



National Academy of Science and Technology
Outstanding Young Scientist, Inc. (OYSI)
(Philippine Academy of Young Scientists)



BUILDING A CULTURE OF RESEARCH AND PRIORITY R&D AGENDA OF GOVERNMENT FUNDING AGENCIES



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Training-Workshop on Writing and Presenting Proposals, Mibang Hotel, Dipolog City, 27-28 October 2016

OUTLINE OF TALK

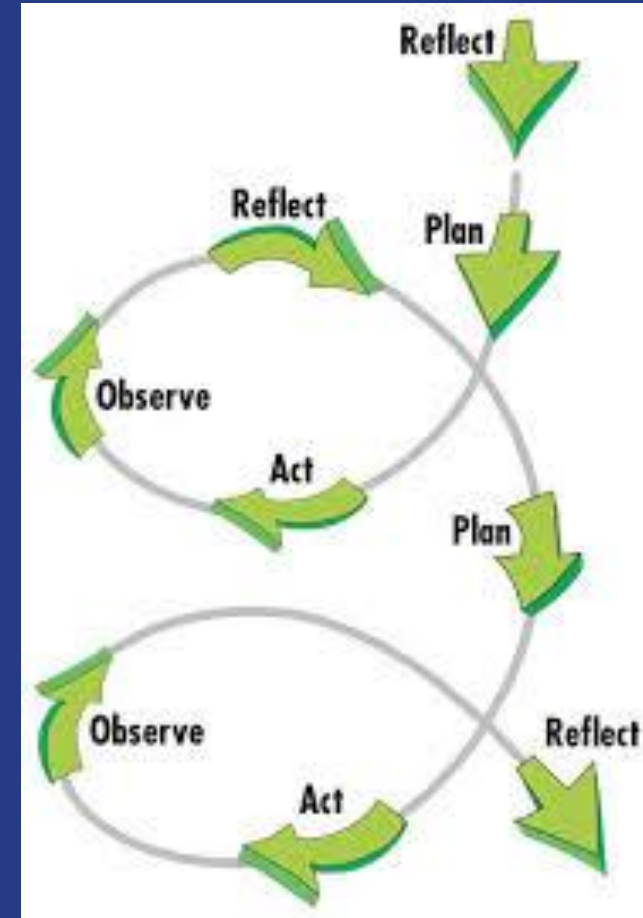
- What is research culture?
- Strategies in building research culture
- Priority R&D Agenda of Region IX and Government Funding Agencies

WHAT IS RESEARCH?

“RE-SEARCH”

- Research and development comprises creative work undertaken on a cyclical systematic basis in order to increase the stock of knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

-OECD



WHAT IS CULTURE?

- Culture from the Latin *cultura* , meaning "to cultivate".
- Denotes whole product of an individual, group or society of intelligent beings.
- Includes: technology, art, science, as well as moral systems and characteristic behaviours and habits of the selected intelligent entities, with specific more detailed meanings in different domains of human activities.

