Title of case study	**Planetary Skin**
Name of organization(s)	**Cisco Systems**
Business sector	Information Technology Services
Region(s) relevant to case study	☒ All regions ☐ Africa and the Arab States ☐ Asia and the Pacific ☐ Caribbean and Central America ☐ Europe ☐ Least Developed Countries ☒ North America ☐ Polar regions ☐ Small Island Developing States ☐ South America
Country(s) relevant to case study	USA (Cisco Systems headquarters), All
Adaptation sector(s) relevant to case study	☐ Business ☐ Education and training ☒ Food security, agriculture, forestry and fisheries ☐ Human health ☐ Oceans and coastal areas ☒ Science, assessment, monitoring and early warning ☒ Terrestrial ecosystems ☐ Tourism ☐ Transport, infrastructure and human settlements ☒ Water resources ☐ Other (please specify):
Adaptation activity	The Climate Change practice of the Cisco Systems Strategy and Innovation Group (IBSG) is researching an initiative to reduce emissions from deforestation in developing countries with co-benefits for climate change adaptation and the conservation of forest ecosystems. This effort is part of a wider global sensing and monitoring R&D collaborative effort with NASA and other partners to co-develop a “Planetary Skin” that goes beyond carbon sensing in rural and urban environments into critical sectors including water, food productivity and risk management.

	Cisco System's Planetary Skin Institute (PSI) has identified two powerful trends re-shaping the world. The first is resource scarcity, the result of demand growth (water, energy, food, land, etc.) driven by growing populations with rising incomes and increasing constraints on the supply of these resources given environmental degradation, land use change, inherent variability of weather conditions and resource productivity, and the threat of climate change. The second trend is information abundance, driven by a massive increase in data and information processing capabilities, driven by new sensor networks and a host of emerging information and communication technologies. The PSI aims to address the challenge posed by the first trend with the opportunity presented by the second. In short, PSI aims to harness the power of information technology and networks to help decision-makers manage scarce resources and risks more effectively in a changing world. PSI is currently working with select corporate, government and academic/ think tank partners in the US, EU, India and Brazil to build working prototypes of resource and risk management decision support tools that have the potential to increase food, water, and energy security and protect ecosystems such as tropical forests. In all of its activities, PSI focuses on decision support, or improving resource management and risk management decision-making through the effective use of information. We target decision-makers, map and prioritize decision flows, identify blockages and barriers, then experiment with different approaches to generate useful data and integrate them into timely and actionable information.
Cost-benefit	In March of 2009, Cisco and NASA agreed a multi-year R&D public private partnership to co-develop the Planetary Skin. From their early work together on tropical forestry, both organizations soon realized that they faced a powerful opportunity to address not only scientific and technical challenges, but also institutional and cultural challenges by pooling their R&D capabilities and assets in a partnership based on joint innovation. They transformed their partnership into an independent, non-profit organization, the PSI, that could cut across institutional, disciplinary, and national boundaries and create a space for flexible pooling of assets and ideas between stakeholder networks. This unique space for R&D makes Cisco Systems a leader among its peers in

	the development of climate change adaptation technologies.
Case study source(s)	Planetary Skin Institute website
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