Republic of the Philippines
BULACAN AGRICULTURAL STATE COLLEGE
RESEARCH, EXTENSION, PRODUCTION AND DEVELOPMENT
San Ildefonso, Bulacan 3010, Philippines

RESEARCH EXTENSION PRODUCTION & DEVELOPMENT

OPERATIONS MANUAL

Research, Extension, Production, Development Operations Manual
Revised 2021

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This manual is a general refrerence on the guidelines and procedures in the conduct of research and extension related activities in Bulacan Agricultural State College.

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BULACAN AGRICULTURAL STATE COLLEGE

RESEARCH, EXTENSION PRODUCTION & DEVELOPMENT OPERATIONS MANUAL

The BASC-REPD Operations Manual processes to update the Research and Extension Manual that was previously approved as per following Board Resolutions:

Board of Trustees Resolution Number	Resolution Details	Board Meeting Number	Date
BASC BOT RESOLUTION 19-1262	Approving the proposed amendments to the BASC Research and Extension Manual	86th (3rd Quarter of 2019) Regular Meeting	29 August 2019
BASC BOT RESOLUTION 20-1320	Approving the Bulacan Agricultural State College Intellectual Property Policy (IPP)	90th (3rd Quarter of 2020) Regular Meeting	2 September 2020
BASC BOT RESOLUTION 21-1383	Approving the Policies and Procedures Manual for Graduate Research / Teaching Assistants	94th (3rd Quarter of 2021) Regular Meeting	15 September 2021
BASC BOT RESOLUTION 21-1398	Approving the Research, Extension, Production and Development Operations Manual	95th(4th Quarter of 2021) Regular Meeting	18 December 2021

Foreword

This Manual of Operations of the Research, Extension, Production, and Development Office of Bulacan Agricultural State College (BASC-REPD) contains the organizational structure and management of the Office of Vice President for Research, Extension, and Training (OVPREPD). This outlines the duties and responsibilities of the vice president, directors, research and extension coordinators, academic researchers, and extensionists. Provided here also are the guidelines, policies, and procedures for research integrity and ethics; research and extension proposal preparation and evaluation; implementation and monitoring; conduct of training; paper presentation; paper publication; and giving of awards and incentives.

The primary concern of this operations manual of BASC-REPD is to carry out the three statutory responsibilities of research, extension, and production with the mission to broaden the corpus of knowledge; expand the innovation reservoir; and encourage community engagement to improve the quality of life in its service area and contribute to national sustainable development.

This BASC-REPD operations manual was crafted with the full support of the College President, Dr. Jameson H. Tan, and the initiative of the Vice President for Research, Extension, Production, and Development, Dr. Susan C. Santos, with the assistance of the Director for Research, Dr. Honeylet J. Nicolas; the Director for Extension, Dr. Imee D. Esguerra; and the Director for Intellectual Property, Engr. Joselito D. Tucit.

It is hoped that this manual will serve as a working guide in various research and development operations, as researchers are similarly focused on reinforcing the instructional activities of faculty and students who are also engaged in this field of endeavor, resulting in more unified research and improved college activities.

Moreover, this operations manual has been adopted by the college as one of its strategic ways of putting the provisions of its approved five-year development plan (2021–2025) into action.

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CHAPTER I
GENERAL INFORMATION

REPD Historical Background

The Bulacan Agricultural State College (BASC) is a state-run higher education institution (HEI) with the core functions of instruction, research, extension, and production. Since its confirmation as a chartered HEI in 1998, the College administration has created offices tasked with leading its various operations with excellence and offering responsive services to clients and stakeholders.

The first President of the College, Dr. Rolando Camacho, who held his office from December 9, 1998 to December 8, 2002, designated Dr. Aniano S. Catacutan as Director for Research, Extension, and Training (RET). Dr. Catacutan served in this office from 1998 to mid-1999, then succeeded by Dr. Susan C. Santos in 1999 who served until 2007.

The second College President, Dr. Josie A. Valdez, who had two (2) terms from December 9, 2002 to December 8, 2006, and December 9, 2006 to January 31, 2011, retained Dr. Santos to the position of Director for RET until the administrative restructuring in 2007.

The eight-year term of Dr. Santos as Director of RET paved the way for more mainstreamed research, extension, and training programs, projects, and activities by drafting the BASC Research, Extension, and Training Manual, which was approved by the BASC Board of Trustees on December 3, 2002 through BASC-BOT Resolution No. 02-158, and by organizing the first BASC Agency In-House Review in 2002. Moreover, linkages with various government agencies have been established, including the Department of Agriculture-Regional Field Office 3 (DA-RFO 3), Department of Science and Technology (DOST), National Economic and Development Authority-Region 3 (NEDA 3), Department of Agrarian Reform (DAR) Region 3, DAR Bulacan, and Philippine Rice Research Insttitue (PhilRice). Linkages were also made with Japan Bank International Cooperation, different state universities and colleges (SUCs), Provincial Government of Bulacan (PGB), and municipal LGUs in Bulacan. These linkages gave rise to the implementation of different agricultural projects and the establishment of the Tissue Culture Laboratory, Scion Grove, High-Value Crops Trading Center, Green Houses, Hydroponics System, and Mushroom Production, which aimed for the development of technologies for dissemination to farmers in the province.

Dr. Junel B. Soriano succeeded Dr. Santos as Director of RET and served this office from July 2007 to 2012. In his time, the position of director for research, extension, and training was renamed to Vice President for Research, Extension, and Training (VPRET). During this time, the BASC established itself on the national research and extension map

as the home of Aerobic Rice Technology (ART). The ART has been the flagship technology of the College since then. Numerous projects with funding from PhilRice, International Rice Research insttitute (IRRI), Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), DOST 3, DAR-Bulacan, and various SUCs in Region 3 and other regions, and various LGUs, were formed and instituted, particularly in aerobic rice seed production, bitter gourd production and processing, goat milk production and processing, farmers' needs assessment, and carabao production and upgrading. The Aerobic Rice Research, Development, and Extension Program of the BASC RET Office reached a major milestone when it was recognized as a 2011 Civil Service Commission PAGASA Awardee both at the regional and national levels.

In addition, BASC also adopted the implementation of Palayamanan project funded by PhilRice in 2007. Since then, numerous farmer beneficiaries were reached and have benefitted from this 'Bahay kubo' concept of rice-based integrated farming system. This project has been the most sustainable extension project of BASC as evidenced by its long existence from 2007 until now. Various extension projects have been developed by BASC extensionists which were funded by the DA-RFO 3 that rooted from Palayamanan concept. The most recent one was the Going Back to Basic: Plant, Raise and Sustain the Chemical Pesticide-Free Integrated Backyard Farming, which was funded by the DOST-PCAARRD.

During the tenure of Dr. Gerardo I. Mendoza, who was the third College president from February 1, 2011 to January 31, 2019, Mrs. Dinah Marie C. Dayag was appointed officer-in-charge (OIC) of the Office of the VPRET. She served in this office from November 2012 to June 16, 2013. The milestone achieved during this period was the approval of the establishment of the Aerobic Rice Technology Center at BASC through the passing of BASC-BOT Resolution No.12-863.

From June 17, 2013 to January 31, 2019, Dr. Josefina C. Mananguit became the VPRET and gave way to externally funded initiatives to flourish. As a result of the increase in externally generated funds, more external linkages such as those with the DA-Bureau of Agricultural Research (DA-BAR) and the DA-Agricultural Training Institute (DA-ATI) have been formed. With the upturn in externally generated resources, more external links, such as the National Power Corporation (NAPOCOR) and the Department of Environment and Natural Resources (DENR), were established. The College eventually organized the 1st and 2nd National Aerobic Rice Conferences, which were held in Palawan and Isabela, respectively.

The appointment of Dr. Jameson H. Tan as the fourth college president, effective February 1, 2019, paved the way for another shift in management. Dr. Susan C. Santos was installed as VPRET, effective the same date. With Dr. Santos' leadership, more breakthroughs were achieved. The REPD building was refurbished and installed with a separate office for the Director of Intellectual Property to foster an environment that encourages all of the faculty and students to engage in research, innovation, and teaching

in the pursuit of excellence and for the greater good. A distinct REPD library was established to provide an excellent environment for researchers. This library offers plagiarism checkers and other instruments needed for the conduct of research.

More mainstream research, extension, and training programs, projects, and activities were achieved when the BASC RDE Agenda 2019–2024 was revised and a proposed amendment to the REPD Manual was made. All of these were approved by the BASC Board of Trustees on August 29, 2019 through BASC-BOT Resolution No. 19–1262. Moreover, the 5-year REPD strategic thrust for the research, extension, and production offices was crafted in the same year. The Intellectual Property Policy was approved through BOT Resolution No. 20-1320 on Sept. 2, 2020, and the Graduate Research and Teaching Assistantship Policy throguh BOT Resolution No. 21-1383 on Sept. 15, 2021.

The Research, Extension, Production, and Development (REPD) Office passed the ISO 9001:2015 accreditation and was awarded with Cert. No. 19.67.PH212501.00 on January 7, 2020 by the IAS Accredited Management Systems Certification Body and the ACS W3 Certification Management System.

RDE projects and studies on rabbit were implemented starting 2019 since the inclusion of rabbit as a priority RDE commodity in 2018 through BOT Resolution No.18-1194. On February 27-28, 2020, the REPD Office co-sponsored the 1st National Rabbit Congress and the groundbreaking ceremony for the Rabbit Reseach Center. Additionally, the office successfully spearheaded the virtual conduct of the 1st National BASC Research and Development Conference on April 8, 2021, and the 1st BASC International Research Conference on December 15, 2021. Likewise, the One-Stop Information Shop was established in March 2021 and the Peri Uban Garden in May 2021, which serves as the stronghold of the REPD and is a prime urban vegetable production model in the community. With the aim of broadening its linkages and creating more impact in its service areas through relevant and innovative RDE projects using externally generated resources, more external links for proposals were prepared for the BASC Mini Feed Mill, which was established in July 2021, with funding from the DA-Bureau of Animal Industry, while the Mini Food Innovation Center was established in September 2021, funded by the Department of Science and Technology for the development of value-added products processing.

CHAPTER II
BASC-RESEARCH, EXTENSION, PRODUCTION AND DEVELOPMENT PROFILE

Article 1. BASC Vision and Mission

Section 1. BASC Vision

A globally-engaged higher education institution of agriculture and allied disciplines.

Section 2. BASC Mission

Provide excellent instruction, conduct relevant research and foster community engagement that produce highly competent graduates necessary for the development of the country.

Article 2. REPD Mission, Goals, Objectives and Strategies

Section 1. REPD Mission

The REPD office shall broaden the corpus of knowledge, expand the innovation reservoir, and encourage community engagement to improve the quality of life in its service area, and contribute to national sustainable development.

Section 2. REPD Office Goals

2.1. To become a regional centre for agricultural research and allied sciences with enhanced engagement, impact and visibility.
2.2. To improve the quality of life of the socially and economically-disadvantaged communities through the conduct of research-based and instruction-based extension services in agriculture and allied fields that are responsive to the needs of the community.
2.3. To foster an environment that promotes and rewards the creation of new knowledge, creativity, innovation, and the use of new technologies.

Section 3. Research Office Objectives and Strategies

By the end of 2025, the Research Office shall be able to:

3.1 Achieve 85% participation in research of BASC faculty.
3.1.1. Conducting research capability building projects for faculty, staff, and students
3.1.2. Improving community engagements in institutional RDE agenda setting
3.1.3. Participating in identifying RDE priorities of regional and national agencies
3.2 Establish 2 functioning research centers .
3.2.1. Establishing state-of-the-art research centers for specific commodities
3.2.2. Enhancing and expanding linkages toward improved resource generation
3.2.3. Increasing research proposals for internal and external funding

3.3 Increase production of gender-responsive research outputs by 20%.

3.4 Increase by 20% the percentage of research outputs presented in reputable conferences, published in refereed journals, and utilized for instruction, commercialization, and extension.

3.4.1. Organizing regional, national and international conferences for wider dissemination of RDE results or outputs

3.4.2. Internationalizing of BASC Research Journal for better quality and coverage

3.4.3. Supporting faculty and student publications and presentations

3.4.4. Enhancing utilization of researches in extension, instruction, industry, and community

3.5 Create committees and implement policies and processes for the promotion of research integrity and ethics.

3.5.1. Creating institutional policies and committees for research integrity and ethics,, and ethical care and use of animals for research

3.5.2. Championing awareness and adherence to intellectual property laws, policies and guidelines

3.5.3. Advocating deference and conformity to institutional ISO-approved processes on research

Section 4. Extension Services Objectives and Strategies

By the end of 2025, the BASC Extension Services shall be able to:

4.1.capacitate a total of 11,000 trainees weighted by the length of training and achieve 92% of beneficiaries who rate the training course/s and advisory services as satisfactory or higher in terms of quality and relevance;

4.1.1. conducting Training Needs Assessment to identify the needs of target clientele based on their situation and problems encountered in the community;

4.1.2. providing of needs-based trainings to target clienteles of BASC based on the result of TNA;

4.1.3. administering evaluation form as feedback mechanism of trainees in order to know the areas that still need further improvements.

4.2. establish, maintain and sustain 6 viable model/pilot/demonstration, and science and technology-based farms with IRR of at least 20%;

4.2.1. implementing extension activities utilizing the knowledge and technology produced in the academic program level;

4.2.2. engaging with the communities by conducting need-based extension services;

4.2.3. providing regular monitoring and assistance to the project cooperators of the established model/pilot/demonstration and S&T-based farms.

4.3. establish 10 active instruction-based, 6 active research-based extension programs; and sustain 28 active partnerships with LGUs, Industries, NGOs, NGAs, SMEs, and other stakeholders as result of extension activities;

4.3.1. capacitating of faculty extensionists in the planning and implementation of research-based and instruction-based extension projects;
4.3.2. improving of implementation of extension services through various modalities.
4.3.3. sustaining linkages, networks and collaborations in conducting research-based and instruction-based extension services;

4.4. achieve 1% yearly increase in the number of profitable technology adopters,
4.3.4. increasing knowledge and technology transfer capability among faculty, non-teaching staff and students;
4.3.5. facilitating the transfer of knowledge and technology generated by the faculty researchers; and
4.3.6. implementing mechanisms to ensure improvement of community adopters' productivity, efficiency and quality of life;

4.5. develops, produce and reproduce at least 6 IEC materials on extended knowledge and technologies to the community service areas;

4.5.1. developing mechanisms to support technology promotion and dissemination through various extension modalities;
4.5.2. providing support mechanism to showcase generated technologies; and
4.5.3. engaging with government and non-government organizations, academic institutions and private entities to support technology promotion and dissemination.

Section 5. Intellectual Property Objectives and Strategies

In the next five years the Intellectual Property Office shall endeavor to:

5.1. Register at least 70 Intellectual Properties at Intellectual Property Office of the Philippines (IPOPHL) and the National Library;

5.1.1. Capability building for IPO staff regarding IP.
5.1.1.1. Send IPO staff to complete the seminar series at IPOPHL
5.1.1.2. Send IPO staff to IP seminars, trainings, workshops aside from IPOPHL.
5.1.1.3. Send IPO staff to Patent Drafting Workshop
5.1.1.4. Benchmarking to other HEIs

5.1.2. Expected Output/ Milestone in 5 years
5.1.2.1. Competent staff capable of conducting seminars and workshops on IP
5.1.2.2. Competent staff capable of handling BASC IP applications

5.1.3. Capability building for BASC constituents & clients regarding IP.
5.1.3.1. Conduct IP Awareness seminars for BASC constituents & clients
5.1.3.2. Host patent drafting workshop
5.1.4. Encouragement of BASC constituents & clients to register their IP through BASC.
5.1.4.1. Conduct information drive regarding IP registration utilizing different media.
5.1.4.2. Produce IP related IEC.
5.1.4.3. Provide advice regarding the appropriate IP registration
5.1.4.4. Facilitate the application of copyrights at the National Library.
5.1.4.5. Assist in the preparation of documents for patent, UM, TM, GI at IPOPHL
5.1.5. Expected Output/ Milestone in 5 years (Strategies 2 & 3)
5.1.5.1. Registered 50 copyrights (10 textbooks, 10 laboratory manuals/ guides, 15 learning/ training modules, 15 other IECs)
5.1.5.2. Registered 5 trademarks
5.1.5.3. Registered 15 utility models
5.1.5.4. Registered 1 geographical indicator (GI)
5.1.5.5. Submitted 5 patent applications
5.1.6. Implementation of BOT approved BASC Policy on Intellectual Property Policy, Technology Transfer, and Research Collaboration (BASC IP Policy)
5.1.6.1. Amendments to the REPD Manual to integrate protection of BASC IP
5.1.6.2. Orientation of BASC personnel regarding the provisions of the IP Policy

5.2. Facilitate the incubation and full commercialization of at least 2 registered IP
5.2.1. Capability building for IPO staff regarding Knowledge & Technology Transfer (KTT).
5.2.1.1. Send IPO staff to seminars, trainings workshops on KTO.
5.2.1.2. Send IPO staff to seminars, trainings workshops on Technopreneurship.
5.2.1.3. Set-up Technology Business Incubation Center
5.2.1.4. Benchmark other HEIs
5.2.2. Expected Output/ Milestone in 5 years:
5.2.2.1. Competent staff capable of conducting seminars and workshops on KTT.
5.2.2.2. Competent staff capable of conducting seminars and workshops on Technopreneurship
5.2.2.3. Competent staff capable of coaching start-ups

5.2.3. Capability building for BASC constituents & clients regarding KTT.

5.2.3.1. Conduct KTT Awareness seminars for BASC constituents & clients
5.2.3.2. Conduct Technopreneurship Training for BASC constituents & clients
5.2.3.3. Hold start-up boot camps

5.2.4. Establishment of partners and linkages for IP licensing and technology commercialization
5.2.4.1. Actively participate on meetings, conferences, fora, & other gatherings for the purpose
5.2.4.2. Actively seek MOA/MOU from potential partners/ linkages
5.2.4.3. Benchmark other HEIs
5.2.4.4. Review & revise BASC IP Policy (if needed)

5.2.5. Expected Output/ Milestone in 5 years (Strategies 2 & 3)
5.2.5.1. 2 Fully commercialized Spin-offs or start-ups incubated from BASC boot camps
5.2.5.2. 2 BASC IP licensed to clients
5.2.5.3. 2 BASC IP commercialized through/ with industry partners

5.2.6. Implementation of a BOT approved BASC Technology Transfer Protocol (BASC TTP)
5.2.6.1. Draft BASC TTP Stakeholder
5.2.6.2. Submit BASC TTP to BOT
5.2.6.3. Amend REPD Manual to integrate TTP
5.2.6.4. Orient BASC personnel regarding the provisions of Protocol
5.2.6.5. Review & revise BASC TTP (if needed)

5.2.7. Expected Output/ Milestone in 5 years
5.2.7.1. Successful transfer of technology either through Extension or Commercialization

5.3. Be an IPOPHL accredited Innovation and Technology Support Office (ITSO)

5.3.1. Application with IPOPHL
5.3.1.1. Consolidate accomplishments for Objectives 1 & 2
5.3.1.2. Prepare & submit application requirements
5.3.1.3. Benchmark other ITSOs

5.3.2. Expected Output/ Milestone in 5 years
5.3.2.1. Readiness for accreditation

5.3.3. Development of an accessible BASC Intellectual Property (IP) database and patent search station
5.3.2.2. Acquire equipment
5.3.2.3. Subscribe to stable internet connection of at least 50 Mbps
5.3.2.4. Develop system for database
5.3.2.5. Set-up BASC Patent & other IP Search Station

5.3.4. Expected Output/ Milestone in 5 years
5.3.4.1. Accessible stable BASC IP database
5.3.4.2. Operational BASC Patent & other IP Search Station
5.3.5. Staffing
5.3.4.3. Request plantilla for IP Officer, Lawyer & other staff
5.3.4.4. Request hiring additional personnel for the IP Office
5.3.4.5. Continue capability building of current staff
5.3.6. Expected Output/ Milestone in 5 years
5.3.5.1. IPOPHL accreditation as IT

Article 3. BASC RDE Agenda

The RDE Agenda is a manifestation of BASC's commitment to contribute to the Philippine government's agricultural, technological, and educational knowledge production and technology utilization initiatives. It integrates national, regional, and local development priorities, and takes inspiration and guidance from the RDE agenda of DA, DOST, CHED, NEDA, DENR, DICT, LGUs, Regional Development Council, and other agencies and organizations. It allows for more PAPs that will address the Sustainable Development Goals (SDGs) and AmBisyon 2040. It is also made more inclusive and flexible, to enable increased participation from faculty and staff belonging to non-agriculture disciplines. Furthermore, these RDE agenda promote the development of policies, processes, and technologies that will help BASC's academic community to navigate the new normal in teaching and learning, as well as advance the recovery of its service areas from the effects of Covid-19 pandemic.

Section 1. Priority Research Program/Thematic Areas

1.1. Agricultural, Aquatic, and Natural Resources

As the flagship program of the College, agriculture is the focus of most RDE programs and projects, aimed at helping uplift the standard of living of the farmers in agricultural communities through the development and transfer of agricultural technologies. BASC also seeks to promote environmental conservation of forest areas and natural resources.

1.1.1. Crop Production
1.1.2. Livestock and Poultry Production
1.1.3. Fisheries and Aquaculture
1.1.4. Forestry and Environmental Management
1.1.5. Veterinary Medicine

1.2. Education, Arts, and Social Sciences

RDE initiatives that will enhance institutional and curricular policies, processes and quality assurance levels, as well as enhance instructional materials and processes, and use of technology in education will help BASC in its dream of becoming a university, and in coping with the demands of the new normal in education. Programs and projects on literacy and development communication

could empower people to get more opportunities toward self-reliance.

1.2.1. Institutional and Curricular Development
1.2.2. Instructional Development
1.2.3. Technology and Education
1.2.4. Literacy Enhancement
1.2.5. Development Communication

1.3. Industry, Engineering, ICT, and Technology

Technology innovation and products development are critical factors that create a difference in the lives of the target clientele. Providing them access to these newly generated technologies on information and communication, product development, engineering and other applied technologies could create a big impact in changing the way people in the community do their tasks and duties.

1.3.1. Food Innovation
1.3.2. Agriculture and Fishery Mechanization
1.3.3. Countryside Development
1.3.4. ICT Advancement
1.3.5. Technology Adoption for Climate Change and DRRM

1.4. Business, Hospitality, and Tourism Management

Research and extension that will promote people empowerment through skills development in organizational and financial management, and will promote agritourism and cuisine development will increase standards of living and create job opportunities. This sector will surely be instrumental in regaining Bulacan's pre-pandemic economic vitality.

1.4.1. Agribusiness Management
1.4.2. Cooperatives Development
1.4.3. Agritourism
1.4.4. Cuisine Development
1.4.5. Entrepreneurship

1.5. Gender and Development

Gender and development will be an important consideration in RDE initiatives and activities in all the above-mentioned priority discipline clusters and themes.

Conduct of gender responsive research and extension programs and projects promote the well-being of women and men, especially the marginalized sectors, will enhance the impact of BASC to its service areas.

Section 2. Commodity Thrust

The major focus commodities are lowland rice, vegetables, livestock, poultry, and agroforestry. Education-based research and extension initiatives are another activity on the agenda. Gender and Development (GAD) and Environmental Management

(EM) are planned actions for all commodities and programs. Other significant initiatives of the Philippine government, such as GAD and EM, are areas where BASC may contribute. (Please refer, the approved RDE Agenda 2019−2024 for a list of problems and problems, as well as specific topics for research, development, and extension.)

2.1. Pinakbet Vegetables
  2.1.1. Ampalaya
  2.1.2. Eggplant
  2.1.3. Tomato
  2.1.4. other vegetables
2.2. Livestock and Poultry
  2.2.1. Carabao
  2.2.2. Goat
  2.2.3. Rabbit
  2.2.4. Chicken
2.3. Agroforestry Products
  2.3.1. Coffee and Cacao
  2.3.2. Bamboo
  2.3.3. Upland Rice
2.4. Lowland Rice
2.5. Other Commodities
  2.3.4. Crops – mango
  2.3.5. Poultry and Livestock – swine, duck

Section 3. Extension Service Modalities

3.1. Productivity Enhancement

  3.1.1. Capability Enhancement
    3.1.1.1. Conduct trainings and seminars for stakeholders;
    3.1.1.2. Conduct educational tours, farmers field schools, field days and experience-based cross visits.
    3.1.1.3. Conduct trainers' training/skills upgrading of faculty and LGU extension workers.

  3.1.2. Financial/Livelihood Assistance
    3.1.2.1. Provide financial assistance to farmers/target stakeholders through roll-over schemes.
    3.1.2.2. Disperse livestock and seedlings to farmers and other stakeholders.

3.2. Knowledge System Management
  3.2.1. Develop and produce client-specific IEC material.
  3.2.2. Distribute IEC materials to different clienteles and stakeholders

3.3. Modelling and Piloting of Matured Technologies

  3.3.1. Showcasing of Matured Technologies
    3.3.1.1. Establish model/pilot demonstration and science and technology-based farms; and
    3.3.1.2. Document adopters of technology

3.3.2. Dissemination and Promotion
3.3.2.1. Promote matured technologies in Agriculture, Education and other fields
3.3.2.2. Conduct field days and techno-fora
3.3.2.3. Develop and disseminate Package of Technologies (POTs)

Section 4. Sustainability Framework

Figure 1. Sustainability framework for the REPD strategic plans and RDE agenda.

