patrons of sponsors who are willing to finance or assist in the production, marketing and utilization of the copyrightable and patentable works.
3. Take stock of the talents or experts in the campus who can be encourage or commissioned to undertake the production of copyrightable and patentable works.
4. Prepare and coordinate an inventory of finished work in the college
5. Perform such functions as may be assigned by the president and the Campus Executive Officer.

Authority to Issue Implementation Rules and Regulations

The Office of the President shall be authorized to issue the necessary implementing rules and regulations and to delineate the responsibilities of the Intellectual Property Rights Committee designated by the Campus Executive Officer.



APPENDICES



Appendix A.

Evaluation and approval of RDE projects under PCARRD

a. Under PCARRD, DOST and AFMA System*.

The screening/evaluation and approval of R and D projects follow a set of procedures. For research proposals forwarded to the Philippine Council for Agriculture, National Resources Research and Development (PCARRD) for possible PCARRD, DOST and AFMA funding, the Revised Implementing Guidelines on Research Proposal Evaluation crafted by a Special Committee at PCARRD should be followed.

The process flow indicating the channel, process and required documents is provided in Figure 1. The “channel” column specifies the unit responsible for the appraisal while the kind of evaluation or action that each channel is expected to do is presented in the “process” column. The “evaluation parameter” column provides the corresponding channel with guides as to how to go about the assessment process.

The basic flow for the three funding sources are somewhat identical, (Table 1) except in the last 2-3 steps. For proposals intended for PCARRD funding (more than P500,000) are endorsed by the Directors Council (DC) to the Technical Advisory Committee (TAC) before they are finally submitted to the Governing Council (GC) for approval. For DOST funding, the proposals are endorsed by the DC to the DOST EXECOM for approval. For AFMA funding, the proposal is endorsed by the GC to the CERDAF for approval.



Appendix B.

Evaluation and Approval of R and D Projects under CHED

b. Under CHED System Using General Appropriation (GA)

- ◆ Proponents refer to the priorities set in the National Higher Education Research Agenda (NHERA) of CHED.
- ◆ R and D proposals are submitted to the director for research or VP-PRET for review and consolidation.
- ◆ College president endorses the reviewed and consolidated proposals to the CHED Executive Director.
- ◆ CHED evaluates and approves R and D project proposals and endorses to DBM for funding.
- ◆ CHED releases information to agency regarding R and D proposals approved for funding.
- ◆ Director for research informs proponents regarding R and D projects approved for funding.

c. Under CHED System and DA-BAR Using Block Grants, Grants-in-Aid and Grant for Commissioned Research

- ◆ Proponents refer to priorities based on the National Higher Education Research Agenda (NHERA) of CHED.
- ◆ R and D proposals are submitted to the director of the CHED Zonal Research Center for review and consolidation.
- ◆ University president endorses these proposals to the CHED.
- ◆ CHED evaluates and approves R and D proposals.
- ◆ CHED releases the fund directly to the agency where a MOA will be signed between CHED and the University.

d. Under Other Funding Agency (Foreign Grants, Other Grants in-Aid)

- ◆ Proponents prepare capsule proposals and get endorsement of the director for research, VP-PRET or head of agency.
- ◆ Proponents negotiate with funding agency.
- ◆ Once approved for funding, proper authorities (president, vice-president, dean or director) are informed. If necessary, MOA should be signed between the institution and funding agency.
- ◆ Funding agency releases budget to the institution and deposits as trust fund of the said project.
- ◆ Generally, proposals are reviewed on the basis of the following:
 - ◆ adherence to set priorities
 - ◆ non-duplication
 - ◆ adequacy, clarity and attainability of objectives
 - ◆ soundness of methodology as it relates to objectives (the methodology should be adequate, should contain the details of experiment and the variables/indicators should be clearly stated)
 - ◆ workability of task schedules based on methodology
 - ◆ reasonability of budget estimates relative to scope of work



Appendix C.