-Wikipedia

THE CULTURE ICEBERG



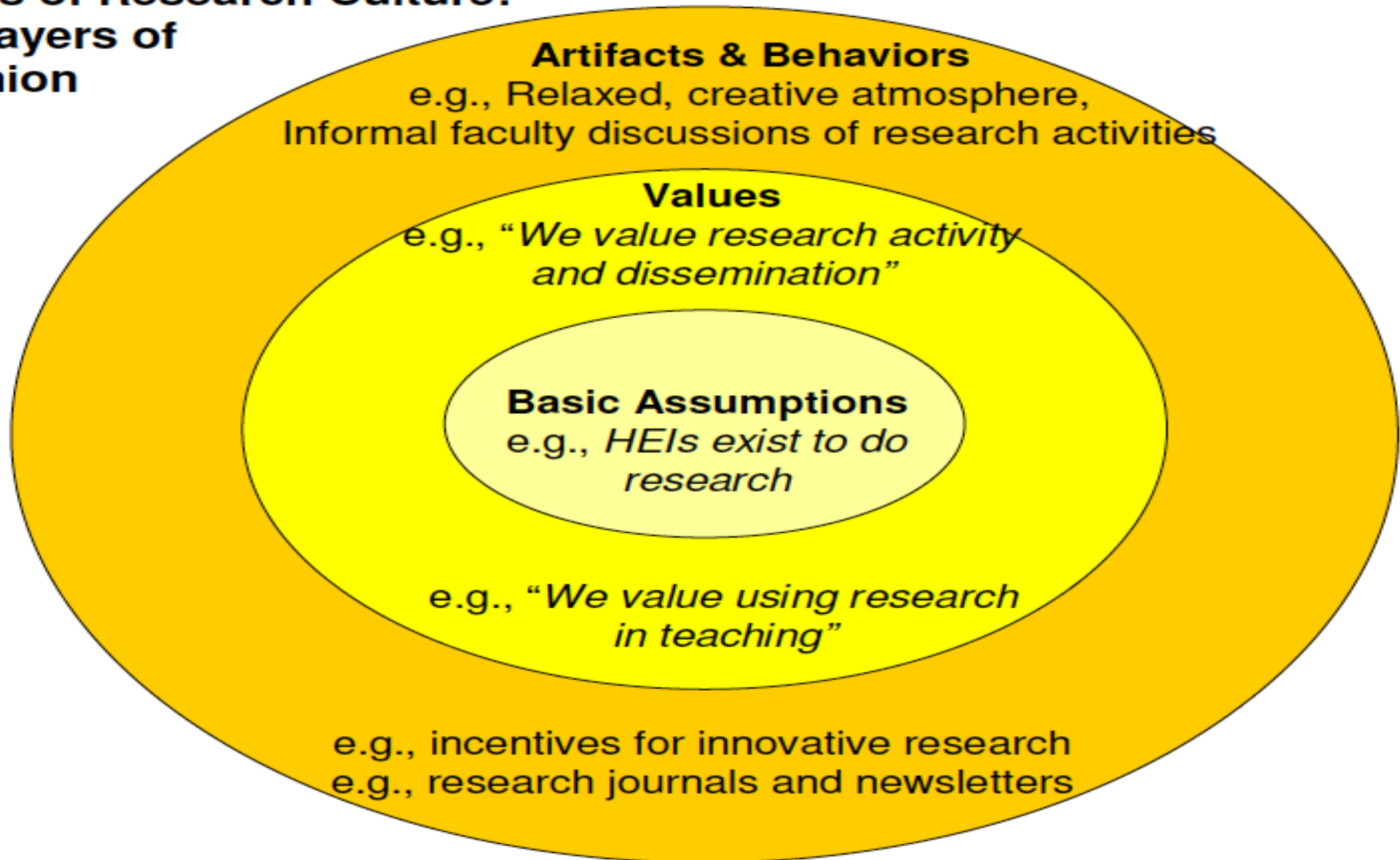
WHAT IS RESEARCH CULTURE?

- Research culture is that structure, process and interconnections based around the behaviour of the faculty, staff and students that allows us to transfer the knowledge gained to our students and to the community.