In order to attain sustainability, the REPD Office will adopt the following sustainability framework (Figure 1). At the core of the sphere is the continuous enhancing of REPD resources and infrastructure, and strengthening of BASC's research culture. Both will be unceasingly supported by seven enabling factors that include capacity development, transparent processes, effective communications, strategic assessments, stakeholder participation, financial efficiency, and eco-friendly environment. Armed with the comprehensive REPD manual of operations, the REPD management will endeavor to only duplicate or surpass annual achievements, and to never regress to mediocre quantity and quality of outputs and outcomes.

Chapter III
ORGANIZATIONAL STRUCTURE AND MANAGEMENT

Article 1. The College Research, Extension, Production, and Development Council

The College Research, Extension, Production, and Development Council (REPDC) is one of the Office of the President's councils, and it advises the President on matters involving BASC personnel and student research and development, extension and technology commercialization, and training programs. In addition, REPDC members examine research, extension, and training expenditures, programs, fund applications, and incentives. The REPDC also makes recommendations for appropriate policies, standards, and norms for college research, extension, and training programs' development, implementation, and evaluation.

Section 1. Functions

1.1. Determine or recommend policies, standards, and norms for the design, implementation, and evaluation of college research and development, extension and technology transfer, training, and intellectual property security whenever applicable;
1.2. Determine long-term and short-term research and development, extension and technology transfer, and training priorities in various fields of research, extension, and training;
1.3. Review the college's research, extension, training, intellectual property, and technology transfer thrusts and directions every five (5) years on a regular basis;
1.4. Review and make recommendations to the Board of Trustees (BOT) on policies, processes and procedures and their modifications affecting people participating in research and development, innovation, extension and technology transfer, and training;
1.5. Serve as a conduit for information on key developments in research and development, innovation, extension and technology transfer, and training among the college's many units;
1.6. Plan and manage professional development programs and other scholarly activities (i.e., workshops, seminars, conferences) for BASC Personnel with the Human Resource and Development Office.
1.7. Recommend appropriate steps to build institutional ties with other local or international institutions for the advancement of research, extension, and training; and
1.8. Perform any additional authorities or functions imposed by the BOT, as well as any applicable laws and regulations.

Section 2. Compositions

The College Research, Extension, Production, and Development Council is comprised of the individuals listed below:

2.1. President of the College is the Chairperson;
2.2. Vice-President for Research, Extension, Production, and Development as Vice Chairperson;
2.3 Vice President for Academic Affairs serves as a member;
2.4 Vice President for Administration and Finance as a member;
2.5 Director for Research and Development serves as a member;
2.6 Director for Extension Services, as a member;
2.7 Director for Intellectual Property, as a member; and
2.8 College Deans Serving as resource person.

Section 3. Meetings and Quorum of the College Research, Extension, Production and Development Council

The College Research, Extension, Production and Development Council meets and is regulated by the following rules:

3.1. The Council must meet at the discretion of the President, at least once every quarter of the year. The President may call a special meeting as needed, or upon written request from the Vice President for Research, Extension, Production, and Development, or at least one-fifth of the Council members.
3.2. The Presiding Officer of the Council will be the College President. In the absence of the President, the Vice President for Research, Extension, Production, and Development will lead the meeting.
3.3. The Secretary of the Council is appointed by the President. He or she will be responsible for sending out meeting announcements, keeping minutes of the proceedings, and providing a copy of the minutes to each council member.
3.4. Every member of the Council is obligated to attend all meetings, and a member may be excused from participation only for compelling and valid reasons.
3.5. A quorum of the Council shall consist of a majority of all members in office at the moment, excluding those on official travel or leave, and to dispose of a question or determine an issue, a majority vote of all members present shall be necessary.

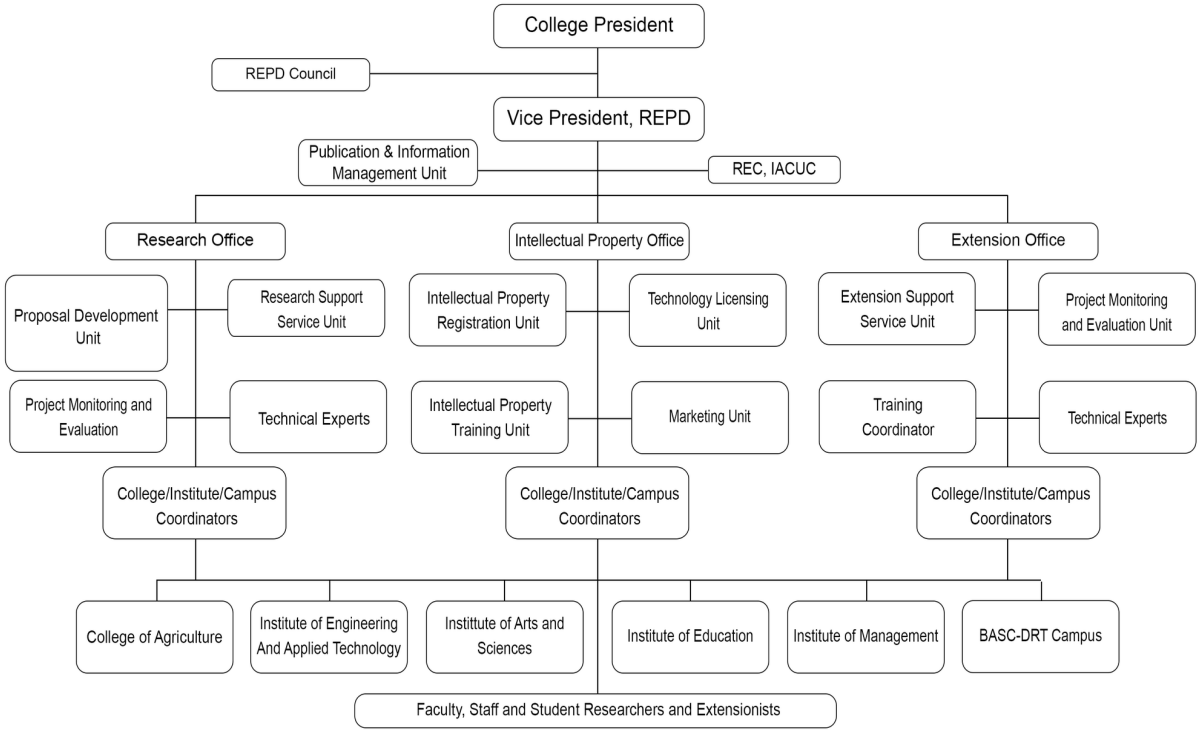

Figure 2. Organizational Structure of Research, Extension, Production and Development Office.

Article 2. The Research, Extension, Production and Development Office

The Vice President for Research, Extension, Production, and Development (REPD) is appointed by the President and ratified by the Board of Trustees to lead the REPD Office. The Directors for Research, Extension, Intellectual Property, report directly to the VP-REPD. The directors are also chosen by the President, based on the VP- REPD's recommendation, and confirmed by the Board of Trustees. Their appointments are typically co-terminus with the President's, subject to an annual renewal.

Section 1. The Vice President for Research, Extension, Production, and Development

The Vice President for Research, Extension, Production, and Development (VP-REPD) is a renowned senior faculty member with experience in research and/or extension project management at the College. The Vice President for Research, Extension, Production, and Development will have direct supervisory authority over the Research and Development Office, Publications Unit, Extension Services Office, Intellectual Property Office, and any other department/s unit/s established to assist the College in effectively carrying out its thrusts and mandates.

Duties and Responsibilities

1.1. Plans, manages and supervises the implementation of the research and development, extension and technology transfer, training and consultancy services programs, projects and activities;
1.2. Manages the publication of the College researches, scholarly investigations, new found technologies and innovative projects;
1.3. Establishes linkages with other Higher Education Institutions (HEIs), State Universities and Colleges (SUCs), Local Universities and Colleges (LUCs) and any local of foreign agencies on matters of research, publications, extension services, intellectual property, technology transfer and internalization of higher education of the College;
1.4. Serve as Chairperson of the Research Advisory Committee of the College;
1.5. Participates in and/or renders collaborative, consultative or any form of services in meetings, conferences, seminars, workshops or write shops, research and development projects and similar activities;
1.6. Establishes and implements the relevant quality standards, development policies, and rules for the research, publications, extension programs of the College;
1.7. Monitors and coordinates with the Deans on the strict implementation of the quality standards of research, publications, extension programs, projects and activities;
1.8. Initiates and promotes the conduct of professional and technical researches in specialized disciplines of the College;
1.9. Submits plans, proposals and other reports as required by the College

President or provide data/information to other agencies wherever necessary for the benefit of the College;

1.10. Recommends, after due process, disciplinary action against personnel under his/her supervision whose actions adversely affect the interest of the College;

1.11. Maintains and constantly upgrades the Manuals for Research, Publications, and Extension Services and of the different Colleges; and

1.12. Performs such functions as the College President may assign.

Section 2. The Office of the Research Director

The Director for Research Office, which is in charge of overseeing the college's research and development projects, is overseen and supervise by the Vice President for Research, Extension, Production, and Development (VPREPD). The Director of Research is a well-known researcher at the College with experience in managing research program/projects. In consultation with REPD's Vice President, the RD is in charge of all areas of the College's research operations, including coordination, consolidation, and operationalization, and will have direct supervisory authority over research and development, dissemination, and publication of BASC Journals. It will coordinate with the office of intellectual property and extension.

Duties and Responsibilities

2.1. Exercises general supervision of the research and development programs of BASC;

2.2. Encourages the conduct of scientific breakthroughs or improvements in the educational aspects, technological designs, quality work and skills development, methodology, practical science, application of scientific theories in the natural and physical sciences, aesthetic aspects and communication abilities and other similar endeavor;

2.3. Invites investors for commercial technologies;

2.4. Maintains and continually updates the Research Manual of the College;

2.5. Supervises the publication of research outputs, scholarly investigations, new found concepts and inventive projects, scientific technological news, annual reports, catalogues, research fora or colloquia and others;

2.6. Organizes Science and Technology S&T fora or colloquia to continually enhance research culture in the College;

2.7. Conducts the information dissemination of research output to the academic community and other prospective clientele;

2.8. Coordinates with the other operating units of the College and recommends project/research proposals to the Research Advisory Committee;

2.9. Facilitates the patenting and copywriting of new technologies generated, innovations, inventions and other scientific discoveries; and

2.10. Performs related task assigned by the Vice President for Research,

Extension, Production and Development and/or College President.

Section 3. The Office of the Extension Director

The Extension Office is in charge of extension services of the College. The Vice President for Research, Extension, Production, and Development (VPREPD) supervises the Director of Extension. The Extension Director will work closely with the office of research and intellectual property.

Duties and Responsibilities

3.1. exercises general supervision of the extension services programs of the College;
3.2. formulates plans and organizes extension services activities of the College;
3.3. coordinates the community outreach programs of the College;
3.4. assists/supervises the conduct of community surveys in order to identify community outreach work of the College;
3.5. conducts a periodic evaluation/appraisal of the extension services programs of the College for continuous improvements;
3.6. establishes and sustains linkages with local or foreign agencies in the conduct of community extension;
3.7. coordinates with the other operating units of the college and recommends project/extension proposals to the Research, Extension and Production Council (REPD);
3.8. performs related tasks assigned by the Vice President for REPD and the College President.

Section 4. The Office of the Intellectual Property Director

The Director of the Intellectual Property Office is responsible for standardizing intellectual property application and registration procedures in accordance with the BASC IP Policy. The Director of Intellectual Property is a distinguished faculty member or administrator at the College who is well-versed in with intellectual property and technology transfer policies and procedures and is directly supervised by the Vice President for Research, Extension, Production, and Development (VPREPD). The intellectual property director will collaborate closely with the research and extension offices.

Duties and Responsibilities

4.1. supervise and oversee the management of BASC IPO;
4.2. review and endorse license agreements negotiated by the BASC IPO;
4.3. review and endorse IP management and licensing practices of BASC;
4.4. resolve any dispute that may arise from the interpretation of the BASC IP Policy and the BASC Technology Transfer Protocols; and
4.5. perform related task assigned by the Vice President for REPD and the College President.

Section 5. Coordinator/Staff, Support Services Unit (RO, EO)

The Coordinator and other staff members for the Support Services Unit of the different REPD Offices are non-teaching personnel who are assigned in the REPD Office, and may include administrative officers/aides, clerks, and even Science Research Specialists/Assistants, when designated for this role.

Duties and Responsibilities

5.1 upkeep of the offices, training and conference halls, in coordination with the concerned Director;
5.2 maintain the cleanliness of the office and surroundings;
5.3 keep records of the Office both in hard and soft copies;
5.4 assist program/project/study leaders and other researchers/extensionists in the processing of documents, and during the conduct of research or extension activities;
5.5 assist in the conduct of REPD conferences, fora, colloquia, trainings, and other activities;
5.6 perform other functions as may be designated by higher authorities.

Section 6. Coordinator, Proposal Development Unit (RO, EO)

The PD Unit Coordinator is a faculty of the College who shall be endorsed by the Research/Extension Director through the Institute Dean and approved by the College President upon recommendation by the VP-REPD. The effective date of appointment is usually a whole academic year, including the summer or midyear term.

Duties and Responsibilities

6.1 provides technical assistance to faculty researchers/extensionists;
6.2 facilitates the conduct of proposal evaluation by the Technical Working Group;
6.3 summarizes and consolidates the findings/recommendations of proposal evaluators; and
6.4 performs other tasks as may be assigned by the Director.

Section 7. Coordinator, Project Monitoring and Evaluation Unit (RO, EO)

The PME Unit Coordinator is a faculty of the College who shall be endorsed by the Research/Extension Director through the Institute Dean and approved by the College President upon recommendation by the VP-REPD. The effective date of appointment is usually a whole academic year, including the summer or midyear term. The PME Unit Coordinator must be a competent researcher/extension worker in his/her field of specialization.

Duties and Responsibilities

7.1 develops project monitoring and evaluation plans subject to the approval of the Director;

7.2 monitors the implementation of research projects/studies based on approved work plans, submitted periodic reports and/or field visitation in the project sites;
7.3 collects and consolidates monthly accomplishment reports submitted by the different institute extension coordinators;
7.4 prepares periodic reports for submission to the Director for Research/ Extension; and
7.5 performs other tasks as may be assigned by the Director.

Section 8. Training Coordinator

The Training Coordinator shall be designated by the Director for EO, for recommendation by the VP REPD and subject to the approval of the College President.

The Training Coordinator shall perform the following duties and responsibilities:

Duties and Responsibilities

8.1. Assist in the conduct of trainings provided to stakeholders;
8.2. Make arrangements on venue, accommodation and food of trainees; and
8.3. Consolidate all training conducted for submission to concern offices.

Section 9. Coordinator, Publication and Information Management Unit (VP, REPD)

The PIM Unit Coordinator is a faculty of the College who shall be endorsed by the Extension Director through the Institute Dean and approved by the College President upon recommendation of the VP-REPD. The effective date of appointment is usually a whole academic year, including the summer or midyear term. The PIM Unit Coordinator must be a competent researcher/extension worker in his/her field of specialization.

Duties and Responsibilities

9.1. Spearheads the publication of newsletters, magazines, bulletin boards, and other information which report research and extension activities conducted by REPD and BASC faculty;
9.2. Documents the conduct of REPD-related activities (e.g. exhibits, symposia, seminars/conferences, presentation, etc.) conducted by the College or attended by REPD personnel; and;
9.3. Performs other tasks as may be assigned by the Director or VP-REPD.

Section 10. Institute Research/Extension Coordinator (RO, EO)

Each Institute shall have one Institute Research Coordinator and one Institute Extension Coordinator. The IRC/IEC shall be endorsed by the Research/Extension Director through the Institute Dean and approved by the College President upon recommendation by the VP-REPD. The effective date of appointment is usually a whole academic year, including the summer or midyear term. The Institute Research/

Extension Coordinator must be a competent researcher/extension worker in his/her field of specialization.

Duties and Responsibilities

10.1. receives and endorses proposals submitted by faculty and students to the Director for Research/Extension;
10.2. monitors schedule of activities of faculty and student researchers;
10.3. compiles research/extension project manuscripts or documents of the Institute;
10.4. submits monthly accomplishment and other reports regarding institute research/extension activities to the Director for Research/Extension;
10.5. informs members of the faculty and students in his/her institute regarding REPD policies, priority thrusts and research updates;
10.6. spearheads the preparation and implementation of Institute research/ extension agenda and programs in consultation with the VP-REPD and Director for Research/Extension;
10.7. attends regular meetings of the Research/Extension Office;
10.8. updates the profile of all faculty/staff rendering research/extension activities from their institute;
10.9. keeps records of research/activities or outputs of faculty in the Institute;
10.10. gives ratings in research of the faculty based on approved evaluation criteria and to be validated by the Dean and the Director of Research;
10.11. assists in the preparation and implementation of activities to be facilitated by the REPD Office in coordination with the Institute Dean; and
10.12. performs other tasks as may be assigned by the Research/Extension Director and institute Dean.

Section 11. Program/Project/Study Team Leader (RO, EO)

The program/project leader of any internally- or externally-funded program/ project has to be a competent and experienced researcher/extensionist. The program leader must also be a project leader in one of the program's components. Likewise, a project leader must be a study leader in one of the project's components.

A study leader can be any faculty including novice researchers/extensionists who has the willingness and education, qualification, or training to undertake the study. Those who have no plantilla position can lead a research study that is not part of a project, provided that they have a member who has a plantilla position who will be named as requesting party for the study's purchase requests. The program/project/ study leader is always the signatory in the procurement management plan (PPMP) and line-item budget (LIB).

The effective date of appointment of program/project/study team leaders depends on the approved schedule of the program/project, whether it is under research,

extension, or both. When the duration of implementation of the program/project/study is requested and approved by the funding agency, the appointment period of the team members is also extended.

Duties and Responsibilities

11.1. leads the preparation, submission, revision, and defense of proposal to the TWG/REPD Council of BASC, or to the funding agency;
11.2. prepares, submits, and follows up the necessary documents for procurement of supplies and implementation of activities, including the project procurement management plan (PPMP), line-item budget (LIB), purchase requests, authority to travel, and others;
11.3. implements the program/project/study activities according to approved proposal, specifically in terms of the work plan and budget;
11.4. prepares and submits the monthly and other periodic accomplishment reports on time;
11.5. prepares and submits the terminal report on time, or requests for extension of the program/project/study at least one month before the approved termination date for internally-funded, and three months for externally-funded program/project;
11.6. presents the outputs of the program/project/study in the annual agency in-house review of completed or ongoing RDE programs, projects, and studies;
11.7. prepares and submits manuscript of the program/project/study for possible publication in the BASC research journal or other reputable and peer-reviewed journals; and
11.8. follows all the applicable REPD policies and guidelines to the implementation, presentation/sharing of results of the program/project/study, including those for research ethics and intellectual property;
11.9. endeavors to create opportunities for more usage or application of the outputs or results of the program/project/study, including application for patent/utility models, technology adoption or commercialization, or utilization in extension, instruction, in coordination with the proper authorities of the College.

Section 12. Program/Project/Study Team Member or Staff (RO, EO)

The member or staff of any program, project, or study has to be a responsible and committed faculty or non-teaching personnel who will help his/her leader until completion of the program/project/study. Whether it is under research, extension, or both, the effective date of appointment of program/project/study team leaders depends on the approved schedule of the program/project.

Duties and Responsibilities

12.1. assists the program/project/study leader in the exercise of his/her roles and responsibilities; and
12.2. follows all the applicable REPD policies and guidelines to the implementation, presentation/sharing of results of the program/project/study, including those for research ethics and intellectual property.

Section 13. Graduate Research Assistant

A graduate research assistant is a student who is currently enrolled in a master's or doctorate program, who was selected and appointed by a program/project leader, in coordination with the Dean of the academic unit and with the REPD office, as a team member or staff of an externally-funded program/project/study. The duties and responsibilities of a graduate research assistant are similar with those of a program/project/study team member. Additional information on the qualifications, processes of appointment, and other details are discussed in Chapter XI (Policies and Guidelines on Graduate Research and Teaching Assistantship).

Section 14. Technical Staff/Experts

Technical experts are senior faculty researchers and extension workers who may be tapped by the REPD Office in some of its projects and activities. The REPD Director may endorse the designation of a Technical Staff/Expert that will be detailed in the REPD Office, subject to the recommendations of the VP-Academic Affairs and VP-REPD, and approval of the President. The effective date of appointment is usually a whole academic year, including the summer or midyear term.

Duties and Responsibilities

14.1. provides technical assistance to researchers or extension workers under his/her area of expertise;
14.2. serves as a project in-charge of a research/extension center/project;
14.3. provide technical advisory and consultancy services to farmers and other stakeholders; and
14.4. serve as resource speaker, lecturer, trainer, assessor, evaluator, and adviser based on their expertise.

Section 15. Science Research Specialist, Analyst or Assistant

The Science Research Specialist, Analyst or Assistant is a plantilla non teaching position given to qualified applicants.

Duties and Responsibilities

15.1. assist in the preparation of research/extension proposals and other REPD projects/activities;
15.2. assist in the gathering of data of projects implemented by the REPD Office;

15.3. assist in the monitoring of research/extension projects and prepares periodic reports;
15.4. assist in the preparation of technical papers for presentation and terminal reports;
15.5. document researches being implemented by the Office;
15.6. help in the organization, analysis and interpretation of collected data;
15.7. supervise laborers in the efficient conduct of projects/studies;
15.8. prepares and submit reports of data of the REPD offices as required by other offices or agencies such as CHED, DBM, or DOST; and
15.9. perform other related jobs as required by higher authorities.

Section 16. Intellectual Property Officers

The different Intellectual Property Officers are preferably plantilla non-teaching position given to qualified applicants. In case no plantilla is available or a full-time non-teaching staff cannot be hired, faculty members may also be designated with the appropriate Equivalent Teaching Load.

Duties and Responsibilities

16.1. provide advice to BASC constituents and clients regarding IP applications;
16.2. evaluate IP applications of BASC;
16.3. conduct state-of-the-art search, prior art search, validity search, and infringement or freedom-to-operate search as needed;
16.4. provide assistance in the drafting and packaging of relevant IP application;
16.5. facilitate IP registration at IPOPHL or national library; and
16.6. perform other related jobs as required by higher authorities.

Section 17. Campus, College, or Institute Intellectual Property Officer

The different Intellectual Property Officers for the campus, college, or institute are preferably permanent faculty members endorsed by their respective Director or Dean to serve as in-house IP overseer in coordination with the BASC IPO.

Duties and Responsibilities

17.1. provide advice to their constituents and clients regarding intellectual property applications;
17.2. evaluate all IP applications from their campus, college, or institute before submission to the BASC IPO;
17.3. coordinate with the BASC IP office regarding their campus, college, or institute IP applications;
17.4. provide IP-related seminars and trainings in coordination with the BASC IPO; and
17.5. disseminate all IP-related information to their constituents and clients.

Section 18. Technology Licensing Officer

The Technology Licensing Officers are preferably plantilla non-teaching position given to qualified applicants. In case no plantilla is available or a full-time non-teaching staff cannot be hired, faculty members may also be designated with the appropriate Equivalent Teaching Load.

Duties and Responsibilities

18.1. Facilitate IPR Licensing agreements of BASC IP assets submitted to the BASC IPO;
18.2. Manage the BASC IP portfolio;
18.3. Solicit and analyze invention disclosure from the inventors/makers;
18.4. Complete patent, UM, ID agreements;
18.5. Initiate contacts with current and potential research collaborators, business partners, researchers, clinicians, and staff to develop successful collaborations, strategic relationships, and licensing arrangements;
18.6. Draft and negotiate small to mid-sized license agreements and other types of agreements including material transfer, collaboration, inter-institutional and non-disclosure agreements;
18.7. Prepare non-confidential, technical information for marketing purposes.

Section 19. Intellectual Property Training Officers

The Intellectual Property Training Officers are preferably faculty members designated with the appropriate Equivalent Teaching Load.

Duties and Responsibilities

19.1. Facilitate capability building of BASC personnel regarding IP, Technology Transfer and Knowledge Transfer
19.2. Coordinate with different offices, campuses, institutes, departments, or units in conducting orientations, seminars, trainings and other means to educate the faculty, non-teaching personnel, students and other clients regarding IP.
19.3. Coordinate with the appropriate offices to facilitate wider dissemination of IP policies of the College.

Section 20. Marketing Officers

The Marketing Officers are preferably faculty members designated with the appropriate Equivalent Teaching Load.

Duties and Responsibilities

20.1. Locate suitable commercial development partners
20.2. Engage with innovators and commercialization partners to conduct market assessment.

20.3. Cooperate with the different offices to identify technologies with commercial applications
20.4. Evaluate the commercial potential of technologies, and identify potential licensees
20.5. Develop and implement specific marketing strategies for each technology.

Section 21. Legal Officers

The Legal officers are plantilla non-teaching position with a legal background preferably a bar passer.

