

## REQUEST FOR PRE-PROPOSALS FOR FIELD RESEARCH:

# ***SUSTAINABLE AGRICULTURE AND FORESTRY ACTION***

Providing food and forest resources to meet the growing needs of humanity in a rapidly changing world is one of our most urgent conservation needs. How we manage agricultural systems and forests has tremendous impact on carbon sequestration and on our ability to maintain ecological resiliency worldwide. Additionally, developing sustainable agriculture and forestry practices is essential to ensure availability of the ecosystem services (food and water; flood and disease control; spiritual, recreational, and cultural benefits; nutrient cycling) necessary to maintain life on Earth and accommodate shifts in resource availability because of global change.

Specifically, we are seeking pre-proposals from scientists for projects that will take measurable action to address global change in agricultural and forest ecosystems by:

- Increasing scientific knowledge and public awareness of environmental challenges, while providing locally relevant solutions;
- Increasing partnerships with local people, communities, and governmental and non-governmental organizations (NGOs) at local and international levels; and
- Informing management plans and environmental policies.

All pre-proposals must have an overarching research theme directly related to taking action to address degradation and loss of biodiversity and be for hypothesis-driven science with quantifiable goals. Because meeting these challenges requires a whole-ecosystem approach and innovation, we are specifically interested in interdisciplinary, solution-based projects. Examples include *agro-forestry*, defined as agriculture that incorporates the cultivation and conservation of trees (e.g., shade-grown coffee), and incorporation of *Tradition Ecological Knowledge* (TEK), defined as a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment. We strongly welcome pre-proposals aligned with the UN Sustainable Development Goals that will improve human livelihoods and support scientists in emerging nations. We seek projects in South America, Europe, Africa, Asia, and North America.

### **FOCAL SUSTAINABLE AGRICULTURE AND FOREST ECOSYSTEMS ACTION RESEARCH TOPICS:**

We invite pre-proposals for field-based research by qualified scientists on the following topics:

- Climate-change impacts in agriculture and forestry systems on water availability and quality, nutrient flow, maintenance of species diversity, and carbon sequestration;
- Agroforestry that includes ecologically and socially sustainable production of widely-used commodities such as coffee, tea, chocolate, wine, and beer;
- Food-web relationships driven by pollinators, apex predators, and herbivores, and their effects on ecosystem productivity, resiliency, and biodiversity;
- Native seed programs and invasive species control;
- Cooperative sustainable agriculture and forestry strategies;
- Climate-smart agriculture, such as permaculture (food security and climate change);
- Integration of sustainable agriculture and forest ecology research with local K-12 STEM education, citizen science, and TEK programs;
- Soil conservation and health, soil carbon restoration, and soil erosion control;
- Human-wildlife coexistence, including reduction of wildlife damage to crops and forests, and noninvasive pest control; and
- Ecological restoration, with a focus on repairing the damage humans have done to ecosystems.

## HARNESSING THE POWER OF CITIZEN SCIENCE TO TAKE ACTION TO ADDRESS GLOBAL CHANGE:

Since 1971, Earthwatch has funded scientists working with citizen-scientist volunteers to increase our understanding of ecosystems, find sustainable solutions to global change, and support scientific freedom. Project we fund produce rigorous, relevant, and impactful science. Incorporating participants in fieldwork increases the broader impacts of the research we fund, by giving citizen scientists a deeper awareness of science and greater commitment to conservation.

To fit our citizen-science model, all proposed projects must:

- Have quantifiable goals and measurable impacts of action taken on the project;
- Have a 3-year or longer duration (longer-term research may receive priority support);
- Incorporate field-based research;
- Have data gathered primarily by citizen-scientist participants recruited by Earthwatch;
- Field 4 to 10 teams per year, with 4-15 volunteers per team as needed for data collection;
- Have short (1-3 day) and/or long (7-14 day) duration teams (projects that enable both short and long duration teams will receive priority support);
- For 2-day + teams, provide reputable housing for volunteers within a 45-minute drive from site;
- For longer-duration teams, field adult, high school and college student, teacher, and corporate groups;
- Be run in English, with all communications and supporting documents in English;
- Educate each team of Earthwatch volunteers about the project's science and its relevance;
- Share project data with land managers and if possible contribute to open-source datasets.

## GRANTS:

Annual grants cover project field expenses including: equipment, research permits, scientist transportation to the field, support staff, and food and housing while in the field. **Grants do not cover scientist salaries, student tuition, overhead, or capital equipment.**

Typical annual budgets for projects with long-duration teams range between US \$20,000 – \$80,000, with most of that covering volunteer and staff expenses while in the field. Final grants are provided on a per-capita basis based on the number of participants. Research projects are tenable for three years, subject to annual performance review, and may be eligible for renewal beyond that period.

## PRINCIPAL INVESTIGATOR (PI) REQUIREMENTS:

All pre-proposals must be submitted by the PI. All PIs must have a PhD in the field of the proposed research and an affiliation with a university, government agency, or science-focused NGO. We strongly encourage graduate student participation on projects and are particularly interested in helping support early-career scientists and scientists local to the research nation.

## SUBMITTING A PRE-PROPOSAL:

All pre-proposals and supporting documents must be in English. Earthwatch will select pre-proposals for development into full research proposals. Criteria for selection are: quality and relevance of the project proposed, PI qualifications, and goodness of fit for citizen science. Due to safety concerns, we are unable to support projects in the following areas: **Earthwatch No Go List**. To submit a pre-proposal, visit <http://earthwatch.org/research-funding/apply-for-funding>.

**PRE-PROPOSALS FOR PROJECTS STARTING IN 2020 WILL BE  
ACCEPTED THROUGH 11:59 PM (EDT) SUNDAY, JUNE 10, 2018**

Please direct inquiries to: [research@earthwatch.org](mailto:research@earthwatch.org)