

INTISARI

Gunung Merapi merupakan salah satu gunung teraktif di dunia. Saat Gunung Merapi bererupsi, akan muncul banyak risiko sebagai akibat dari adanya ketidakpastian sehingga manajemen risiko dalam proses penanganan bencana erupsi Gunung Merapi menjadi suatu hal yang penting untuk dianalisis. Saat ini, belum ada penelitian yang memetakan serta mendata keseluruhan risiko yang ada pada proses penanganan bencana erupsi Gunung Merapi. Penelitian ini akan bertujuan untuk memetakan potensi risiko sesuai dengan tahapan yang ada dalam *risk management framework* yang ada pada IEC/FDIS 31010 tahun 2009 serta memitigasi risiko yang telah melalui tahap pemrioritasan sebelumnya.

Tahap-tahap yang ada dalam proses manajemen risiko antara lain *establishing the context*, *risk identification*, *risk analysis*, *risk evaluation*, serta *risk treatment*. *Output* dari proses *establishing the context* adalah *risk criteria* yang akan digunakan sebagai panduan dalam proses manajemen risiko. Dalam proses identifikasi risiko, risiko didapatkan melalui proses *brainstorming*, *literature review*, serta *interview* dengan beberapa *stakeholders* terkait yang selanjutnya hasilnya divalidasi melalui tahapan triangulasi. Selanjutnya dalam proses *risk analysis*, risiko dianalisis untuk mengetahui *likelihood of occurrence* serta *severity of consequences* dari setiap risiko yang nantinya keduanya dikalikan untuk mendapatkan skor risiko. Dalam *risk evaluation*, risiko tersebut diprioritaskan untuk mengetahui risiko mana saja yang akan dirumuskan proses mitigasinya dalam tahapan *risk treatment*. Dalam tahapan *risk treatment*, skor risiko setelah dimitigasi akan dianalisis dalam bentuk *risk residual*.

Berdasarkan proses *risk management* yang telah dilakukan, didapatkan 44 risiko dalam penanganan bencana erupsi Gunung Merapi yang terdiri dari 25 risiko yang tergolong *low risk*, 14 risiko yang tergolong *medium risk*, serta 5 risiko yang tergolong *high risk*. Risiko yang tergolong *high risk* antara lain risiko terkait bahaya erupsi Gunung Merapi berupa awan panas dan lahar panas yang menghancurkan pemukiman di area terdampak langsung, kerusakan infrastruktur berupa jembatan roboh dan jalanan rusak yang disebabkan karena erupsi, warga mengalami trauma karena kehilangan anggota keluarganya, barang berharga di posko utama hilang dicuri saat posko utama ditinggalkan kosong, serta risiko kerusakan lingkungan yang disebabkan karena material-material yang dikeluarkan saat erupsi. Berdasarkan diagram pareto yang dihasilkan, empat dari lima risiko akan dirumuskan proses mitigasi yang dapat menurunkan *likelihood of occurrence* atau *severity of consequence* dari risiko tersebut. Hasilnya adalah keempat risiko tersebut berhasil diturunkan skor risikonya melalui proses mitigasi yang dirumuskan.

Kata kunci : risiko, *risk management framework*, Gunung Merapi, mitigasi, *risk register*

ABSTRACT

Mount Merapi is one of the most active volcanoes in the world. When Mount Merapi erupts, there will be many risks as a result of uncertainty. Because of that, risk management in the process of disaster management of Mount Merapi eruption becomes an important thing to be analyzed. Currently, there is no research mapping and recording the overall risks that exist in that process. The aim of this research are mapping the potential risks according to the existing procedures in the risk management framework of IEC/FDIS 31010 in 2009 and mitigating those prioritized risks.

Procedures in the risk management process consists of establishing the context, risk identification, risk analysis, risk evaluation, and risk treatment. The output of the establishing the context process is the risk criteria that will be used as guidance in the risk management process. In the process of risk identification, risk is gained through the process of brainstorming, literature review, and interviews with several stakeholders. The results of those processes are then validated through the triangulation procedure. Furthermore, in the risk analysis process, the risk is analyzed to determine the likelihood of occurrence and the severity of consequences of each risks. Then, both of that parameters will be multiplied to get the risk score. In the risk evaluation process, the risk is prioritized to get the risks that will be planned the mitigation processes in the risk treatment procedure. In that procedure, risk scores after mitigation will be analyzed in the form of risk residual.

Based on the risk management processes that have been done, there are 44 risks in the disaster management of Mount Merapi eruption consisting of 25 risks classified as low risk, 14 risk classified as medium risk, and 5 risks classified as high risk. The risks that classified as high risk are hot clouds and hot lava of Mount Merapi eruption will destroy all the settlements in the disaster-prone areas, infrastructure damage such as the damaged roads and bridges which are caused by eruptions, people are traumatized which are caused by the loss of those family members, the goods in BPBD's main post are stolen when the post are left empty, and the risk of environmental damage which are caused by eruption materials. Based on the pareto diagram, four out of five risks will be planned the mitigation processes that can decrease the likelihood of occurrence or severity of consequence of the risk. The result is that the score of all of the four risks are successfully lowered by the planned mitigation processes.

Keywords : risk, risk management framework, Mount Merapi, mitigation, risk register