Duties and Responsibilities

21.1. Counsel BASC and its clients on establishing and protecting IP capital;
21.2. Assist in producing legal descriptions of IP applications;
21.3. Assist in licensing IP, transferring proprietary technology, drafting agreements, negotiating settlements, and conducting IP asset due diligence;
21.4. Recommend appropriate action pertaining to IP issues and concerns on legal matters;
21.5. Pursue litigation on matters concerning BASC IP if the need arises,
21.6. Prepare communications in response to IP queries with legal implications;
21.7. Prepare contracts and instruments to which BASC is a party and interpret provisions of IP contracts BASC enters into; and
21.8. Handle all legal matters pertaining to IP, licensing franchising, distribution, technology transfer, and trade secret of BASC.

Section 22. Technical Working Group

The Technical Working Group (TWG) is the team that evaluates proposals in the initial evaluation stage. It consists of the College President as Chair, and the VP-REPD, VP-AA, Research Director, Extension Director, IPO Director, PDC Director, GAD Director, and Research Office PD Coordinator as Members. The PD Coordinator also acts as the TWG Secretary. The TWG members give comments and suggestions to all research and extension proposals. The PDTM coordinator summarizes these into an action sheet which is given to proponents for their compliance, which is required for the next stage of proposal evaluation.

Section 23. Research Ethics Committee

The Research Ethics Committee is tasked to enforce the National Ethical Guidelines for Health and Health-Related Research (NEGHHRR). The REC consists of a health practitioner as Chairman, preferably a medical doctor, nurse or licensed psychologist. Members are senior researchers with varied backgrounds who have experience in evaluating proposals and help in the improvement of research protocols.

The REC shall evaluate faculty and student research proposals with human subjects, including social and behavioral studies, especially those from vulnerable

groups such as indigenous peoples, minors or children, military personnel, PWDs, persons living with HIV and AIDS, and populations in disaster situations. They shall ensure that proposals with human subjects have taken into consideration all the elements of research ethics as stated in the NEGHHRR, such as: social value; informed consent; vulnerability of participants; risks, benefits, and safety; privacy and confidentiality of information; justice; and transparency.

The effective date can be for one school year, or as deemed appropriate by the College President, upon recommendation from the VP-REPD and Research Director. All REC members must have undergone appropriate training before their appointment. Additional information on the qualifications, processes of appointment, and other details on research ethics protocols are discussed in **Part _ (Policies and Guidelines on Research Integrity and Ethics).**

Section 24. Institutional Animal Care and Use Committee

As provided for in DA-AO. No. 40, s.1999, in compliance to the Animal Welfare Act of 1998, all research and production projects involving the use of animals must undergo the evaluation and approval from the Institutional Animal Care and Use Committee (IACUC).

The IACUC consists of a veterinarian as Chairman, a faculty with experience on animal science research, and a pubic member who is not affiliated with the College who has concern on the welfare of animals. The IACUC members shall be designated by the College President.

The effective date is for one school year, or as deemed appropriate by the College President, upon recommendation from the VP-REPD and Research Director. The composition and specific functions and obligations of IACUC members are detailed in Chapter V (Guidelines and Policies on Research anbd Extension Integrity and Ethics).

Section 25. Research Journal (SAJAAS) Editorial Board Members

The research journal of the College is the Southeast Asian Journal of Agriculture and Allied Sciences (SAJAAS), a peer-reviewed journal that will be applied for CHED accreditation and international indexing services/bodies. The Editor-in-Chief and other editors shall be recommended by the VP-REPD and appointed for one calendar year through a special office order. Associate Editors and peer-reviewers shall be invited from other institutions and other countries by the editorial board members from the College.

Section 26. Newsletter (RISE) Editorial Board Members

The newsletter of the REPD Office, named Research and Innovation Stories and Events (RISE) shall consist of an Editor/s-in-Chief (EIC), Associate Editor/s, Managing Editor/s, Contributors, Graphics and Layout Artist/s, and Consultants. The persons to be appointed in these positions depend on the Publication and Information Unit Coordinator, who shall spearhead the publication of the newsletter. The EIC position

can also be held by either of them.

Recruitment of editorial board members from teaching and non-teaching staff can be done for every academic year. The members of the RISE editorial board shall be endorsed by the PIU through the Institute Dean and approved by the College President upon recommendation by the VP-REPD. The effective date of appointment is usually a whole academic year, including the summer or midyear term.

Section 27. Student Researchers

Student researchers include those who are enrolled in gradate or undergraduate thesis, which are requirements for graduation in the degree program. The guidelines and processes on student theses are detailed in Part Z (Guidelines and Processes on the Conduct of Graduate and Undergraduate Student Researches).

Student researchers also include those who may be tapped to participate in the conduct of faculty researchers, either internally- or externally-funded, particularly during the conduct of laboratory experiments or surveys, data processing, and other activities. The participation of students must be documented and their contribution acknowledged in reports and manuscripts. Each activity must be communicated with, and approved by the Dean and VP-AA, to ensure that the class schedule of the involved student/s is not jeopardized. The safety and well-being of students must be ensured at all times. Activities that have to be done outside the campus shall only be permitted when complete documentary requirements as mandated by CHED on these types of activities are met.

Section 28. Special Committees

As the need arises, the REPD management may form special committees, such as, but not limited to the selection of model faculty in research, best student researcher, and project cooperator, and evaluation committees for IEC materials, proposals for external funding, and papers for presentation in BASC regional/national/international conference. These may special committees shall be composed by the VP-REPD as Chair, and the REPD Directors as members. Additional members may be designated as needed. The VP-REPD /College President shall issue the memorandum for the committee members, and the effectiveness shall be limited to the activity/ies contained in the memorandum.

CHAPTER IV
CLASSIFICATION OF RESEARCH AND EXTENSION INITIATIVES

Article 1. Research Initiatives

Section 1. Types of RDE Initiatives According to Scope

A program has wider scope, longer duration, and more deliverables than a project, whether it is a research, extension, or an integrated research and extension program. In order to be considered a program, it must have two or more approved projects, and a project must consist of two or more approved studies.

A project has lesser scope than a program but has wider scope than study. A research project consists of two or more research studies, and an extension project is composed of several major and minor activities that will help attain its objectives.

Each research study is focused on a specific research problem and a few research objectives. A study can be part of a project, or a stand-alone study.

Section 2. Types of Researches According to Nature and Purpose or Utility

2.1. Basic research

Basic research has a universal nature. It aims at expanding knowledge by creating new theories and modifying existing ones. It focuses on "knowledge for its own sake" and it is primarily driven by curiosity and the need to explore the unknown. It is also known as fundamental or pure research and it is a systematic investigation set to achieve a better and more detailed understanding of a research subject or phenomenon, not to solve a specific problem. Findings from basic research have been predominantly responsible for breakthroughs in different fields of study.

2.2. Applied research

Applied research has a limited nature. It is focused on providing practical solutions to specific problems by analyzing empirical evidence. In many cases, applied research is a follow-up research design for basic research because it further investigates the outcomes of pure or basic research in order to validate these findings and apply them to create innovative solutions to specific problems.

Section 3. Types of Researches According to Methodology

3.1. Quantitative researches

Quantitative research methods involve using numbers to measure data. Researchers can use statistical analysis to find connections and meaning in the data.

3.1.1. Descriptive

3.1.1.1. Surveys
3.1.1.2. Case reports/series
3.1.1.3. Ecological study

3.1.2. Analytic

3.1.2.1. Observational
3.1.2.1.1. Case control
3.1.2.1.2. Cohort
3.1.2.1.3. Cross-sectional

3.1.2.2. Experimental
3.1.2.2.1. Clinical trials
3.1.2.2.2. Field trials
3.1.2.2.3. Laboratory trials

3.2. Qualitative researches

Qualitative research methods involve exploring information and non-numerical data. These research methods also examine how people might connect meaning to their experiences and emotions.

3.1.3. Phenomenological study
3.1.4. Ethnographic study
3.1.5. Historical study
3.1.6. Case study
3.1.7. Action research

3.3. Mixed Methods

Many research projects employ mixed methods to attain their objectives, and each project component or study may use a specific method only.

Article 2. Classification of Extension Services

Section 1. Based on the Nature of Services Offered

1.1. **Campus-Based**

Campus-based extension services include technology demonstration farms/sites which showcased the different generated technologies by faculty researchers through on-site in-campus learning while doing activities. These in-campus techno-demo projects also served as avenue for students, farmers, and other stakeholders to learn the developed technology during their field trips, cross-visits and farm tours conducted within the campus.

1.2. **Community-Based**

Community-based extension services are projects being extended by the

College wherein the project team partnered with the people in the community. The project team usually tap a project cooperator who will try and establish a techno-demo farm in their area which will serve as a pilot showcase of generated technology directly managed by the project cooperator under the guidance and supervision of the project team. It is a collaborative effort between the project team and the project cooperator to encourage more technology adopters in their area through actual demonstration of learning while doing.

1.3. **Instruction-Based**

These are extension activities being conducted by faculty extensionists which transfer knowledge and skills generated from classroom instruction based on the field of expertise of the project team. It also includes different skills development activities directed towards people empowerment and self-reliance.

1.4. **Research-Based**

Various technologies generated as product/output of research conducted by faculty researchers are being transferred to people in the community with the hope that these will be of great help to them in creating and effecting change in their standard of living.

1.5. **Production-Based**

Livelihood projects related to the different existing production projects of the College are also being extended to the people in the community to provide employment and job creation.

Section 2. Based on the Source of Services Offered

2.1. Demand-Driven

These are programs and projects implemented in response to the request submitted by the partner agency (LGUs, GOs, GAs, Cooperatives) or other particular group in the local community requesting assistance through the various extension modalities (provision of trainings, consultancy/advisory services, techno-demo, IEC materials, etc.) to address an identified need or problem they are facing.

2.2. Revenue-Driven

This includes the campus-based techno-demo sites which perform dual functions as extension and income-generating project as these techno-demo sites showcased the various developed technologies by faculty researchers while at the same time earning income through the sale of its products to the consuming public.

Extension services that generate income through the practice of professional services (trainer, speaker, lecturer, assessor, evaluator, adviser and consultant) of the faculty extensionists who are considered expert in their field also belong under this classification.

CHAPTER V
GUIDELINES AND POLICIES ON RESEARCH INTEGRITY AND ETHICS

The Guidelines and Policies on Research Integrity and Ethics (GPIRE) shall govern the conduct and practice of research by Bulacan Agricultural State College's faculty, staff, and students. It applies to all disciplines and professions in the institution, and it serves as a guide for the specific research policies and regulations that may be formulated by the different institutes and campuses. Such policies and regulations must complement this policy.

This GPIRE follows and espouses national and international ethical research codes and upholds BASC policies, such as those for intellectual property, health and safety, and management of finances. It is open to periodic review and amendment every 3-5 years as deemed necessary by the BASC Research Ethics Committee (REC) and the Research Extension, Production, and Development (REPD) Council.

Article 1. Guiding Principles

Being an agricultural institution of higher learning, the Bulacan Agricultural State College commits to the provision of excellent education and quality service towards improved quality of life of its clientele. Towards this end, the College prioritizes the conduct of research, development and extension initiatives that will create new knowledge, generate innovative technologies, and provide more opportunities for the farmers, practitioners, and policy-makers in agriculture and allied sciences.

Section 1. The Ethical Principles

1.1. Beneficence and Non-maleficence. Researchers shall endeavor to maximize the benefits of their researches to its direct and indirect recipients, while eliminating or minimizing any harmful effect, whether intentional or not, to any person or animal.

1.2. Excellence. In the conduct of researches, BASC faculty and students in all fields and disciplines shall strive to attain the best quality of output.

1.3. Integrity and Professionalism. Researchers shall uphold professional standards of conduct, and shall strive to preserve the good reputation of the College by being truthful in the conduct of research and in reporting of results, and by honoring all obligations and commitments.

1.4. Justice. All persons are entitled to have access to, and benefit from, the results of researches, and to quality of processes, procedures, and services being conducted by researchers. Researchers shall exercise fairness and prudence to avoid unjust practices and eliminate bias or prejudice.

1.5. Cooperation. The College promotes collaboration among its internal and external clients. Sharing of knowledge and resources will have only positive effects to research.

1.6. Accountability. As public servants, BASC researches shall be obliged to adhere to all laws, policies, terms, conditions, agreements, and requirements applicable to their work.

1.7. Zeal and Growth. The College shall promote the continuous development of its researchers, while researchers shall endeavor to continuously enhance their personal capabilities.

1.8. Respect. All researchers shall respect and protect the rights and dignity of all persons, regardless of age, sex, religion, ethnicity, culture, sexual orientation, gender identity, socio-economic status, disability, language, and other individual differences. All researches shall uphold the rights to privacy, confidentiality and self-determination of participants.

Section 2. General Ethical Standards in Research

2.1. Conflicts of Interest. Situations in which trust between or among participants in the research process is, or perceived to be compromised, due to personal, financial, professional, and/or institutional factors, must be outrightly disclosed and resolved in a transparent and fair manner.

2.2. Dealing with Research Participants and Communities. Research participants shall have voluntary participation and informed consent; their well-being, safety and security shall be ensured at all times; and confidentiality shall be upheld.

2.3. Dealing with Animal Subjects. All researches using animals shall seek approval from the Institutional Animal Care and Use Committee (IACUC). Animals shall be provided with adequate care and management, and shall follow the provisions of the RA 8485, or Animal Welfare Act. For researches outside the disciplines of veterinary medicine and animal science, animals will only be used when there is no other alternative. Whenever possible, higher animals shall be replaced by lower or insentient animals, insects, cell cultures or non-animal models. All researches shall be designed to require the least number of animals, and shall be designed to minimize pain, suffering, or distress.

2.4. Ensuring Safety and Protecting the Environment. Researchers shall ensure their own safety and that of their research subjects/participants and the community at large, and shall protect the environment through safe handling, disposal or storage of chemicals, microorganisms or other hazardous items. When applicable, researchers shall avoid the over-collection of wildlife specimens, and the introduction of non-native species in their research locale.

2.5. Research Dissemination, Publication and Authorship. Research findings shall be reported in a full, open, non-selective, unbiased, and timely manner to the relevant community. Reports must be truthful, accurate and adequate to ensure repeatability and replicability. Authorship shall be

granted only to those who had significant intellectual contribution in the conception, design, analysis and the drafting of the research report. All authors shall give approval before any research is submitted for publication or presentation. Faculty researchers shall avoid predatory journals and conferences at all cost.

2.6. Management of Data. Researchers shall maintain the security of confidential data and not use these for the personal advantage of any party. They shall retain their data for an appropriate period of time to allow other researchers to check their results, and also to share them for the furtherance of the research process.

Article 2. Policies on the Ethical Conduct of Research

Section 1. The Research Ethics Committee

1.1. The Research Ethics Committee (REC) shall be concerned with the evaluation of health-related research proposals, and those with human subjects. The REC shall have the right to formulate further guidelines consistent with the ethical guidelines of existing national scientific and professional organizations that govern research in a given discipline. This may include the following laws:

1.1.1. National Ethical Guidelines for Health and Health-Related Research (2017)
1.1.2. RA 2067 – Science Act of 1958
1.1.3. RA 7394 – Consumer Act of the Philippines of 1991
1.1.4. RA 8293 – Intellectual Property Code of the Philippines of 1997
1.1.5. RA 8371 – Indigenous People's Rights Act of 1997
1.1.6. RA 8485 – Animal Welfare Act of 1998
1.1.7. RA 10532 – Philippine National Health Research System Act of 2013
1.1.8. Other pertinent laws, rules and regulations, memoranda or office orders

1.2. The REC shall enhance the College's faculty and student research proposals with human subjects, and shall ensure ethical review and clearance, and to periodically review or amend the school's procedures on research ethics as deemed necessary. The REC may seek advice and assistance from experts involved in the topic or issues in a research proposal. The REC shall ensure that experts have no conflict of interest in relation to the proposal or issues to be taken up.

1.3. The first stage of ethical review shall be done at the level of the Technical Working Group evaluation. Research proposals are considered completely processed and approved only when ethical considerations have been examined as posing no dilemma by the TWG. Further review

of the proposals including the ethical considerations shall be conducted by the REC.

1.4. The composition of the REC shall follow the National Ethical Guidelines for Health and Health-Related Research. The REC shall be led by an employee of the College who is a licensed health practitioner (e.g. MD, RN, psychologist). Members of the REC shall be senior researchers in different disciplines from within or outside the College; and when necessary, a Legal Counsel and expert/s on ethics. The REC membership sall be multidisciplinary and multisectoral, with adequate age and gender representation.

1.5. Each research proposal shall be evaluated by at least three members of the REC, including the Chairperson, a member who belongs to the discipline or academic unit where the proposal comes from, and an expert on research methodology and/or statistics.

1.6. Only those proposals that have acquired clearance from the REC can proceed to the REPD Council evaluation and approval of proposals for internal funding.

Section 2. Conflicts of Interest

2.1. Conflicts of interest occurs when the primary interest of obtaining accurate and valid results in research may be influenced by secondary interests like financial gain, professional advancement, support for friends and colleagues, advocacy for strongly held socio-political or religious views, or other factors.

2.2. The researcher may be unconscious of these sources of bias, he/she may have good intent and good character, and the confidence to be able to do the research impeccably. However, even if there is no real conflict but only a potential or perceived one, an observer can still have trust issues. In turn, this will affect the utilization of research results, the image of the College, and ultimately the advancement of science and public good. Hence, there is a need to reduce risks for conflicts of interest to the minimum level, by way of regulation of the individual, or of the process.

2.3. Regulation of the Individual

2.3.1. Disclosure. As a way to achieve transparency and promoting better informed consent, disclosure of financial and non-financial (conflicts of) interests is the minimum requirement.

2.3.2. Abstention or Prohibition. The REC may decide, after a thorough but fair process, to prohibit an individual to participate in research. Grounds for this may include strong financial or relationship interests.

2.4. Design and regulation of the research process.

2.4.1. Qualifications of the researcher. The researcher/s has/have the appropriate education, training and experience on the research topic and processes.

2.4.2. Review of proposals. The REC conducts non-conflicted review of proposals, checking the design, methodologies, statistical analysis and other key components of the project. The procedure flow chart and institutional forms shall be followed in the review and approval of proposals.

2.4.3. Monitoring and evaluation. Regular monitoring of activities, and mentoring by senior researchers can help improve the quality of outputs and reduce effect of biases.

2.4.4. Documentation and archiving. All documentation and communication shall be dated, filed and archived according to the committee's procedures. Records shall be kept in hard copy and electronically. Sufficient safeguards shall be established to maintain confidentiality, such as use of locks for cabinets, passwords and encryption for electronic files.

2.5. Critical outcomes assessment. These include the annual Agency In-house Review of on-going and completed research projects, and peer-review of manuscripts before publication in research journal of BASC and other publishers.

Section 3. Dealing with Research Participants and Communities

3.1. Voluntary Participation. The researchers shall not coerce the participants to participate in the research, and must allow them to withdraw at any time.

3.2. Informed Consent. Participants shall be informed of the whole research process, and the roles and risks involved in the research project, up to results dissemination and publication, prior to giving their consent. The information and consent must be adequately documented. Minors, students, and subordinates, as well as people in confined environments that limit participation (such as prisons or in residential care facilities), shall not be compelled or pressured to participate in research. The consent is not a contract, it can be withdrawn anytime by the participant.

3.3. Confidentiality. Researchers shall guarantee the anonymity of the participants. Any of their identifying information will not be given to individuals or entities not directly involved in the research, and these must be removed from records and reports prior to publication.

3.4. Safety and well-being of participants. The participants shall not be put in situationswhere they might be at risk of physical and/or psychological harm. Any risk or harm to human subjects resulting from the conduct of research should be offset by benefitsthat the study may provide to human

subjects.

3.5. Community-based research. An agreement shall be entered into by BASC (administration and project proponents), and the appropriate representatives from the community. The project team shall respect the sovereignty and socio-cultural traits of the community. As partners, the community shall be consulted in all aspects and stages of the project, up to the dissemination of results.

3.6. Disclosure of results to participants. This shall occur only when all the following apply: 1) the findings are scientifically valid and confirmed; 2) the findings have significant implications for the participant's well-being; and 3) the course of action to ameliorate these concerns is readily available when research results are released to the participants.

Section 4. Dealing with Animals in Research

4.1. Animal researches shall be subject to the Animal Welfare Act of 1998, with implementing guidelines contained in the Department of Agriculture Administrative Order No. 40, s.1999, or "Rules and Regulations in the Conduct of Specific Procedures Using Animals," while the use of laboratory animals in research shall be covered by the Philippine Association for Laboratory Animal Science (PALAS) Code of Practice for the Care and Use of Laboratory Animals.

4.2. Creation of IACUC. As provided for in DA-AO. No. 40, s.1999, all research and production projects involving the use of animals shall undergo the evaluation and approval from the Institutional Animal Care and Use Committee (IACUC), which shall be designated by the College President.

4.2.1. The IACUC shall be composed of the following:

4.2.1.1. A licensed veterinarian, preferably with sufficient training and experience in laboratory animal science or medicine or in the use of the species in question;

4.2.1.2. One experienced in scientific procedures involving animals; and

4.2.1.3. A public member not affiliated with the institution and preferably with concern for animal welfare. Additional member/s may be appointed provided he/she possesses the aforementioned qualifications.

4.2.2. The IACUC shall have the following functions and obligations:

4.2.2.1. evaluate and approve Animal Care and Use Program (ACUP) of animal projects, and Protocol Review Forms (PRF) of research projects, and undergraduate and graduate thesis experiments;

4.2.2.2. monitor and review the implementation of the ACUP and

PRF through regular inspection of all animal experimental laboratory room or facility, animal surgical facility, veterinary clinic or hospital, and animal farms;

4.2.2.3. submit regular and annual reports with accompanying Inspection Reports and approved Protocol Review Forms to the VP-REPD; and

4.2.2.4. conduct trainings on animal welfare and proper animal handling, including restraint and technical manipulations on animals.

4.2.2.5. If the IACUC member is part of the proposed research or animal project, he/she should not participate in the approval except to provide information requested by the IACUC.

4.3. Animal Production Projects. As an institution offering veterinary medicine, animal science, and agriculture programs, it is the BASC has to establish animal production projects for different livestock and poultry species.

4.3.1. Depending on the nature and use of the animal project or animal farm, whether used for instructional purposes only, or with additional purposes for income generation, research and/or extension, these shall be governed by the specific policies of the appropriate offices (College of Agriculture, Business Affairs, REPD Office, etc) and by general government policies on financial management and procurement.

4.3.2. To comply with the policies of the Department of Agriculture – Bureau of Animal Industry, all animal production establishments of the College shall endeavor to undergo the registration process of the DA-BAI, and maintain this registration thereafter. The IACUC Chairperson shall be an additional signatory to the proposals for new animal production projects.

4.3.3. Animal production projects shall craft their own Animal Care and Use Program (ACUP). They shall be regularly inspected by the IACUC to check compliance to their own ACUP and to the Animal Welfare Act and its implementing rules and regulations.

4.4. Policies for Animal Research

4.4.1. There are three principles in animal use for research:

4.4.1.1. Replacement. For experimental researches, whenever applicable, replace higher animals with lower or insentient animals, insects, cell cultures, or non-animal models. Animals are only used when there is no other alternative.

4.4.1.2. Reduction. Design researches to use the least possible number of animals.

4.4.1.3. Refinement. Research materials, methods or processes are

so refined that animals are protected from pain, suffering, and/or distress, and that their welfare and well-being are enhanced.

4.4.2. Animal researches are subject to the Animal Welfare Act of 1998 with implementing guidelines contained in the Department of Agriculture Administrative Order No. 40, s.1999, or "Rules and Regulations in the Conduct of Specific Procedures Using Animals," while the use of laboratory animals in research is covered by the Philippine Association for Laboratory Animal Science (PALAS) Code of Practice for the Care and Use of Laboratory Animals.

4.4.3. Proponents of animal researches shall craft their own ACUP, which includes care and management of animals before, during and after the research project/study.

4.4.4. Animal researches shall undergo the protocol review process (attachment A) of the IACUC prior to approval of the research. They shall accomplish the protocol review form (attachment B) completely and accurately.

4.4.5. Research teams shall be prepared to discontinue or repeat experiments/researches due to violations of the Animal Welfare Act and institutional policies as determined by the IACUC.

4.4.6. Certification from the IACUC on the humane and ethical use of animals for research may be secured by the project team as necessary for presentation or publication purposes.

4.4.7. Only those research proposals with human subjects who have acquired clearance from the IACUC can proceed to the REPD Council evaluation and approval of proposals for internal funding.

Section 5. Ensuring Safety and Protecting the Environment

5.1. Academic units assigned with laboratory and animal facilities shall ensure the safety of the facilities under their care and management. Manual of operations including safety precautions, waste management, and incident management plans shall be crafted and followed by all users of the laboratory and animal facilities.

5.2. The persons in charge with the facilities shall coordinate with the Physical Facilities Office for the regular inspection and maintenance activities necessary for the equipment, materials and supplies in the laboratory or animal facility.

5.3. All users of equipment and facilities shall undergo proper training and use proper personal protective equipment (PPE) to ensure personal and environmental safety, and accuracy of research results.

