



Construction of the Role of Science and Technology Center of Excellence Through Dissemination as One of the MBKM Practice Instruments and IKU Achievement at Jambi University

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Abstract. The Center of Excellence (CoE) has a variety of objectives to promote certain fields of science and technology at various levels of development. In relation to the construction of the role of the center of excellence of science and technology through dissemination is one way to support the achievement of the main performance certificate for Jambi University. The objectives of this activity are (1) preparation of Policies, Briefs, technical reviews, and training modules (2) dissemination of research results through policy briefs and technical reviews and (3) initiation of consultation corners. The results of this activity are (1) the implementation of a policy brief preparation workshop, technical review and training module by producing a policy brief and technical review of 3 outputs and a training module of 2 outputs, (2) carrying out dissemination of policy briefs and technical reviews in Kerinci and Merangin Regencies., (3) initiating by establishing a consultation corner as a place of learning both internal and external parties.

Keywords: BLasTS Science and Technology Center of Excellence · Dissemination

1 Introduction

1.1 Background

The Center of Excellence (COE) has a wide range of objectives, mostly in promoting specific areas of science and technology, at different levels of development. The COE also usually has some [1] meta-aims' related to the capacity to enter into and to explore emerging areas of science, and create cooperation among scholars, also as a means of professionalizing academic governance, as well as to promote organizational capacity in the governance of science. For this reason, interdisciplinary cooperation is

often a requirement, and a standard indicator in the evaluation of such centers. One form of implementation is through cooperation between disciplines that new discoveries are likely to occur, and even that capacity for cooperation tends to stimulate the learning environment, within and across departments/Faculties and in universities generally. CoEs are usually found in universities, and represent organizational innovation. COEs combining specialized expertise to solve scientific and applied problems usually involve a variety of [2], experts, with a variety of disciplinary identities. In addition, the COE can also facilitate problem solving and knowledge integration among a diversity of researchers.

The CoE relates to a dedicated team of experts or the environment of an organization or entity established to conduct good research, education, and training, providing leadership services and best practice models. CoEs can also be considered as tools that build specific expertise for innovation and the coE service development path can be described in several different ways, for example, described as a network, interaction forum, site for relevance struggle, or as an arrangement and contributing to change or stability in the arrangement of a larger organization such as a university [1, 3–5]. The COE creates a network of universities, industry and government in the triple helix network found in various higher organizations. In other words, an analysis of how this science and technology center of excellence contributes to mission diversity within the university environment should also draw on previous studies of networks and relationships between stakeholders and universities [6]. CoE can then also be a means of diversity to achieve the mission of the university, by providing an organizational space (or safe haven) for mission-oriented research and science development activities defined by the PUI itself or in dialogue with industry partners. This condition requires broader research into the new skills or knowledge required to deal with a variety of complex problems that [7].

The CoE not only reflects needs but recognizes that the rhetoric of knowledge products can shift over time. This shift is also associated with various interplays of the concept of science. Merton, in his review of the ethos of science, describes science with 4 categories that range from the practice of science, including the scientific method, cultural values and norms of higher education institutions. Education in universities in Indonesia itself has shifted in line with changes in governance. The management of the Higher Education Association has been returned to the Ministry of Education and Culture. Based on the new policy direction of the Ministry, Higher Education is encouraged to implement the concept of Independent Learning – Independent Campus (MB-KM) education. The MB-KM program has 4 major policies, one of which is the ease of universities becoming legal entities, and the right to study three semesters outside the study program. In addition, there is also a decree on the Education and Culture of Republic Indonesia number 754 / P / 2020 concerning the Main Performance Indicators of State Universities which have 8 IKUs.

Jambi University has implemented MBKM in various regulations including the CoE as a center of excellence for science and technology at Jambi University as one of the forums that supports the achievement of MBKM and IKU that have been determined. The Center of Excellence for Science and Technology of Higher Education Land Use Change System (PUI PT BLasTS) was established with the main mandate of formulating a middle ground and reconciliation to improve the ecological function of an ecosystem

and increase production from land resource management and contribute to the social function of the community. PUI PT BLasTS itself has a good development map from 3 fields, namely institutional, collaborative research and dissemination. In the field of dissemination, PUIPT BLasTS not only focuses on scientific publications in reputable national and international journals but also develops various dissemination activities that support development programs at the University of Jambi. The construction of the Role of Science and Technology Leading through Dissemination as one of the instruments of MBKM Practice and IKU Achievement at Jambi University is an important part in the development of CoE at Jambi University, which in general aims to support the practice of Independent Learning Independent Campus and the achievement of IKU Jambi University. In addition, in the implementation of its practice, the special purpose of PUI PT BLasTS is to produce and disseminate the results of research hammering policy briefs, technical reviews and training modules. In the series of activities, a consultation corner was also initiated as a forum to obtain information and learning about land use change systems for both socioeconomic and ecological life.