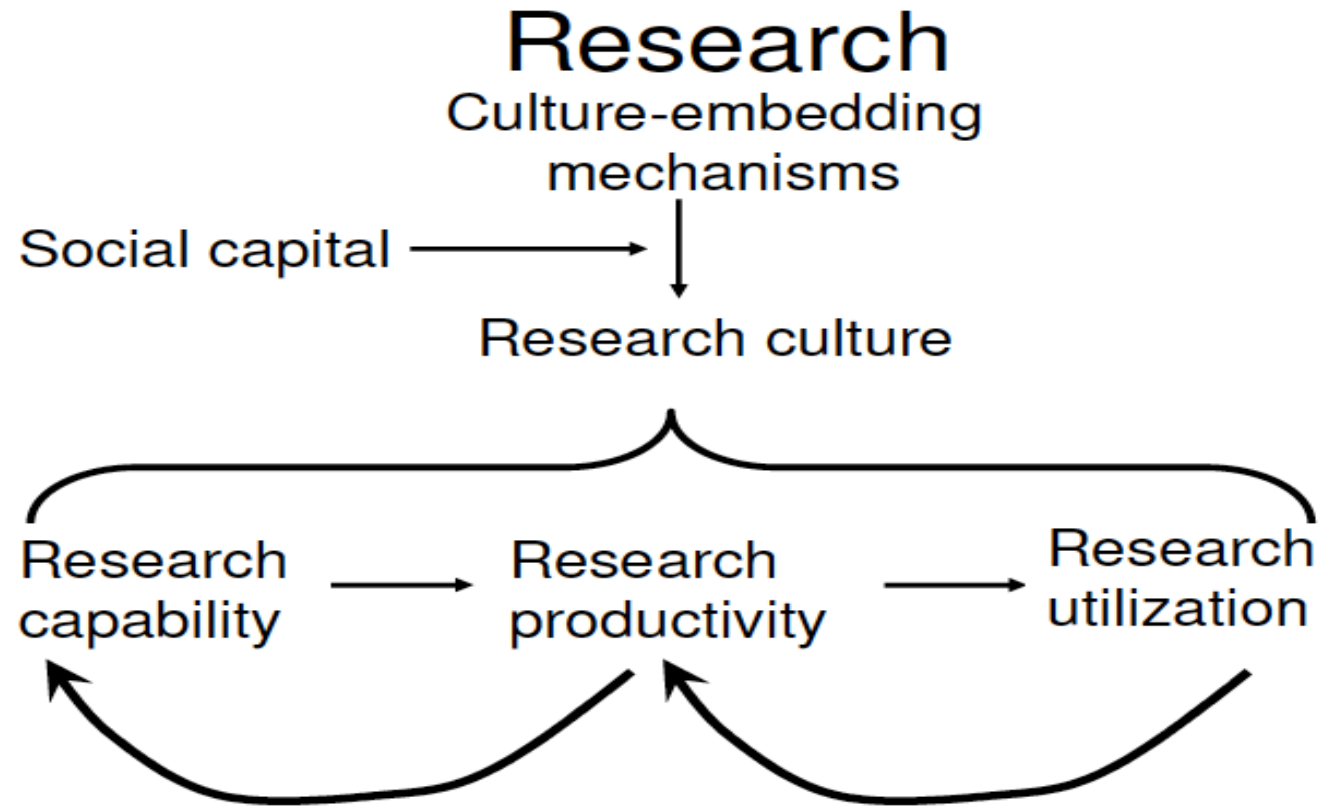
Layers of Research Culture:

Like layers of
an Onion



BUILDING RESEARCH CULTURE STRATEGIES

Possible System Dynamics of HEI



RESEARCH CULTURE EMBEDDING STRATEGIES

- Current rate of publication per university and publication per faculty and/or researcher?
- How leaders pay attention to criteria on allocating scarce resources, rewards and status and promotion
- Dealing with rapid changes in society and realities: more students, less resources, focused more on teaching, least priority research
- Preparing and writing good research proposals
- Proper implementation of approved research activities

REGION IX



**ZAMBOANGA
PENINSULA**



SUSTAINABLE PEACE AND DEVELOPMENT



**MULTI-SECTORAL, MULTI-DISCIPLINARY
MULTI-LEVEL INTEGRATED EFFORTS**

GOALS AND ASPIRATIONS IN REGION IX

To enhance the quality of life in
communities through:

- ❖ Gathering knowledge
- ❖ Building capacities and skills
- ❖ Fostering social change
- ❖ Clean and healthy environment



AMBISYON NATIN 2040: *A SIMPLE AND COMFORTABLE LIFE*

R4D INSTITUTIONS IN REGION XII

- Academic Institutions (SUC+ Private HEI)
- DOST, DA, DENR, DOH, CHED, DSWD, RDC, Other Agencies, Consortias
- Donor/Partner Agencies

