

## **Third Party Evaluator's Opinion on Mt. Merapi & Mt.Semeru Volcanic Disaster Countermeasures (2)**

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### **Impact**

Positive social economic impacts are quite visible & felt by communities living around the project location, in the form of protection from future volcanic disasters, which relieves the villagers from worries. This in turn is increasing their productivities, as economic activities are increasing and intensifying. There are increased uses of agriculture lands, improved transportation access by project-built roads, and improved income from sand and gravel collection. The indirect impacts of these improved economic conditions are the increased capacity to access social services like education and health facilities for their families.

This project has no negative environmental-impact during construction; on the contrary it has a positive impact of preventing environmental disasters. But it has post-operation negative environmental impact caused by illegal & over mining, which also caused destruction of access roads, and overflow of check-dams. Both negative impacts can cause sudden floods or long droughts, which need to be controlled to prevent further damages.

All the positive impacts mentioned above will cease or slow down, or will be forgotten as new generation of villagers will grow, who did not experience previous worst conditions. Hence an effort to communicate to surrounding communities the history & rationale of this construction, and the positive impacts it has brought and will continue to bring, is quite needed. It is especially important to expose the figures of economic impact, as in the era of decentralization and local autonomy starting the year 2000 in Indonesia, people are very ignorant of the rationale for central government to borrow loans in the past, causing them very reluctant to share the burden of repaying these loans in the future. It can be in the form of small permanent exhibitions or information posters in village/sub-district centers. This will ensure the ownership of the local communities and maintain their appreciation of the past & present positive impacts of the project.

### **Sustainability**

Local ownership and local capacity for Operation & Maintenance are very important to ensure the sustainability of this project. This project was built during the centralized government system, and it was quite natural that O & M responsibilities were still designed for being undertaken by the central government, but sooner or later this need to be reviewed and decentralized to the local levels. There are several options: either to a joint program of several districts, to a provincial program coordinating the districts, or to a private company jointly recruited by the local governments with clear terms of reference and time frame. An independent assessment is needed to find the best & workable option.

The central government project holder, if necessary with JBIC support, need to develop an exit strategy and implementation plan to hand over these responsibilities and build-in rights in due time when the local set-up is ready. A transition of continued central funding for a few years is probably needed to ensure a smooth process of capacity building and transfer.

This will motivate the district/provincial leaders to intensify the law enforcements of sand & gravel mining activities. Existing mining licenses need to be reviewed, and wherever feasible, "illegal" activities need to be "legalized" with better governance and control, with more transparent & logical fee systems for O & M cost recovery. Continued illegal actions need to be punished or heavily fined, if necessary more than their potential profit. Upstream and downstream different conditions, opportunities and needs should be accommodated as much as possible, to prevent injustice or unfair share of burden.