

Supplementary Data

SUPPLEMENTARY TABLE S1. SCIENTIFIC

Entomological data

Presence of target species (*Aedes aegypti*)

- Is the target species present at selected sites (proposed release and control sites)?
- What data are available on current and historical numbers of the target species at each location (many types of data are relevant and 'ideal' information may not be available)?
- How do those population sizes fluctuate through the different seasons of a year?
- What is the history of the target species and how have populations changed over time (again, many types of data are relevant and 'ideal' information may not be available)?

Presence of other mosquito species

- Are other mosquito species present?
- Which species appear and in what estimated or relative numbers in monitoring systems to be used (from any trapping system, but particularly from ovitraps, BG-Sentinels and backpack aspirators).

Human inhabitants

- What are the approximate numbers and demographics of the human population(s) of proposed release and control sites?

Presence of disease

- Describe the nature of dengue transmission at the proposed release trial site(s), including possible transmission by species other than *Ae. aegypti*.
- What is the history of dengue at the proposed locations? (Dengue incidence by year, season, location; is there laboratory confirmation of dengue fever and dengue hemorrhagic fever; age-specific incidence; circulating serotypes)
- What is the status of chikungunya and yellow fever viruses in the proposed sites?
- Describe the availability of facilities for monitoring dengue incidence (e.g. medical clinics, clinical research facilities) at the proposed sites, and how these are funded.
- What are the most frequent illnesses and top medical issues for people in the target community? How often are these confused with dengue fever?

Size(s) of proposed sites

- Describe the scale of site(s) in terms of geographic area (hectares or km²). Mosquito and human populations are described in text (Entomological Data and Human inhabitants sections, respectively).

Duration of trial

- What is the capacity for commitment of the DEC partners to the duration of the trial?

Isolation

- Are the proposed sites geographically isolated by ≥ 400 meters?
- What is the nature of the isolating terrain or other barrier(s) separating the mosquito population at the site from other known or suspected mosquito populations?
- If the sites have ≤ 400 meters isolation, what mitigations are available, e.g., barrier treatment in buffer zone?

Control sites

- Can a control site be identified for each potential trial site?
- To what extent are they similar and different to the proposed release sites in aspects relevant to the trial (or to what extent are there a set of comparable sites to be used either for release or as controls)?

Protected biotype and other significant resources

- Survey and describe the protected biotypes/ecotypes and other sensitive areas that are within or close to the proposed sites.

Other vector control activities

- What vector control operations are conducted in the area?
- Who is responsible for these activities?
- How are these activities funded (through which agencies/bodies of government)?
- Who are the contact people for each relevant agency?
- What is known of their program or intentions for treating (or otherwise) the proposed trial sites? Please refer to the questions in the Regulatory section about statutory or compulsory treatment.

Adverse natural conditions

- Describe the proposed site environment in terms of risk of adverse natural conditions. As appropriate, this should include locations containing laboratory facilities, access routes *etc.*, as well as the proposed release sites themselves.

Adverse human activities

- What is the distance to roads, railroads, airports and other possible means by which released mosquitoes can be transmitted by humans out of the trial sites?
- Is there a real threat of civil unrest, nationally or in proposed trial area(s)?

Next steps

- If the planned trial is successful, what are the prospects for moving to a larger scale at the same or nearby site?
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