DOST Capsule Research Proposal

DOST Form No. 1A
CAPSULE RESEARCH & DEVELOPMENT PROPOSAL SUMMARY SHEET
(For the Whole Program)
(To be accomplished by the researcher)

(1) Title/Coordinator/Leader/Gender/Agency/Address/Telephone/Fax/Email
Program Title:
Coordinator/Gender:
Agency/Address: Telephone/Fax/Email
Project Title:
1.
2.
3.
:
:
n.

(2) Executive Summary (Significance, objectives, expected output and methodology)

(3) Budget Summary for the Whole Program
Duration (in months): _____
Source of Fund PS MOE Y1 CO Total PS Total MOE CO Total

Total

Table with 3 columns: Submitted by, Endorsed by, and rows for Signature, Name, Designation/Title, Date.

Note: To be submitted together with the capsule R & D proposals for the component projects. See guidelines/definition at the back.



Appendix D.

DOST Form No. 1A

CAPSULE R & D PROPOSAL SUMMARY SHEET

General Instruction:

- A. Submit 6 copies of capsule R & D proposal summary sheet for the whole program together with the capsule proposals of the component projects.
- B. Use separate sheets following the appropriate sequence of items.

Operational Definition of Terms

1. **Title** - The identification of the program and the component projects.

Program - Consists of interrelated or complementing R & D projects on a multi-disciplinary approach to meet established goals within a specific time frame.

Project - A set of interrelated studies or a component of a program to meet pre-determined objectives within a specific time frame.

Coordinator/Leader - The overall R & D coordinator (whether multi-agency or single agency R & D) or the program/project leader. Program leader is the overall coordinator while serving also as project leader.

Agency(ies) - The institution(s) of the coordinator/leader.

2. **Executive Summary** - Overview of the program including the significance, objectives, methodology, major activities and expected output of the program.
3. **Budget Summary** - Personal services (PS), maintenance and other operating expenses (MOE), and capital outlay (CO) requirement of the whole program by source.

Duration - Number of months the program will be implemented.

PS - Requirement for wages, salaries, honoraria, additional hire and other personnel benefits.

MOE - Requirement for supplies and materials, travel expenses, communication, and other services.

CO - Requirement for facilities and equipment needed by the program.

4. **Endorsed by** - Authorized representative (e.g. agency head, consortium director) who recommends the program.



Appendix E.

DOST Form No. 1B
CAPSULE RESEARCH & DEVELOPMENT PROPOSAL
(For the Component Project)
(To be accomplished by the researcher)

Form with 16 numbered sections: (1) Title/Leader/Gender/Agency/Address/Telephone/Fax/Email; (2) Cooperating Agencies; (3) Research & Development Station; (4) Classification (Research: Basic/Applied, Development: Pilot Testing/Tech. Promotion/Commercialization); (5) Mode of Implementation (Single Agency/Multi Agency); (6) Priority Areas/STAND Classification; (7) Sector/Commodity; (8) Discipline; (9) Significance; (10) Objectives; (11) Methodology; (12) Major Activities; (13) Expected Output; (14) Target Beneficiaries; (15) Implementing Schedule; (16) Estimated Budget by Source table.

Note: If the project is part of a program, this form should be submitted together with the capsule R & D proposal summary sheet. See guidelines/definitions at the back.



**DOST Form No. 1B
CAPSULE R & D PROJECT PROPOSAL**

General Instruction:

- A. Submit 6 copies of capsule R & D proposal for each of the component projects.
- B. Use separate sheets following the appropriate sequence of items.

Operational Definition of Terms

- 1. **Title** - The identification of the program and the component project.

Program - Consists of interrelated or complementing R & D projects on a multi-disciplinary approach to meet established goals within a specific time frame.

Project - A set of interrelated studies or a component of a program to meet pre-determined objective within a specific time frame.

Leader - The name of project coordinator (whether multi-agency or single-agency R & D).

Agency - The institution of the project/leader.

- 2. **Cooperating Agency(ies)** - The agency(ies) participating in the R & D work.
- 3. **R & D Station** - The station or unit where R & D will be actually conducted.
- 4. **Classification** - Indicate whether the project is research or development.

