

Discussion Topic: The Sahara Forest Project

Abstract: Historically, large parts of the Sahara, and other deserts, were vegetated with forests of cedar, cypress, and other plants. Over time, highly extractive land use has reduced the amount of vegetation on the planet and threatens to exacerbate climate change, potentially creating a positive feedback that will further accelerate desertification. However, deserts have the highest levels of solar energy in the world, and capturing a portion of this energy to reverse the process of desertification could help society deal with many of the challenges we face currently and will face in the future.

The Sahara Forest Project (SFP) provides an integrated solution to global water, food, and energy challenges through a unique combination of proven environmental technologies, such as concentrated solar power, modern biomass production, and the *Seawater Greenhouse*. The SFP offers a vision of using these technologies on a large scale to revegetate arid areas and create freshwater, food, electricity, and bioenergy. It has the potential to restore areas of desert to biological activity and sequester large amounts of carbon in plants and soil. The over-arching theme is that critical energy and environmental goals can be achieved through a profitable business enterprise that is restorative, rather than extractive. In achieving these goals, the SFP would also create employment opportunities in some of the world's poorest areas.

The SFP has approval to construct a demonstration-scale facility in Jordan and is looking to develop a larger scale facility in Qatar. There may be opportunities for Cornell faculty to develop collaborative projects at both sites.