

Donor country Canada			
Project/programme title TEAM (Technology Early Action Measures)			
Purpose Transfer greenhouse gas reduction technologies to other countries. TEAM brought 140 technology demonstration projects to reality in Canada and around the world.			
Recipient country Various	Sector Various	Total funding \$128 M	Years in operation 1998-2009
<p>Description</p> <p>TEAM supported the transfer of innovative Canadian GHG reduction technologies to other countries, particularly developing nations. TEAM has demonstrated that the best opportunities for benefiting from new technologies in international development require risk sharing among business and government partners in developed and developing countries.</p> <p>A number of projects occurred in the 2006-2008 timeframe and are listed below, with total project costs in brackets: Hydropower in Nepal (\$8.30 M) Development of a small-hydro plant at a site on the Khudi River 150 kilometres from Kathmandu, Nepal, that will generate over 25,000 MWh a year. The plant replaced thermal generation and extended electricity distribution to a population that relied on wood fuel and residues for its energy.</p> <p>Natural gas vehicle flagship project in India (\$8.33 M)</p> <ul style="list-style-type: none"> ▪ Demonstration of Canadian natural gas vehicle technologies in India. ▪ Conversion of 250 commercial fleet light duty vehicles to natural gas; low emission natural gas engines and low weight natural gas storage on six transit and intercity buses ▪ This project also documented the feasibility of GHG credit repatriation to help meet Canada's Kyoto commitments. <p>Energy-efficient chiller systems for Cuba (\$2.3 M) This project involves installing 8 to 10 high-efficiency Smardt chillers as an alternative to older, inefficient chillers in Cuban hospitals, office buildings and commercial buildings. These chillers consume significantly less energy than conventional centrifugal chillers and do not use chlorofluorocarbons.</p> <p>Demonstration of EcoSmart Concrete in Dubai (\$2.4 M) A high-profile international demonstration project for EcoSmart concrete technology in the booming United Arab Emirates construction market. In EcoSmart concrete, ordinary Portland cement is partially replaced by supplementary cementing materials, which creates a more durable concrete and reduces solid waste and GHG emissions.</p> <p>Small Scale Biogas Utilization in Argentina (\$4.4 M)</p> <ul style="list-style-type: none"> ▪ Demonstrate use of remote monitoring and control system on two biogas utilization and conversion projects in Argentina: a wastewater treatment facility and a landfill site. The biogas will be used to generate electricity and produce heat ▪ Innovation consists of using a telemetry system to reduce operations & maintenance costs for small & medium scale biogas systems, via use of telemetry-based control system. <p>Transportable Plasma Waste to Energy System (\$7.6 M) Demonstrate innovative 10 ton-per-day transportable plasma resource recovery system at a US military facility. System uses a wide range of waste streams - including municipal solid waste, hazardous waste and hospital waste - to generate electricity, heat, aggregate for construction, and metals for recycling.</p>			
<p>Indicate factors that led to project's success</p> <p>Innovative reporting tools An important element of the TEAM program is the commitment to report the technical performance and GHG mitigation potential of all TEAM-funded projects. TEAM's pioneering work in the development of tools and methodologies for measuring and reporting GHG reductions has resulted in the System of Measurement and Reporting for Technologies (SMART). SMART provides a basis to evaluate the project proponent's processes and documentation so that the technological performance claims and the GHG mitigation potential can be substantiated. Since 2004, all TEAM projects followed the SMART process. TEAM staff have continued to play a leading role in providing internationally accepted standards in GHG measurement and reporting. For example, TEAM's SMART protocol led to the creation of ISO 14064 Part 2. These ISO standards will help GHG programs ensure global credibility and consistency.</p>			

Leveraging funding TEAM has funded 140 climate change and clean energy projects since its inception in 1998. However, the federal government investment represents only a small portion of the total funding required for these projects. For every dollar invested by TEAM and the Canadian federal government, five dollars are invested by TEAM's partners, including small and large companies, both in Canada and abroad, and other federal, provincial, municipal and foreign government agencies. In more than 60 Canadian cities and 15 countries, TEAM has partnered with approximately 350 private companies and organizations, and with more than 100 government programs and research institutions.

Technology transferred

Hydropower in Nepal: small hydro generation Natural gas vehicle flagship project in India: compressed natural gas technologies for vehicles Energy- efficient chiller systems for Cuba: energy-efficient, CFC-free chillers Demonstration of EcoSmart Concrete in Dubai: EcoSmart concrete Small Scale Biogas Utilization in Argentina: remote monitoring; telemetry-based control system Transportable Plasma Waste to Energy System: plasma waste to energy technology

Impact on greenhouse gas emissions/sinks