CONSIDERATIONS IN DEVELOPING THE RRA

- Identifying the issues and problems, needs and applications from research results – e.g. local government planning and operations; livelihood and economic development; environmental protection; DRRM
- Assessment of capacity, strengths and weaknesses, opportunities, and threats
- Prioritization of researchable areas
- Inventory of on-going R & D programs, projects & activities
- Exploring funding sources and opportunities

DUTERTE ADMINISTRATION GOVERNANCE

Governance will revolve around the Filipino whom we will ask:

“Nakakain ka na ba?”

“Nakapagpagamot ka na ba?”

“Nakapag-aral na ba ng mga anak mo?”

“Wala ka na bang takot?”

PRIORITY AGENDA UNDER DU₃₀ ADMINISTRATION

- Stop illegal drugs
- Improve operations in bureaucracy
- Alleviate poverty
- Ecological stability and climate change
- Food security and nutrition
- Employment opportunities
- Peace and order

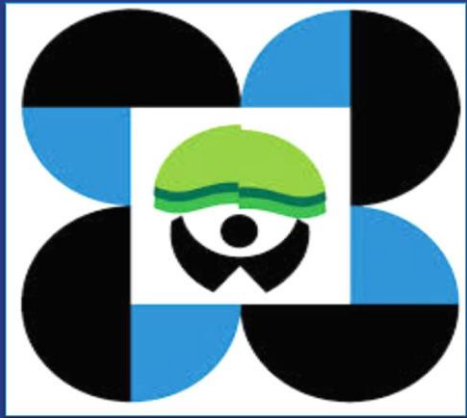
GOVERNMENT FUNDING AGENCIES

- Department of Science and Technology (**DOST**)- Grants-In-Aid (**DOST-GIA**); Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (**PCAARRD**); Philippine Council for Health Research and Development (**PCHRD**), Philippine Council for Industry, Energy and Emerging Technology Research and Development (**PCIEERD**)
- Commission on Higher Education (**CHED**)
- Department of Agriculture - Bureau of Agricultural Research (**DA-BAR**)
- DA High-Value Crops Development Program (**DA-HVCDP**)
- DA Philippine Agriculture and Fisheries Biotechnology Program (**DA-Biotech Program**)

SCIENCE & TECHNOLOGY-BASED DEVELOPMENT

- **Goal:** Promotion of inclusive growth and sustainable development
- **Strategies:**
 1. Science-based local development plans e.g. CLUP, LCCAP, DRRMP, MPA
 2. Technologies based or supported by S&T. E.g. climate-smart agriculture (planting calendar; nutrient mgt; AWD in water mgt; Weather-based insurance for CRM)
 3. S&T-based interventions/ action programs, e.g. Crop suitability assessment; CC adaptation based on vulnerability assessment; Network of MPAs

DOST R&D PRIORITY AGENDA



MANUFACTURING



ICT



ALTERNATIVE ENERGY



ENVIRONMENT



**DISASTER
MITIGATION AND
MANAGEMENT**



NANOTECHNOLOGY



ELECTRONICS



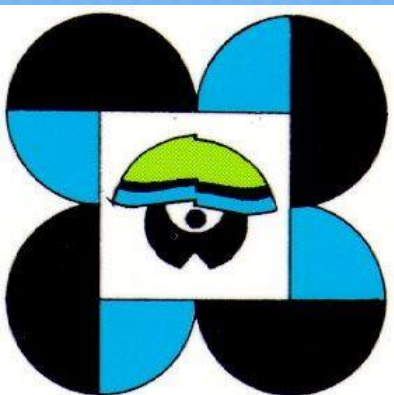
**HEALTH/MEDICAL
PRODUCTS**



BIOTECHNOLOGY



**FOOD AND
AGRICULTURE**



DOST-PCAARRD

Department of Science and Technology – Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development

