

Technology Fact Sheet

Minimal tillageⁱ

1) Technology description

- On steep slopes: Minimum tillage is widely applied in mountainous areas to save labor costs; it is usually coupled with advanced weed control techniques.
- On flat terrain: Minimum tillage is applied only for winter crops, such as soybean, potato and winter maize. This practice was first used for growing maize between main crops. It is later employed in soybean no-till production.

2) Socio-economic benefits

Labor-saving; increasing land use factor and farming household income.

3) Environmental benefits

- Reducing GHG emissions as it eliminates the use of plough machines, decreasing soil erosion and soil carbon loss.
- Preventing water eutrophication and reducing methane emissions from flooded field.

4) Status of technology

In the past, farmers have applied measures to dig holes plowed seeded without tillage, which significantly reduced soil erosion, land degradation and crop damage. Today there are many technologies being introduced for sustainable production and economic efficiency as high as no-tillage soybean, and no-tillage potato.

5) Application potential

Can be applied to the entire farming area on steep slopes, winter, industrial and fruit crops, and agro-forestry systems.

6) Barriers

Likely to meet community resistance as this requires change from conventional practices (intensive tillage, slash and burn, weeding or hoeing on steep lands etc.).

7) Costs

Implementation and technology application costs

- The cost of network construction and training of technical staffs.

Incremental costs to adapt to climate change (compared to conventional technology)

- There is no incremental cost.

ⁱ This fact sheet has been extracted from TNA Report - Adaptation for Vietnam. You can access the complete report from the TNA project website <http://tech-action.org/>