Basic research is an experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular or specific application or use in view.

Applied Research is an original investigation undertaken in order to acquire new knowledge directed primarily towards a specific aim or objective.

Developmental research is a systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services and to improving substantially those already produced or installed.

Pilot Testing is an innovative work to confirm and demonstrate the feasibility of actually using a technology; gauging end user's reaction to introduction of improved technologies, and identifying potential problems related to wider dissemination, utilization and adoption so that these can be fed back to researchers.

Technology promotion/commercialization is an activity involving application of technologies on a commercial scale by an identified entrepreneur or user primarily to increase his income/profits and productivity; technologies utilized/produced on a pre-commercial scale including market testing jointly undertaken with a client.

- 5. **Mode of Implementation** - Indicate whether the R & D will be undertaken by one or more than one agency.
- 6. **Priority Areas/STAND Classification** - Identify the classification of the R & D proposal in the S & T Agenda for National Development.
- 7. **Sector** - Indicate whether crops, livestock, forestry, agricultural resources management or socio-economics; fisheries or aquatic resources; biotechnical, pharmaceutical, or health services; biotechnology, information technology, material, science, photonics or space technology; industry, energy, utilities or infrastructure.
- 8. **Discipline** - The specific field to be studied (e.g. plant breeding, taxonomy, communicable and degenerative diseases, drug formulation, maternal and child health, process, food and feed, metals and engineering, etc.).

Nos. 9, 10, 11, 12, 13 constitute the technical description of the R & D proposal. They should be written in separate sheets. Guidelines are indicated in the form.

- 14. **Target Beneficiaries** - Indicate the group of clientele e.g. farmers, fisherfolks, women, and how they will benefit from the results of the program/project.
- 15. **Implementing Schedule** - The duration of the project in months including planned start date and expected completion date.
- 16. **Estimated Annual Budget** - The budget requirement for personal services (PS), maintenance and other operating expenses (MOOE), capital outlay (CO) for the first year of implementation and the total budget requirement by source of fund.



Appendix F

CHED Capsule Research

**COMMISSION OF HIGHER EDUCATION
5/F DAP Building
San Miguel, Pasig City**

Research Proposal Application Guide

I. Research Title: (This is the distinctive name given to the research proposal which describe the work scope in specific, clear and concise terms).

II. Name of Proponent/Institution (the research proponent may be a faculty/researcher or an institution).

Name and Designation of the Faculty/Researcher: _____
Name of Institution : _____
Name of the Head of Institution : _____

III. Address: (this refers to the mailing/forwarding address where communication to both proponent/institution can be facilitated).

a. Proponent: _____
b. Institution : _____

IV. Background of the Study (this refers to the overview of the project discussing the factors that lead to the conceptualization of the problem).

V. Review/Survey of Related Literature (this refers to the body of literature related to the study being proposed or a discussion on how the research proposal is related with the existing researches in the field).

VI. Conceptual/Theoretical Framework of the Study (this includes a discussion of the different theories and models that provide the conceptual underpinning of the study or the legitimate bases for defining its parameters).

VII. Statement of the Problem (this refers to the problems both general and specific which the research proponent hopes to achieve).

a. General _____
b. Specific _____

VIII. Assumptions: (this refers to a proponent of some occurrences or considerations that may be considered in delimiting the area of the study).



IX. Significance of the Study (this refers to the contribution of the study to a) national goals/plans; b) national policies; c) emerging realities; d) regional (local goals/plans; e) community goals/plans).

X. Definitions of Terms (this refers to the contextual and operational meanings of the variables in the study).

XI. Scope Limitation. (this refers to the scope or inclusive frame of reference as well as procedural limits of the study).

XII Methodology (this refers to the detailed technical/scientific activities which include: the research des

XIII. Working Bibliography. (this refers to list of sources of the survey literature in the study)

XIV. Work Plan. (this includes a brief description in chronological order of each activity to be undertaken in the conduct of the study. The starting date and plan completion date are indicated in year and month and it may be presented via gantt chart or others for clarity.

