Manajemen Risiko dan Mitigasi Bencana Longsor di Kawasan Model DAS Mikro Watugede Kabupaten Gunungkidul

Diah Permata Sari[1]

Intisari

Kawasan Model DAS Mikro (MDM) Watugede sekitar 35,17% berada pada kelas kelerengan >40% (sangat curam) dan sekitar 50,34% berada pada kelas kelerengan 25 – 40% (curam). Kondisi kelerengan curam ini dapat menjadi salah satu faktor pemicu longsor. Selain itu, beberapa permasalahan dan isu strategis kawasan MDM Watugede yaitu masih ada pemukiman di daerah hulu dan kebutuhan masyarakat terhadap lahan tinggi. Dengan demikian perlu dilakukan manajemen risiko dan mitigasi bencana longsor di kawasan MDM Watugede dengan menganalisis tingkat risiko dan mitigasi bencana longsor yang dapat digunakan sebagai panduan bagi pemerintah maupun masyarakat dalam upaya penanggulangan bencana longsor.

Berdasarkan Peraturan Kepala Badan Nasional Penanggulangan Bencana (BNPB) Nomor 2 Tahun 2012, tingkat risiko dikaji dari aspek ancaman, kerentanan dan kapasitas. Analisis risiko dilakukan dengan metode skoring dan pembobotan yang kemudian dioverlay. Nilai risiko merupakan formulasi dari ancaman dikalikan kerentanan dan dibagi kapasitas. Lokasi untuk arahan mitigasi dianalisis dengan analisis kluster dan dirumuskan upaya mitigasi pada masing-masing kluster berdasarkan karakteristiknya.

Tingkat risiko bencana longsor di kawasan MDM Watugede didominasi oleh tingkat risiko tinggi (53,54%). Tingkat risiko tinggi mencakup seluruh desa yang meliputi 93,31% wilayah Desa Ngalang; 72,77% wilayah Desa Mertelu; 99,01% wilayah Dusun Kedokploso, Desa Pengkol dan 27,77% wilayah Desa Hargomulyo. Tingkat risiko longsor sedang di kawasan MDM Watugede sekitar 41,73% yang sebagian besar mencakup wilayah Desa Hargomulyo dan Mertelu. Tingkat risiko longsor rendah hanya mencakup sekitar 4,72% dari total luas kawasan MDM Watugede dan sebagian besar berada di wilayah Desa Hargomulyo. Mitigasi relokasi diarahkan pada kluster 1 dan 2, pengembalian fungsi ke kawasan lindung pada kluster 1, 2, 3 dan 6. Pendidikan dan pelatihan bencana diarahkan pada kluster 1, 2, 4, 5 dan 7. Model Starlet diarahkan pada kluster 2, 3 dan 6. Pembatasan pemanfaatan diarahkan pada kluster 2. Penerapan sistem agroforestri atau hutan rakyat pada kluster 2, 3 dan 6. Pengaturan kerapatan vegetasi dan pemilihan jenis diarahkan pada kluster 2, 3, 4, 5, 6 dan 7. Pembuatan talud pada tebing sungai pada kluster 3 dan 6. Konsep *water harvest* dan pembuatan teras guludan pada lahan produktif diarahkan pada kluster 4, 5 dan 7.

Kata kunci : Longsor, Risiko, Mitigasi

[1]Mahasiswa Pascasarjana Ilmu Kehutanan, Universitas Gadjah Mada

The Risk and Mitigation Management of Landslide Disasater in the Area of Watugede Micro Watershed Models Gunungkidul District

Diah Permata Sari[1]

Abstract

The area of Watugede micro watershed model is about 35,17% located on the slope class of >40% (very steep) and about 50,34% located on the slope class of 25 – 40% (steep). The steepy slope condition could be one of the landslide's triggering factors. Moreover, some of the problems and strategic issues in the area of Watugede micro watershed models are that there were settlements in the uplands and the high social demand for land. Therefore, it is necessary to do the risk and mitigation management of landslide disaster in the area of Watugede micro watershed models by analysing the risk level and landslide disaster mitigation that can be used for guiding the government and community in the landslide disaster countermeasures.

According to the Regulation of the National Disaster Managemet Agency Number 2, the year of 2012, the risk level is assessed by the aspects of hazard, vulberability and capacity. The risk analysing is done by scoring and weighting method that then being overlaid. The risk value is the formulation of the hazard that is multiplied by vulnerability and then divided by capacity. The location for the directives mitigation is analysed by the cluster analysis and defined the mitigation effort for each cluster according to their characteristics.

The level of the landslide disaster risk in the area of Watugede micro watershed models was dominated by the high risk level (about 53,54%). The high risk level covered all of the villages which covered about 93,31% Ngalang village area; 72,77% Mertelu village area; 99,01% Kedokploso subvillage area, Pengkol village; and 27,77% Hargomulyo village area. The medium risk level in the area of Watugede micro watershed models was about 41,73% which mainly covered the area of Hargomulyo and Mertelu village. The low risk level only covered about 4,72% of the area of Watugede micro watershed models and mainly covered in the area of Hargomulyo village. The mitigation of relocation was directed in the number cluster of 1 and 2, the land restoration to be protected area was directed for cluster number of 1, 2, 3 and 6. The disaster education and training were directed for cluster number of 1, 2, 4, 5 and 7. The Starlet models were directed for cluster number of 2, 3 dan 6. The limiting utilization was applied for cluster number of 2. The agroforestry or community forest was directed for cluster number of 2, 3 dan 6. The settings for the density and the type election of vegetation were directed for cluster number of 2, 3, 4, 5, 6 dan 7. The retaining wall for the riverbank was directed for cluster number of 3 dan 6. The water harvest concepts and making the terraces were directed for cluster number of 4, 5 dan 7.

Keywords : Landslides, Risk, Mitigation

[1]Student of Graduate School of Forestry Science, Gadjah Mada University