5.4. Disclosure on the use of any toxic or hazardous substance and microorganisms, and the procedures for their safe handling, disposal,

and storage, must be included in research proposals. These shall be reviewed and certified by the Research Ethics Committee.

5.5. Protocols for research proposals dealing with wildlife shall comply with environmental laws and all regulations of the Department of Environment and Natural Resources, and shall be reviewed and certified by the TWG-REC.

Section 6. Completion and Dissemination of Research

6.1. Guided by the principles of excellence and accountability, researchers must complete their projects on time, except in cases where the duration is approved for extension by the REPD office and by the funding agency, or the project is approved for termination by the TWG-REC due to factors that make the continuation of the study impossible or impractical.

6.2. Completion entails acceptance and approval of the project terminal report, and approved liquidation of project funds.

6.3. All researchers must present their terminated projects in the annual agency in-house review.

6.4. Collaborating members of a research team must seek permission from the project leader on plans before using any project output for dissemination purposes and for competition.

6.5. The College shall provide assistance in the timely dissemination of research results in conferences, fora or colloquia; reputable journals; extension activities; exhibits; different forms of media; and to the relevant community, government, industry, and policy-makers. In turn, the researchers shall remember that they are representing the College, and thus are expected to exhibit professionalism and promote its reputation.

6.6. Researchers shall refrain from joining predatory conferences and from submitting manuscripts to predatory journals.

6.7. The College encourages the publication of research results in the list of reputable journals as prescribed by PASUC (attachment C), and in other non-predatory peer-reviewed journals of BASC and other SUCs/HEIs in the country.

6.8. The faculty are expected to abide internationally-accepted codes on publication ethics. Copies of the publications must be provided to the College, funding agency, and other stakeholders of the research.

Section 7. Authorship

7.1. All qualified persons with substantial intellectual contribution to the research must be included. All identified authors must also express their consent to be included as authors, and the final listing must reflect the amount of contribution of individual authors and must be agreed upon by all. Students shall remain as main author of their thesis, dissertation, or other research output, and faculty advisers must seek their agreement or approval in writing prior to publication, presentation, and other modes of dissemination.

7.2. Authorship is substantial enough when the researcher can take public responsibility in the following aspects of research:

7.2.1. the conceptualization and design of the work or study;
7.2.2. the development of equipment or instruments to collect data;
7.2.3. the development of novel sampling design, sample production or specimen collection process;
7.2.4. the use of unique talent in sampling design, sample production or specimen collection
7.2.5. the writing of computer programs to collect and process data, or tocompute, model, or simulate;
7.2.6. the processing, analysis, and interpretation of data;
7.2.7. the development of prototypes;
7.2.8. the formulation of an axiom, a fundamental principle, a core idea, atheory, a model, or an explanation;
7.2.9. providing insights that lead to the solution of the research problem;
7.2.10. working through the reasoning, deductions, or explanations;
7.2.11. drafting significant parts of the final report; and
7.2.12. critical revisions of the draft.

7.3. **Authorship is not merited in the following:**

7.1.1. the mechanical collection of samples or gathering of data;
7.1.2. soliciting funds for the project;
7.1.3. providing financial or material support;
7.1.4. providing technical support, such as assembling, maintaining, orrepairing equipment;
7.1.5. supplying technical data by simply operating a machine withoutproviding substantial analysis;
7.1.6. text-editing, drafting diagrams and tables, and word-processing, designing, or typesetting of the research output;
7.1.7. administrative supervision of the researchers, such as being the headof the academic unit involved;
7.1.8. administrative supervision of the research facilities, such as

being thelaboratory coordinator/supervisor; and

7.1.9. administrative supervision of the research project, such as being thehead of a research organization or academic unit involved.

7.4. Authorship disputes must be resolved first by the group of researchers, mediated by the unit head or Dean if researchers belong to one department or institute, or by the Research Director if the researchers belong to different institutes/colleges. If negotiation is not reached, the issue may be elevated to the Research Ethics Committee.

Section 8. Management, Retention and Storage of Data and Materials

8.1. Data Storage. Research data, including hard and soft copies, and specimens or samples must be stored in appropriate forms in a safe and secure place, with minimal risks from disasters. The researcher must keep these as good research practice, and for use in case of the need for audit such as when there are questions on the results. The period of retention depends on the funding agency, or approved procedures and agreements.

8.2. Data Sharing. Preliminary data must not be released prior to verification and validation. Sharing of data, samples, physical collections, and other supporting materials, is subject to government policies on intellectual property, confidentiality, privacy, and other pertinent laws.

8.3. Confidential and privacy-restricted data must be accessible only to authorized personnel, and must make use of codes to identify individual subjects.

8.4. Researchers who are leaving the College and who wish to retain research data that are owned by the College or are intellectual properties of the College for personal use must obtain written permission, prior to leaving, from the REPD Office and/or academicunit involved.

Section 9. Resolving Breaches and Misconduct in Research

9.1. Breaches in Research Conduct. Breaches are less serious deviations on the ethical and responsible conduct of research which can be remedied within the College.

9.1.1. It is the duty of all members of the College to formally report any misconduct in research to the heads of the appropriate and/or pertinent units.

9.1.2. The unit head conducts a discreet investigation of the particulars of the complaint, sets a formal investigation, recommends action or imposes penalty to remedy the situation.

9.1.3. If the complaint cannot be settled to everyone's satisfaction at the unit level, the formal complaint or allegation may be elevated to a higher level mutually agreed upon by theparties concerned, which may consult the TWG-REC.

9.1.4. If the individual/s cannot raise the complaint with the unit heads, he/she must submit the concerns to an appropriate senior officer of the College.

9.1.5. A prompt and effective response is required in every case of allegation of deviation from this Code. All affected parties must be treated fairly, the situation remedied, and appropriate steps taken to maintain public confidencein the conduct of research in the University.

9.2. Research misconduct is a serious, deliberate deviation in the conduct of research.

9.2.1. Forms of research misconduct include the following:

9.2.1.1 fabrication of results;

9.2.1.2 falsification or misrepresentation of results; plagiarism;

9.2.1.3 misleading ascription of authorship;

9.2.1.4 unauthorized use of another person's research data, materials, or writing; unjustified destruction of research materials;

9.2.1.5 deception/misrepresentation in relation to research proposals;

9.2.1.6 financial fraud;

9.2.1.7 misuse of research funds;

9.2.1.8 failure to declare and/or manage serious conflicts of interest;

9.2.1.9 falsification or misrepresentation to obtain funding;

9.2.1.10 risking the safety, security, and/or well-being of research participants, whether human or non-human, and/or the environment;

9.2.1.11 deviations from this policy that occur through gross or persistent negligence; and/or

9.2.1.12 willful concealment or facilitation of research misconduct by others.

9.3. Procedures for Resolving Breaches and Misconduct

9.3.1. The implementation of research projects is complex and technical. Thorough verification of allegations must be done using due process.

9.3.2. All complaints involving breaches and misconduct in research shall be in writing and under oath, otherwise the same shall not be given due course.

9.3.3. The Research Ethics Committee shall act as the Administrative Disciplinary Committee of the College (ADCC) on matters involving breaches and misconduct on research, unless the President constitutes another ADCC for a specific case or complaint.

9.3.4. The procedures for disciplinary actions shall be governed by Civil Service laws, rules and regulations, and shall be consistent with the provisions of the BASC Code and the Administrative Services Manual of the College. The CSC shall have concurrent jurisdiction with the BASC Board of Trustees over the disciplinary action/s against any official or employee.

CHAPTER VI
GUIDELINES AND PROCEDURES ON RESEARCH AND EXTENSION PROPOSAL PREPARATION AND EVALUATION

This procedure applies from the acceptance of proposals to the contract signing of the Bulacan Agricultural State College's approved research and extension proposal, with the purpose of standardizing the submission of proposals for the research and extension program.

Article 1. Proposal Preparation and Evaluation

Section 1. Policies

1.1. The proponents must have the educational/training qualifications, experience, and thorough knowledge of the literature regarding the proposed topic/title of research or extension activity.

1.2. The proponents must make sure that the proposal is aligned to the RDE agenda, and follow the prescribed format and processes of the funding agency, whether internal or external.

1.3. Each proposal must have an attached HGDG form (Harmonized Gender and Development Guidelines).

1.4. The proponents must submit the proposals on the prescribed periods.

1.5. The proponents must be willing to undergo continuous revision of the proposal based on the comments and suggestions of the proposal evaluators.

1.6. The proponents must submit all documents relevant to the proposal in compliance with the needed documents for filing at the respective academic units and REPD office.

Article 2. Procedures for Evaluation of Proposals

Section 1. Internally-Funded RDE Proposals

1.1. The Research/Extension Director releases memorandum on the call for proposals to the different academic units.

1.2. The Research/Extension office receives duly-endorsed proposals from the different academic units, and endorses the list of qualified research/ extension proposals to the VP-REPD. Each proposal has an attached HGDG form.

1.3. The College President/VP-REPD releases a memorandum for the conduct of a TWG meeting. The TWG members review the submitted research/ extension proposals.

1.4. The PD Coordinator gives the action sheet or consolidated comments and

suggestions from the TWG decision to the proponent/s.

1.5. The proponents comply with the action sheet in preparation for presentation in the REPD council meeting. Those with human subjects shall first undergo evaluation by the Research Ethics Committee (REC), while those with animal subjects shall undergo evaluation by the Institutional Animal Care and Use Committee (IACUC). Those who have complied with the revisions needed, and have been endorsed by the REC and IACUC, can present their proposals to the REPD Council.

1.6. The Research/Extension office receives duly-endorsed proposals from the PD Coordinator, REC, and IACUC, and endorses the list of qualified research/extension proposals for REPD Council presentation to the VP-REPD.

1.7. The College President releases a memorandum for the conduct of a REPD council meeting. The council reviews the submitted research/ extension proposals, and approves for internal funding those that passed the evaluation.

1.8. The REPD Office requests for budget allocation from the Office of the President, and issues the MOA/contract and notice to proceed to the proponents.

Section 2. Externally-Funded RDE Proposals

2.1. The Office of the President receives the communication for call for proposals from funding agency and forwards this to the REPD Office.

2.2. The REPD Office disseminates the call for proposal to the different academic units.

2.3. The REPD Office receives and reviews the research/extension proposal, gives recommendations for revision.

2.4. Enhanced proposals that pass the evaluation of the REPD management are forwarded to the President, for his endorsement to the funding agency.

2.5. The funding agency reviews the submitted proposal, and specifies needs for revision with their comments and suggestions.

2.6. Once the final version of the proposal is approved by the funding agency, it prepares the Memorandum of Agreement (MOA), Notice to Proceed (NTP) and other necessary documents.

2.7. The funding agency sends the Notice to Proceed and the budget to the College, which is given an Official Receipt by the Cashier's Office.

2.8. The project leader communicates to the President the arrival of the NTP and budget, and requests for office order of the project team.

2.9. The project leader submits to the REPD Office the approved full project proposal, MOA, NTP, Office Order and other related documents to the REPD office for filing.

Section 3. Detailed Research Proposal Format for Internally-funded Research

3.1. Basic Information

3.1.1. Title of the Project
3.1.2. Proponent (s)
- 3.1.2.1. Name
- 3.1.2.2. Designation
- 3.1.2.3. Institute
- 3.1.2.4. Address
- 3.1.2.5. Telephone No. (s)
- 3.1.2.6. Email Address

3.1.3. Implementing Agency
- 3.1.3.1. Lead Agency
- 3.1.3.2. Collaborating Agency/ies, if any

3.1.4. Project Duration
3.1.5. Project Location
3.1.6. Total Budget Requested
- 3.1.6.1. Budget Requested
- 3.1.6.2. Agency Counterpart
- 3.1.6.3. Other Sources

3.2. Technical Description

3.2.1. Introduction
- 3.2.1.1. Brief description of the problem and its importance
- 3.2.1.2. Review of relevant literature, and prior art search
- 3.2.1.3. Objectives

3.2.2. Methodology
- 3.2.2.1. Research design or type of study
- 3.2.2.2. Sources and materials
- 3.2.2.3. Intervention/s to be done/used
- 3.2.2.4. Data collection techniques sampling procedure
- 3.2.2.5. Statistical analysis

3.2.3. References
- 3.2.3.1. As much as possible, use references whose publication date is within the last five (5) years.
- 3.2.3.2. Arrange using the APA format.

3.2.4. Survey questionnaires (if applicable
3.2.5. Workplan Schedule (BASC/RET-004-19)
3.2.6. Budget Summary (BASC/RET-004-20)
3.2.7. Logical Framework (BASC/RET-004-21)
3.2.8. Project Summary (BASC/RET-004-22)

3.3. Paper Format

3.3.1. Use folio-sized (8.5 x 13 in.) paper
3.3.2. Font style must be Arial and font size is 11
3.3.3. Text must be single-spaced with no spaces between paragraphs
3.3.4. Page numbers should be located at the upper right-hand corner of the page
3.3.5. Left margin must be set to 1.5 inches, while the right, top and bottom margins must be 1.0 inch.
3.3.6. Text must be of justified alignment.

Detailed proposal format for externally-funded projects come from the specific funding agency.

3.4. Criteria for Rating of Proposals

3.4.1. Quality of write-up (25%)
3.4.2. Novelty/oirginality of work; and/or alignment to Industry 4.0 (25%)
3.4.3. Appropriateness of methodology (25%)
3.4.4. Potential for publication, or use in instruction, extension, or technology commercialization (25%)

CHAPTER VII
GUIDELINES AND PROCEDURES IN RESEARCH AND EXTENSION IMPLEMENTATION AND MONITORING

Every research and extension project involves project implementation and monitoring in order to appraise its progress based on the approved work and financial plan. It reveals the strengths and weaknesses, which helps improve the program or project. It aims to standardize the implementation and monitoring of extension projects that are internally and externally funded and commissioned, based on the approved proposal of proponents.

Article 1. Project Implementation and Monitoring

Section 1. Policies

1.1. The project team must submit copy of approved proposal, MOA/MOU, PPMP, LIB, PRs, fund transfer check/receipt, NTP, communication letters and other relevant documents.

1.2. The project team must implement the research/extension project based on the approved work and financial plan;

1.3. In case there is a need for change in the approved work and financial plan as deemed necessary by the project team, request for realignment of line-item budget and adjustment/extension of project duration must be submitted to the concerned authority and secure approval thereof to facilitate project implementation and avoid possible audit observation;

1.4. The project team must ensure timely submission of their periodic accomplishment report for consolidation of their respective institute/college research/extension coordinator to be endorsed by the Dean, noted by the concerned Director and VP REPD;

1.5. If the planned activities did not push through due to valid reasons, non-conformance form must be accomplished and submitted in place or as supplement to the monthly accomplishment report.

1.6. Terminal report or internally-funded projects must be submitted at most two weeks after the completion of project duration, or based on the prescribed period of the external funding agency;

Section 2. Procedures

2.1. The process of project monitoring and implementation starts from the moment the proponents were informed of the start of implementation through the issuance of Notice to Proceed (NTP) and signing of Contract and Memorandum of Agreement (MOA) between the funding agency (for externally-funded) or BASC (for internally-funded) and the project team.

2.2. The project team will then have to prepare the financial documents such as

the project procurement management plan (PPMP) and line-item budget (LIB) which will be received by the REPD staff, noted by the concerned Director, recommended for approval by the VP REPD and to be approved by the College President.

2.3. Upon approval of the PPMP and LIB, the project team may already prepare and submit purchase requests (PRs) of the supplies and materials needed in their project, noted by the concerned Director, recommended for approval by the VP REPD and to be approved by the College President.

2.4. The approved PR will be received by an admin staff to start the process of purchase and acquisition of requested supplies and materials. Upon delivery, the project team will receive the supplies and materials and will have to fill-up the Request Issue Slip (RIS) to be submitted to the Supply Officer.

2.5. Using the accomplishment report format, the project team will have to submit monthly accomplishment report noted by their respective institute/college research/extension coordinator to be endorsed by the dean to the concerned REPD Director. Based on the monitoring report format, the project monitoring coordinator/in-charge will supervise and monitor the progress of the project activities based on the approved work and financial plan which will be the basis of the progress and accomplishment reports to be submitted to track the progress of the project. Part of project monitoring also is the paper presentation of the status of project accomplishments in the agency in-house review, regional, national and international conferences.

2.6. Upon completion of the project, the project team will have to submit terminal report following the prescribed format. A Certificate of Completion will be issued to the project team upon submission of the terminal report to the REPD office.

Section 3. Indicators in Project Monitoring

3.1. Efficiency. This indicator will look at the performance of the project team on their use of resources based on the approved financial plan viz-a-viz to the percentage of their project accomplishments.

3.2. Effectiveness. This measures the rate of achievement of the stated project objectives by the project team through the conduct of set of activities outlined in the approved work plan.

Article 2. Submission of Project Terminal Report

Section 1.

1.1. **Procedure**

1.1.1. The researcher/project leader shall submit to the REPD Office four (4) hard copies and an electronic copy of the Terminal Report.

1.1.2. Program/Project/Study leader/s shall submit the Terminal Report within one (1) month after the completion of the project which should be duly endorsed by the concerned Institute Dean.

1.1.3. The Terminal Report to be submitted should have been checked by an English critic, or anyone who is competent in checking for grammatical errors and ideas organization blunders for purpose of report refinement and document improvement.

1.2. **Report Format**

1.2.1. Use folio-sized paper.

1.2.2. Font style must be Arial and font size is 11.

1.2.3. Text must be single-spaced with no spaces between paragraphs.

1.2.4. Page numbers should be located at the upper right-hand corner of the page

1.2.5. Left margin must be set to 1.5 inches, while the right, top and bottom margins are 1.0 inch each.

1.2.6. Text must be of justified alignment.

1.3. **Full Paper Format**

1.3.1. **Abstract-**Use the standard format of writing as indicated in the manuscript format, except that the spacing should be set in double. not exceeding 200 words

1.3.2. **Introduction-**Researchers are required to prepare a paper in a publishable format. The paper should be a succinct account of aspects of the research and key findings

1.3.3. The contents of the paper should include:

1.3.3.1. **Title**- concise, informative, containing key words: do not exceed 1 line length, ideally ≤ 10 words, should be ALL CAPS**, BOLD** and center

1.3.3.2. **Authors**- initials and family name. Authors' affiliations and email address of the 1st author.

1.3.3.3. **Abstract**- concise statement of the scope of the work and principal findings should be from 150-200 words only.

1.3.3.4. **Keywords**- major terms/concepts in the study should be maximum of 5 words placed after the abstract.

1.3.3.5. **Introduction**-the reasons for the work, essential background and objectives of the research (≤ 200 words).

1.3.3.6. **Methodology**- materials and sufficient information on the methods used; research design and data gathering and data analysis techniques applied.

1.3.3.7. **Results**- provide a succinct account of the most important results presented in the table or graphs.

1.3.3.8. **Discussion**- discussion should focus on the significance of the results using literature (Results and discussion may be presented in a single section if this works better, depending on the nature of the work).

1.3.3.9. **Conclusion and Recommendations**- summarize the key findings according to the objectives, and provide recommendations for end users in relation to research needs for development and impact.

1.3.3.10. **Acknowledgment**- acknowledge all donors and partners who contributed to the research except for the author's organization/agency.

1.3.3.11. **References-** related literature used in the study from book or journals arranged using APA format.

Article 3. Research/Extension Project Evaluation

The annual agency in-house review serves as the evaluation for on-going and completed research and extension projects. Invited panel of evaluators from other SUCs and agencies scrutinize the accomplishments and papers of the different research and extension projects. In the AIHR, the attainment of project objectives are checked, the quality of outputs and outcomes are weighed, and the suggestions for improvement of implementation and/or enhancement of reports/ manuscripts are given by the panelists. The summaries of comments from the evaluators are given by the REPD office to the project teams so that they can review, and comply with the comments.

In addition, completed extension projects after three years of termination shall be subjected to an impact assessment in order to measure the level of change such project has caused to the lives of its beneficiaries. The researcher/s who will conduct impact evaluation shall not be a member or part of the project team in order to avoid bias in the conduct of the study. This is to ensure credibility of the results of the study.

CHAPTER VIII
TRAINING GUIDELINES AND PROCEDURES

Conduct of training is one of the extension modalities to transfer knowledge and technology to the target clienteles. This process manual aims to standardize the research, development, and extension conduct of training to stakeholders of the Bulacan Agricultural State College.

Article 1. Conduct of Training

Section 1. Policies

The following policies must be observed by faculty researchers and extensionists in the conduct of approved extension training:

1.1. Trainings to be provided to the target clientele must be based on the expressed or identified needs of the participants as a result of Training Needs Assessment (TNA) conducted by the project team.

1.2. The training proponents shall attach the results of the TNA to the proposal to be submitted to the office.

1.3. Health and safety of both the training facilitators and participants must be the first priority all the time. The facilitators must ensure to follow the health and safety protocol prescribed by the concerned authority;

1.4. In case there are changes in the details of the training to be conducted, the proponents must inform the training unit coordinator so that necessary adjustments can be done accordingly;

1.5. Written request for the use of Farmer's Training Center and sound system for the conduct of training must be submitted to the REPD office to secure reservation of the venue on the target training date;

1.6. The training proponents shall submit the following documents not later than three (3) working days after the conduct of the training activity:

1.6.1. Copy of blank and accomplished TNA instrument;
1.6.2. Approved training proposal;
1.6.3. Narrative report with photo documentation;
1.6.4. Training program;
1.6.5. Attendance sheet;
1.6.6. Accomplished training evaluation form;
1.6.7. Soft copy of training photos;
1.6.8. IEC acknowledgement form, if applicable;
1.6.9. PRs;
1.6.10. Communication letters; and
1.6.11. Accomplished copy of Pre-test and Post-test

Section 2. Procedures

The following procedures will serve as guide for training proponents in the conduct of training:

2.1. The process of conduct of training starts from the conduct of TNA using any of the TNA data gathering methods (survey, focus group discussion, direct observation, etc.) whichever is applicable.

2.2. Results of the TNA will then be consolidated by the project team which will serve as basis for crafting of training proposal that will address the identified training needs of the target participants;

2.3. The training proposal submitted to the office, whether internally or externally-funded, undergoes the process of evaluation by the training evaluation committee composed of VP REPD, Research Director, Extension Director and Intellectual Property Director. Comments and suggestions of the committee will be given to the proponents through the accomplished training proposal evaluation form which will serve as basis for the revision.

2.4. After incorporating the comments and suggestions of the panel, the revised proposal submitted to the office will be endorsed for funding by the Extension Director, as recommended by the VP REPD for approval of the College President.

2.5. Once approved, the proponents, in coordination with the training unit shall spearhead the preparation of training materials and training requests which include PRs, request for honorarium of speaker, IEC materials, training venue, meals, and if applicable, transportation and accommodation of the facilitators and participants.

2.6. The proponents together with the training unit coordinator shall execute the training based on the approved course/training content. The training coordinator will assist the proponents in administering training evaluation and in the distribution of IEC materials to the participants.

2.7. Using the post activity report format, the training proponents will have to submit the post activity report to be compiled by the training coordinator for safekeeping and as supporting documents to the reports required by different partner agencies.

CHAPTER IX
GUIDELINES AND PROCEDURES FOR PAPER PRESENTATION

The purpose of these guidelines is to standardize the procedure of presenting research and extension outcomes at a scientific gathering or forum hosted by Bulacan Agricultural State College or another institution. It covers everything from abstract/full paper submission through calls for paper presentation at the Bulacan Agricultural State College's local, regional, national, and international scientific forums and conferences, as well as faculty presentations at non-BASC-organized conferences.

Article 1. Presentation in BASC-Organized Conferences

Section 1. Procedures

1.1. The REPD Office creates a proposal for the conference, subject to review and approval by the College President.
1.2. The VP-REPD issues a memorandum to inform the Deans/Campus Director to submit the papers (abstract/full paper) for presentation.
1.3. REPD staff receives and acknowledges copy of abstracts and/or full paper from the different units and campuses.
1.4. The REPD paper evaluation committee evaluates the submissions.
1.5. REPD staff communicates with the authors regarding the paper evaluation.
1.6. The REPD Office prepares the program, other documents, materials and venue needed for the conference.
1.7. The REPD Office conducts the research conference.
1.8. The REPD Office releases the certificates of participation/recognition, and prepares the proceedings of the conference.

Article 2. Presentation in Non-BASC-Organized Conferences

Section 1. Procedures

1.1. The College President/VP-REPD Office receives invitation to a conference from the organizer.
1.2. The REPD Office disseminates the invitation to Deans/Campus Director to submit the papers (abstract/full paper) for presentation.
1.3. Faculty researcher/s submit their paper to the organizer and receives notice of acceptance.
1.4. Faculty researcher informs the REPD office regarding the paper acceptance.
1.5. REPD and administration offices' staff members facilitate the processing

of registration fee and other expenses for paper presentation.

1.6. Faculty researcher presents his/her paper in the conference.

1.7. Faculty presenter submits the certificate of participation/recognition, conference program, and other documents to the REPD office.