XV. Manpower Requirement. (this specifies the number of staff needed to rationalize the proposed budget in the conduct of the study).

XVI. Expected Outputs and Derivable. (this refers to the products of the investigation which would contribute and increase the stock of knowledge).

XVII. Credentials of Key Personnel/Staff Involved. (these documents are required to establish credibility and expertise among the staff involved in the study).

Submitted by:

(Printed Name and Signature of the Proponent)
Date: _____

Endorsed by:

(Printed Name and Signature of the President or Head of University/ where the Proponent is connected)

Date: _____



Appendix G

OVPRET Forms

ISPSC OVPRET Form 1

CY 2010
For Use of Researcher

ILOCOS SUR POLYTECHNIC STATE COLLEGE FORMAT FOR ON-GOING RESEARCH AND EXTENSION PROJECT

A. Basic Information

- I. Program Title
 - Study Title
- II. Researchers Involved (Project Staff and Rank)
- III. Implementing Agency/ Station
 - a. Lead Agency
 - b. Cooperating Agency
 - c. Project Site
- IV. Funding Agency
 - a. Internal Fund
 - b. External Fund
- V. Duration
 - a. Date Started
 - b. Expected Date of Completion
- VI. Financial Report of the Study
- VII. Budgetary Requirement
- VIII. R D and E Forum Presented
 - a. Sponsoring Agency
 - b. Date/Venue
 - c. Awards Received
- IX. Equipment Acquired/Enhanced
 - a. Cost
 - b. Source of Fund
- X. MSME as Potential Requirement of the Project
 - a. Name of MSME
 - b. Address
 - c. Intervention Provided

B. Technical Report

- I. Highlights
- II. Rationale
- III. Objectives
- IV. Review of Literature
- V. Methodology (detailed)
- VI. Results and Discussion (Year under Review)
- VII. Summary
- VIII. Problems Met
- IX. Recommendation
- X. Bibliography
- XI. Budget Allocation
- XII. Schedule of Activities



**ILOCOS SUR POLYTECHNIC STATE COLLEGE
FORMAT FOR COMPLETED RESEARCH AND
EXTENSION PROJECT**

A. Basic Information

- I. Program Title
Project Title
Study Title
- II. Researchers Involved (Project Staff and Rank)
- III. Implementing Agency/ Station
 - a. Lead Agency
 - b. Cooperating Agency
 - c. Project Site
- IV. Funding Agency
 - a. Internal Fund
 - b. External Fund
- V. Duration
- VI. Funds and Technology Generated
 - a. Total Fund Generated (Inclusive date)
 - b. Technology Generated (Inclusive date)
- VII. R D and E Forum Presented
 - a. Sponsoring Agency
 - b. Date/Venue
 - c. Awards Received
- VIII. Equipment Acquired/Enhanced
 - a. Cost
 - b. Source of Fund
- IX. MSME as Potential Requirement of the Project
 - a. Name of MSME
 - b. Address
 - c. Intervention Provided

B. Technical Report

- I. Abstract
- II. Rationale
- III. Objectives
- III. Review of Literature
- IV. Methodology (detailed)
- V. Results and Discussion
- VI. Summary
- VII. Conclusion
- VIII. Recommendation
- IX. Bibliography



ISPSC OVPRET Form 3

CY 2010
For Use of Researcher

**ILOCOS SUR POLYTECHNIC STATE COLLEGE
REPORT FORMAT FOR
INCOME GENERATING PROJECTS (IGP)**

A. Basic Information

- I. Project Title
- II. Researchers Involved (Project Staff and Rank)
- III. Implementing Agency/ Station
 - a. Lead Agency
 - b. Cooperating Agency
 - c. Project Site
- IV. Funding Agency
 - a. Internal Fund
 - b. External Fund
- V. Duration
- VI. Budget

B. Technical Report

- I. Abstract
- II. Rationale
- III. Objectives
- IV. Technical Aspect
- V. Financial Aspect
 - a. Projected Income Statement
 - b. Projected Cash Flow Statement
 - c. Projected Balance Sheet
- VI. Implementation Plan
- VII. Socio-Economic Aspect



