Success Strategy: Sub-Saharan Africa carries the highest per capita burden of disease in the world of which malaria is the single most important cause. Of global deaths attributed to malaria 90% now occur in sub-Saharan Africa.

Detailed mapping of malaria risk and endemicity has never been done in Africa. Accurate estimates of the burden of malaria at regional or district level remain largely unknown. In the absence of such data it is impossible to rationalize allocation of limited resources for malaria control.

The heart of the MARA programme is a massive information collection and data-basing project that has to date over 10 000 data points that have been collected from published and unpublished sources, through literature searches and country visits. The intellectual and monetary value of the collated database alone is hard to appreciate. It represents decades of malaria research in Africa, much of which was on the verge of being lost and forgotten, and certainly not being used. MARA/ARMA has provided the first continental maps of malaria distribution and the first evidence-base burden of disease estimates. There is currently hardly any major document on malaria in Africa that does not make use of MARA maps and the BOD figures produced by MARA/ARMA are now universally used.

MARA/ARMA is at the cutting edge of, and has made significant steps forward in, the geographical modelling of malaria using eco-physiological / climate / GIS (geographical information systems), as well as spatial statistical approaches. Highly original spatial statistical methods are being developed currently to strengthen the analysis of the MARA/ARMA data.

MARA has made its results widely available through the regular publishing of technical reports in English and French which are available on their website. They also publish and regular update a large collection of maps demonstrating the endemicity, density and seasonality of Malarial infections. Some 3000 poster sized maps of malaria models and population distribution were produced and sent to
malaria control programmes, departments of health, and research institutions in all endemic African countries. All the maps are readily available by downloading them from the website and can act as invaluable resource tools.

It has also developed an innovative CD-ROM - the MARA LITe CD - which is a user-friendly tool designed to access products of the MARA project. The tool was developed and produced within the Malaria Research Programme of the South African Medical Research Council, which operates as the main MARA/ARMA investigating centre.

Finally it is hoped that this collaboration serves as a model for other large-scale disease information systems in Africa and in other developing countries.

Partners: International Development Research Centre of Canada (IRDC), South African medical Research Council, The Wellcome Trust - UK, Swiss Tropical Institute, WHO, Multilateral initiative on Malaria, Roll Back Malaria

Source: The Communication Initiative website and MARA website