Article 3. Paper Presentation Outside BASC

Section 1. Policies

1.1. Where assistance from the College is given, i.e., financial support, the faculty/staff presenter to international/national/regional conferences/fora, immediately upon return, shall submit to the Office of the Vice President for REPD a report following this format:

Name:
Institute/Department:

A. Details of the Conference

I. Name of Conference:
II. Name and Address of Organizing/Convening Institution/Organization:
III. Venue of the Conference:
IV. Date of Conference:
V. Theme of Conference:

B. Details of Paper Presentation

I. Title of Paper:
II. Category/Area:
III. Date of Departure from Conference Venue:
IV. Brief Paper Background:
V. Benefits Gained from Attending the Conference:
VI. Benefit Plan for BASC:
VII. Identified Organizational Needs:
VIII. Plan of Action to Address the Identified Needs:
IX. Collaboration Initiatives
X. Statement of Personal Impressions/Experience:

XI. Attachments

1. Certificate of Recognition
2. Photo Documentation
3. Invitation letter/call for papers
4. Notice of paper acceptance
5. Copy of vouchers
6. Authority to Travel

Section 2. Special Provisions

All paper publications shall be subject to the Policies and Guidelines on Research Ethics and Integrity (Completion and Dissemination of Research, and Authorship), and Intellectual Property Rights.

CHAPTER X
GUIDELINES AND PROCEDURE ON PAPER PUBLICATION

This set of guidelines provides a standard for the publication of research development and extension papers, and it includes everything from information dissemination to the actual publication of faculty or staff articles in BASC's official research journal and other scientific journals.

Article 1. Paper Publication in BASC Research Journal

Section 1. Procedures

1.1. The Vice President for Research, Extension, Production and Development disseminates to the Campus Directors and Deans the information regarding the call for submission of publishable paper to the journal.
1.2. The editorial board/staff receive the copy of publishable paper from the concerned authors.
1.3. The editorial board reviews the paper's content & format and runs the paper for plagiarism test. Results are used to either let the author revise first, or to submit the paper already to peer reviewers.
1.4. The editorial board invites peer reviewers, and sends the paper to two peer reviewers.
1.5. The editorial board/staff receives the evaluation form from peer reviewers.
1.6. The editorial board/staff sends the summary of comments from reviewers to the author for his/her compliance.
1.7. The editorial board/staff receives the revised paper from author.
1.8. The editorial board/staff sends the revised paper to peer reviewers, and when accepted by the reviewers, runs the paper for plagiarism test.
1.9. The author prepares final revised copy of the paper.
1.10. The editorial board/staff collects enough papers that are approved by peer reviewers.
1.11. The editorial board/staff prints/releases issue of the journal.

Article 2. Paper Publication in Non-BASC Research Journal

Section 1. Procedures

1.1. Secure approval from the REPD Office (plagiarism test; review of disclosure, copyright transfer agreement).
1.2. Submit the publishable paper form to a refereed journal.
1.3. Receive the evaluation from the journal.
1.4. Facilitate the reimbursement or release of the publication assistance fee.

Article 3. Granting Publication Assistance

Section 1. Policies

1.1. Faculty researchers shall inform the VP-REPD Office regarding the acceptance of their paper in international indexed journals (ISI, SCOPUS, Elsevier, ACI, etc.), and specify whether they request for financial assistance and the publication charges of the journal.

1.2. The VP-REPD shall endorse the request to the Office of the President for approval of budget allocation.

1.3. Upon approval, the staff from the Office of the President shall forward the document/s on approved budget allocation to the Budget/Accounting Office for cash assistance allocation, and return it to the Office of the VP-REPD to sign and certify the budget utilization and disbursement voucher.

Section 2. Special Provisions

All paper publications shall be subject to the Policies and Guidelines on Research Ethics and Integrity (Completion and Dissemination of Research, and Authorship), and Intellectual Property Rights.

Article 4. Newsletter Publication of REPD Activities

Section 1. Procedures

1.1. For the information gathering procedure and article writing, the PIM Coordinator and RISE Editorial Board will collect all necessary data from the monthly accomplishment reports submitted by the project proponents to supplement the needed information.

1.2. Once all the necessary information are provided by the concerned project proponents, the editorial staff will draft an article and forward it to the RISE editors.

1.3. The articles will be put in the initial layout of the newsletter, and will be submitted to the VP-REPD and REPD Directors for review.

1.4. The writer/layout artist will incorporate all corrections to the first draft. Once done, the layout artist will print and submit the second draft of the newsletter for a second review by the REPD management and by the College President.

1.5. If there are corrections and/or recommendations, these will be incorporated until such time that the REPD management and College President are satisfied with the contents, layout and overall presentation of the final blueprint of the newsletter.

1.6. The PIM Coordinator and Editorial board will print the copies of the newsletter, or if applicable, coordinate with the identified printing press regarding the details of the newsletter, e.g., number of copies to be printed, number of pages, cost of printing, etc.

1.7. Once the newsletter copies are printed, they will be distributed to the different Institutes and departments/units of the College.

Article 5. REPD-related IEC material publication

Section 1. Procedures

1.1. The proponent of the IEC material shall submit a request letter addressed to the VPREPD marked Attention to the concerned director indicating the request for the development of REPD-related IEC material.

1.2. The requestor will provide the draft of the IEC material to the PIM Coordinator for possible improvement of the layout and presentation of the material by REPD graphics/layout artists. Presentation of the IEC material shall comply with the preference of the proponent/s but also achieve the quality standards of the REPD office.

1.3. The IEC materials will be subjected to the evaluation and approval by the IEC Materials Evaluation Committee.

1.4. Approved IEC materials will be printed, and the Extension Office and proponent will be responsible in the distribution of copies.

CHAPTER XI
POLICIES AND GUIDELINES ON GRADUATE RESEARCH ASSISTANTSHIP

The proposed establishment of Graduate Assistantships recognizes the need to improve the supply side for graduate students. It aims to give the finest graduate students of BASC the opportunity to share their knowledge and skills through teaching even while they are studying. It also aims to ease the process of hiring staff who can assist in research or in teaching. As the quality of the supply increases and the process becomes easier, the demand should also increase. This is envisioned to result in more research, and institutes the use of research/teaching assistants to unload regular faculty members of some research/teaching duties. Graduate Research/Teaching Assistants are Master's degree or PhD students, who are pursuing their studies half-time and are assisting in research and teaching half-time. They are postgraduate student and not contractual employees of the BASC. It is the program of the College that provides financial support for postgraduate studies.

Goals And Objectives:

The Graduate Research Assistantship Manual aims:

1.1. To encourage outstanding baccalaureate graduates to pursue graduate studies (Masters and PhD) in the College;
1.2. To increase the number of postgraduate students in the College;
1.3. To encourage baccalaureate graduates identified to have good research, teaching, communication, and creative skills to pursue academics in the College; and
1.4. To serve as the training ground for good teachers and researchers/creators in the College.

Article 1. The Graduate Research Assistant

Section 1. Definition of Graduate Research Assistantship

Research assistantship is a common practice in higher education institutions, wherein a research assistant may be appointed in a department through the Graduate School budget, or by the principal investigator of a funded research project. In either case, the student is assigned a range of duties such as library searches, fieldwork, laboratory experiences, and preparation of research proposals and grants so as to gain professional skills in research which complement the student's graduate education. Close supervision by the faculty research mentor is essential to the student's development as a researcher and scholar.

Section 2. Funding Sources

Various funding sources exist for the above types of assistantships. These sources include grants, contracts, and income derived from the Graduate School.

Section 3. Qualifications of Assistants

To qualify for an assistantship, the student should be a continuing student of any graduate programs and officially enrolled during the term when appointed as GA.

The student must be enrolled not more than six (6) units regular/normal load during the term appointed. Students who are enrolled in less than six (6) units during the term are eligible to be appointed as GAs provided they are expected to graduate at the end of the current semester. The applicant must submit a certification issued by his/her College of Agriculture Secretary stating he/she is candidate for graduation in said term. A student who is enrolled less than six (6) units during a semester due to reasons other than being candidates for graduation may be appointed as GA, provided that he/she submits a valid justification issued/endorsed by the Faculty Secretary and confirmed by the Dean.

The student must also be physically and mentally fit to perform the responsibilities of a research/teaching assistant. A medical certificate signed by a duly licensed physician must be submitted during the application. The GA applicant must not have a pending disciplinary case in the BASC.

Section 4. Good Academic Standing

The student must have been admitted with full qualifications in accordance with the admission policies and procedures of the Graduate Programs of the College of Agriculture. A Graduate Assistant (GA) is expected to maintain a cumulative and program GPA of 2.0 or higher. If a GA does not meet these conditions, the GA is allowed one semester to continue as a GA while on probation. If at the end of the additional semester the GA is still on probation, the assistantship will be terminated.

Article 2. Application, Selection, Appointment and Evaluation

Section 1. Application Process

Interested applicants shall submit their letter of intent and supporting documents to the Dean, regarding their intent to apply for the graduate research assistantship. The supporting documents include the certificate of registration and certificate of grades from the registrar's office, medical certificate signed by a duly licensed physician, and Curriculum Vitae.

Section 2. Selection Process

1. The Research Project Leader shall inform the Dean regarding the need for a research assistant in a newly-approved or ongoing externally-funded research, development, or extension project.

2. The Dean shall release a memorandum regarding the selection of a graduate research assistant for the project.
3. Qualified applicants will be interviewed by the project leader, and will be selected according to the applicant's schedule or availability, skills, experience, and willingness to contribute to the successful implementation of the project.

Section 3. Appointment Procedures

Appointments of graduate assistants will be made by the Dean of the College of Agriculture - Graduate Programs upon the recommendation of the Program Chair. Following the Dean's approval of the program chair's recommendation, an offer of the assistantship is made to the applicant. Offers of assistantships to prospective students and resignations from appointments must conform to the established procedures of the BASC. It is the student's responsibility to see that hiring packet forms are completed prior to the start date of the appointment.

The Program Chair, with assistance from the faculty mentor, should prepare the Personnel Action Form (PAF) and should provide the graduate assistant with a job description detailing the specific responsibilities and specific departmental policies governing graduate assistants. The new assistant should undergo orientation meetings and other training opportunities in order to become familiarized with the tasks and activities in the program.

Section 4. Length of Appointment

Graduate assistants on Graduate School sponsored appointments may be appointed for up to 12 months per contract period. Nine-month appointments would generally correspond to thirty-six (36) weeks of service (18 semi-monthly pay periods). Twelve- month appointments would generally correspond to fifty-two (52) weeks of service (24 semi-monthly pay periods). The start and end dates of all appointments must be within the College's Academic Calendar.

Section 5. Conditions Of Reappointment

Graduate assistants who are performing satisfactorily in their studies and duties are eligible for annual reappointments. Academic and professional performance and progress are measured by the following criteria: (1) grade-point average, cumulative and over the past academic year, of at least 3.0; (2) student academic record with no incomplete grades; (3) report of the academic advisor; (4) length of time holding the assistantship; and, (5) length of time in the degree program.

Typically, the maximum number of years that a graduate student may hold an assistantship is two years while pursuing a Master's degree and four years in a Doctoral program. In the case of a student pursuing the Master's and Doctoral degree in the same major field, eligibility for funding is for not more than five years. Requests for exceptions to this policy must be made in writing by the program chair and approved

by the Dean of the Graduate School.

If the department has a rotational plan for assistantships, graduate assistants may not necessarily be reappointed. It is important that the student is notified of this fact at the time of the original appointment.

Article 2. Benefits and Responsibilities

Section 1.Benefits For Graduate Research Assistants

Since graduate assistants are not employees of the BASC, they enjoy all the rights and privileges of other graduate students. The privileges and benefits of assistantships are variable across and within programs of the College and are based on the responsibilities assigned.

1. Payment of hourly rates: The Graduate Research Assistant shall receive:
   Php 100.00/hour (Master's Program)
   Php 140.00/hour (Doctoral Program)
2. Research assistants in on-going externally-funded research projects will form part of the project management team as support staff. Their compensation in the form of an honorarium shall be in accordance with the approved honorarium for project staff.
   2.1. The amount of the honorarium shall be in accordance with CMO No. 2, s. 2011, wherein a technical staff receives Php 6,000 per month.
3. As deemed necessary in the conduct of special cases of research projects with a need for continuous monitoring of laboratory or farm setup, the College may provide free services or assistance for lodging/housing.

Section 2. Responsibilities Of Graduate Research Assistants

A graduate assistant is expected to make steady progress toward the degree while effectively performing assigned duties. The course load and assistantship responsibilities should form a program that facilitates the student's progress.

A graduate assistant must be registered each academic semester during the appointment period, including the Summer Session, if applicable. The mentor and/or faculty advisor has a solemn responsibility to help the student monitor his/her ability to manage both the academic and assistantship roles. An assistant may perform assistantship duties for a maximum of twenty (20) hours per week. Work hours missed must be made-up the same month in which you are being paid unless other arrangements are made with your supervisor or department.

The graduate assistant should be informed of College regulations and follow them consistently. Assistants are obligated to maintain standards of academic honesty and integrity.

Students appointed to a full-time assistantship may not engage in any concurrent employment without the expressed consent of the Program Chair and the

Dean of the Graduate School. Requests for an exemption must be made in writing to the Graduate Dean. The request should include details of the time commitment (number of hours per week), the length of the commitment (dates), and a description of the opportunity and how it is a benefit to the student's professional development. Participation in any unapproved employment will result in the immediate withdrawal of the assistantship.

Section 3. Responsibilities Of The Graduate School

The integration of the assistantship responsibilities and academic program must be carefully coordinated and monitored by a faculty mentor. Graduate assistants should be assigned space, supplies, and equipment to carry out their assignments effectively. The College must indicate the individual who has the overall responsibility for the assistantship program. This may be the program chair or another designee. Graduate School personnel will work directly with the program assistantship coordinator on all matters relating to graduate assistants.

Section 4. Performance Evaluation Procedures

Departments are expected to design an evaluation plan consistent with College policies. Evaluation should be an ongoing process of communication between the graduate assistant and the faculty mentor. A formal evaluation should be a supportive process that helps the assistant to identify strengths and weaknesses and to plan concretely for improvement. A formal evaluation should be entered into the student's record each year.

Graduate assistants will have the opportunity to evaluate the assistantship experience each year. The Dean of the College of Agriculture, Graduate Programs will conduct this evaluation during the end of each semester. Assistants will be asked to describe the activities in which they have been engaged as an assistant and how they have benefited from the experiences. The faculty mentor will also describe how the assistant has contributed to the graduate program goals and objectives. This evaluation should be a supportive process which will help the department identify the strengths and weakness of its assistantship program.

The Dean will meet with the department's assistantship coordinator and chairperson to discuss the evaluation data. The Dean will then meet with the program chair to discuss recommendations for the assignment of assistantships for the next academic year.

Section 5. Resignation/Termination

Failure to perform duties assigned in a satisfactory manner, or failure to comply with academic policies of the BASC may result in the termination of the assistantship. Graduate assistants who do not complete a full semester will be responsible for tuition

fees on a prorated basis.

Resignation from any graduate appointment must be communicated in writing, one month in advance before date of resignation, to the Dean of the Graduate Programs, and countersigned by the Program Chairperson or project director. The exact date of resignation or termination must be indicated on a Personnel Action Form (PAF).

Article 3. Graduate Research Mentor

Section 1. Qualifications and Duties of the Graduate Research Mentor

1.1. The graduate school faculty must have the following minimum qualifications in order to become a graduate research mentor:

1.1.1. Holder of a master's degree (for master's program) and doctorate degree (for doctoral program),

1.1.2. Holds at least an Assistant Professor rank, and

1.1.3. Has an approved externally-funded research, development or extension grant, with budget allocation for personnel services, specifically for honorarium of project staff.

1.2. **The graduate research mentor shall have the following duties and responsibilities:**

1.2.1. Prepare all necessary documents related to the conduct of an approved externally-funded research, including but not limited to the project procurement management plan (PPMP), line item budget (LIB), purchase requests, and letter of information to the College President, with attention to the Vice President for Research, Extension, Production and Development (VP-REPD), and the Dean of his/her institute or college, or Campus Director regarding the initiation of the project, with attached Notice to Proceed and copy of official receipt of check from the funding agency.

1.2.2. Coordinate with the Dean and the REPD Office regarding the selection of graduate student as a research assistant for the project.

1.2.3. Submit all supporting documents pertaining to the graduate assistantship for filing in the institute and REPD Office.

Section 2. Other Important Policies/ Documents

It is essential that all graduate assistants familiarize themselves with Graduate School and BASC policies. All graduate assistants should obtain a copy of the Graduate Bulletin and the BASC Student Handbook. Graduate Assistants are expected to know and adhere to the policies outlined in both documents.

CHAPTER XII
BASC GUIDELINES ON INTELLECTUAL PROPERTY RIGHTS

Bulacan Agricultural State College is committed to fostering an environment that encourages all of its faculty and students to engage in research, innovation and teaching in the pursuit of excellence and for the greater good. All members of the college community are encouraged to create and innovate, engage in free expression and exchange, and be rewarded for their knowledge and creativity.

BASC-owned Intellectual Properties, when awarded rights and protection under current laws, shall be made available to the public, keeping with BASC's mandate to transfer relevant technology, unless there is a good justification for not doing so while protecting the rights of creators.

Article 1. Intellectual Property (IP) Ownership

Section 1. Ownership of Copyright, Patent, UM, and other IP

1.1. As a general rule, all IP generated by BASC personnel shall belong to BASC if it falls under any of the following conditions:
- 1.1.1. the IP is funded wholly or in part by a GFA as stipulated in RA 10055; or
- 1.1.2. the IP is created in the course of, or pursuant to an agreement between BASC and an external party and the IPR is subject to the terms on IP ownership set out in the relevant agreement; or
- 1.1.3. the IP is commissioned by BASC or is created at the direction of BASC for a specific purpose; or
- 1.1.4. the IP is created by a BASC personnel as part of their duties and responsibilities or in fulfillment of their contract of employment; or
- 1.1.5. the IP is submitted to BASC by its original Creator, provided the Creator willingly relinquishes ownership to BASC; or
- 1.1.6. the IP is created or developed using resources provided by or through BASC for such a purpose.

1.2. IP developed by BASC personnel in their own personal time which are neither connected to their duties and responsibilities at BASC nor developed with substantial use of BASC resources, shall belong to such BASC personnel.

1.3. If the owner of the IPR would be other than BASC, prior consent is required from the owner before any compilation, utilization, distribution, or sale by BASC can be made.

Section 2. Ownership of Trademarks

2.1. BASC shall be the sole owner of the logos or any Mark of BASC, its offices, departments, college, institutes, campuses, and its products upon registration to the IPO of the Philippines. Any use of said logo or Mark shall require prior license or permission from BASC.

2.2. Logos or any mark of BASC accredited organization shall belong to said organization. However, BASC may assist in registering said logo or Mark upon request by the officers of said organization and the organization shall shoulder all expenses related to registration.

2.3. BASC may also extend assistance to its clients and other stakeholders in registering their marks subject to certain fees as approved by the board.

Section 3. Ownership of Tangible Research Property

3.1. Tangible Research Property (TRP) refers to research results that are in a tangible form and that include items, such as materials, drawings, integrated circuit chips, computer software, computer and other databases, processes, prototypes, and circuit diagrams.

3.2. Research results deemed TRP which cannot be the subject of any other kind of intellectual property protection are presumptively owned by BASC.

3.3. In no case shall TRP, be the subject of IP registration or any form of acquisition of other entities without prior approval of BASC.

Section 4. Policy for BASC-owned IPR

4.1. While BASC shall own the IPR, the Creator shall be properly acknowledged as such and shall be granted with appropriate honoraria, incentive, or royalty as approved by the BOT.

4.2. BASC shall have the right to use, publish, reproduce, distribute, and sell such IP in fulfilling its four-fold function of instruction, research, extension, and production-with an appropriate notification to the creator.

Section 5. Ownership of IP Generated by Students

5.1. As a general rule, all IP generated by a student shall belong to the student except when:

5.1.1. the IP is created by a student for which the student receives financial support in the form of wages, allowances, salary, stipend or grant from BASC with the purpose of creating the IP; or

5.1.2. the IP was created using substantial resources of the BASC; or

5.1.3. the student willingly relinquishes ownership of IP to BASC for the purpose of extension or commercialization, subject to existing rules and regulations.

5.2. If a thesis or dissertation would contain information on a technology that may be registrable and/or commerciable, the thesis or dissertation may be withheld in accordance with the procedures below:

5.2.1. BASC may withhold public access to the student's thesis/dissertation containing information on registrable technology until such time that an IP application is filed by the IP Office.

5.2.2. If the IP Office decides not to pursue an IP protection, the manuscript may be released to the public in accordance with the procedures adopted by BASC.

5.2.3. If the student would request for the return of the IPR and wish to pursue commercialization for the technology, the student may request the College/Institute to withhold the thesis/dissertation for not more than six (6) months from the date of return of the IP in order for the relevant IP application to be filed.

5.3. If a thesis or dissertation or any of its parts shall be published, the adviser or in some cases the members of the panel, may become co-authors with the consent of the student provided that the adviser or panel has substantial contribution to the thesis, dissertation or the article and subject to the BASC Policy on Research Ethics.

5.4. If a patent or utility model may come out from a student thesis or dissertation, the adviser or in some cases the members of the panel, may become co-inventors or co-makers with the consent of the student provided that the adviser or panel has substantial contribution to the creation of the IP and subject to the BASC Policy on Research Ethics.

Article 2. Research Collaboration and Funding with External Parties

Section 1. Ownership of IP Generated by Research Collaboration with Non-Commercial Parties

1.1. Non-commercial parties include other universities and academic institutions, research institutions, government agencies, and non-governmental organizations.

1.2. If the IP was jointly developed (i.e. where employees/ students of both parties are involved in creating, developing or generating the IP), the IP shall be jointly owned by the parties concerned and shall have the right to jointly commercialize the IP.

1.3. Where the IP is solely developed by BASC, the ownership of the IP shall be retained by BASC but the non-commercial party may have free internal use of the IP. The terms and conditions of any commercial use shall be subject to negotiations.

Section 2. Ownership of IP Generated by Research Collaborations with Industry

2.3. Sole ownership of IP by BASC

2.1.1. This shall be the default position taken for all research collaborations with industry, unless the scope of the project and the contributions by a company can be shown to fall under joint ownership of IP by BASC or sole ownership of IP by the company.

2.1.2. The company is to have the first right to negotiate either a non-exclusive or exclusive fee-based license on commercial terms.

2.4. Joint ownership of IP by BASC and the company

BASC is to consider joint ownership where the company is contributing background IP to the project or is to have intellectual contribution to the IP. That is, employees of the company are also involved in creating or generating the IP together with BASC. The company must also be providing funding for a significant portion of the total project costs.

2.2.1. As a joint-owner which has contributed significantly to the development of the IP,-all activities pertaining to exploitation of the IP, such as but not limited to commercialization and licensing, will be subject to the collaboration agreement.

2.2.2. If the company is to have the right to license the IP non- exclusively to third parties the company is required to account to BASC a percentage of any licensing revenue it receives.

2.2.3. If the company would wish to commercially exploit the IP exclusively, it would also have the first right to negotiate a royalty-bearing exclusive license with BASC on commercial terms.

2.5. Sole ownership of IP by the company

2.3.1. BASC would consider the sole ownership by the company of the IP if the project would meet the following criteria:

2.3.1.1. The project has clear and known objectives and the company lays down a defined way of performing the study;

2.3.1.2. The project is focused mainly on product development or improvements to the company's existing products or services and only the background IP of the company is involved;

2.3.1.3. The existing IP of BASC is not involved and the company requires mainly an access to the expertise and know-how of the BASC personnel; and

2.3.1.4. BASC must benefit from the project and acquire relevant industry experience through the exposure provided by working with the company.

2.3.2. The company is to be required to bear the full project cost, which includes full BASC manpower and facilities/equipment costing;

2.3.3. The IPR ownership of the company is to be limited to its Field of Application, as specified in the project agreement. BASC is to reserve ownership of any project that the IP generates in the fields of application not specified in the project agreement and is to be free to exploit the IP in those other fields of application.

Section 3. General Policies for Other Terms in Research Agreements

3.1. Publications

BASC reserves the right to publish or present the findings of any research project, subject only to the right of the external party to require the delay of any publication or presentation in order to remove any of its confidential information or to file for any IPR, in accordance to the term of the research agreement for the project.

3.2. Warranties

As the research is only conducted on a reasonable efforts basis, the results are provided “as-is” and without any representation or warranties of merchantability or fitness for any particular purpose or any warranty that any use is not to infringe or violate any patent or other proprietary rights of any other person.

3.3. Indemnities

BASC requires that a Hold Harmless Clause should be included in any agreements entered into by BASC. As such the external party should indemnify BASC from any claim, loss, cost, expense or liability of any kind that may be incurred due to the external party’s use (commercial or otherwise) of BASC IP.

3.4. Overhead Charge

3.4.1 An overhead charge may be applied to research projects’ overhead costs in providing the facilities and resources to carry out research at BASC subject to the terms stipulated in the agreement.

3.4.2 The overhead charge does not apply to unrestricted or outright grants or to government grants that do not allow such overhead charges.

Article 3. Policies And Guidelines On Research Agreements, IP Disclosure, Technology Transfer And Commercialization

Section 1. IP Disclosure and Evaluation Process

1.1. The BASC IPO generally shall seek IP protection in order to pursue commercialization of the work, mark, innovation, invention and/or protect scientifically meritorious discoveries.

