

Developing Model of Agriculture Land Consolidation as a tool to recover from Industrial Liquid Waste Pollution Hazards.

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SUMMARY

Some agricultural areas in the one district of Bandung Municipality, is really affected by industrial liquid waste from the most textile industries which located around there. The industrial liquid wastes has been polluting the river which located nearby the agricultural areas. mostly run on the rivers wastewater resulting decrease in soil and water quality. The impact of the decline was the decline in crop yields as well as a decline in the quality of rice for each crop. One solution in dealing with industrial waste is screening or biological cleaning by using plants or phytoremediation. One of the requirements of the development of phytoremediation, is the availability of sufficient land. The area of land required for the construction of phytoremediation using Reed is 2426.14 hectares, with three alternative types of plants hiperakumulator, the hyacinth, plant rushes, and vetiver.

Land acquisition for the construction of phytoremediation can be reached through the Land Consolidation. Principles of consolidation is public participation in the form of a donation of land for development. Total area of phytoremediation obtained from the total contribution by the owners of each parcel. In addition to donations of land, do also rearrangement agricultural areas. In this study, three models generated consolidated. Model 1 and 2 produced a model with a donation of the same ground, which is 7% of the total. In model 3 donation of land ranging between 6-8% of the initial parcel, due to the weighting of the distance from the center of remediation. The closer to the center of remediation, the soil will be even greater contribution. Vice versa. This weighting also by the influence of water quality due to agricultural activities.

Phytoremediation development will have a positive impact on the quality of the agricultural environment. Some positive impact on the development of phytoremediation are (1) improvement of water quality characterized by a decrease in this parameter BOD by 59%; (2) an increase in

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agricultural production by 1000%; and (3) improvement of land rights of indigenous lands (girik) into land property rights.

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