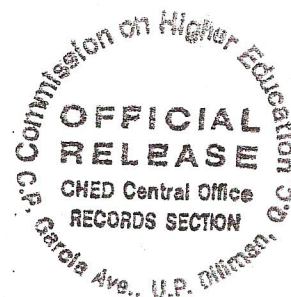




Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION



CHED MEMORANDUM ORDER

No. 03
Series of 2015

**SUBJECT : POLICY REFORMS FOR THE GRANTS-IN-AID FUNDS OF
THE COMMISSION ON HIGHER EDUCATION (CHED) FOR
RESEARCH AND DEVELOPMENT, AND EXTENSION**

1. RATIONALE

Pursuant to Republic Act 7722, "An Act Creating the Commission on Higher Education," which states that "...the knowledge society or knowledge economy characterizes the university not just a generator of knowledge, an educator of young minds and a transmitter of culture but also as a major agent of economic growth, a Research and Development laboratory and a mechanism through which the nation builds its human capital to enable it to actively participate in the global economy" it is, therefore, imperative to encourage Philippine higher education institutions become platforms for innovation and drivers of competitiveness and economic growth.

However, Philippine higher education institutions face critical and urgent challenges in major fronts of the research and development, and extension (RDE) enterprise¹. Essential issues need to be addressed such as a) improving capabilities of faculty as well as physical resources and infrastructure to carry out research, b) increasing research productivity, and upgrading quality and impact, c) stepping up linkages with community, business and industry stakeholders in order to further sharpen knowledge production, dissemination, extension and utilization, including product development and commercialization, c) using products of research as inputs to policy initiatives and reforms, and d) building up a steady pipeline of young talented researchers who can carry on the task of unleashing innovations that can create new businesses, new ways of solving economic and social issues, generate employment opportunities, and in so doing, alleviate poverty and guarantee the prosperity of the nation in the long term. Given these challenges, Philippine higher education institutions (HEIs) must be supported in their pursuit of higher education goals of knowledge production and generation; in the transmission, dissemination and extension of innovations; in their

¹ In The Global Innovation Index 2014: The Human Factor in Innovation, the Philippines ranks 100 out of 143 countries, compared to Singapore (7), Malaysia (33), Thailand (48), Vietnam (71), Bhutan (86), Indonesia (87), Brunei Darussalam (88), and Cambodia (106).

The National Higher Education Research Agenda II, formulated in 2008, articulates CHED's commitment to improving RDE capabilities, enhancing RDE productivity, generating innovations, and promoting and utilizing RDE outputs and innovations. This CMO is intended to provide strategic focus, purposive direction and blueprint towards actualizing the outcomes of NHERA. A deeper purpose is to contribute to the development of a strong research culture and an innovation ecosystem that enables researchers and scientists in HEIs to explore new frontiers that may lead to new technological innovations and better ways to solve economic and social issues in partnership with a wide range of stakeholders.

II. CHED'S GRANTS-IN-AID PROGRAM FOR RESEARCH AND DEVELOPMENT, AND EXTENSION

The Commission on Higher Education (CHED) sees the Grants-in-Aid (GIA) programs as strategic investments in the country's research and development in pursuit of national development and inclusive growth. In catalyzing RDE in higher education, CHED's Grants-in-Aid program for RDE will be guided by the following principles:

1. RDE Grants-in-Aid must cast a wide and inclusive net.
 - 1.1 They should engender research collaborations among researchers, scientists, or investigators from small and big, old and new, and private and public HEIs;
 - 1.2 They should support multidisciplinary research;
 - 1.3 They must be gender-sensitive and ensure gender balance; and
 - 1.4 They should provide opportunities for young researchers.
2. RDE Grants-in-Aid are staging grounds for a new generation of Filipino researchers.
 - 2.1 They should engage and provide a conducive and supportive environment for Research Assistants or Research Associates who are at their pre-dissertation, all-but-dissertation, dissertation writing, or post-doctoral stages;
 - 2.2 Doctoral students, Ph.D. candidates or post-doctoral fellows who are officially engaged as researchers in a project shall be endorsed and given priority in twinning programs and research collaborations with foreign universities facilitated by CHED;
3. RDE Grants-in-Aid are competitive grants.
 - 3.1 Applications for Grants-in-Aid are generally judged on the scientific and technical merit and innovative aspects of the proposal, on past performance and evidence of the proponent/applicant's continued productivity, or the proponent/applicant's capability to produce the expected deliverables.



3.2 Grants are awarded following a process that starts with a call for proposals. Each call for proposals will include a) specific terms of reference, b) expected deliverables, and c) predetermined measures of performance.

