



Call for applications

Collaborative research on health and the environment in the South East Asian and Western Pacific Regions:

Innovative socioecological strategies for the prevention and control of vector-borne diseases

Deadline for submission: 15 October 2016, 17:00 CET

Only applications from eligible countries in the WHO South East Asian and Western Pacific Regions can apply

This is an invitation to submit proposals to undertake transdisciplinary research on health and environment leading to the development of community-participatory strategies for the prevention and control of vector-borne diseases (VBD). The proposed research project should utilize an ecosystem-based approach and explore how innovative VBD control tools and strategies can be used more effectively among vulnerable populations. The aim is to strengthen and improve the target populations' health outcomes in the face of environmental changes (including climate change) within the complex socioecological system.

Background and rationale

Every year more than one billion people are infected and more than one million people die from VBDs. VBDs also cause significant hardship and misery to affected populations. Many VBDs are prevalent in the South East Asia (SEA) and Western Pacific (WP) regions. These include, among others, mosquito-borne diseases (e.g. malaria, dengue, chikungunya, Japanese encephalitis, lymphatic filariasis), sandfly-borne disease (kala-azar) and snail-hosted disease (e.g. schistosomiasis), although there may be other lesser known VBDs such as Kyasanur forest disease and Crimean Congo hemorrhagic fever.

The purpose of this new programme is to stimulate collaborative research that would have a positive, transformative impact on health outcomes for populations challenged by VBDs within the context of an ever-changing environment (including climate change) in the framework of a complex socioecological system.

Building a health supportive environment requires intervention approaches are developed through coordinated multisectoral joint action and community empowerment. This research programme contributes to the use, uptake and adoption of VBD control/prevention products (such as innovative tools, solutions and delivery mechanisms and approaches to significant VBD challenges) that are preventative and sustainable.

Conceptual Framework

TDR aligns its commitments, goals and values with the United Nations Sustainable Development Goals (SDGs) and the work of the World Health Organization (WHO) Public Health and Environment Global Strategy, which provides the institutional/policy framework for the operationalization of holistic approaches to health. This includes integrative and sustainable control and prevention measures against vector-borne diseases (See [ANNEX 1](#))

Transdisciplinarity (3) and systems thinking (4) interact in multiple complementary (mutually reinforcing) ways. Transdisciplinarity fosters relevant knowledge broker networking among sectors and community partners, as well as fosters knowledge integration and circulation among stakeholders. Systems thinking, on the other hand, stimulates epistemological pluralism (the collective representation of multiple “ways of knowing”), guides transdisciplinary team formation, and supports design and development of adaptive intervention strategies. Transdisciplinarity and systems thinking incorporate methods that include analysis of complex system dynamics and identification of knowledge gaps and information needs. The functional reciprocity of transdisciplinarity and systems thinking is reflected in the figure by the double arrow linking both compartments.

Together, transdisciplinarity and systems thinking provide the foundation for the operational principles that should guide the research proposals. These principles include commitments to values such as equity and equality that foster cultural sensitivity and respect, and gaining a deeper understanding of local circumstances, held values, and local knowledge. These values should prevail within and among communities of practice, whether working with villagers, scientists, policy-makers, or any other participant groups. The resulting interaction of perspectives and the willingness of involved participants to see each other’s perspectives (acceptance of epistemological pluralism) coupled with holistic analyses of issues, a priori, will help clarify “the problem”, identify the knowledge and methodological needs to address it, and foster the creation of transdisciplinary teams (continually refined throughout the project). Explicit intention should be given to translation of the knowledge created during the project into research uptake through adapted best practices and public health policy frameworks. Their alignment with “bottom-up” community-based interventions is an important condition for sustainability. This requires a focus on capacity building through deep engagement and knowledge sharing among communities of stakeholders. Successful proposals will incorporate these principles into their research design and the assessment of the outcomes created.

Objectives and outcomes

The overall objective of this call is to support research groups in the SEA and WP regions to undertake a socioecological systems approach to understanding the challenges of VBDs that will inform the implementation of innovative and sustainable environmental public health approaches and solutions.

Specific objectives

1. Implement multi-stakeholder-driven, ecosystem-based innovative tools and approaches to address the challenge of vector-borne diseases, especially in areas with inadequate health infrastructure.
2. Undertake training activities for research capacity building.
3. Facilitate the uptake of new knowledge and research results through translation of research for best practice and influence on policies.

Expected outcomes

1. Delivery of multi-stakeholder-driven, ecosystem-based innovative tools and approaches to address the challenge of vector-borne diseases, especially in areas with inadequate health infrastructure.
2. Improved capacity of researchers and partners for transdisciplinary research.
3. Improved mechanisms for policy uptake of new knowledge and research results.

Eligibility criteria

This research programme has a highly selective nature. It seeks to identify unique established groups, consortium or networks that are in the consolidation phase of their research and would most likely benefit from a new influx of funding to advance their work. The ideal candidate is a research group with an existing VBD control/prevention product/s that has/have significant demonstrated potential and can be leveraged for immediate application.

