

Sustainable Development: Soil Conservation with Cultivation of Cassava (*Manihot esculenta*) Based on Local Wisdom

Authors : Adiyasa Muda Zannatan

Abstract : Cassava (*Manihot esculenta*) is a plant originating from Brazil. Cassava plants categorized as sixth major food in the world after wheat, rice, corn and potatoes. It has been cultivated on hilly land for 97 years since 1918 at Cireundeu village, West Java Province, Indonesia. Cireundeu traditional village located in the mountain valleys and has a hilly slope up to 38%. Cassava is used as the primary food in that area. Uniquely, Cassava productivity is stable and continues until now. The assessment of soil quality is taking soil samples in the area and analysis the soil in laboratory. The result of analysis that soil in the area is not degraded because it has optimum nutrient, organic matter, and high value of cation exchange capacity in soil even though it has been cultivated in scarp with high slope. Commonly, soil on scarp with high slope has a high rate erosion and poor nutrient. It proved that cassava is able to be an alternative technique of soil conservation in the areas that have a high slope. Beside that, cassava can be utilized as a plant food, feed, fertilizer, and energy. With the utilization of Cassava, the target of Sustainable Development Goals (SDG's) will be achieved with consideration three important components include economy, social, and environment. In economy, Cassava can to be the commercial product like processed food, feed, and alternative energy. In social, it will increase social welfare and will be hereditary. And for environment, Cassava prevents soil from erosion and keeps soil quality.

Keywords : Cassava, local wisdom, conservation, soil quality, sustainable

Conference Title : ICABBBE 2015 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

Conference Location : Paris, France

Conference Dates : November 19-20, 2015