1.2. If a creator has developed any IP, and the ownership of which is vested to BASC or pursuant to any obligation to disclose such IP under any agreement BASC may have with an external party, the creator, must promptly disclose the full details of the IP to the Intellectual Property Office by submitting an IP Disclosure Form with a copy to their Dean or Director.

1.3. The BASC IPO will evaluate the registrability and commercial potential of the IP. It may consult with other BASC personnel or independent experts who are competent in the field to assist in the evaluation if appropriate or necessary.

1.4. If there would be obligations owed to an external party under the terms of a grant or agreement with respect to IPR, the BASC IPO will contract with the external party and proceed with the management of the IP, in accordance with the terms of the agreement with such party.

1.5. For plants, creations or discoveries:

1.5.1. The BASC IPO shall, within one (1) month from the date of receipt of the IP Disclosure form, confirm in writing to the breeder or creator whether or not BASC will pursue registration or commercialization of the IP, subject to any obligations that may be owed to external parties.

1.5.2. The creators shall at all times maintain confidential the details of the technology in accordance with the Confidentiality Policy set out in Article 10.1, in particular, during the period when the BASC IPO is assessing the viability of commercialization or registration of the IP. Any publication (even verbal disclosure) which describes a plant, invention, innovation or discovery prior to filing for an IPR may jeopardize the registration process.

1.5.3. During the evaluation process, the creator is obliged to delay public disclosure until the appropriate IP application has been filed. BASC must endeavor to minimize delays in application.

1.6. Creators shall disclose to the BASC IPO the identity of any party interested in commercial exploitation of the IP in sufficient detail and as soon as practicable after the relevant facts have come to their knowledge.

1.7. Creators are required to disclose any conflict of interest, as set out in Article 10.2.

1.8. Prior to any IP registration or commercialization by a BASC personnel with respect to IP deemed owned by BASC under Article 9.3, BASC personnel shall make full and truthful disclosure to BASC by submitting the Declaration of Mandatory Disclosure.

Section 2. Waiver of BASC to IPR'

2.1. In general, BASC may waive ownership of IPR provided any of the following conditions are met:

2.1.1. The waiver would enhance accessibility of the general public to the IP, will not violate any existing contract or obligations, and BASC shall be acknowledged; or

2.1.2. BASC has decided not to publish, exhibit, utilize, or commercialize the IP. Provided that the creators informed the BASC IPO of the potential IP beforehand. Provided further that, the BASC IPO shall notify the creators that BASC shall not pursue the registration and/or commercial exploitation of the IP; or

2.1.3. BASC is unable to exhibit, utilize, or commercialize the IP in any form within 1 year of its registration; or

2.1.4. The BASC IPO, within three (3) months of the receipt of the Technology Disclosure form, fails to inform the creators whether BASC will pursue registration and/or commercial exploitation of the IP.

Section 3. Return of IPR to Creators

3.1. Where BASC owns the IPR and returns the IPR to the breeders or creators, the breeders or creators shall sign a Letter of Agreement which shall include the following terms and conditions for the return of the IP:

3.1.1. The breeder or creator shall be entitled to register the succeeding IP rights in their own name and at their own expense;

3.1.2. The breeder or creator shall submit to BASC an annual report, and will keep BASC informed of the status of each and every IP filed in connection with the said returned IPR;

3.1.3. The breeder or creator shall disclose, furnish or otherwise make available to BASC all information relating to or in connection with such IP applications or the commercial exploitation of the IP, as and when, requested by BASC.

3.1.4. BASC may, but is not obligated to, request for the IP to be returned, if the breeder or inventor would fail to commercialize the IP after three (3) years from the date the IP is returned to the breeder or creator.

Section 4.Technology Transfer and Commercialization of BASC IP

4.1. BASC, being the legal and beneficial owner of such IP, shall be entitled to approach, negotiate, and enter into any binding IP agreement with any third party on such terms and conditions, in its sole and absolute discretion, deem fit.

4.2. BASC shall be entitled to assign rights or grant licenses, whether exclusive or not, with respect to the IP for such periods as it shall deem fit, or make such other arrangements relating to such IP, as it may deem appropriate, in order to facilitate technology transfer while protecting the rights of BASC and the creators.

4.3. BASC will not negotiate contracts for consulting services for individual creators as part of a license arrangement. Individual creators are free to negotiate such contracts on a personal basis.

4.4. BASC may use any means whatsoever, as it shall in its sole and absolute discretion deem fit, to protect any IP owned by it, including but not limited to instituting proceedings concerning infringement of IP rights and breach of license agreements.

4.5. The support and cooperation of the creators are critical for successful commercialization. The creator shall provide all information and render all assistance to BASC in any phase as may be required from time to time.

Section 5. Distribution of Commercialization Benefits

5.1. BASC shall share with the creators of the IP, net revenue received by BASC in a 40:60 ratio. BASC shall receive 40% while the remaining 60% shall belong to the creators for the first three (3) years. For the succeeding years, the split will 60:40 in favor of BASC until the expiration of protection.

5.2. If BASC would receive shares from a company in exchange for a license or assignment of the IP, the shares that BASC would obtain would be held by BASC and the proceeds from the liquidation of the shares should be distributed to the creators according to the same ratio of 40:60 for the first 3 years and 60:40 for the succeeding years.

5.3. A creator may also request to waive their portion of the shares in their own name, in which case such creator shall no longer be entitled to any proceeds from the liquidation of the remaining shares by BASC. The creator's share of the net revenue shall be distributed equally among their other co- creators, unless BASC has been previously notified in writing of any different sharing arrangement agreed upon between the joint creators.

5.4. Separation from BASC, such as but not limited to retirement, graduation or resignation, does not exclude the creator from their due share provided the personnel was not separated due to violations of Civil Service Rules and clearance from BASC was issued.

5.5. In case of the creator's death, their share shall be given to their legal heir.
5.6. It is the responsibility and obligation of each creator to keep BASC updated of their current contact details and address in order for BASC to distribute their share of the net revenue.
5.7. The share of BASC of the net revenue shall be distributed as follows: College, Institute, or Department - 30%; BASC IPO for the Administration of IP - 30%; Innovation Fund - 40%. Wherein, the Innovation Fund may be used to capacitate and/or nurture future and current creators, breeders, or inventors in terms of technology development and commercialization and other IP-related matters.
5.8. Where there are multiple creators from different Colleges, Institutes, or Departments, the share of the Colleges, Institutes, or Departments of the net revenue is to be distributed among the Colleges, Institutes, or Departments in accordance with the number of creators.
5.9. The distribution of commercialization benefits to the creators shall cease when the legal protection to the IP, as stipulated by the IP Code, expires

CHAPTER XIII
GUIDELINES FOR AWARDS AND INCENTIVES

Researchers are granted honorarium or incentives to encourage productivity and acknowledge extraordinary performance and efficient delivery of services and output in the College. Honorarium is a form of remuneration for services rendered beyond the minimum workload of an individual 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). Incentives for faculty who are engaged in research and extension maybe in the form of load release or honorarium.

Article 1: Workloads Credits for Equivalent Teaching Loads

Workload credits are given to faculty and staff who are involved in various research and extension work. Credit given will depend on the nature of involvement of the researcher/extensionist.

Section 1. Workload Credits for Research and Extension Involvement

1.1 No payment of honoraria for overload will be provided since the workload credits are considered part of a regular faculty workload.

1.2 Only regular and temporary faculty member with duly approved research proposal either internally or externally funded is allowed or eligible for the load reduction.

1.3 Load reduction shall be provided on a semestral basis and/or as indicated in the duration of project.

Section 2. Workloads Distribution Pointing System

Research and Extension Involvement	Scope	ETL Point/s
Program Leader	National	6
	Regional	5.5
	Provincial/Local	5
Project Leader	National	4
	Regional	3.5
	Provincial/Local	3
Program Staff (member in a program but not a Project Leader)	National	3
	Regional	2.5
	Provincial/Local	2
Study Leader	National	2.5
	Regional	2.0
	Provincial/Local	1.5
Project Staff (member but not a study leader)	National	2.0
	Regional	1.5
	Provincial/Local	1.0
Study Staff/Member	National	1.0
	Regional	0.75
	Provincial/Local	0.5

2.1. In every program or project, an individual faculty with multiple roles will be given RTP points of the role with the highest ETL only.
2.2. Whole point/s will be given for the semester if the duration of the research or extension covers the whole semester. If not, the ETL point/s will only correspond to the proportion of the duration to the length of a regular semester (e.g. 3 months duration/5 months = 60% of ETL point/s).
2.3. ETL points will be given for the original approved duration of the research or extension project/study. If the project is extended, ETL points will no longer be provided.
2.4. To ensure quality of research and extension performance, the maximum ETL points to be awarded in RDE activities is 9 points.
2.5. Faculty or staff conducting a research and/or extension work with more than 9 ETL points in a semester will only be allowed if 80% of his/her engagement in the various projects are nearing completion.

Section 3: Workload Distribution Pointing System for Faculty with R & E Administrative and Others

Designation	ETL Point/s
Vice President, REPD	15
Director (Research/Extension/Training/Intellectual Property, PDC)	12
*Head/Coordinator (with no distinct supervisory) such as: Proposal Development Coordinator, Publication and Information Coordinator, Project Monitoring and Evaluation Coordinator, Intellectual Property Rights Coordinator	6
Institute Coordinator (Research/Extension/Training Intellectual Property))	3
Thesis Adviser (per study)	0.3
Thesis Panel Member (per study)	0.3
English critic (per study)	0.3

3.1. For faculty with administrative R&E Involvement and others, the Vice President for REPD must adhere the Faculty Manual's corresponding teaching load.
3.2. Thesis adviser per enroll units include faculty manual

Section 4: Faculty Pointing System for Research Journal and Newsletter

Designation	ETL Point/s
Editor-In-Chief	3
Managing and Circulating Editor	3
Associate editor	3
Lay-Out Artist	3
Editorial Artist	2

Article 2: Granting of Incentives

Section 1: Incentives for externally/ internally funded projects completed on time.

1.1 A non-cash gift/incentive worth Php 5,000.00 will be given to project team of internally- and funded projects completed per approved schedule, provided that all requisites have been satisfied.

Section 2: Resource-Generated Project Incentives for Researchers and Extensionists

2.1. Provided that all requisites have been satisfied, non-cash incentives in the form of gifts shall be given to project team of externally-funded projects completed per approved schedule.

2.2. For externally funded research or extension programs/projects that generate funds of less than Php 500,000.00, a Php 3,000 cash gift or incentive will be awarded. On the other hand, if the externally-funded projects/programs were able to generate funds amounting to Php 500,001 or more, the proponents will be awarded with a Php 5,000 cash gift or incentive.

2.3. When the budget for an externally-funded project has already been downloaded to the College, the project proponent/s shall inform the REPD Office of such, and provide a copy of Official Receipt received from the funding agency.

Section 3: Incentives for Best Paper/Poster Awards

3.1. A copy of the paper or poster must be submitted to the REPD Office accompanied by a copy of the original award certificate for verification from the award-giving body and accomplished claim form.

3.2. Authors of adjudged best paper/poster awards of annual conventions of regional/national professional association and societies are entitled to receive the following cash incentives (if more than one author, to be shared among authors):

Category	Placement	Best Poster	Best Paper
Local	1st Prize	PhP 3,000	PhP 4,000
	2nd Prize	PhP 2,000	PhP 3,500
	3rd Prize	PhP 1,000	PhP 2,000
Regional	1st Prize	PhP 4,000	PhP 5,000
	2nd Prize	PhP 3,000	PhP 4,000
	3rd Prize	PhP 2,000	PhP 3,000
National	1st Prize	PhP 5,000	PhP 7,500
	2nd Prize	PhP 4,000	PhP 5,000
	3rd Prize	PhP 2,500	PhP 3,000
International	Equivalent to 200% of the National Prize		

Section 4: Incentives for Peer Awards

4.1. BASC faculty or staff recognized or cited by another agency, a local government unit, scientific organization or a recognized award-giving body, local or international for meritorious R&D work and professional excellence are eligible for non-cash incentive award.

4.2. In cases that award is given to a group; incentive will be shared among the members.

4.3. Only those recipients of top awards (not finalists or recipients of plaque of recognition) may be given cash incentives.

Category	Cash Incentives
Local	3,000
National	10,000
International	20,000

Section 5. Incentives for Publication of Research Outputs

5.1. All completed researches of faculty and students funded by the College shall be encouraged to publish in the Southeast Asian Journal of Agriculture and Allied Sciences. For research articles to be published in other journals, especially national or international refereed journals, the VP-REPD shall be informed and copy furnished with the article. Upon publication, the REPD Office and Institute concerned shall be provided with a copy of the journal.

5.2. Faculty members who can publish research outputs or results in local, regional, national and international refereed journals and books are given monetary incentives. In case of co-authorship, the award shall be divided among the number of authors, but only the BASC faculty will be given the incentive award. A faculty who would like to apply for the award shall provide the Research Director a copy of the journal or book. Publication of abstracts and conference proceedings are not included in the granting of incentives. Incentives will be provided by the College Administration.

5.3. Cash incentive with Certificate of Recognition will be given to researches who have published the following:

Nature Type	Level	Cash Incentives
1. Books with copyright - research output, copyrighted by BASC	National	30,000.00
	International	50,000.00
2. Chapter in a book with a copyright - research output, copyrighted by BASC	National	10,000.00
	International	20,000.00

3. Instructional materials - modules or manuals; research output, copyrighted by BASC		2,000.00
4. Research paper in international journal that is indexed in PASUC-listed reputable indexing service or sites (PASUC Advisory No.52, s. 2019). • CHED-recognized • Scopus • Web of Science • Institute of Scientific Information (ISI) • Science Citation Index Expanded (SCIE) • Social Sciences Citation Index (SSCI) • Medline, National Library of Medicine (NLM) • Emerging Sources Citation Index (ESCI) • Arts and Humanities Citation Index (AHCI) • PubMed, National Library of Medicine (NLM) • ASEAN Citation Index (ACI)		50,000.00
5. Full paper in peer reviewed publication/ journals which are not included in the list of PASUC Advisory No. 52, s. 2019	Local	5,000.00
	Regional	10,000.00
	National	15,000.00
	International	25,000.00

Section 6. Incentives for Patent and Utility Model Registration

6.1. Definition

Patent, also called "*invention patent,*" is a government-issued grant bestowing an exclusive right to an inventor over a product that provides any technical solution to a problem in any field of human activity which is new, inventive and industrially applicable.

Utility model, also known as "*soft patent,*" is any technical solution to a problem in any field of human activity which is new and industrially applicable which may or may not have an inventive step.

6.2. Inventions by BASC faculty, non-teaching staff and students are encouraged to be registered at the Intellectual Property Office of the Philippines (IPOPHIL).

6.3. The inventors will be given an incentive for every registered may be given cash incentives of 75,000.00 for Patent and 50.000.00 for Utility Model.

Article 3. Awards and Recognition

Section 1. M*odelong Guro sa Panaliliksik Award*

1.1 The Modelong Guro sa Pananaliksik Award is given to an outstanding faculty member who has shown exemplary accomplishment in the area of research.

1.2 The awardee shall be given a plaque of recognition during the annual recognition program and a cash incentive of five thousand pesos (Php5,000.00).

1.3 This award will be given on every celebration of the College's Charter Day.

Section 2. *Modelong Guro sa Ekstensyon*

2.1. The Modelong Guro sa Ekstensyon is given to outstanding faculty who have shown exemplary accomplishment in the area of extension and training.

2.2. The awardee shall be given a plaque of recognition during the annual recognition program and a cash incentive of five thousand pesos (Php5,000.00).

2.3. This award will be given on every celebration of the College's Charter Day.

Article 4. REPD-Related Awards

In addition to faculty and non-teaching personnel, the Research, Extension, Production and Development Office grants awards with corresponding incentives to students and cooperators.

Section 1. Best Student Researcher

1.1 This award will be given annually to the student researcher (s) who had performed outstanding performance in the conduct of undergraduate thesis showcasing excellent results and positive impact towards the advancement of appropriate technologies in the field of agriculture, information, business, education, agricultural engineering, administration, food technologies and other related fields.

1.2 The best student researcher will receive a certificate of recognition as well as cash award of 2,000 pesos during the yearly recognition program.

Section 2. Best BASC Project Cooperator

2.1 Recognizing significant contributions of farmer cooperators of the College is one way to cultivate further our good partnership and cooperation with the farmers involved in the implementation of BASC Extension projects.

2.2 The selected best project cooperator shall be given a certificate of recognition and cash award of Php 3,000 during the annual recognition of the College.

APPENDICES

Appendix A

RESEARCH, DEVELOPMENT and EXTENSION AGENDA 2019-2024

PROBLEMS AND ISSUES	RESEARCH AGENDA	DEVELOPMENT AGENDA	EXTENSION & TRAINING AGENDA	RESPONSIBLE INSTITUTE/ PERSON	FUTURE PLAN
VEGETABLES (Pinakbet)					
Pest and diseases	▪ IPM (Bio control, bio pesticides); Ecological engineering technology ▪ Disease indexing ▪ Pest and disease mapping & forecasting ▪ Pesticide management	▪ Development of IEC materials; ▪ Identification and establishment of learning sites	▪ `	▪ IA-CropSci , CropProt ▪ IEAT-ABEngg ▪ IEAS-NatSci	▪ Hiring of a pest management expert/ plant pathologist ▪ Establishment of bio-control agents lab./ production area
Water management	▪ Decision support system for irrigation ▪ Land suitability assessments ▪ Climate smart agriculture (CSA)	▪ Identification and establishment of learning sites	▪ Seminars/ trainings on CSA and related topics	▪ IA-CropSci , CropProt ▪ IEAT-ABE	▪ Hiring of ABE/ expert on SWM
Crop management	▪ Varietal development/ improvement ▪ Balanced fertilization		▪ Training on grafting of vegetable seedlings	▪ IA-CropSci ▪ SoilSci	▪ Assignment of a commodity leader
Limited supply of quality seeds	▪ Varietal development/ improvement and breeding ▪ Adaptation	▪ Establishment of community seed production		▪ IA-CropSci , CropProt ▪ IEAT-ABE	▪ Seed laboratory establishment
Low productivity during off-season	▪ Organically grown vegetable ▪ Grafting and other plant breeding strategies			▪ IA-CropSci	▪ Collaboration with other agencies

Continuation...

Food safety and health hazards; judicious use of pesticide	▪ Good agricultural practices (GAPs)/Organic farming; ▪ Bio-control; ▪ Bio-fertilizers; ▪ Bio-pesticides ▪ Study on pesticide residues; farm waste management		▪ IEC materials ▪ Trainings on BCA and bio pesticides	▪ IA-CropSci , CropProt ▪ IEAS-NatSCi	▪ Collaboration with other agencies
Shelf-life and storage	▪ Appropriate mechanization and post-harvest activity		▪ Training on value chain approach	▪ IEAT-ABEngg	▪ Collaboration with other agencies
Losses	▪ TNA on product preservation		▪ Training on post-harvest handling and pest management	▪ IEAT-ABEngg	▪ Collaboration with other agencies
Value-added products	▪ Knowledge on food safety practices	▪ Cuisine development (*Mouzaka de Bulak)*	▪ Training on food-safety practices	▪ IEAT-FoodTech ▪ IEAS-NatSci ▪ IM-HospMngt	
Food safety practices	▪ Product and by-product development			▪ IEAT-FoodTech ▪ IEAS-NatSci ▪ IM-HospMngt	
Certification	▪ Training needs assessment (TNA)		▪ Training on GAP certification	▪ IEAT-FoodTech ▪ IEAS-NatSci ▪ IM-HospMngt	
Equipment for processing	▪ TNA	▪ Provision of appropriate equipment	▪ Training on use of equipment	▪ IEAT-FoodTech ▪ IEAS-NatSci ▪ IM-HospMngt	

Continuation...

Packaging	▪ Development of new technologies for packaging and handling	▪ Industry partnership		▪ IEAT-FoodTech ▪ IM-HM	▪ Put up marketing posts, one-stop shop
Quality assurance	▪ Development of new technologies for packaging and handling	▪ Establishment of farmers' market			
Cultural management and farming system	▪ CPAR	▪ LGU linkage ▪ Training on urban gardening in resettlement areas in Bulacan		▪ IA ▪ IM ▪ IEAS	
Profitability	▪ Profitability analysis; ▪ Agritourism			▪ IM-BusAd, AgbMngt	
Financial management	▪ Needs assessment; ▪ Financial library of farmers		▪ Capacitating the farmer to become agripreneur	▪ IM-BusAd, AgbMngt	
Policy support of LGU executives	▪ Social researches			▪ IEAS	
Baseline sex-disaggregated data	▪ Benchmarking/ profiling; ▪ Social researches; ▪ Women's participation in farming	▪ Home-based agribusiness for housewives	▪ Training	▪ GAD Office ▪ IM-BA	
Timing/ schedule of planting	▪ Farming practices in relation to climate change adaptation		▪ Capability building on CC adaptation and mitigation	▪ IA ▪ IEAT-ABE	▪ Establishment of Office to oversee RDE of environmental concerns
Planning of farmers	▪ Identification of CC-resilient varieties		▪ Capability building on CC adaptation and mitigation	▪ IA ▪ IEAT-ABE	▪ Establishment of Office to oversee RDE of environmental concerns
Farmers preparedness/ awareness	▪ TNA		▪ Capability building on CC adaptation and mitigation	▪ IA ▪ IEAT-ABE	▪ Establishment of Office to oversee RDE of environmental concerns

Continuation...

PROBLEMS AND ISSUES	RESEARCH AGENDA	DEVELOPMENT AGENDA	EXTENSION & TRAINING AGENDA	RESPONSIBLE INSTITUTE/ PERSON	FUTURE PLAN
LIVESTOCK AND POULTRY					
			RABBIT		
Poor breeder base	▪ Development of locally-adopted strains	▪ Establishment of techno-demo farms	▪ Distribution of IEC/ICT materials	▪ IA-AnSci	▪ Linkages/ collaboration
Pests & diseases	▪ Incidence/ prevalence studies of pests & diseases ▪ IPM studies	▪ Development of ▪ Ethno veterinary products ▪ Establishment of forage & ethno-vet center	▪ Seminar/ training on pest and disease management ▪ Distribution of IEC/ICT materials	▪ IA-AnSci	▪ Linkages/ collaboration
Production and breeding management	▪ Housing design and modification ▪ Performance/ ▪ breeding trials ▪ AI trials & protocols	▪ Development of rabbit production standards & protocols	▪ FFS ▪ Techno-demo ▪ IEC materials	▪ IEAT-GEngg, CEngg ▪ IA-AnSci	
Farms are not GAP,GAHP, HACCP, HALAL certified	▪ Training needs assessment		▪ Trainings on certification systems/ procedures	▪ IA-AnSci	▪ Linkages/ collaboration
Absence of infrastructure for slaughter; processing of skin/by-products	▪ TNA for humane slaughter ▪ Study on rabbit skin and by-products processing	▪ Establishment of dressing plant; facilities for by-products processing ▪ Technology demonstrations ▪ Establishment of OTOP	▪ Trainings on humane slaughter and processing	▪ IA-AnSci	▪ Linkages/ collaboration
Lack of data on carcass traits/quality	▪ Study on yield, carcass & organoleptic traits; nutritional content			▪ IA-AnSci ▪ IEAT-FT	
Very limited value-added lapan (rabbit meat) products	▪ Study on processed lapan products ▪ Study on nutritional composition and shelf life ▪ Rabbit cuisine development	▪ Technology demonstrations ▪ Cuisine development (*Pilau, Bringhe de Bulak*)	▪ Trainings	▪ IEAT-FT ▪ IM-HM	▪ Hiring of a food processing expert/RAs ▪ Establishment of one-stop shop

Continuation...

Packaging		▪ Development of package and label			
Limited Value adding	▪ Identification market channels of rabbits and marketing strategies	▪ Establishment market channels of rabbits	▪ Promotion of market channels of rabbits	▪ IM	
Low awareness on rabbit meat	▪ Agritourism			▪ IM	
Packaging	▪ TNA		▪ Trainings on packaging	▪ IEAT-FT ▪ IM-HM	
Market linkaging	▪ Market matching studies	▪ Strengthening farmers' organizations		▪ IM-AM, ▪ IM-BA	
Stakeholders/ consumers preference, social taboos and poor popularity of rabbit meat	▪ Awareness/ acceptability studies; ▪ Marketing constraints studies	▪ Establishment of business incubation for stakeholders	▪ Organization of farmer-groups/ cooperatives in Central Luzon; ▪ Rabbit raising awareness seminars	▪ IEAS ▪ IM ▪ IA	
Market analysis of rabbit products	▪ Demand and supply studies; Cost-benefit analysis				
Profile of raisers on GAD	▪ Conduct of gender analysis among raisers; Women's participation in farming ▪ Social researches		▪ Promotion and awareness	▪ GAD Office ▪ IM-BA ▪ IEAS	
	FREE-RANGE CHICKEN				
Feed sources	▪ Development of agricultural by-product-based feeds (soybean curd) ▪ Development of alternative feed ingredients for poultry (azolla)	▪ Development of IEC materials	▪ Trainings; ▪ Distribution of IEC materials	▪ IA-AnSci ▪ IM-AM	

Continuation...