1.1.1 Dissemination and Dissemination Process Strategies

Headings may be numbered or unnumbered (“1 Introduction” and “1.2 Numbered level 2 head”), with no ending punctuation. As demonstrated in this document, the initial paragraph after a heading is not indented.

1.1.2 Definition and Function of Policy Brief

Policy Brief is a summary of the analysis of a policy aimed at the level of determining the most important policy and aims to identify specific issues, as well as make policy choices, new evidence, and new recommendations for the policies to be designed (Heryana et al., 2020). Some of the characteristics of a policy brief are (1) used to submit suggestions for policy recommendations based on the results of policy research, although they can be made as needed without waiting for policy research, (2) contain brief exposure in more general or non-technical language but must be based on evidence-based information and addressed to relevant institutions/organizations, (3) serve as a bridge between researchers or policy analysis with the taker policies that seek to explain and convince the urgency of related issues to espouse policy recommendations and provide supporting evidence [8].

1.2 Technical Review

Technical review is a document that describes the progress, process, or results of scientific or technical research. The use of proper technical reviews can reduce time and costs [9]. A review is a way of using diversity within a group of people to suppress the importance of product improvements that are the result of a person and confirm whether the parts of the product where the improvement is carried out are desired and needed or not and achieve more uniform technical work, at least more predictable qualities that can then be achieved without fists with the aim of making technical work more manageable.

Table 1. PUI Activities of PT BLasTS Jambi University

Description	Training
Target	Manager and Experts PUI BLasTS
Issue	Policy Brief, Technical Review and Training Module
Technique	Face-to-face
Place	Luminor Hotel
Time	October 08, 2022
Sources	Internal

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2 Research Method

2.1 Place and Time

The construction of the role of PUI PT through dissemination is carried out from May 15 to November 30, 2022 with locations including (1) Luminor Hotel in workshops on the preparation of policy briefs, technical reviews and training modules, (2) Kerinci Regency and Merangin Regency which are technical review socialization activities and policy briefs (3) Mendalo Darat Campus as a place for a consultation corner as a means of interaction and synergy between PUI and stakeholders and users.

2.2 Program of Activities

The activities carried out by PUI BLasTS Jambi University are as shown in Table 1.

The policy brief socialization program plan, technical review and training module can be seen in Table 2.

3 Findings and Discussion

3.1 Workshop on Policy Briefing, Technical Review and Training Module

According workshops have 2 meanings, including (1) discussions or practical work on certain subjects carried out by a group of people who share knowledge and experience, (2) refers to a place or building that contains tools, tools or machines that are used to repair something made of metal or wood. Referring to the above understanding, the

Table 2. Socialization Activity Program

Description	Training
Goal	Local Government of Kerinci and Merangin Regencies
Focus	Specific policies for stakeholders
Issue context	Advocacy and exploration related to research results presented through policy briefs, technical reviews
Place	Face-to-Face and discuss
Time	November and December 2022

workshop referred to in the PUI BLasTS activity is number 1, where the preparation of the Policy Brief, Technical Review and Training Module begins with a workshop held on October 08, 2022 at the Luminor Hotel. This activity aims to provide a deeper understanding of what a Policy Brief, Technical Reviews and training modules are for PUI BLasTS managers and experts, especially new lecturers who have not yet gained knowledge related to policy briefs, technical reviews and training modules.

The workshop was filled with competent speakers related to the 3 outputs to be achieved. In this preparation, the speakers presented were professors at Jambi University who are also PUI pool experts of PT BLasTS, namely (1) Prof. Dr. Ir. Zulkarnaen., M.Hort., CIQAR., CIQnR, (2) Prof. Dr. Ir. Zulkifli Alamsyah., M.Sc., CIQAR., CIQnR and (3) Dr. Forst Bambang Irawan., S.P., M.Sc., IPU. Each resource person provided knowledge and enlightenment for each of the outputs in question where knowledge and understanding related to the policy brief was given by Prof. Dr. Ir. Zulkifli Alamsyah., M.Sc., CIQAR., CIQnR while for understanding and knowledge related to technical review was given by Prof. Dr. Ir. Zulkarnaen., M.Hort., CIQAR., CIQnR and Dr. Forst Bambang Irawan., S.P., M.Sc., IPU provided understanding and knowledge related to training modules (Fig. 1).

**Fig. 1.** The resource person provided the material

Participants get material related to these 3 things, besides that there are also discussion and question and answer sessions related to the more detailed understanding that workshop participants want to get. As Collins explained, workshop is a two-way communication where participants receive material in the form of theory and practice so it is hoped that the workshop will produce concrete outputs.

In addition to the question-and-answer session between the speakers and participants, a discussion session was also carried out where the discussion method was the formation of a group of the number of participants divided into 3 according to the output in question, namely the Policy brief working group, the technical review working group and the training module group. The group formed will discuss and work to produce the product to be achieved. Group work activities are carried out in the afternoon session and continued the next day in the same place. This method is also in line with the method of workshop implementation which directs workshop participants to produce one output of workshop material with the implementation of workshops that are more than 1 day.

