Between 1996 and 2005, over 6,400 natural and man-made disasters occurred globally, representing a 60 percent increase from the previous two decades. While the annual rate of people killed by natural disasters is falling, the number of people vulnerable to and affected by natural disasters is increasing. According to the Intergovernmental Panel on Climate Change, extreme weather events, such as droughts and cyclones, will become more severe in the future as the climate becomes warmer. The recovery and reconstruction effort after disasters is an important opportunity for project planners to incorporate climate adaptation and environmental sustainability into their recovery activities to make projects more resilient to a changing climate and reduce future disaster risk. For instance, some communities affected by Hurricane Mitch in Honduras were relocated away from flood zones, and the site development incorporated water recharge zones and open space that improved quality of life and reduced risk and vulnerability.

The use of effective Impact Assessment (IA) tools early in the recovery process can help to integrate climate adaptation, however a number of challenges and opportunities exist. These include: 1) the availability of relevant climate data at the local/project level; 2) dealing with multiple (and sometimes conflicting) climate futures; 3) deciding whether to build resilience to existing climate threats or facilitate transitions to new conditions; 4) balancing community needs and perceptions with regional-scale development planning; 5) creating adaptive institutions that are better able to respond to a changing climate; 6) addressing the direct, indirect, and synergistic affects of climate change impacts; and 7) making evidence-based decisions in a post-disaster situation. Climate change represents a fundamental shift in how human development occurs into the future and has implications for the international development, humanitarian, business and environmental sectors among others. In light of these challenges, the IA process can serve as a critical tool for creating and reinforcing integrated solutions and cross-disciplinary cooperation.

Summary: Climate change represents a fundamental shift in how human development occurs in the future. Assessing direct, indirect and synergistic climate impacts (and finding effective solutions) represents a challenge, especially in a post-disaster situation. The IA process can serve as a tool for creating and reinforcing integrated solutions and cross-disciplinary cooperation.