SNAP: A New Model for Tackling the Biggest Global Challenges

Six new working group challenges selected: Data Limited Fisheries Management, Ridges to Reef Fisheries, Hydraulic Fracturing Impacts on Water Quality and Quantity, Sustainable Agriculture Intensification, Urban Water Security, and Making Ecosystem Services Count for Sustainable Development Goals

The Nature Conservancy, the Wildlife Conservation Society, and the National Center for Ecological Analysis and Synthesis launched historic collaboration: Science for Nature and People (SNAP)

New “venture capital” model for scientific research places emphasis on real world problem solving for today’s biggest global challenges

SNAP website and online magazine at http://snap.is

WASHINGTON, D.C. (APRIL 1, 2014) – Science for Nature and People (SNAP) is pioneering a new model for using science to help solve the world’s most pressing conservation and human development challenges.

Today, SNAP announces the selection of six new working group projects that bring science to solving some of the planet’s toughest challenges involving nature and human well-being — from urban water security to hydraulic fracturing’s impact on water quality, from the sustainable management of fish stocks to feeding 9 billion people without destroying the planet. These projects were chosen from a pool of proposals submitted by top scientific researchers from academia, conservation, policy, and other non-governmental organizations.

SNAP has formed a broad-ranging roster of scientific inquiries into global problems. The six new projects include: Data Limited Fisheries Management, Hydraulic Fracturing Impacts on Water Quality and Quantity, Ridges to Reef Fisheries, Sustainable Agriculture Intensification, Urban Water Security, and Making Ecosystem Services Count for Sustainable Development Goals. These join the initial SNAP working groups, Coastal Defenses (using nature to protect our shorelines from hazards) and Western Amazonia (balancing infrastructure development including dams and the conservation of waters, wetlands and fisheries in the region), already underway.

Today, SNAP also announces its 2014 Request for Proposals (RFP) for additional working groups to be chosen in July. Applications are now being accepted through May 20, 2014.
In contrast to traditional scientific research, SNAP envisions an entrepreneurial, venture capital approach to selecting the issues on which to invest funding and resources. With funders in place, SNAP solicits proposals from any person, group or institution, selecting projects that tackle a significant conservation challenge with scientific rigor and integrity, and a clear pathway to rapidly translating the findings to implementation of real world solutions.

SNAP is designed to find practical, knowledge-based ways in which the conservation of nature can help provide food, water, energy, and security to Earth's fast-growing population. This groundbreaking collaboration between The Nature Conservancy (TNC), the Wildlife Conservation Society (WCS), and the National Center for Ecological Analysis and Synthesis (NCEAS) was first launched at the September 2013 annual meeting of the Clinton Global Initiative. This unprecedented collaboration will harness the expertise of many organizations, scientists, policymakers, and practitioners--breaking down the traditional walls between disciplines, institutions, and sectors.

SNAP utilizes working groups to research, analyze, and develop solutions to these challenges. The program invites scientists and specialists from around the globe to submit proposals during an annual open Request for Proposals. The goal is to fill knowledge gaps and advance solutions to urgent problems at the intersection of nature and human well-being. These working groups will convene periodically over two years to synthesize all relevant data to address these challenges, generating reports, publications, and materials to support policy- and decision-makers and conservation practitioners on the ground throughout the world.

"With these new Working Groups, SNAP takes a huge step toward becoming the facility for addressing the biggest issues conservation and human development face today," said Peter Kareiva, SNAP’s acting director and The Nature Conservancy's Chief Scientist. "Each of these Groups brings together scientists, policymakers and practitioners in a space dedicated to creating innovative solutions that will work in the real world--and that the real world will adopt."

John Robinson, WCS Executive Vice President for Conservation and Science and member of SNAP's governing board, said: "SNAP is intended to be the go-to place for practitioners and policymakers from around the world to seek and find solutions to their most pressing problems around human well-being and the conservation of nature. We aim to generate knowledge that is science-based and practical. When filtered through key institutions ready to use it, the findings will lead to better policies, more effective field practices, and durable economies that value nature's services and secure the livelihoods of families at risk."

Frank Davis, NCEAS director and a member of SNAP's governing board, said: "SNAP working groups are tackling hard problems that span the boundary between science and application and engage diverse experts and interests. These types of collaborations are challenging, but our experience at NCEAS is that they can be tremendously rewarding and can identify productive pathways to implementation."

SNAP's newly accept working groups:

*Data-Limited Fisheries: Worldwide Fish Stock Assessment Solutions*

Overfishing threatens the health of many of the world’s fish stocks — and the millions who rely on fish for their livelihood and animal protein. But we lack regular assessment data for more than 90% of Earth’s fisheries…and reliably assessed fisheries tend to be better managed and thus less overfished. This Working Group will explore how new, inexpensive approaches to assess such data-limited fisheries could be implemented across the globe.