**ILOCOS SUR POLYTECHNIC STATE COLLEGE
FORMAT FOR RESEARCH/PROJECT
AND EXTENSION PROPOSAL**

A. Basic Information

- I. Program Title
Project Title
Study Title
- II. Proponents (Project Staff and Rank)
- III. Proposed Implementing Agency/ Station
 - a. Lead Agency
 - b. Cooperating Agency
 - c. Project Site
- IV. Funding Agency
 - a. Internal Fund
 - b. External Fund
- V. Duration

B. Technical Report

- I. Rationale
- II. Objectives
- III. Review of Literature
- IV. Methodology (detailed)
- V. Budgetary Requirement (line item Budget)
- VI. Schedule of Activities (work and financial plan)



**ILOCOS SUR POLYTECHNIC STATE COLLEGE
RESEARCH AND DEVELOPMENT DEPARTMENT**

CAPSULE PROPOSAL FORMAT

A. BASIC INFORMATION	
1. Project Title	
2. Proponent (s)	
Name	College/Campus
Designation	Email Address
3. Implementing Agency	
Lead Agency	
Collaborating Agency (s)	
4. Project Duration	
5. Project Location	
6. Total Budget Requested	



B. TECHNICAL DESCRIPTION
1. Rationale
2. Objectives
3. Expected Output
4. Potential Impact
5. Users



ISPSC OVPRET Form 7
CY 2010
For Use of Researcher

ILOCOS SUR POLYTECHNIC STATE COLLEGE
LINE-ITEM BUDGET FORMAT

Research/Extension Title :
Proponent(s) :
Implementing Agency :
College /Unit :
Funding Requirement :
Source of Fund :
Cooperating Agency :

I. PERSONAL SERVICES

Salaries (include hiring of RA, contractual labor, etc.)
Honoraria

Total for PS

II. MAINTENANCE AND OTHER OPERATING EXPENSES

Travelling Expenses (how often and who will travel)
Communication Expenses (Shall be itemized)
Postage and Deliveries, Telephone Expenses, Internet Expenses, etc.
Repairs and Maintenance of Facilities (Shall be itemized)
Office Buildings, Office Equipment, Furniture, Fixture, IT Equipment and Software, Machineries and Equipment
Repairs and Maintenance of Vehicles
Transportation and Delivery Expenses
Supplies and Materials Expenses (Shall be itemized)
Office Supplies Expenses, Gasoline, Oil and Lubricants Expenses, Agricultural Supplies Expenses, etc.
Utility Expenses (Please Indicate)
Water, Electricity, and Cooking Gas Expenses
Training and Scholarship Expenses (Please indicate)
Membership Dues and Contributions to Organizations
Advertising Expenses
Printing and Binding Expenses
Rent Expenses
Representation Expenses (food for meetings, etc.)
Subscription Expenses
Professional Services
Legal Services, Auditing Services, Consultancy Services and Other Professional Services etc.
Taxes, Insurance Premiums and Other Fees
Other Maintenance and Operating Expenses

Total for MOOE

III. EQUIPMENT AND CAPITAL OUTLAY

Detailed List/ Breakdown Equipment

Total for ECO

GRAND TOTAL:

NOTE:

The project line-item form is based from Department of Science and Technology (DOST) and the format could be improved depending upon the budgetary requirements of the research study/extension project.



ISPSC OVPRET Form 9
CY 2010
For Use of Researcher

WORKPLAN*

Research Title :

Project Duration:

Planned Start: Month _____ Year _____

Planned End: Month _____ Year _____

A

Activities or Workplan	Year 1				Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

B

Activities or Workplan	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

*Gannt chart workplan can be accomplished using either of the two tables depending on the duration of the reseach study



ILOCCOS SUR POLYTECHNIC STATE COLLEGE
Santa Maria, Ilocos Sur
1st In-House Review of Research, Extension and Income Generating Projects

Research Title: _____

Research Parts	Comments/Suggestions
Title Objectives Methodology Results and Discussion	



Evaluator