3.2.1 RDE proposals are reviewed and assessed for merit based on the following metrics:

- a) Proposal construction (solid theory, analytical and concise review of related research work and literature, discussion of the contribution of the proposed project to existing body of knowledge, robust methodology that is locally, culturally and gender-sensitive and how this will accomplish the target goals, compliance with the ethical standards of research, comprehensive data analysis plan, research dissemination, diffusion and utilization action plan);
- b) Goodness-of-fit between proposal and terms of reference specified in the call for proposals;
- c) Technical qualifications of the investigators and their capacity to carry out the project through completion;
- d) Proof of counterpart funding, support, or contributions in-kind from participating HEIs (*Note: academic deloading for principal investigators and similar arrangements from host HEIs can be considered counterpart support*).
- e) Monitoring and evaluation plan, with timetable;
- f) Dissemination and utilization plan for RDE outputs, with timetable;
- g) An outcomes-based action plan and timetable to:
 - 1) build a new corps of researchers who can develop expertise in the research area (i.e., post-doctoral researchers, doctoral candidates, or doctoral students whose dissertation research and research interests are aligned with the RDE program proposal),
 - 2) produce a specified number of high quality, high impact, peer-reviewed publications in ISI/SCOPUS journals,
 - 3) produce a specified and realistic number of trainees and



adopters of innovation through time (units may be individuals, families, communities, or businesses).

4. Proposals are reviewed by a multidisciplinary panel of experts to be identified and designated by the Commission on Higher Education.

- 4.1 Other possible strategies can be viewed as meritorious and will be encouraged in as far as they meet research goals and the terms of reference such as:

- 4.1.1 Formation of a consortium of investigators from several HEIs;

- 4.1.2 Partnership of investigators from public and private HEIs;

- 4.1.3 Partnership of investigators from big and small HEIs; and

- 4.1.4 Good working balance between male and female investigators.

- 4.1.5 In the spirit of fair competition, non-consortium led RDE proposals (i.e., single proponent/principal investigator from one HEI) will be considered if they are equally meritorious and strategic to the attainment of the outcomes.

- 4.2 Grants-in-Aid may be awarded for a maximum of two years, and do not exceed Php 10,000,000.00.

- 4.3 Grants, once awarded, will be coursed through the university, normally that of the principal investigator's or the co-principal investigator's. It is assumed that the attendant costs of administration by the host university are included in the project proposal.

- 4.3.1 At the call for proposals, CHED will conduct an orientation on grant administration, government procurement, accounting and auditing rules, and other pertinent regulations that need to be considered by investigators in crafting their proposals

5. RDE Grants-in-Aid should enable HEIs to establish a niche. RDEs will be supported in any of the following six multidisciplinary and trans-disciplinary research platforms. Some calls for proposals may require RDE that cuts across these platforms.

5.1 *Food Production and Security*

This research platform serves the desired national development goal of increased agricultural productivity as well as the availability and accessibility of safe and nutritious food that meet people's dietary needs. Under this platform, CHED will schedule a call for proposals that may focus on:



- 5.1.1 Improved understanding of “food ecology” by examining farming production and systems that look at factors such as land, labor, capital, culture, customs, gender roles, material resources and other biophysical, socioeconomic, and political variables that impact on the total amount of crop and livestock outputs;
- 5.1.2 Technological innovations such as small-scale irrigation projects and hydrologic mapping, heat and weather sensors, etc. to help cushion farmers from weather extremes and dwindling crop yields brought about by climate change;
- 5.1.3 Technological innovations focused on reducing production losses as well as post-harvest technological innovations that can ensure the quality, freshness and marketability of agricultural products;
- 5.1.4 Crop selection mechanisms that can help identify sources of resistance/resilience to abiotic stresses including heat, cold and drought; and
- 5.1.5 Genetic enhancements that can help crops cope in variable growing conditions.

5.2 *Environment, Disaster Prevention, Climate Change and Energy*

This research platform is aimed at improving knowledge and understanding of the global environment and climate change, generating systems and public consciousness to conserve local environments, and developing locally appropriate technologies, systems and tools and procedures in preparation for natural disasters. Under this platform, CHED will schedule a call for proposals that may focus on:

- 5.2.1 New energy technology and energy-saving technology;
- 5.2.2 Prevention, monitoring and risk assessment of water, air and soil pollution;
- 5.2.3 Sustainable utilization of bioresources;
- 5.2.4 Disaster prevention and mitigation measures;
- 5.2.5 Environmental health management; and
- 5.2.6 Planning, design and evaluation of energy systems from energy production to energy utilization, and safety countermeasures for environmental protection.

5.3 *Terrestrial and Marine Economy: Biodiversity and Conservation*

This research platform is aimed at generating sustainable development strategies for activities based on the use of land and ocean resources. Under this platform, CHED will schedule a call for proposals that may focus on:



- 5.3.1 Improved trans-disciplinary understanding and perspective of the Philippine marine environment and the interactions within this environment (marine life and genetic resources, wind farms, coastal tourism and recreation, marine security, marine transport, etc.) and how this knowledge can contribute to integrated policies and plans/schemes to conserve the environmental richness of Philippine coastal communities.
- 5.3.2 Innovations that help communities manage and restore ecosystems vis-à-vis climatic fluctuations and other stressors.
- 5.3.3 Economic value of terrestrial and marine biodiversity and what this means for designing and planning effective and socially acceptable conservation strategies and interventions.
- 5.3.4 Nutritional and health impact of biodiversity.

