

Practical techniques for desertification control and livelihood improvement made with local people

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Due to rapid expansion of population and human activities, the use pressure on soils and ecosystems is increasing. It goes to marginal areas or vulnerable areas such as dryland, mountainous and slope land and wetland. Semi-arid Africa, an interest area in this presentation, is the typical area and the frontline of desertification inseparably associated with land degradation and poverty.

Desertification is one of the problems/issues of international community, as found in the ratification of UNCCD (1994).

Sahel region of West Africa is characterized by vast distribution of sandy soils, which is fragile to human activity, and fluctuating rainfall. Land degradation is appeared as soil erosion (both by wind and water), fertility depletion and disappearance of vegetation, mainly caused by human activities, such as collection of fuel wood, crop cultivation and animal husbandry, to support the daily subsistence. This fact poses difficulty to the efforts of desertification control.

Together with local people, we developed some practical techniques for agro-ecosystems management especially relevant to the fragile environment semi-arid Africa that enable both livelihood improvement and control of desertification. Some innovations are 'fallow-band system' and 'contour-lines of Andropogon'. It may shift a concept of agro-ecosystems management from 'human vs nature' to 'human with nature'.

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