<http://www.pcaarrd.dost.gov.ph/>

GOALS AND OBJECTIVES

The overall long-term goal of PCAARRD is to:

1. Attain Sustainable Food Production
2. Prime up the Countryside
3. Sustain Environmental Resilience
4. Advance agriculture, aquatic, and natural resources (AANR) interests via Policy Research and Advocacy
5. Enhance R&D Capability and Governance

GENERAL R4D AGENDA COVERAGE

- Varietal Improvement/Selection
- Production of Planting Materials
- Cultural/Nutrient Management
- Pest Management
- Postharvest handling
- Processing/Value-Adding

PRIORITY RESEARCH AREAS:

CROPS

- Abaca, Mango
- Banana, Rice,
- Coconut, Rubber,
- Coffee, Sweet Potato
- Peanut, Tropical Fruits
- Mungbean, Vegetables

INLAND AQUATIC

- Milkfish
- Native Catfish
- Shrimp/Tiger Prawn
- Tilapia
- Alimango
- Aquatic Feeds

PRIORITY RESEARCH AREAS:

LIVESTOCK

- Swine, Layer
- Duck, Goat
- Dairy, Feeds
- Broiler

MARINE RESOURCES

- Abalone
- **SARDINES**
- Tuna
- Sea cucumber
- Blue swimming crab
- Seaweeds

FORESTRY

- Bamboo
- Inland environment
- Industrial tree plantations

PCAARD PRIORITIES FOR CLIMATE SMART AGRICULTURE

- CSA: crop forecasting, automated weather stations (AWS) and sensors, etc.
- Rice, Corn, Banana
- Coffee
- Cacao
- Coconuts



PHILIPPINE COUNCIL FOR HEALTH RESEARCH AND DEVELOPMENT



<http://www.pchrd.dost.gov.ph/index.php/programs-and-services/research-grant>

The **PCHRD** funds researches on **health product and technology development** as well as generation of *new knowledge* that address the *health needs and problems of the country*.

Research priority topics:

1. Drug discovery and development (*Tuklas-Lunas*)
2. Diagnostics
3. Genomics / Molecular technology
4. Functional foods
5. Hospital equipment and biomedical devices
6. ICT in Health
7. Chronobiology (biological clocks)
8. HIV prevalence (Region IX)



CHED

Commission on Higher Education

<http://www.ched.gov.ph>

National Higher Education Research Agenda - 2

NHERA 2 2009-2018

CHED-RDE PLATFORMS

- Food Production and Security
- Environment, Disaster Prevention, Climate Change and Energy
- Terrestrial and Marine Economy: Biodiversity and Conservation
- Smart Analytics and Engineering Innovations
- Health Systems
- Education



DA-BAR

Department of Agriculture – Bureau of Agricultural Research

<http://www.bar.gov.ph/>

<http://www.bar.gov.ph/programs/r-and-d-grant-system>

DA-BAR: RDE AGENDA COVERAGE

- Grains (*rice, corn, adlai*)
- Rootcrops (*potato, sweet potato, white potato, yam, cassava*)
- Plantation crops (*coffee, cacao, rubber, coconut, sugarcane, abaca, black pepper*)
- Fruits (*mango, banana, Pineapple (Queen)*)
- Vegetables (*chopsuey, pinakbet, export commodity, indigenous*)

RDE AGENDA COVERAGE

- Biofuels
- Climate change related studies
- SOILS (new)
- *Researchable areas cover the whole value chain*
- *If the proposal is within the priorities of the DA Biotech Program, biotechnology research and development proposals are forwarded to the **DA BIOTECH PROGRAM**.*

INDIGENOUS PLANTS

- Health and wellness
- Functional foods
- Phytochemicals
- Nutraceuticals
- Cosmeceuticals
- Herbs
- Spices

DA-BAR: LIVESTOCK AND POULTRY

- Duck and native chicken
- Native pigs and commercial breeds, dairy
- Large and small ruminants
 - Carabao/buffalo

