

**Balancing food security and environmental conservation in the uplands:
Vietnamese experience**

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More than 80% of Vietnam's population live in countryside with 70% of labor force engaged in agriculture. In recent years, Vietnamese agriculture achieved dramatic leap in food production, making Vietnam one of the 2 world biggest rice exporters. Food security has been achieved at national level, but not at household level, particularly in the uplands. There are real threats to food security like rapid reduction in per capita agricultural land, land degradation, depletion of natural resources, and subsequent increase of natural calamities.

For the uplands, occupying 3 fourths of the country territory, food production should be linked with the protection of natural resources and environment. Research and transfer of intensive and sustainable farming techniques to mountainous regions have received high attention from different institutions. In this context, the Northern Mountainous Agriculture and Forestry Science Institute (NOMAFSI) has been involved in numerous projects related to food security and environmental protection, like (a) Science and Technology Research Program to serve Agricultural Development in the Northern Mountainous Regions of Vietnam", then (b) in the Central Highlands of Vietnam; (c) Vietnam Agro-forestry Capacity Building - VACB"; (d) South-east Asia Network for Agro-forestry Education (SEANAFE); (e) "Mountainous Agricultural Systems in the Mountainous Regions of North Vietnam – SAM Project"; (f) "IRRI IFAD Upland Project"; (g) Challenge Program Water for Food - CPWF", etc. As a result, good agricultural practices have been developed and transferred to production, making rice production increased by 7.0% annually in the last two decades. The yields of other crops have also rapidly increased. Consequently, the living standards of the mountainous farmers and natural resources have been improved. Forest coverage increased from 27.8% in 1990 to about 40.0% in 2009, resulting in significant improvement of other natural resources and biodiversity. Priority has been given to development and transfer of comprehensive solutions aimed at achieving both economic efficiency and environment sustainability.

The paper presents main activities and results in struggle to achieve food security, meanwhile improving natural resources and protecting the environment in the uplands of Vietnam.