Technology Fact Sheet

Water-saving irrigation[i]

1) Technology description

- The basic difference between water-saving irrigation technique and traditional practices is that it keeps a thin layer of water on the field surface and allows more time for the surface to dry.
- Vietnam's agricultural area will grow from 6.6 million hectares in 1994 to 7.3 million hectares in 2010 and 8.0 million hectares in 2030. The principles of this technology are to actively supply a sufficient amount of water to the field during certain rice growth stages, using methods such as wet and dry irrigation. This will serve two goals: improving productivity and reducing methane emissions from the field.

2) Socio-economic benefits

- Reducing water costs, enhancing fertilizer efficiency, increasing tilling rates, and improving crop yield.

3) Environmental benefits

- Lower methane emissions compared to flood irrigation in every growth stage (which keeps a constant layer of water on the field surface in all growth stages of rice).

4) Application potential

- Can be applied for 7.4 million hectares of rice.

5) Barriers

- The systems of fields and associated infrastructure, drainage and irrigation systems are incompatible. Difficult to meet the technological requirements. Only applicable to small scale areas, which are normally owned by small farmers, thus it might be difficult to apply regarding their limited capital.

- Most production areas are located far away from the water source.

- Communities are not fully aware of the importance of water sources.

6) Costs

Implementation and technology application costs

- High costs due to construction or renovation of irrigation systems. However, with the modernization of rural agriculture on the way, it is necessary work to be done in the future.

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

- Saving water and energy and reducing GHG emissions from energy consumption for irrigation.

---

[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/**