## **Rural Development and Climate Change**

While it remains difficult to attribute any single disaster to climate change, there is clearly a climate change imprint in many of the recent agricultural losses in the Asia-Pacific region. For example, for the most recent floods in Pakistan, the flood damage assessment estimates total damages to exceed USD 14.9 billion, and total economic losses to reach about USD 15.2 billion, with rehabilitation and reconstruction in a resilient way at least USD 16.3 billion. Other notable examples include the Pakistan floods of 2010 and 2011, which caused USD 7.2 billion in damages, the Thailand floods of 2011, which resulted in USD 1.9 billion in losses, and Typhoon Haiyan in the Philippines in 2013, which caused USD 1.4 billion in damages.

Rural revitalisation may be a partial solution to climate change. For example, it is possible to share solar and wind generation facilities with ongoing farm operations, implement carbon offsets based on soil carbon sequestration, reduce GHG emissions through climate-smart agriculture, and sequester carbon through agroforestry, forest hedgerows, reforesting unproductive land, roadside replanting, and other strategies. Direct payments for ecosystem services, including climate change mitigation, and weather index insurance for protection against extreme weather events are also options. Waste biomass to energy power plants can also replace field burning.