*Hydraulic Fracturing: Impacts on Water Quality and Quantity*

Shale energy development — made possible by the new technologies of horizontal drilling with hydraulic fracturing — is helping meet increasing global demand for energy and providing economic benefits. But hydraulic fracturing also uses large quantities of water and produces toxic chemicals. The aim of this Working Group is to use science to help predict and avoid conflicts between shale energy development and the need for clean safe waters for people and natural systems.
Urban Water Security: Prioritizing Investments in Nature

Water stress is an increasing global problem, with as much as 30% of the world’s population facing water shortages on a regular basis. Water funds have created an innovative mechanism to mobilize and scale up investment in natural capital to meet cities’ growing water security needs, especially in Latin America. This Working Group will develop and demonstrate a decision-oriented rapid assessment methodology to identify the most promising Latin American cities for water funds based on science.

Agriculture: Smart Planning and Sustainable Intensification

Though small farmers dominate agriculture in developing countries, commercial farming is now poised to move into infrastructure "corridors" in these countries. Conservation can use these proposals as an opportunity to demonstrate to policymakers, planners and potential investors what sustainable ag intensification might look like on the ground, with better market access improving agricultural livelihoods while good planning and responsible investment maintains the ecosystem services provided by healthy soils, water and natural habitat. This Working Group will address smart planning and sustainable agricultural intensification in the Southern Agricultural Growth Corridor of Tanzania, with implications for development corridors throughout the world.

Ridges to Reef Fisheries: Enhancing Information on Land-Use Impacts on Fisheries

Increasing populations and economic development along coasts around the globe are leading to growing pressures on fisheries and other marine resources. To date, marine conservation has focused almost exclusively on reducing overfishing — despite the harmful impacts on marine ecosystems from terrestrial activities like farming and logging — because of a lack of data and models linking terrestrial and marine ecosystems. This working group will address these information gaps, allowing conservationists to better address the impact land-use changes have on fisheries.

Making Ecosystems Count in the Sustainable Development Goals

Providing for a growing and increasingly wealthy global population while protecting the environment calls for a dramatic paradigm shift in how we approach development. Working closely with government ministries of the Volta and Nile Basins, this Working Group will organize a series of four workshops aimed at developing agriculture, ecosystem and natural-resource based indicators for planning and monitoring country-scale progress on the UN Sustainable Development Goals. The indicators will be grounded in ecosystem sciences, include novel evaluation measures for natural capital and ecosystem services, and have practical relevance to policy makers.

SNAP’s Initial Projects already underway:

Integrating Natural Defenses into Coastal Disaster Risk Reduction

The recent tsunami in Japan showed how even monumental built capital (levees, sea walls and artificial barrier islands) can be overcome by just one severe environmental event. This project will focus on exploring how conserving existing coastal habitat and restoring what has been lost can help protect coastal communities and livelihoods from the impacts that result from storms — such as hydro-meteorological hazards like Hurricanes Sandy and Katrina and other extreme environmental events.

Western Amazonia: Balancing Infrastructure Development and Conservation of Waters, Wetlands and Fisheries

The Amazon Basin is the largest river system in the world, and the Western Amazon contains the largest areas of flooded forests, and wetlands in the basin — areas critical to food provision and drinking water for tens of millions of people as well as to subsistence and commercial fisheries. The working group will investigate the conservation of waters and wetlands and the local food security and economies dependent on them, balanced with the large-scale infrastructure development already underway, such as roads and dams needed to support the growing urban populations.
SNAP has been generously supported by Shirley and Harry Hagey, Steve and Roberta Denning, Seth Neiman, the Gordon and Betty Moore Foundation, Ward W. and Priscilla B. Woods, and the David and Lucile Packard Foundation.

Science for Nature and People (SNAP) is the premier innovation engine of conservation and sustainability science — providing creative, timely and credible scientific answers to the most pressing questions about the links between nature conservation and human well-being. Visit: http://snap.is

The Wildlife Conservation Society (WCS) saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature. WCS envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on earth. To achieve our mission, WCS, based at the Bronx Zoo, harnesses the power of its Global Conservation Program in more than 60 nations and in all the world’s oceans and its five wildlife parks in New York City, visited by 4 million people annually. WCS combines its expertise in the field, zoos, and aquarium to achieve its conservation mission. Visit: www.wcs.org.

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. The Conservancy and its more than 1 million members have protected nearly 120 million acres worldwide. Visit The Nature Conservancy on the Web at www.nature.org.

The National Center for Ecological Analysis and Synthesis (NCEAS) is a research center of the University of California, Santa Barbara. NCEAS fosters collaborative synthesis research – assembling interdisciplinary Working Groups to distill existing data, ideas, theories, and methods drawn from many sources – to accelerate the generation of new scientific knowledge at a broad scale and enhance the application of science to management and policy. Visit: www.nceas.ucsb.edu.