The increased worldwide incidence of floods and other extreme weather in recent years demonstrates that climate change has ceased to be an abstract—we all experience it, in whatever part of the world we live. In 2010 alone, Global Communities responded to floods in Colombia, Montenegro and Pakistan, providing assistance to thousands of displaced people. As critical as these emergency responses are, it is better to prevent than to respond and Global Communities is working in partnership with the private sector, governments and communities around the world to do just that.

One of Global Communities’ key areas of expertise is in infrastructure and construction. Additionally, we work in some of the areas in the world most likely to be affected by climate change, such as the Middle East. Meeting needs with expertise, we are finding ways to construct green buildings in emerging economies where environmentally intelligent construction techniques can become mainstream and genuinely make a long-term difference.

There are many simple ways to reduce the effects of climate change. By evaluating different solutions in varying environmental contexts, we are able to see what works best to bring to an industrial level.
The West Bank

The West Bank is a territory on the cusp of nationhood. But it is also a territory that has all too often felt the droughts and severe weather associated with climate change. The USAID-funded Emergency Jobs Program was a $34 million community infrastructure and construction program implemented by Global Communities that created employment through construction of vital community infrastructure, such as women’s centers, youth and child-focused facilities, schools and health clinics. The program also explored the use of environmentally sustainable and energy-efficient practices.

Global Communities is increasing the scale of our green construction projects to make a sustainable impact in the West Bank with our new USAID-funded $100 million Community Infrastructure Development program. The new program includes a ‘Young Green Engineers’ internship initiative in partnership with the sustainable building division of Khatib & Alami in Dubai. This program will also pilot three green buildings in various sectors, including one in which Global Communities will work toward the Leadership in Energy and Environmental Design (LEED) certification. Additionally, the program will raise awareness of environmental issues through a workshop and seminar series targeted at engineers, contractors, government stakeholders and communities. For children, we will raise awareness through puppet shows and International Earth Day activities.

One example of green construction in the West Bank is the Safeer Children’s Center, a designated pilot green building initiative completed in 2010 that serves approximately 10,000 people from the nearby Asker refugee camp. The Center incorporates double-glazed windows and insulation that both regulate the temperature of the facility and reduce heating costs. Structural sun shading, the orientation of the building and incorporation of natural light into the space through skylights reduces electrical consumption. Use of recycled wood and other locally produced construction materials reduces waste. The garden is planted with locally adapted plants that do not require a large amount of water; what water is needed comes from a gray water re-use system In addition, the building has an interactive learning center for children, educating a new generation on energy efficiency. In total, these green methods reduce energy usage by 59 percent. Green does not have to be complicated—simple changes can make a profound impact.

Kosovo

Global Communities believes in bringing new technologies to new countries. In Kosovo, independent since February 2008, Global Communities is implementing a major USAID-funded school building initiative. Our flagship building is a Green School, which is an entirely environmentally sound school incorporating the most up-to-date technology as part of an energy efficiency pilot program. The school will provide an example of geothermal, solar and other green technologies that are available for public investment in Kosovo. Engineering students from the University of Pristina are analyzing the energy efficiency of the school to evaluate the cost benefits of the technology. Green systems will also be incorporated into the students’ curriculum so they have an early understanding of the importance and practicality of green technology. Completed in January 2011, this project is providing best practices and lessons learned that can be used by contractors and construction professionals for future public buildings.

Freezers Powered by the Sun

Global Communities is working to incorporate green construction techniques and standards into all of our projects around the world. In many of our partner countries there is no shortage of sun, so, for example, in Haiti we are using solar panels to power freezers at fishermen’s cooperatives that enable them to preserve their catch and ensure quality and freshness of product. In South Sudan, another new country, we have integrated solar-powered pumps for wells serving villages with limited infrastructure and no access to electrification. In each case, we seek out methods that are appropriate to the local environment, that can be replicated on a much larger scale and that fit into the broader infrastructure needs of a country.

Sharing with Industry

It is not enough to implement; as part of our partnership model, we have a responsibility to share our experience, and to bring these techniques outside of the development industry into government and the broader construction industry.
To this end, in November 2010, the Global Communities West Bank and Gaza office, in partnership with USAID and the Palestinian National Authority, organized a Green Building Conference in Ramallah. Attended by 320 representatives from around the world, this conference brought together construction experts, thought leaders, government representatives, private industry and NGOs to discuss and share lessons learned and steps forward in green construction techniques. This was the first in what will be many such workshops, ensuring that environmentally intelligent construction is practiced around the world.

The conference brought about an exchange of information, case studies, ideas and—most importantly—commitment to environmental preservation among key stakeholders from international and Palestinian private industry, development organizations, universities, and thought leaders from around the world. Hundreds of Palestinian students of engineering and architecture participated in a green building design competition as part of the conference.

“It was deeply encouraging to see such innovation and creativity emerging from Palestinian youth, and I hope that these young people are given the chance to realize their potential in the future State of Palestine—if they are, I know we are in good hands.”

—Dr. Salam Fayyad, Prime Minister of the Palestinian National Authority
Christian Science Monitor, November 22, 2010