In the implementation in each working group accompanied by speakers. Policy Brief group accompanied by the speaker Prof. Dr. Ir. Zulkifli Alamsyah., M.Sc., CIQAR., CIQnR (Fig. 2). Meanwhile, the technical review working group was accompanied by Prof. Dr. Ir. Zulkarnaen., M.Hort., CIQAR., CIQnR (Fig. 3) and the last working group was a training module accompanied by Dr. Forst. Bambang Irawan., S.P., M.Sc., IPU (Fig. 4).

As one of the outputs produced at the purpose of PUI BLasTS activities, each working group will produce 3 outputs each except for the training module output is 2 outputs. The output produced in each working group will be compiled in a template that has been designed by the implementing committee. The writing for the three outputs will also be made in two bilinguals, namely Indonesian and English. It aims that the output can be holistic so that it can be a reference both inside and outside (Table 3).



Fig. 2. Policy Brief Group discussion activities



Fig. 3. Technical Review Working Group



Fig. 4. Training Module Working Group

3.2 Dissemination of Activities

PUI BLasTS activities in 2022 have been disseminated at the International Seminar “The 4th Green Development International Conference” which was held on 01–02 October 2022 at Swissbell Hotel where the implementer of the activity is the Jambi University Research and Community Service Institute which is a routine activity of the institution (Fig. 5).

Dissemination is also carried out by the team in fulfilling the objectives of this activity. Dissemination is often used to inform about information dissemination activities with broad targets such as community groups or stakeholders with the aim of providing information that is deliberately disseminated so that awareness arises in the target mindset. Dissemination activities carried out in disseminating information related to policy briefs and technical reviews are carried out with the target audience being stakeholders in certain areas. This implementation was carried out in Kerinci Regency and Merangin Regency.

The first dissemination activity was carried out from 17 to 19 November 2022 at the Kerinci Regency Bappeda office. The target audience is several related agencies that are directly related to the topic raised where the output of one of the technical reviews

Table 3. The output on each product

No	Output	Output Title
1	Policy Brief	1. Economics Performance of Oil Palm Smallholders Based on Plantation Management in Muaro Jambi District
		2. Smart Agriculture: Reducing Greenhouse Gas Emissions from Smallholder Oil Palm Plantations with Low-Cost Biochar Technology
		3. Study of Farmers’ Cost and Income Needs during Oil Palm Replanting in South Tabir District, Merangin Regency
2	Technical Review	1. Non-Carbon Benefits of Customary Forests of the Datuk Sinaro Putih Customary Hukun Community, Bungo Regency, Jambi Province
		2. Mechanized and traditional brown sugar processing patterns in Sungai Asam Village, kayu aro district, Kerinci regency
		3. Raplanting Techniques based on <i>Good Agriculture Practice</i> for independent oil palm smallholders in Jambi Province
3	Training Module	1. Management of Organic Matter in Oil Palm Plantations
		2. Palm Oil Management and SDG;s Achievement in Jambi Province



Fig. 5. International Seminar Documentation

on the Pattern of Mechanized and Traditional Processing of Brown Sugar in Sungai Asam Village, Kayu Aro District, Kerinci Regency. PUI BLasTS as the implementer of the activity invited several related stakeholders including Bappeda, BPPD, Head of economy setda, Deperindag, Disbun and Dipemdes Krinci Regency. In addition, it was also attended by farmer groups and business actors directly from aro wood. The dissemination activity took place quite actively between the participants and the speaker where the topic raised became one of the positive things for future development. Farmers as actors provide several statements regarding the sustainability of their business in this forum. The relationship is that the relevant agencies can get information on the obstacles faced by farmers in improving their business in the future (Fig. 6).



Fig. 6. Implementation of Dissemination Technical Review

3.3 Consulting Corner

The notion of the consultation corner can be seen as appropriate on the subject as the culprit. Viewed from the side of the agency, the consultation corner was formed as a forum for related agencies in the form of a website where this section is one of the innovations related to the development of the relevant agencies. At PUI PT BLAsTS itself the consultation corner is a forum as a place of learning interactions for internal and external parties related to the Land Use Change System. The corner was initiated not only in the form of social media that can be accessed through the PUI BLAsTS website but can also be done directly by visiting the PUI BLAsTS which is located at the Jambi Mendalo Darat University Campus. To make it easier for external parties to get the location of PUI BLAsTS, one of the goals of this year's PUI BLAsTS activity is to hold a PUI BLAsTS secretariat which is a challenge for PUI managers and experts in undergoing all activity programs so that several needs are needed in refinement (Fig. 7).

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Fig. 7. Neon Box as PUI BLAsTS UNJA brand

Hopefully, the results of this activity can provide benefits and also support the Jambi University program in the future and improve the IKU of Jambi University.

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