Larval Source Management (LSM) will work best and be most cost-effective in areas where larval habitats are seasonal, relatively few and well-defined, where habitats are accessible by ground crews, and in cooler parts of the tropics where larval development is prolonged. These conditions occur frequently, and thus this method can be an effective tool for malaria control in selected eco-epidemiological conditions such as areas of low to medium transmission intensity, areas of very focal transmission or epidemic prone areas. Such conditions are common in urban environments, desert fringe communities, highland settlements and rural areas with high population densities.

LSM is not a strategy for country wide application, and should not be the primary tool selected in areas of intensive transmission. Nevertheless, LSM has the potential to be integrated into control programmes after Long-lasting Impregnated nets or indoor residual spraying have reduced transmission to moderate or low levels of transmission and therefore should be considered in the consolidation phase of control and elimination programs where it can be targeted in space and time. LSM will provide additional protection when combined with LLINs/IRS and help manage insecticide resistance and outdoor transmission.

Plan for 2011/12

1. Establish a LSM network of interested parties from academia, industry, governmental and non-governmental agencies;
2. Prepare and agree on a consensus statement on LSM;
3. Establish a LSM webpage on the RBM website. This will contain:
   a) consensus statement,
   b) executive summary of LSM,
   c) key documents on LSM effectiveness,
   d) key training documents on LSM training,
   e) outline of this work stream’s agenda over the next 12m
4. Decision-making framework to identify where LSM will work and where it will not;
5. Case studies of LSM: narratives of successes & failures;
6. WHO Training Manual on LSM (1st draft);
7. Draft research priorities and circulate it for discussion amongst interested parties;
8. Update RBM on progress in May 2011;
9. Arrange a future meeting of interested parties at ASTMH Philadelphia 2011. The meeting will:
   a) present examples of where LSM has worked,
   b) present a draft decision-making framework for LSM and get feedback to fine tune the framework
10. Produce a budget for the funding required to support the secretariat.
Summary of main conclusions from LSM work stream meeting

1. Members recognised that LSM is a highly effective method of malaria control in specific situations.
2. LSM consists of environmental management and manipulation, biological control and the use of chemical and microbial larvicides.
3. LSM should be combined with other vector control tools, like LLINs and IRS.
4. LSM would be particularly beneficial to reduce the spread of vectors resistant to insecticides used indoors.
5. LSM would be useful in many situations where there were outdoor biting malaria vectors.
6. The evidence base needed to support LSM should be improved.
7. It was a priority to document well where LSM should and should not be used.
8. RBM should facilitate producing documents to provide information on the evidence for the effectiveness of LSM for malaria control.
9. A research agenda should be made to highlight the areas where further information was required. A provisional list includes:
   a) Determining the effectiveness of LSM as a tool for insecticide-resistance management
   b) Demonstrating the effectiveness of LSM for controlling outdoor biting vectors
   c) Showing the effectiveness of LSM for mopping-up residual foci of malaria transmission during elimination programmes
   d) Determining the effectiveness of LSM in the African savannah & forest biomes
   e) Assessing how LSM strategies would differ when used for malaria control and for malaria elimination
   f) Producing tools for measuring the efficacy of LSM control programmes at the country level
   g) Providing cost-benefit analyses of different LSM strategies
   h) Monitoring the environmental impact of large-scale LSM programs.