



CALL FOR LETTERS-OF-INTENT

Eco-Bio-Social Research on Dengue in Asia: Understanding Ecosystem Dynamics for Better-Informed Dengue Prevention

A WHO-TDR/IDRC research initiative on ecological, biological and social ("eco-bio-social") aspects of dengue in high-burden/hyperendemic countries of Asia

I. RATIONALE AND BACKGROUND

The UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), in collaboration with the International Development Research Centre (IDRC, Canada), invites letters-of-intent from research institutions and scientists from high-burden/hyperendemic countries for dengue fever/DHF/DSS in South Asia and South-East Asia¹ for studies participating in a new research initiative on eco-bio-social aspects of dengue. The research initiative aims at leading to improved dengue prevention by better understanding its ecosystem-related, biological and social ("eco-bio-social") determinants and to develop and evaluate community-centered ecosystem management interventions, embracing public intersectoral actions, to reduce dengue transmission below threshold levels for epidemic outbreaks.

II. SPECIFIC OBJECTIVES

The letters-of-intent should outline the design, methodology and estimated budget (of up to USD 160,000) for a two-year research project (to be carried out 2006-2007) with two phases, i.e., (a) a study of the dynamics between ecological, biological and social factors as they shape the transmission dynamics of dengue in a defined setting, preferably an urban and peri-urban ecosystem; and (b) an intervention development and evaluation study, based on the findings from the initial phase:

¹ Research groups from all high-burden countries of Asia can apply, however, special attention will be paid to the following low to middle income countries: Bangladesh, Cambodia, PR China (Southern Provinces), India, Indonesia, Lao People's Democratic Republic, Myanmar, Philippines, Sri Lanka, Thailand and Viet Nam.

(a) the study of transmission dynamics should be informed by basic and strategic sciences such as ecology, vector biology, entomology, immunology and a variety of social sciences². It would combine ecological factors (e.g., vector ecology, climatic factors), with biological (e.g., sero-conversion rates, vector infection rates) and social and environmental factors (e.g., factors affecting public services, housing patterns, water storage, garbage disposal practices, community dynamics etc.). The studies shall be conducted by multi-disciplinary research teams, potentially composed of scientists with different disciplinary backgrounds, covering environmental, social and health expertise, including, but not limited to, ecologists, biologists, entomologists, biomedical scientists (immunologists, virologists), epidemiologists, social and behavioral scientists, economists, urban planners, and policy analysts/political scientists. This component of the study will be based on standard research techniques usually employed by these disciplines and by public health research, being health systems/health/public services research only one of the contributing research techniques. This study component, in other words, calls for an "eco-bio-social" situation assessment.

(b) the intervention study will be based on clear definitions and development of (i) appropriate prevention and control "tools" for the particular setting such as insecticide treated curtains and jar covers, larval growth inhibitors of slow release, and/or community-organized water management and garbage collection schemes etc.; (ii) strategies for partnership-driven ecosystem management/community development and actors involved (e.g., urban planners, community co-operatives, schools, municipal services, vector control staff); and (iii) an evaluation framework.

The Letters of Intent should be formulated as concise texts of not more than five A4 pages (12 point), excluding CVs, outlining the following:

- i. Project title
- ii. Proposed Principal Investigator (PI), and multidisciplinary study team
- iii. Institutional profile
- iv. Background and problem statement, overall relevance with respect to overall program as described in the call for letters-of-intent, core research questions
- v. Study site ("ecosystem under study")
- vi. Overall and specific objectives
- vii. Methods (study design, research techniques, how does the methodology address multi-dimensional and multi-scale issues, participatory, social and gender approach);
- viii. Role/involvement of community, stakeholders and policymakers
- ix. Estimated time schedule and budget.

Short one-page CVs of PI and proposed scientists, including letters from scientists of other institutions confirming their willingness to collaborate on the proposed activity, should be attached.

² Including anthropology, sociology, economics, policy research and social epidemiology.

Selected research teams of submitted successful letters-of-intent will be invited to a proposal development workshop in early 2006. Submission of a letter-of-intent indicates general willingness and availability to participate at the workshop with two members of the research team having different but complementary disciplinary backgrounds. *It is important to note that invitation to, and participation at, the workshop does not guarantee funding of the future proposal.* Proposals will be ultimately reviewed by a Product Development Team and only selected proposals showing highest scientific merit and relevance will be recommended for funding.

III. HOW THE INITIATIVE TEAM (Product Development Team, PDT) OVERLOOKING THIS RESEARCH INITIATIVE WORKS

Letters-of-intent to be considered for proposal development will be evaluated according to scientific merit and relevance to the call, with special attention to the following features of a future research project:

- Multidisciplinary research teams
- Involvement of key stakeholders (both at the national policy as well as the local policy implementation level, e.g. communities, municipalities, resident welfare societies)
- Trans-disciplinary research framework
- Social mobilization and community participation components
- Gender-sensitive approach
- Multi-scale / multi-level analysis
- Dissemination and utilization of research results
- Policy linkages based on research results

Evaluation criteria

Scientific merit

- Appropriate problem statement and rationale
- Clear and well defined objectives
- Appropriate and feasible research questions
- Concise, pertinent, complete, appropriate literature review
- Sound analytic framework and feasible design, including intervention design
- Appropriate methodology
- Appropriate data collection methods

- Appropriate response to ethical issues and challenges
- Time plan
- Soundness and appropriateness of budget

Relevance

- Appropriateness of the methodology to the problem and the context
- Trans-disciplinarity
- Community engagement
- Gender issues
- Plans to engage non researchers, those who have a stake in the research results
- Attention to gender and equity issues
- Potential for capacity development of research team and institution
- Potential to strengthen organizational capacity
- The extent to which the proposal has potential to influence policy
- The extent to which proposed project is likely to address societal problems
- Dissemination plan
- Quality of the institution (s)/team
- Existing capacity of institution and potential for increased capability
- Ability of the Principal Investigator to manage the project
- Team composition suitable to the tasks proposed

IV. HOW TO APPLY

Letters-of-intent can be submitted in English, by e-mail (preferably as a pdf file) and will be reviewed by the Initiative Team (Product Development Team, PDT) in March 2006. The proposal development workshop will be held in South-East Asia, in May 2006.

DEADLINE FOR RECEIPT OF APPLICATIONS AT TDR: Tuesday, 31 January 2006.

For further details, please contact:

Dr Johannes Sommerfeld
Manager, Initiative Team, Eco-Bio-Social Research on Dengue
Steering Committee on Social, Economic and Behavioural Research
Special Programme for Research and Training in Tropical Diseases
World Health Organization, CDS/TDR/SDR
1211 Geneva 27
Switzerland

Tel: (41-22) 791-3954

Fax: (41-22) 791-4854