DA-BAR: FISHERIES

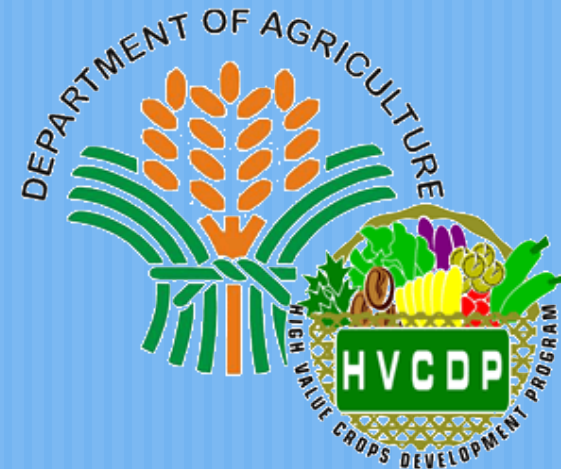
- Seaweeds
- Milkfish
- Shrimp
- Mudcrab
- Rabbitfish
- Oyster
- Sea cucumber
- Tilapia
- Grouper
- **TUNA**
- *Pangasius*
- Abalone

DA-HVCDP

Department of Agriculture – High-Value Crops Division Program



<http://hvcdp.da.gov.ph/regional%2ocommodities.htm>



PROPOSAL SUBMISSION



All research proposals aligned with the R&D agenda of the DA-HVCDP will be coursed through and shall follow guidelines of DA-BAR.

PRIORITY COMMODITIES (*until 2016*)

- Industrial crops: *rubber, coffee, cacao*
- Vegetables: *lowland, upland, herbs and spices, indigenous, import substitution commodities (soybean, white potato, black pepper, peanut, mungbean)*
- Alternate staple food crops: *saba-banana, rootcrops (sweet potato and yam), adlai*
- Fruits:
 - *Exported: mango, banana, pineapple (Queen)*
 - *Local/Regional Champions*
 - *Indigenous/Underutilized*



DA BIOTECH PROGRAM

<http://www.dabiotechnet.net>



Created to help orchestrate an enabling environment for judicious utilization of biotech as one of the options to enhance agricultural productivity and competitiveness.

DA BIOTECH PROGRAM COMPONENTS:

1. Biotech Research and Development (BRD)
2. Policy Research and Advocacy (PRA)
3. Institutional Capacity Enhancement (ICE)
4. Information, Education and Communication (IEC)

BRD PRIORITY RESEARCH THEMES

- Genetic resource conservation and utilization
- Genetic improvement and mass production
 - Improved product quality/marketability
 - Enhanced productivity and availability
 - Enhanced nutritional value
 - Climate change adaptation and mitigation

PRIORITY CROPS (*until 2022*)

- Abaca
- Rice
- Banana
- Coconut
- White and yellow corn
- Cotton
- Cassava
- Sweet potato
- Yam
- Tomato
- Eggplant

FISHERIES *(until 2022)*

- Milkfish
- Tilapia
- Siganids
- Groupers
- Pompano
- Snappers
- Sea bass
- Eels
- Marine fish
- **TUNA**
- Sardines
- Freshwater prawn
- Mudcrab
- Blue crab
- Abalone
- Scallops
- Clam
- Shrimp
- Oyster
- Sea cucumbers
- Indigenous species
- High-value species

2. PRA PRIORITY RESEARCH THEMES

- Environmental impact of GM corn in the Philippines
- Development of product standards for priority natural ingredients
- Setting up the regulatory system for GM animals
- Conduct of market and feasibility studies on GM products in the pipeline and other biotech products and processes
- Integrating Biotechnology into basic education

RESEARCH FELLOWSHIP PROGRAM (SINCE 2007)



- aims to complement the expansion in commodity assignments of DA Agri-biotech Center
- allows well-trained scientists and researchers, local or foreign, to conduct research in areas identified as urgent or necessary by the DA Biotech Program

PROPOSAL SUBMISSION PROCESS

First, create a user account at www.dabiotechnet.net for uploading capsule proposals through the ESMES (*Electronic Submission, Monitoring, and Evaluation System*).