Upgrading	▪ Upgrading/ breeding performance studies	▪ Establishment of community-based native chicken production sites	▪ Farmer poultry school on FRC	▪ IA-AnSci	
Range	▪ Range enhancement protocols for FRC/NC	▪ Establishment of techno-demo farms	▪ Trainings	▪ IA-AnSci	
Health care	▪ Health care management protocols for FRC/NC	▪ Development of ▪ Ethno vet products; IEC materials	▪ Trainings; ▪ Distribution of IEC materials	▪ IA-AnSci ▪ IEAS-NatSci	
Product development	▪ Development of FRC/NC meat products with ▪ value-adding		▪ Trainings on value-added meat products processing	▪ IEAT-FoodTech ▪ IM- HospMngt	
Market analysis	▪ Market chain analysis	▪ Strengthening of farmers' organization	▪ Training on financial literacy	▪ IM-BusAd, ▪ AgbMngt	
Economic productivity	▪ Innovative marketing and distribution system ▪ Agritourism				
Profile of raisers on GAD	▪ Gender analysis among raisers; Women's participation in farming			▪ GAD Office ▪ IM-BA	
Resiliency	▪ Farm integration; ▪ TNA on CC		▪ Trainings on CC adaptation and mitigation	▪ IA-AnSci	
	Carabao and Goat				
Poor breeder base	▪ Upgrading	▪ Establishment of community-based livestock upgrading center		▪ IA-AnSci	▪ Hiring of an additional livestock expert
Low income generation on livestock	▪ Integration	▪ Crop-livestock integration	▪ Trainings on farm integration		
Poor nutrition, low nutrient content of forages	▪ Development of forage garden ▪ Indigenous feed formulation				

Continuation...

Insufficient native/local feeds	▪ Utilization of agricultural by-products as feeds		▪ TOT Hands-on training (AEWs, LFT); Hands-on training (farmers)	▪ IA-AnSci	
Production Management	▪ Pest and diseases management ▪ Identification of potential breeds	▪ Technology transfer	▪ Training and seminar	▪ IA-AnSci ▪ IA-AnSci	
Pests & Diseases	▪ IPM ▪ Prevalence studies on pests ▪ and diseases		▪ Seminar/training on IPM of livestock	▪ IA-AnSci	▪ Hire additional veterinarian/s
Feed Sources	▪ Utilization of agricultural by- products for native animals ▪ Identification of available feed sources	▪ Establishment of animal feed center ▪ Establishment of Feed Biotech Laboratory	▪ Promotion of awareness on benefits of raising native animals ▪ Techno Demo, FFS, TOTs, production of IEC materials	▪ IA-AnSci ▪ Planning Office ▪ Extension group	▪ Linkages/ collaboration
Quality of stock	▪ Breeding and genetics ▪ Upgrading	▪ Development of breeding protocol ▪ Crossbreeding of Central Luzon native stocks with other identified Philippine native strains/breeds	▪ Dispersal of crossbreed native animals	▪ IA-AnSci ▪ IA-AnSci ▪ Extension team	
Pests & diseases	▪ Identification of native animals pests and diseases in Central Luzon	▪ Development of ethno veterinary products ▪ Identification of disease-resistant gene makeup of native animals	▪ Establishment of forage & ethno-veterinary center	▪ IA-AnSci ▪ IA-AnSci	▪ Linkages/ collaboration

Continuation...

Production management	▪ Development of native animals production management	▪ Growth and reproductive performance of native animals ▪ Breeding synchronization ▪ Development of production standard of different native animals ▪ Integration of Crop and Native Animal Production System	▪ Establishment of production standard of different native animals ▪ FFS; ▪ Techno Demo	▪ IA-AnSci	
Organic meat processing	▪ Shelf-life study; ▪ Processed meat product development	▪ Promotion of organic livestock production	▪ Hands-on training	▪ IEAT-FT	
Packaging	▪ Development of package and label ▪ Acceptability of processed products from native animals			▪ IM ▪ IEAT-FT	
Market linkaging	▪ Identification of market channels	▪ Establishment of market channels of native meats			▪ Linkages/ collaboration
Stakeholders/ consumer preferences		▪ Establishment of business incubation for stakeholders		▪ IM ▪ IEAS	
Market analysis of native animal products	▪ Cost benefit analysis				
Profile on GAD for organic animal raisers	▪ Conduct survey for gender analysis, gender roles		▪ Promotion and awareness	▪ IM ▪ IEAS	▪ GAD Office
Job equity and equality among farm animal raisers	▪ Social researches				

Continuation...

By-product processing and utilization	▪ Identification of waste management strategies	▪ Establishment of waste management protocols	▪ Promotion and awareness	▪ IEAS	

PROBLEMS AND ISSUES	RESEARCH AGENDA	DEVELOPMENT AGENDA	EXTENSION & TRAINING AGENDA	RESPONSIBLE INSTITUTE/ PERSON	FUTURE PLAN
AGROFORESTRY					
	UPLAND RICE (AEROBIC RICE TECHNOLOGY)				
Suitability of AR in sloping areas	▪ Suitability assessments; ▪ Varietal trials		▪ Seminar-training of indigenous people	▪ DRTC ▪ IA, ▪ IEAT-ABE ▪ IM	
Limited supply of seeds	▪ Identification of local/native seeds	▪ Establishment of community-based seed production areas; techno-demo farms	▪ Provision of quality seeds	▪ DRTC ▪ IA, ▪ IEAT-ABE ▪ IM	
Limited product development initiatives	▪ Development of rice flour, wine, coffee	▪ Development and production of IEC materials Farmers' training	▪ Demonstration Farm	▪ IM ▪ IEAT-FT	
Market analysis	▪ Cost-benefit analysis	▪ Strengthening of farmers' organizations		▪ IM	
Sex-disaggregated data	▪ Participation of women in farming ▪ Social researches			▪ GAD Office ▪ IEAS	
Schedule of planting	▪ Farmer practices in relation to CC		▪ Orientation seminars on CC	▪ IEAS	
	COFFEE AND CACAO				
Irrigation	▪ Provision of drip irrigation system (host)			▪ IEAT-ABE	▪ Linkages and collaboration
Accessibility	▪ Needs assessment	▪ Infrastructure development		▪ DRT ▪ PDO	
Unavailability of data	▪ Benchmarking of growing areas, profiling			▪ IA ▪ DRT	
Pests and diseases	▪ Disease indexing, mapping & forecasting	▪ Conduct of FFS/ techno demo	▪ Distribution of IEC /ICT materials	▪ IA ▪ DRT	

Continuation...

Pesticide management	▪ Farming system	▪ Seminars		▪ IA ▪ DRT	
Water management	▪ Design and adaptation	▪ Identification of learning sites/ CPAR		▪ IA ▪ DRT	
Crop management practices				▪ IA ▪ DRT	
Shelf-life and storage	▪ R&D on appropriate mechanization and post-harvest activity	▪ Training on value chain approach		▪ IEAT ▪ IA	
Value-added products	▪ Knowledge on food safety practices	▪ Development of value-added local coffee products	▪ Training on processing, food-safety practices	▪ IM-HM	
Food safety practices	▪ Product and by-product development			▪ IEAT	
Packaging and labelling	▪ Industry partnership	▪ Capacitating the farmer to become agripreneur	▪ Agrotourism extension initiatives	▪ IM ▪ IEAT	
Quality assurance	▪ Development of cutting-edge technologies for packaging and handling			▪ IEAT	
Cultural management and farming system	▪ Community-based Participatory Action Research	▪ Strengthening of farmers' organizations	▪ Training	▪ IM	
Farmers are not prepared in terms of GAP certification	▪ Acceptance and adaption of farmers			▪ IA	
Policy implementation	▪ Social researches			▪ IEAS	
Financial management			▪ Financial literacy training	▪ IM	
Sex-disaggregated data Monitoring	▪ Benchmarking/ profiling; ▪ Participation of women in coffee and cacao farming		▪ Training	▪ GAD Office ▪ IM ▪ IEAS	
	▪ Social researches			▪ IEAS	
Timing/Schedule of planting	▪ Farming practices in relation to climate change adaptation		▪ Seminar/ orientation on farmers	▪ IA ▪ IEAT	

Continuation...

Planning of farmers	▪ Identification of climate change resilient varieties			▪ IA ▪ IEAT	
Farmers preparedness/ awareness			▪ Capability building/ education of farmers	▪ IA ▪ IEAS	
	BAMBOO				
Policy implementation	▪ Enhancing macro- and micro-propagation techniques	▪ Establishment of community-based bamboo shoot production area	▪ Promotion of, and training on sustainable bamboo production	▪ DRT ▪ IA ▪ IEAT ▪ IEAS	
Bamboo production technologies	▪ Clump management techniques		▪ Extension of bamboo shoot production technologies	▪ DRT ▪ IA ▪ IEAS	
Harvesting technology	▪ Harvesting techniques for higher clump productivity	▪ Design and development of high capacity machines and equipment	▪ Training on bamboo harvesting	▪ IEAT ▪ IA	
High-value product development	▪ Application of organic preservatives	▪ Development of bamboo-based high-value products		▪ IEAT ▪ IEAS	
Sex-disaggregated data	▪ Participation of women in bamboo production and marketing			▪ IEAS ▪ GAD ▪ IM	
Timing/ schedule of planting	▪ Farming practices in relation to climate change adaptation		▪ Capability building on CC adaptation and mitigation	▪ IA ▪ IEAT-ABE	▪ Establishment of to Office oversee RDE of environmental concerns
	RICE (LOWLAND)				
Labor intensive/ availability of labor	▪ Farm mechanization ▪ Comparative economic analysis of different methods of rice establishment	▪ Farm mechanization; Drum seeder; ▪ MDDST		▪ IA ▪ IEAT-ABE	
Location-specific, low milling recovery	▪ Varietal trial (periodic)				
Proliferation of seeds	▪ Low enforcement	▪ Production of GSR line seeds	▪ Promotion of using certified seeds and production technology	▪ IA ▪ IEAT	

Continuation...

Availability of seeds of appropriate varieties (stress tolerant varieties, drought tolerant varieties)	▪ Varietal trial		▪ Promotion and linkage with seed growers	▪ IA ▪ IEAT	
Loan shark	▪ Credit facility, policy advocacy			▪ IM	
Diseases (BRB), susceptibility to brown plant hopper of hybrid varieties	▪ Open credit windows involve AFC's; Strengthen AFC's involvement; ▪ Bio-controls			▪ IA	
	▪ Crop management options for brown plant hopper				
Low yield due to pests & diseases: RBB, golden kuhol, stem-borer, rice bug	▪ Varietal selection ▪ Integrated Pest Management (IPM)	▪ TOT on IPM (AEWs, LFTs)	▪ Enforcement of Bantay Peste Brigade; Identification and sampling techniques seminar	▪ IA	
Irrigation, timely release of irrigation water	▪ AWD Technology; Reduce tillage		▪ Technology dissemination	▪ IA ▪ IEAT	
Erratic rain fall during dry season		▪ Development of solar-powered irrigation	▪ Promotion of aerobic rice	▪ IA ▪ IEAT	
Inadequate supply of special rice varieties			▪ Identification of location/ areas to be developed as OTOP for special rice	▪ IA ▪ IEAT	
Limited knowledge and practices of location-specific crop management			▪ Intensive promotion of palay check system	▪ IA ▪ IEAT	
Lack of data on soil analysis	▪ Conduct soil analysis and GIS mapping in Region III				
Drought, flood, typhoon, saline	▪ Stress-tolerant variety trials	▪ Community-based seed banking	▪ Technical briefing (information dissemination)		

Continuation...

Poor management and adoption of mechanical transplanter	▪ Seedling production		▪ Promotion of seedlings production ▪ Hands-on training on seedling production		
Production of organic rice varieties (brown, black and aromatic)	▪ Varietal trial on organic rice varieties	▪ Community-based seed banking	▪ Promotion & adoption of potential organic rice varieties		
Food safety	▪ TNA on good agricultural practices (GAP)				
Lack of small capacity milling machine for brown rice and special rice		▪ Design and development of table-top milling machine for brown and special rice			
Unavailability of appropriate and locally produced postharvest machines		▪ Establishment of strong linkage with local manufacturers			▪ Linkages/ collaboration
Limited efficient drying technologies/ facilities			▪ Dissemination of efficient drying technologies/ facilities		
Lack of comparative data (economic benefits and losses) between manual and mechanized harvesting/ threshing	▪ Conduct comparative studies between manual and mechanized harvesting/ threshing				
Post-harvest facilities	▪ Provision of post- harvest facilities intended for pigmented/ brown rice production				
Insufficient drying facilities	▪ Economics/ Feasibility study: solar drying vs. mechanical drying	▪ Technology promotion & dissemination using mechanized facilities	▪ Hands-on training on mechanized drying & harvesting facilities		

Continuation...

Insufficient post-harvest machinery (combine harvester)	▪ Economics/ Feasibility study: Manual harvesting vs. combine harvester				
Reduction of rice wastage on milling process	▪ Conduct study on RPC1		▪ Intensive information campaign on rice conservation		
Marketing of products, economic productivity	▪ Agritourism			▪ IM	
Agro-tourism potential of certain farms	▪ Assessment of farm tourism sites	▪ Assistance to accreditation of farm agro-tourism sites			
Lack of benchmark information on GAD profile; Insufficient information on GAD projects	▪ Conduct benchmark/ GAD profiling studies	▪ Conduct interviews		▪ GAD Office	
Timing/ schedule of planting	▪ Farming practices in relation to climate change adaptation		▪ Capability building on CC adaptation and mitigation	▪ IA ▪ IEAT-ABE	▪ Establishment of Office to oversee RDE of environmental concerns
Changing mind set of farmers	▪ Social researches			▪ IEAS	

Appendix B
Medium-Term Roadmap Strategic Thrusts 2021-2025

Appendix C
Process Flow Steps
Research, Extension, Production and Development
(Research/Extension Proposal)

Shaping Minds. Transforming Lives.	*Republic of the Philippines* **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-001**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Research/Extension Proposal)	**Effective Date:**	July 08, 2021
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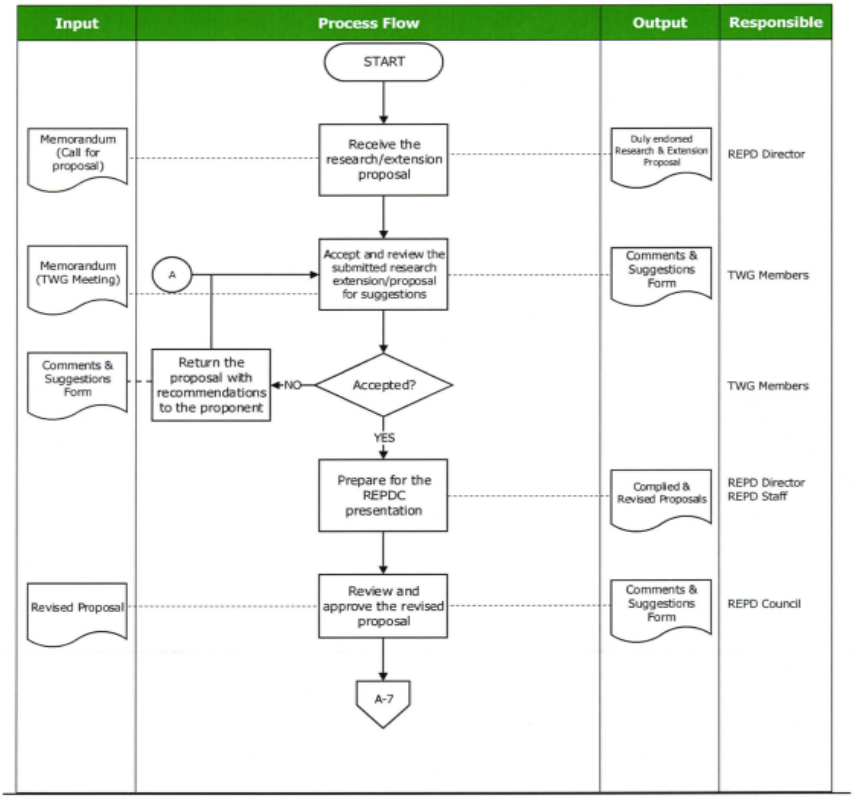
9.0 Process Flow Steps

9.1 Internally-Funded



Appendix C1
Process Flow Steps
Research, Extension, Production and Development
(Research/Extension Proposal)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	BASC COP REPD 001
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Research/Extension Proposal)	**Effective Date:**	July 08, 2021
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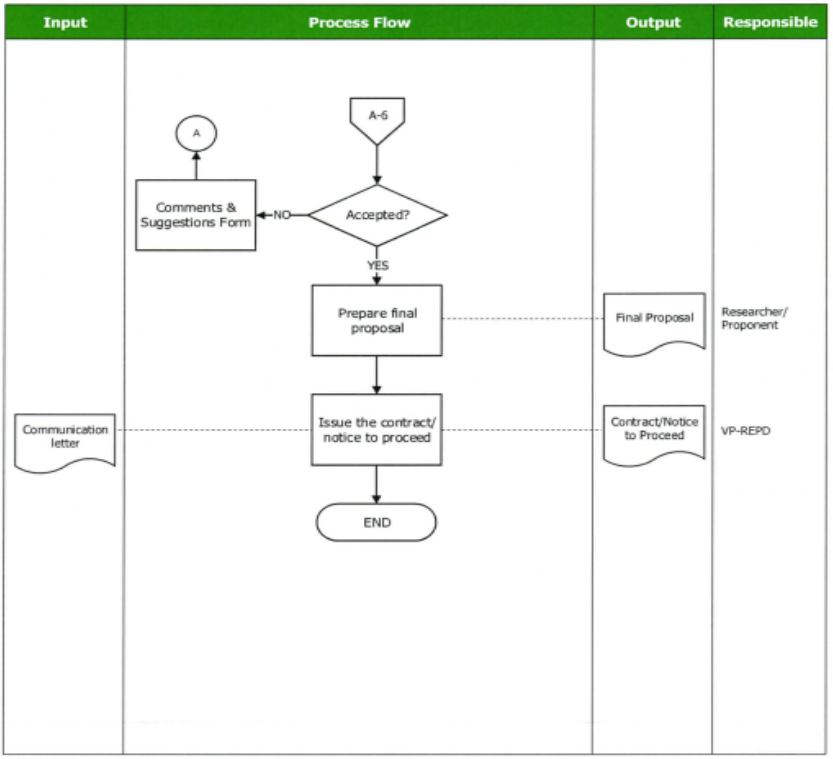

Appendix C2
Process Flow Steps
Research, Extension, Production and Development
(Research/Extension Proposal)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-001**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Research/Extension Proposal)	**Effective Date:**	July 08, 2021
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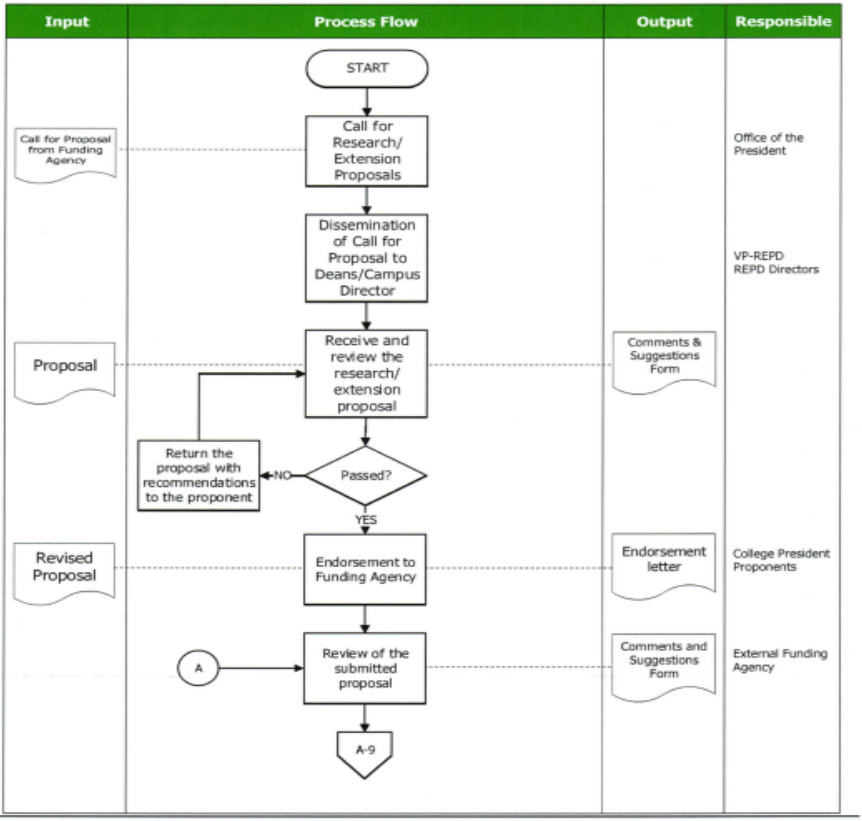
9.2 Externally-Funded



Appendix C3
Process Flow Steps
Research, Extension, Production and Development
(Research/Extension Proposal)

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		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Research/Extension Proposal)	**Effective Date:**	July 08, 2021
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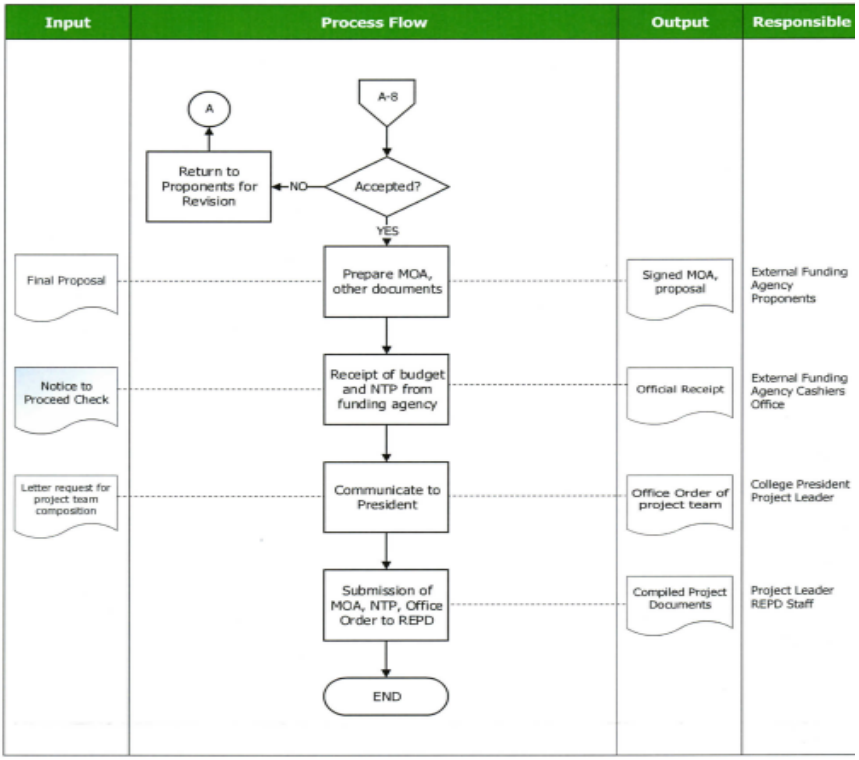

Appendix D
Process Flow Steps
Research, Extension, Production and Development
(Project Implementation and Monitoring)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-006**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Project Implementation and Monitoring)	**Effective Date:**	July 08, 2021
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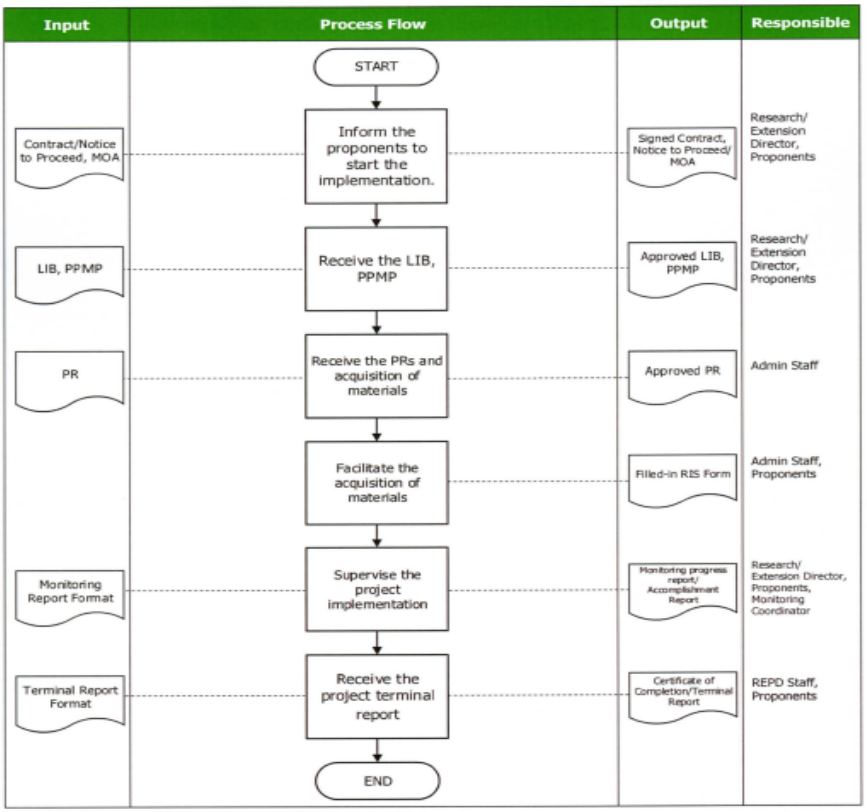
9.0 Process Flow Steps



