

Priority Sites for Deforested and Degraded Mountain Restoration Projects in North Korea

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Abstract : Even though developed countries have supported aid projects for restoring degraded and deforested mountain, recent North Korean authorities announced that North Korean forest is still very serious. Last 12 years, more than 16 thousand ha of forest were destroyed. Most of previous researches concluded that food and fuel problems should be solved for preventing people from deforesting and degrading forest in North Korea. It means that mountain restoration projects such as A/R(afforestation/reforestation) and REDD(Reducing Emissions from Deforestation and Forest Degradation) project should be implemented with the agroforestry and the forest tending project. Because agroforestry and the forest tending can provide people in the project area with foods and fuels, respectively. Especially, Agroforestry has been operated well with the support of Swiss agency of Development and cooperation since 2003. This paper aims to find the priority sites for mountain restoration project where all types of projects including agroforestry can be implemented simultaneously. We tried to find the primary counties where the areas of these activities were distributed widely and evenly. Recent spatial data of 186 counties representing altitude, gradient and crown density were collected from World Forest Watch. These 3 attributes were used to determine the type of activities; A/R, REDD, Agroforestry and forest tending project. Finally, we calculated the size of 4 activities in 186 counties by using GIS technique. Result shows that Chongjin in Hamgyeongbuk-do, Hoeryong in Hamgyeongbuk-do and Tongchang in Pyeonganbuk-do are on the highest priority of counties. Most of feasible counties whose value of richness and uniformity were greater than the average were located near the eastern coast of North Korea. South Korean government has not supported any aid projects in North Korea since 2010. Recently, South Korea is trying to continue the aid projects for North Korea. Forest project which is not affected by the political situation between North- and South- Korea can be considered as a priority activities. This result can be used when South Korean government determine the priority sites for North Korean mountain restoration project in near future.

Keywords : agroforestry, forest restoration project, GIS, North Korea, priority

Conference Title : ICAFS 2015 : International Conference on Agroforestry and Food Security

Conference Location : Barcelona, Spain

Conference Dates : August 17-18, 2015