Research groups, networks or consortia from multi-country institutions (from at least 3 countries) working in low- and middle-income countries within the WHO Southeast Asian and Western Pacific regions are eligible to apply. Applications are limited to those groups or entities that have had previous experience/track record (through publications and on-the-ground experience with community participatory projects) in undertaking socioecological system research and/or interventions relevant to VBDs. These groups should include collaborations from across multiple disciplines and those working in programmes embedded within the relevant sectors (e.g., ministries of health and environment), academic institutions, research institutes and nongovernmental organizations, professional societies and civil service organizations involved in tropical disease research activities. Applications should be headed by qualified researchers (PhD level, at a minimum); female researchers are strongly encouraged to apply. The grant will be awarded to the beneficiary institution where the lead researcher/s is/are based.

Funding scope and selection process

Funds

A maximum of 2 proposals will be selected for funding for a period of 2 years with a maximum annual budget of US\$ 120 000 per project (total up to US\$ 240 000). Progress will be evaluated each year with grants renewed annually depending on a satisfactory technical report. TDR will implement this research programme; additional funding from the Association of South East Asian Nations – Network for Innovation (ASEAN NDI) may be available to support capacity building.

Selection process

Proposals will be selected through a competitive process based on a peer review focused on scientific merit, relevance, innovation, potential for capacity strengthening for the institution and feasibility of the project. If the proposal is selected for funding, two ethical clearances will be required from: 1) the designated institutional and/or national ethical committee; and 2) the Ethics Review Committee of the World Health Organization (WHO ERC). Final approval of grants and issuance of Technical Services Agreements (TSA) is subject to these ethical clearances. The starting date for project implementation is **January 2017**.

Evaluation criteria

The proposals will be reviewed and evaluated by a peer-review process that will take into consideration the following:

Scientific merit

- Well-articulated research vision, clearly linking and highlighting the impact of previous research and/or the innovative VBD prevention/control product to the proposed project
- Appropriate problem statement and rationale
- Clear and well defined objectives
- Appropriate and feasible research questions
- Concise, pertinent, complete, appropriate literature review
- Appropriate study design, methodology and data collection and analysis plan and reporting
- Considerations of ethical issues arising from the research
- Feasible implementation timeline (Gantt chart)
- Soundness and appropriateness of budget
- Risk assessment and management approach to the project

Relevance

- Fitness with the theme and scope of the call and description of the socio-ecological context in terms of systems;
- Appropriateness of the methodology to the problem and the context (with clear link to national health and environment programmes);
- Quality and suitability of the multi-disciplinary research team (with complementary and integrated expertise); transdisciplinarity of research framework, and involvement of multi-sectoral stakeholders (both at the national policy as well as at the local policy implementation level, e.g. communities, development partners);
- Community engagement/participation and empowerment approach leading to community resilience and plans to engage non-researchers and stakeholders throughout the research process;
- Consideration to gender and equity issues;
- Potential for strengthening existing capacity (including organizational) of the research team, institutions and communities;
- Dissemination and utilization plan of research results;
- Ability of the principal investigator to manage the project based on track record of innovative and impactful research
- Outcome-oriented monitoring and evaluation framework
- Potential to influence policy through best practices and policy linkages
- The extent to which the proposed project is likely to contribute to improved health outcomes for vector-borne diseases; how will achievement of the research objectives change the concepts, methods, technologies, services, or preventative interventions that drive advancement of VBD prevention/control.

How to apply

Applicants intending to submit proposals are encouraged to contact **Bernadette Ramirez** at TDR (ramirez@who.int). In your initial email, please provide a brief description of the proposed project with the following information: a) descriptive title of project; b) name/s and affiliation of principal investigator; c) names of other key personnel; d) collaborating groups/countries; and e) brief description of the research project.

The full proposal, written using the TDR research grant application form (http://www.who.int/tdr/grants/application_reporting_forms/en/), must be submitted by email on or before **15 October 2016** (17.00 hours, CET) to TDR through Bernadette Ramirez (ramirez@who.int). No late applications will be accepted for this Call. Applications that are incomplete, non-compliant and/or nonresponsive to the call will not be reviewed.

Definitions

1. Transdisciplinarity - a research approach that is integrative, employs a holistic and/or systems thinking, is participatory and combines knowledge from within academia and from multiple outside sources to address a 'real world' problem.
2. Systems thinking - a scientific approach that recognizes that complex systems possess emergent properties and therefore are more than the simple sum of multiple parts.

About TDR

The goal of the TDR strategy is to foster research on infectious diseases of poverty that lead to health improvement, strengthen research capacity of the individuals and institutions in developing countries, and develop implementation strategies and solutions that respond to health needs of these countries. It also aims to translate research results into policy and practice, improving health and promoting the engagement of individuals and communities in using research evidence to reduce the disease burden in their respective countries.

The TDR unit on Vectors, Environment and Society (VES) supports research and capacity building to achieve the following objectives: a) promote and facilitate the development and evaluation of new and improved integrated control methods and strategies for the prevention of vector-borne diseases (VBDs); b) design and implement community-based ecosystem management and environmentally-friendly vector control interventions; c) undertake transdisciplinary research towards understanding, prevention and mitigation of the impact of environmental and climate changes on vectors and VBDs; and d) enhance access to control interventions through community engagement.