5.4 *Smart Analytics and Engineering Innovations*

This research platform is aimed at fostering and enabling research that can help data users such as small to medium business enterprises, industry, local governments, legislators, policy makers, teachers, students, individuals and families, and other stakeholders harness the potential of data, in varying levels of complexity, in order to make informed decisions. Innovations such as smart predictive informatics tools are needed to help make sense of ever increasing configurations of data, and thereby aid in day-to-day productivity as well as support macro goals of economic competitiveness. Under this platform, CHED will schedule a call for proposals that may focus on:

- 5.4.1 Development of prototype smart farms via an integrated use of data analytics, weather, heat, and water sensors, information communication and phone apps;
- 5.4.2 Application of data analytics in the development of urban systems;
- 5.4.3 Utilization of data analytics by healthcare providers for disease surveillance;
- 5.4.4 Development and testing of technopreneurship programs in formal and non-formal education settings.



5.5 Health Systems

This research platform is aimed at improving evidence-based knowledge and understanding on how to optimize health service delivery using a systems approach. It is concerned on how social factors, governance, workforce, financing systems, products and technologies, organizational structures and processes, personal behaviors, and information-seeking actions affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Hence, the end view is to identify the most effective ways to organize, manage, finance, and deliver high quality care; reduce medical errors; and improve patient safety. Under this platform, CHED will schedule a call for proposals that may focus on:

- 5.5.1 Strategies for training, managing and supporting health care workers;
- 5.5.2 Decentralization of care from hospitals out to more rural facilities, and from clinical to non-clinical staff;
- 5.5.3 Strategies for enabling better integration of services, such as for maternal, neonatal, child health and nutrition, detection and prevention of tuberculosis, HIV, malaria, and other infectious diseases as well as for other chronic conditions such as hypertension and diabetes;
- 5.5.4 Improving doctor-patient communication;
- 5.5.5 Communicating risk to the public.

5.6 Education

This research platform is aimed at generating innovations in undergraduate education in Science, Technology, Engineering, Agriculture-Fisheries, and Mathematics (STEAM). Under this platform, CHED will schedule a call for proposals that may focus on:

- 5.6.1 Case studies and other innovations in STEAM education;
 - 5.6.2 Assessment of impact on student learnings in STEAM programs;
 - 5.6.3 Lifelong learning on STEAM: Improved understanding of how, why and when individuals learn STEAM across their lifespan in multiple settings and contexts
 - 5.6.4 Women and STEAM
- 5.7 Calls for research proposals in the aforementioned research platforms may be along the following types of investigation or scholarship (Boyer, E. L. Scholarship reconsidered: Priorities of the professoriate. Princeton, N.J: Carnegie Foundation for the Advancement of Teaching, 1990):



- 5.7.1 The scholarship of discovery: includes original research that advances knowledge;
 - 5.7.2 The scholarship of integration: involves synthesis of information across disciplines, across topics within a discipline, or across time;
 - 5.7.3 The scholarship of application (also later called the scholarship of engagement); and
 - 5.7.4 The scholarship of teaching and learning: involves the systematic study of teaching and learning processes; requires a format that will allow public sharing and the opportunity for application and evaluation by others
6. A prerequisite to HEIs' participation in CHED's RDE Grants-in-Aid program is the recognition of their university research boards that govern matters on research integrity and code of ethics, deterrents to scientific fraud and theft, and intellectual property rights systems.
- 6.1 It will be required of all participating investigators/HEIs to show proof of their fully functioning university research boards.
 - 6.2 Proposals submitted must have the endorsement of their respective university research boards.
7. Ancillary research support

In order to spur productivity and efficiency, CHED shall endeavour to provide the following research management support activities to HEIs:

- 7.1 Workshops on writing grant proposals
- 7.2 Workshops on project management, monitoring and evaluation
- 7.3 Seminar on Research Ethics and Intellectual Property Rights
- 7.4 Workshops on writing for publications
- 7.5 Provision of editor-writers for writing and editing of scientific articles for international publications
- 7.6 Registry of HEI scientists and experts
- 7.7 Cash incentives for authors for each ISI/SCOPUS-indexed article or book, or awarded patents that are derived from CHED-GIA projects in the amount of Php 50,000.00 per article, book or awarded patent (*Note: this does not disqualify recipients to be considered for the REPUBLICA Awards*).




7.8 National conference on Enhancing the RDE System.

All previous issuance inconsistent with this revised CMO are deemed repealed, revoked, and or rescinded accordingly.

This CMO shall take effect immediately.

For wide dissemination and strict compliance of all concerned.

Issued this 27 day of February 2015, Quezon City.



PATRICIA B. LICUANAN, Ph.D.

Chairperson

