



# Development of Human Resources in the Advanced Infrastructure Sector in Ciasmara Village, Pamijahan District, Bogor Regency

Lirawati<sup>1\*</sup>, Budiono<sup>2</sup>, Agus Sasmita<sup>3</sup>, Puji Wiranto<sup>4</sup>

<sup>1,2,3,4</sup>*Faculty of Civil Engineering, Pakuan University Jl. Pakuan PO BOX 450, Ciheuleut, Bogor, Indonesia*

*\*Corresponding author email: [lirawati.0424057903@unpak.ac.id](mailto:lirawati.0424057903@unpak.ac.id)*

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## Abstract

This Community Service (PkM) was motivated by the infrastructure problems of Ciasmara village with many roads damaged due to high rainfall and the village still using contractor services so that indirectly it had to spend more budget to pay for these services. This PkM activity is to provide knowledge and understanding to village officials about how to plan and calculate budgets regarding roads and bridges, heavy equipment used Autocad software, especially with regard to calculating the volume of each work item that has been prepared and will be implemented. The PkM implementation method goes through stages 1) Counseling, 2) Planning, 3) Training and 4) Evaluation. In this activity, village officials can have better insight, especially in terms of planning correct budget plans in accordance with existing (government) laws and regulations, especially those relating to government projects in particular and projects outside the government in general, so that in the future they will become reliable and capable village officials who will support the programs launched by Ciasmara village and provide better progress and contributions.

*Keywords:* Infrastructure, village officials, training, roads, bridges, budget plans

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## 1. Introduction

In Republic of Indonesia Law Number 6 of 2014 concerning Villages (Village Law) development activities for the welfare of the community must be accompanied by efforts to empower the community. Village development and empowerment places the community in active involvement during the village development process. So that it can improve the standard of living and welfare of village communities through establishing policies, programs and activities that are in accordance with the essence of the problems and priority needs of village communities.

In Ciasmara village, Pamijahan District, Bogor Regency, currently implementing a village program called the "Samisade" program, namely in the form of utilizing grant funds from the government which are used for infrastructure repair work activities around the village area such as road concreting, channel repair, asphaltting, building bridges, drilling deep wells, and building dams.

Judging from geographical conditions, the land in Pamijahan District is a hilly and mountainous area due to the geomorphological activity of Mount Salak and in the Pamijahan Village area the location is sloping from bumpy to steep, many roads are damaged. So by paying attention to this, resources are needed from village officials who have the skills and abilities to utilize the grant funds provided by the government.



**Figure 1:** Road conditions in Ciasmara Village, Pamijahan District

For this reason, infrastructure development requires skilled personnel who have mastered expertise in their respective fields, both planning and implementation, so that they can provide optimal results in terms of cost, quality and time. Based on what has been explained above, the service team has prepared an outreach and training program for village officials in the infrastructure sector.

## 2. Methods

The method of community service carried out in Ciasmara Village, Pamijahan District, Bogor Regency can be broadly described in the Human Resources (HR) development counseling in the infrastructure sector, namely as follows:

### 1. Partner Situation and Condition Analysis Stage

At this stage, visits to partner locations are carried out with the aim of conducting field surveys, interviewing village heads and collecting data.

### 2. Counseling Stage

At this counseling stage, the service team provides knowledge and understanding regarding procedures for planning and analyzing road and bridge construction regarding soil behavior, soil classification in more detail regarding soil conditions, as well as how to plan and analyze lateral pressure. conditions of soil collapse conditions.

### 3. Training Stage

At this training stage, the service team carried out 2 stages of training according to aspects of the problems that occurred with partners, namely providing training on how to plan and analyze the construction of roads and bridges, providing training on Budget Plans (RAB) and calculating the volume of roads and bridges using Autocad software to village officials as facilitators of activities followed by discussions and presentations by the presenters.

## 3. Results and Discussion

The desired result in the activity program carried out by the community service team in Ciasmara village is that village officials can master how to calculate volume using Autocad software and plan roads and bridges as well as calculate the budget plan.

### 1. Have a discussion with the Head of Ciasmara Village

The first stage was to hold discussions with the Ciasmara Village regarding plans for community service





**Figure 2:** Discussion with the Head of Ciasmara Village

2. Provide a presentation about roads and bridges, heavy equipment, general cost budget planning theory and volume calculations manually or using Autocad software.

The presentation of this material is the initial process of introducing the science of road and bridge construction from the perspective of implementation in the field to calculating the budget plan.

**Figure 3:** The presenter is explaining the material

3. Evaluate the results of counseling and training that have been delivered through discussions or questions and answers

This activity was carried out by the Pakuan University Faculty of Civil Engineering service team with the aim of providing knowledge to village officials, namely training on how to plan and analyze the construction of roads and bridges, providing training on Budget Plans (RAB) and calculating the volume of roads and bridges using Autocad software.

**Figure 4:** Discussion and questions and answers

#### 4. Conclusion

This service activity was held to increase knowledge in planning and analyzing road and bridge construction, analyzing budget plans and using Autocad software properly. The enthusiasm of village officials in participating in the activities carried out by the service team means that the explanatory material presented by the service team can be applied to infrastructure improvement activities around the village area.

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