Appendix E
Process Flow Steps
Research, Extension, Production and Development
(Conduct of Training)

Shaping Minds. Transforming Lives.	*Republic of the Philippines* **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-005**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Conduct of Training)	**Effective Date:**	July 08, 2021
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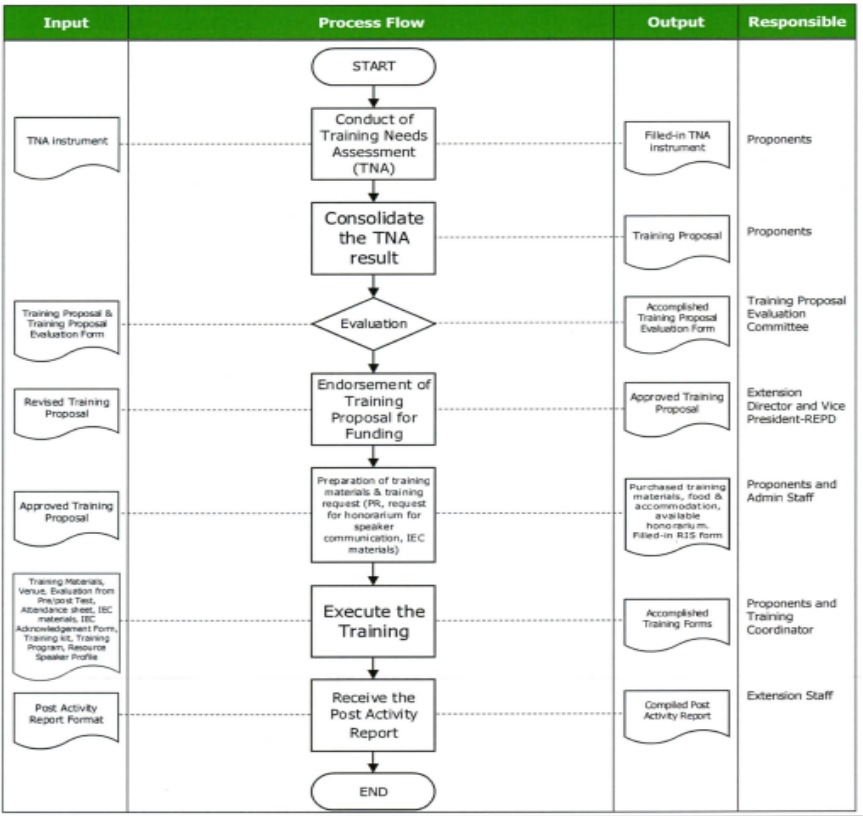
9.0 Process Flow Steps



Appendix F
Process Flow Steps
Research, Extension, Production and Development
(Paper Presentation)

Shaping Minds. Transforming Lives.	*Republic of the Philippines* **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-002**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Presentation)	**Effective Date:**	July 08, 2021
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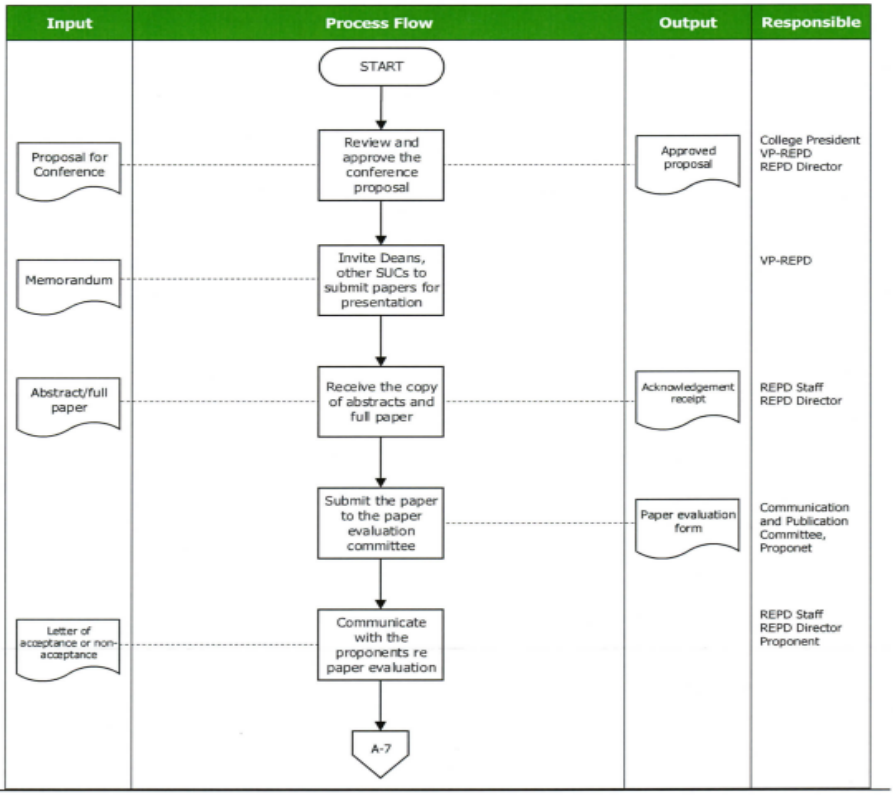
9.0 Process Flow Steps

9.1 BASC-Organized Research Conference



Appendix F1
Process Flow Steps
Research, Extension, Production and Development
(Paper Presentation)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-002**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Presentation)	**Effective Date:**	July 08, 2021
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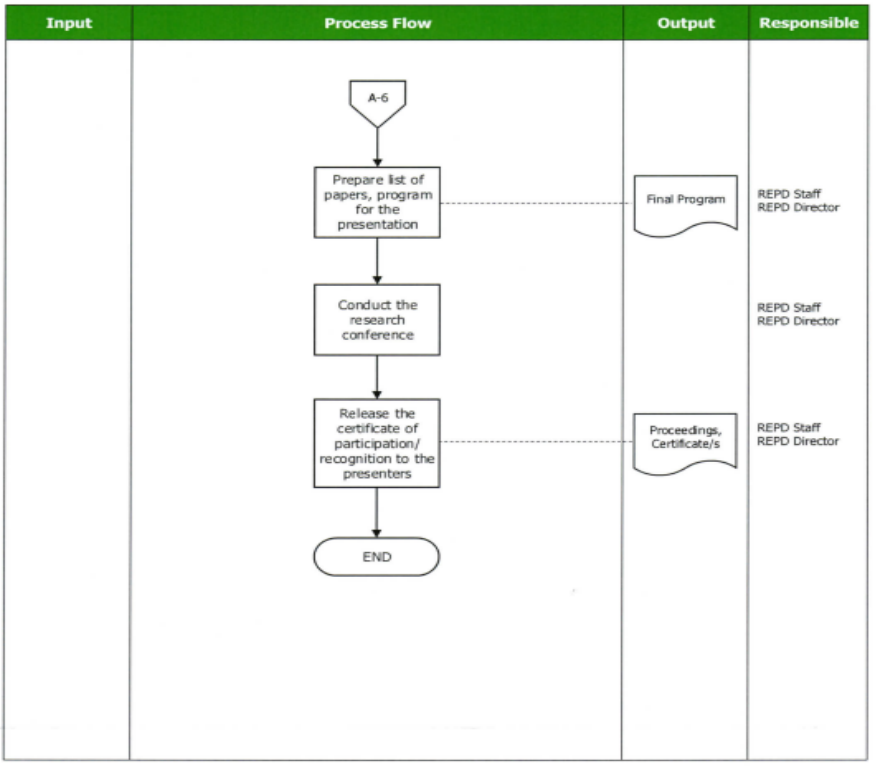

Appendix F2
Process Flow Steps
Research, Extension, Production and Development
(Paper Presentation)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-002**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Presentation)	**Effective Date:**	July 08, 2021
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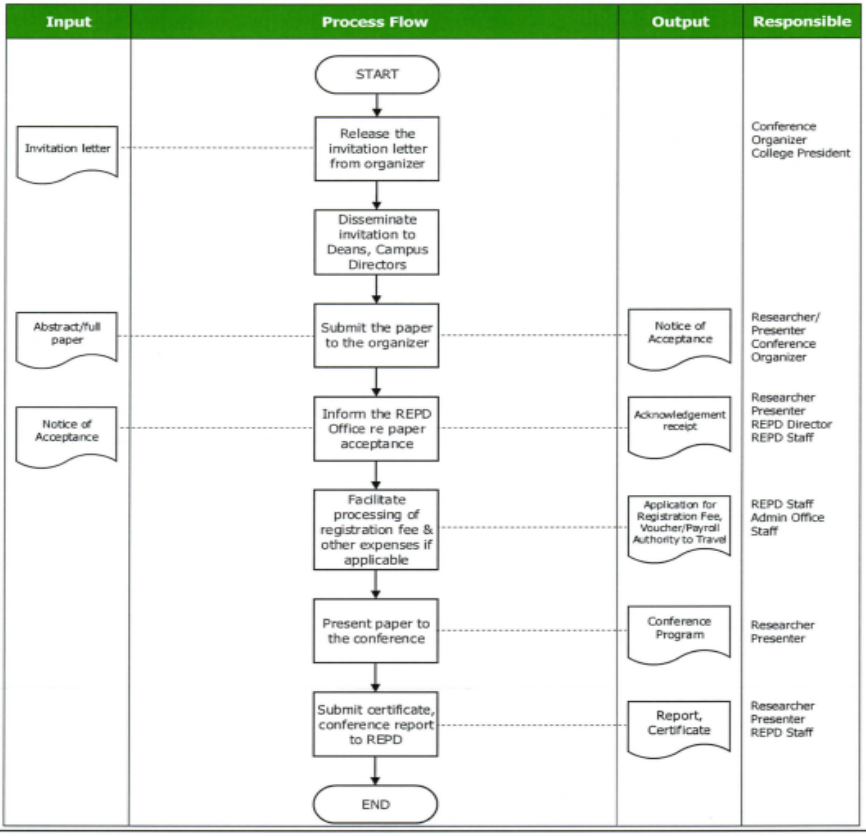
9.2 Non-BASC Organized Research Conference



Appendix G
Process Flow Steps
Research, Extension, Production and Development
(Paper Publication)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	BASC-COP-REPD-003
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Publication)	**Effective Date:**	July 08, 2021
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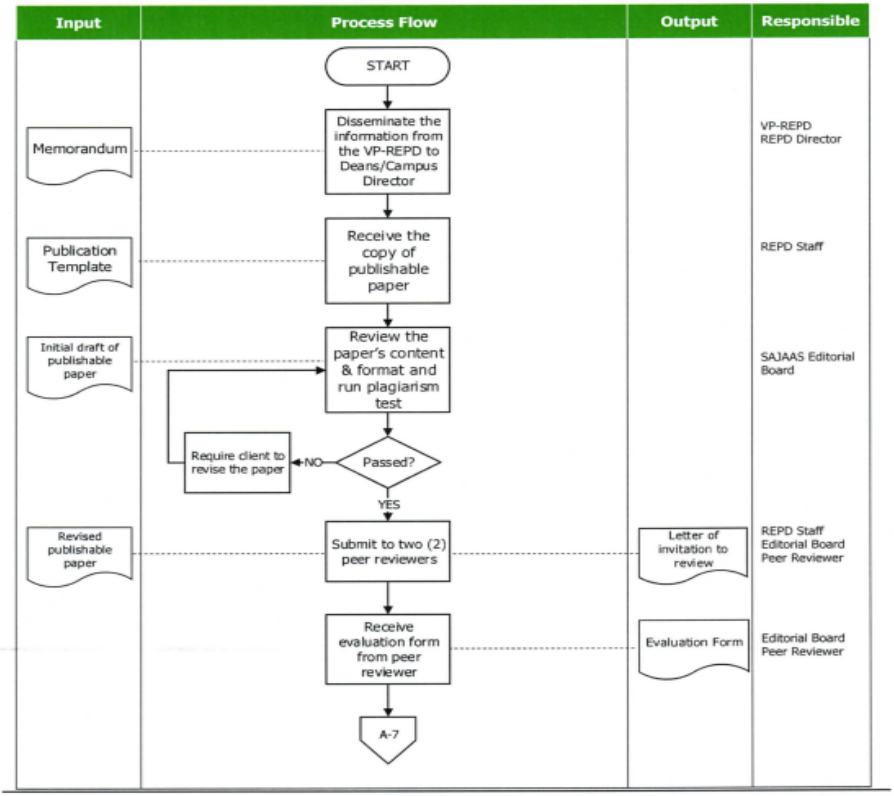
9.0 Process Flow Steps

9.1 BASC Research Journal (SAJAAS)



Appendix G1
Process Flow Steps
Research, Extension, Production and Development
(Paper Publication)

Shaping Minds. Transforming Lives.	Republic of the Philippines **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-003**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Publication)	**Effective Date:**	July 08, 2021
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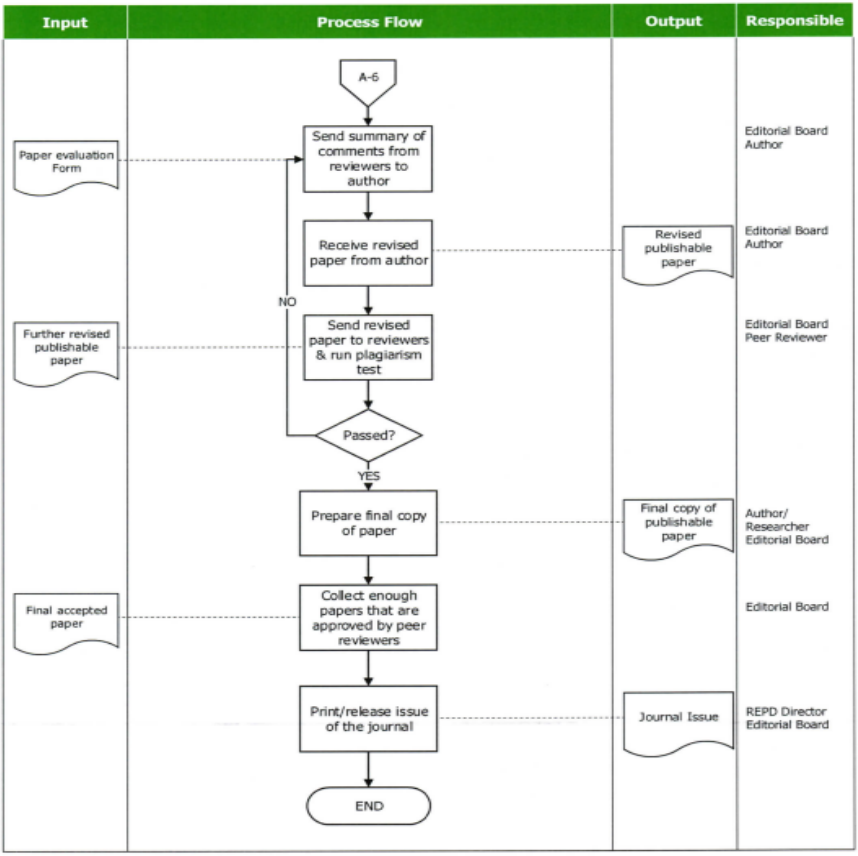

Appendix G2
Process Flow Steps
Research, Extension, Production and Development
(Paper Publication)

Shaping Minds. Transforming Lives.	*Republic of the Philippines* **BULACAN AGRICULTURAL STATE COLLEGE** *Pinaod, San Ildefonso, Bulacan 3010* **PROCESS MANUAL**	**Document No.:**	**BASC-COP-REPD-003**
		Revision No.:	00
		Process Type:	Client Oriented Process
	Research, Extension, Production and Development (Paper Publication)	**Effective Date:**	July 08, 2021
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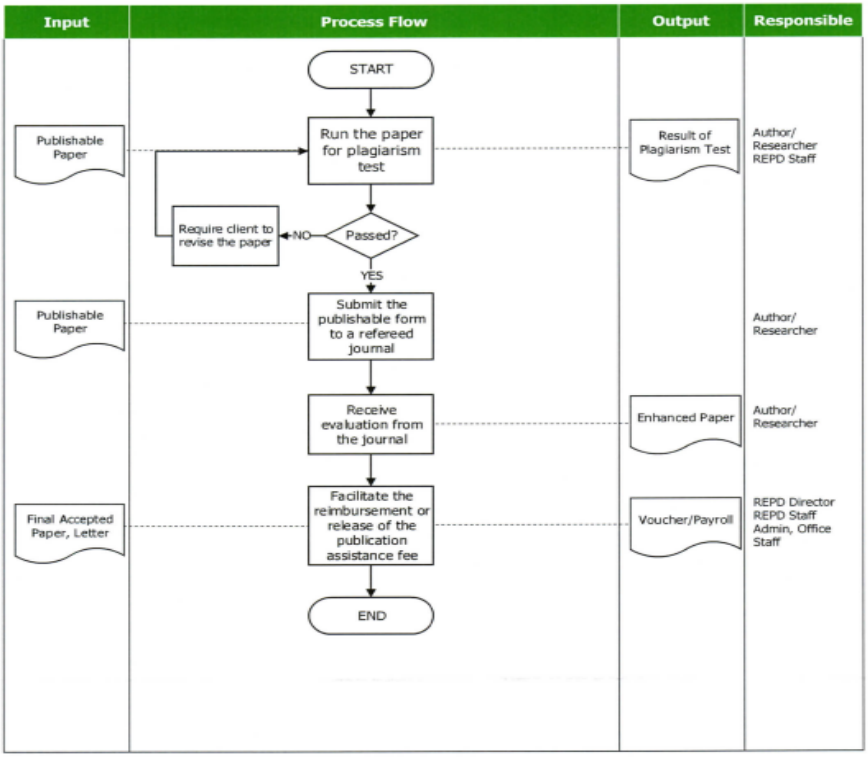
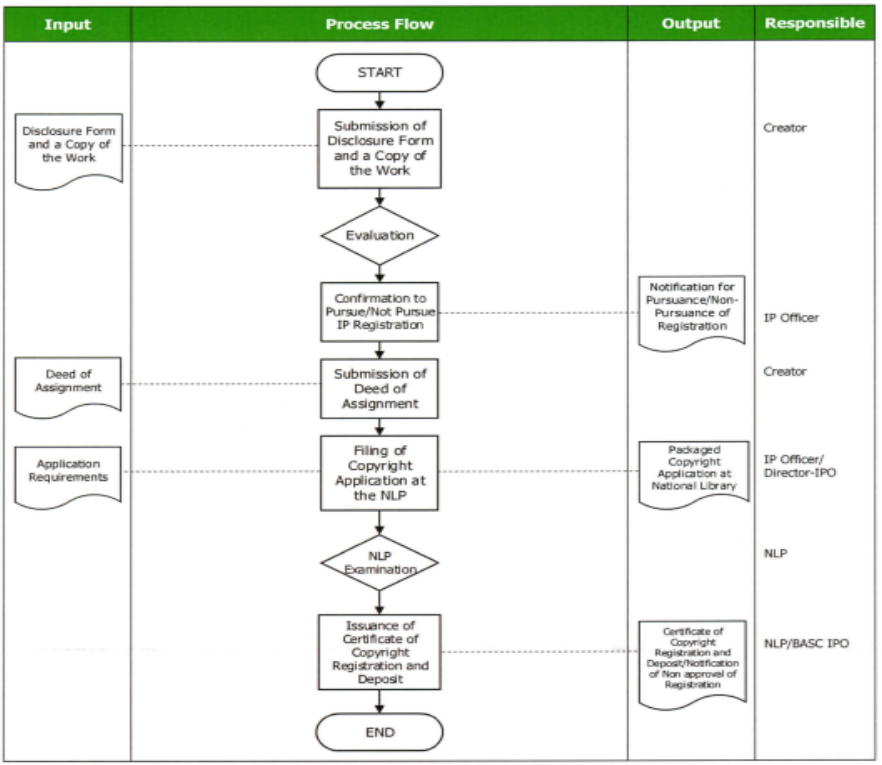
9.2 Non-BASC Journal



Appendix H
Process Flow Steps
Research, Extension, Production and Development
(Registration of Intellectual Property Assets)

9.0 Process Flow Steps

9.1 Copyright



Appendix H1
Process Flow Steps
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(Registration of Intellectual Property Assets)

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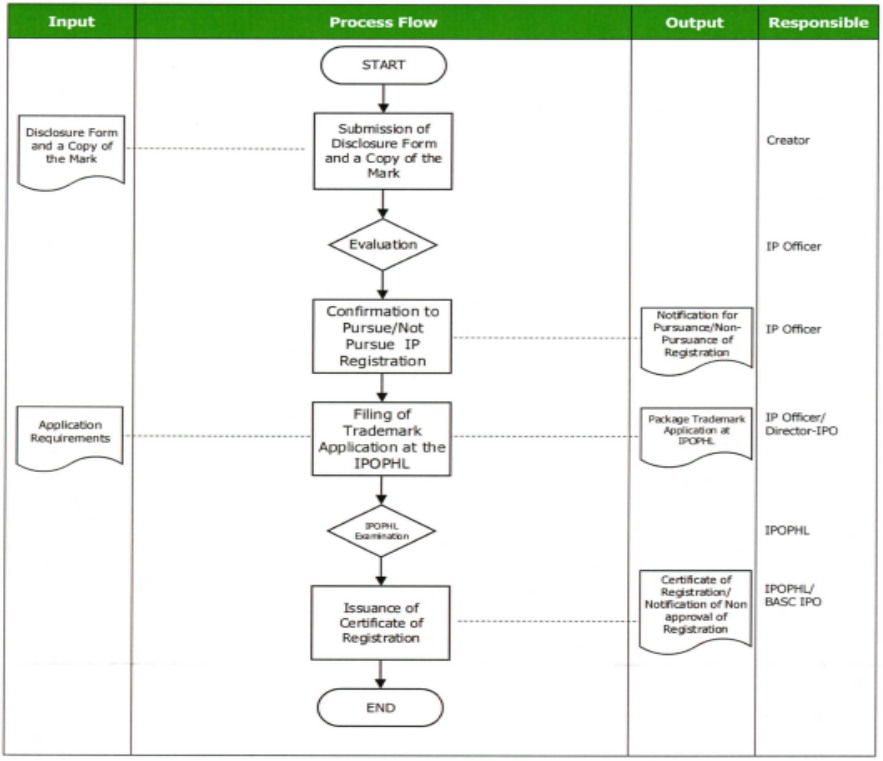
9.2 Trademark



Appendix H2
Process Flow Steps
Research, Extension, Production and Development
(Registration of Intellectual Property Assets)

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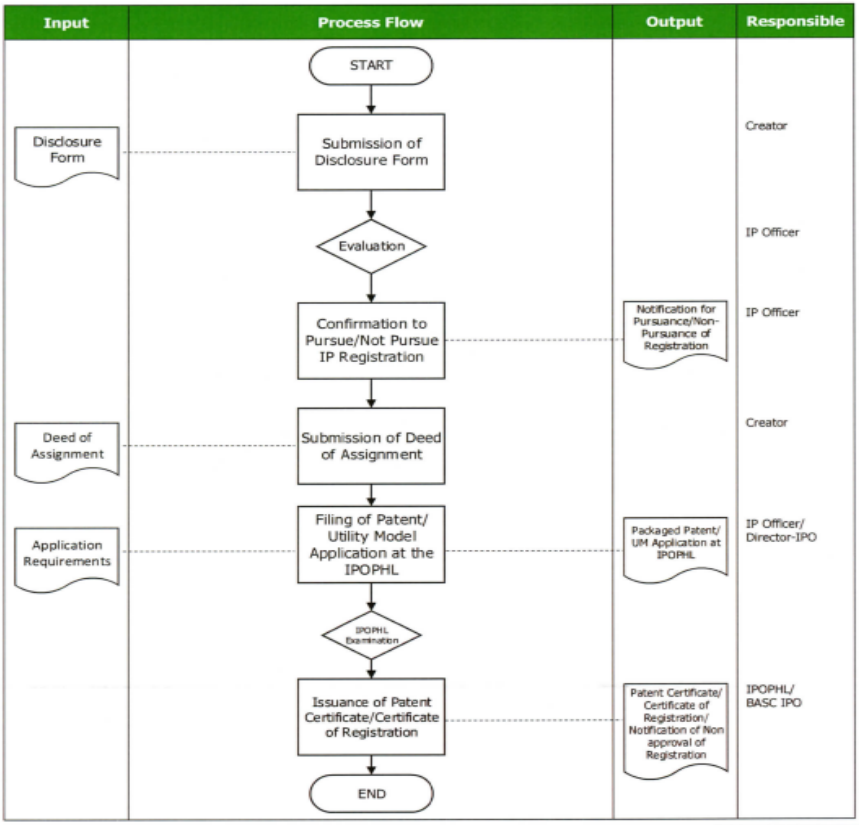
9.3 Patent/Utility Model



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