The screenshot displays the homepage of the D.A. Biotech Program website. The header features the Department of Agriculture logo and the text "D.A. BIOTECH PROGRAM" and "PHILIPPINE AGRICULTURE & FISHERIES BIOTECHNOLOGY PROGRAM". A navigation menu on the left includes links for Home, About Us, Agency Portals, News, Events/Announcements, Publications/Reports, Contact Information, Webmail, and Project Search. The main content area includes "The MISSION" statement, a "Project Control - User Login" section with fields for Username and Password, and a list of "ESMES Downloadable Forms" such as Capsule Proposal Format, Full Proposal Format, and various progress and terminal report forms. A sidebar on the right contains social media links, a "BIOTECH FORUM" section, and a "PUBLICATIONS" section featuring a "BIOLIFE" magazine cover and a "DA Biotechnology Research Fellowship" advertisement. The date "Today is Thursday, April 09, 2015" is displayed in the top right corner.

DEPARTMENT OF AGRICULTURE
1898

www.dabiotechnet.net

D.A. BIOTECH PROGRAM
PHILIPPINE AGRICULTURE & FISHERIES
BIOTECHNOLOGY PROGRAM

Today is Thursday, April 09, 2015

HOME
ABOUT US
AGENCY PORTALS
NEWS
EVENTS/ANNOUNCEMENTS
PUBLICATIONS/REPORTS
CONTACT INFORMATION
Webmail
PROJECT SEARCH

The MISSION
"Modernize the Philippine agriculture through the optimal use of biotechnology. The Program aims to utilize the tools of biotechnology as an alternative means to improving the productivity of local agriculture towards food security and sustainable development."

Welcome to DA Biotech Program
Electronic Submission, Monitoring and Evaluation System (ESMES)

Project Control - User Login
Username:
Password:
[<< Register User Account >>](#)

ESMES Downloadable Forms
[Capsule Proposal Format](#)
[Full Proposal Format](#)
[Steps for creation of users account](#)
[Steps for online submission, evaluation and approval of proposal](#)
[Steps for online submission of project reports](#)
[ESMES Form 5 Semestral Progress Report Form](#)
[ESMES FORM 6 Project Progress Report](#)
[ESMES Form 8 Annual Report Form](#)
[ESMES Form 9 Terminal Report Form](#)

BIOTECH FORUM
PUBLICATIONS
BIOLIFE
Gov't agriculturalists at the helm of GMO farming
The Department of Agriculture has made a significant step in the development of the country's agricultural sector.
More Publications

DA Biotechnology Research Fellowship



National Economic and Development Authority

1. Agriculture, Fishery and Forestry Sector Development
2. Tourism Infrastructure and Enterprise
3. Growth with Social Equity
4. Improving the Network of the Intermodal Transport System
5. Develop disaster-resilient communities
6. Power
7. Mining

REALITIES

- Forms/Templates and Paper Trail
- REPORTS: Quarter, Annual, Terminal
- COMPLETED PROJECT
 - Technical Report
 - Financial Report
- Bidding and other administrative work
- Absorptive Capacity
- COA Rules
- DBM Requirements

OTHER IMPORTANT CONSIDERATIONS

- Your overall reputation as a researcher and PI
- Compliance with requirements of the funding agency
 - Timely submission of reports
 - Acknowledgment of support
 - Active participation in project review, monitoring and validation
- Delivery of results (timely, complete, high quality)
- Close coordination with the funding agency regarding adjustments and revisions

CONCLUSIONS

- There are priority research needs for development in Region XII especially the LGUs.
- There are technical expertise and research capacity in the region.
- There is funding opportunities that may be tapped to conduct and address location-specific research problems.
- There are a number of on-going R4D activities, and new initiatives in the region in which collaboration and linkages may be established with SUCs, LGUs, GAs, NGOs, and POs.

THANK YOU FOR LISTENING!