

An Overview of Research Orientation in Pattimura University

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Abstract

Along with Tri-Linkage of Higher Education, the role of Pattimura University is to prepare human resources that have the capability and readiness in accordance with the demands of development and to develop institutional partnerships, integrated research, and community services. The role of Research Institute of Pattimura University is to develop the culture of research in the University and to encourage the utilization of the results to support the mission of higher education and national development in a sustainable manner. Therefore, the research activities aim to result not only in the form of research reports, but also in the form of national and international scientific publications, educational materials, patents, and intellectual property right. The key challenge is the research results which bring significant benefits to the community and have to be able to answer the needs of government and private/industrial sectors. Future research orientations of Pattimura University's Research Institution are as follows: (1) marine science, (2) natural-based medicine, (3) small island community health and medicine, (4) climate change adaptation for small islands, (5) local wisdom and small island resource management, and (6) biodiversity and conservation in small islands.

Keywords: research program, vision and missions of Research Institute

Introduction

As the main state university in Maluku, Pattimura University is regarded as a regional role model for education, institutional partnerships, integrated research programs, and the center for training and extension programs. In the regional level, Pattimura University works closely with the local government and private sectors (industry) to improve performance of the university in regional research excellence and community services. In the national and international levels, Pattimura University places emphasis on increasing collaborations and partnerships with other universities and organizations in developing integrated research and strengthening researchers as well as the institution.

Research Institution of Pattimura University was established along with the establishment of Pattimura University by Science and Higher Education Ministry decree No. 99 Year 1962 and was legalized by Presidential Decree No. 66 Year 1963. The role of Research Institution of Pattimura University is to organize and manage research activities in the university and to ensure that all research results are of high quality and meet the needs of stakeholders (such as a community, government, industry, etc.), and not only in the form of research reports, but also in the form of national and international scientific publications, educational materials, patents, and intellectual property rights (RESEARCH INSTITUTE 2011, RESEARCH INSTITUTE 2013a, 2013b).

Vision and Missions of Research Institute

The vision of Pattimura University's Research Institution is "becoming an independent and innovative research institution and professionally in conducting research both at regional and at national-international levels" (RESEARCH INSTITUTE 2011). Our missions are the following.

1. Increasing capacity and quality of research institutions and researchers in research activities including national and international scientific publications, educational materials, patents, and intellectual property rights
2. Improving the quality and quantity of research that are relevant to a research roadmap of faculties and research excellence of the university
3. Improving the quality of research in applied science and technology, art, and culture
4. Providing science and technology based-research products that are benefit to community and are answering the needs of the local government and private sectors

Research Programs

In carrying out research activities, Research Institution is funded by Directorate General of Higher Education (DIKTI) Ministry of Education, Ministry of Research and Technology, University, and by cooperation research programs with the local government, a ministry level in Jakarta, and private sectors (local, national, and international).

Research activities funded by DIKTI include the university excellence research grant, the competitive research grant, the basic research grant, the post-graduate research grant, the higher education cooperation research grant, the higher education and industry research grant, the national strategic excellence research grant, and the research grant for the Master Plan of

acceleration and expansion of Indonesian's economic development. Research funding from the Ministry of Science and Technology supported to Pattimura University has been distributed to support young researchers.

In the last three years (2012-2014), numerous researchers in Pattimura University have received research grants from MP3EI (Master Plan of Acceleration and Expansion of Indonesian Economic Development) national program (GIRSANG and OSOK 2013). With these grants, various research activities have been undertaken, which includes agriculture (cultivation and post harvest technology of tuber/root crops and sago), fisheries and marine science (cultivation and processing technology of fish, crabs, and sea weeds, conservation of mangroves), management of natural resources, and community empowerment.

Research programs in Pattimura University are directed to (1) developing science and technology based on characteristics of existing natural resources in small island, (2) improving partnerships and networks with the local government and industries (ABG = academic, business, government), and (3) creating a network of inter-university cooperation at the national and international levels.

Research Excellence Development

In the line with "core science" of the university, namely "*bina mulia kelautan*" (marine-oriented perfection), and the existing human resources, the university has placed a number of research excellence as follows.

1. Studies of marine science

- Develop a database of marine's natural source and environment
- Identification of marine biodiversity
- Studies on marine biotechnology
- Studies on onshore and deep sea
- Development of marine eco-tourism

2. Studies of natural-based medicine (traditional medicine development) and small island medicine

- Identification and determination of medicinal plants
- Identification and elucidation of active chemical constituents of medicinal plants
- The techniques of isolation and purification of active compounds
- Production and synthesis bioactive compounds (essential oils: clove oil, nutmeg oil, honey)
- Small island health services and medicine

3. Food security and safety

- Identification and determination of potential of local food (sago)
- Studies of local food-based products with added health benefit (functional foods)
- Studies of improving local food quality
- Studies of improving local food processing to improve the level of beneficial compound

4. Studies of local wisdom in small islands

- Identification of roles of local wisdom in conservation and protection of natural resource in small island

5. Studies adaptation of climate change in small islands

- Studies of risk, vulnerability, and adaptation of climate change in small island
- Studies of disaster risk reduction

6. Studies of biodiversity and conservation in small islands

- Studies of biodiversity of island and marine flora and fauna and the conservation in Maluku

References

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