

# STOP MALARIA – ENVIRONMENTALLY FRIENDLY MALARIA PREVENTION IN NYABONDO



### Project

Nyabondo lies on a high plateau in Western Kenya close to Lake Victoria. The main source of income for the population is the manufacture of handmade bricks from the natural clay of this wetland area. This has led to thousands of depressions in the ground filled with stagnant water, which tragically provide ideal **breeding sites for mosquito larvae**. Since they are so close to the villages, malaria spreads rapidly.

In previous phases of the project the scale of the need for **environmentally safe malaria control** became apparent. What is most important is that **those affected** are **informed** (e.g. during special malaria info-events) about the danger presented by these stagnant bodies of water as breeding sites for the malaria mosquito. For this reason, local key people are trained to become so-called „**Mosquito-Scouts**”. They are charged with an important responsibility, namely to guarantee the active participation of the population in sustainably controlling malaria.

Stagnant pools of water are dried out in community work, and blocked water channels are cleared so that water may flow again. Where this is not possible, stagnant bodies of water are treated with an **environmentally safe bacteria** (Bti, *Bacillus thuringiensis israelensis*), to decimate the mosquitoes in the larval stage. **Impregnated bed nets** are distributed to those groups particularly at risk from malaria (mothers and small children). When used correctly, these mosquito nets provide the safest protection from malaria-transmitting mosquito bites.

### Relevance

Every year around two million people die from the consequences of the tropical disease malaria, most of them in sub-Saharan Africa. Biovision's pilot projects have shown that environmentally friendly and low-cost measures that can be implemented by the local population are an effective weapon in the fight against malaria.

The Nyabondo pilot project demonstrated to the population and central decision makers how malaria can be contained in rural areas in an ecological and cost-effective way.

### Development Goal

Health improvement for the population of Nyabondo through integrated control of the malaria-transmitting Anopheles mosquito.

**Project number:**  
BV HH-01

**Project active since:**  
2004

**Project duration:**  
until December 2009

**Budget for 2009:**  
66'090 USD

**Project coordinator:**  
John Githure, Human Health  
Division leader *icipe*

**Program responsibility:**  
Verena Albertin



*Stagnant water is an ideal breeding site for malaria mosquitoes.*



*Informing the population about the relationship between mosquitoes and malaria is an integral part of Biovision's malaria projects.*

## Beneficiaries

The population of Nyabondo ( $\geq 34'000$ ) profits from integrated malaria control, since mosquito numbers are reduced, protection from bites is improved thanks to impregnated bednets; and so cases and losses due to malaria have fallen. Local women's and youth groups and schoolchildren learn about the connection between malaria and mosquitoes, and acquire practical skills in mosquito control. 11 mosquito scouts are trained further. Local decision-makers are actively integrated into environmentally friendly malaria control and will take on responsibility for the project activities after project conclusion.

## Goals

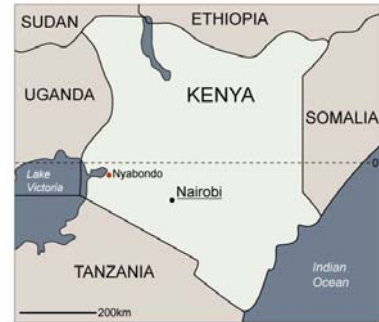
1. All levels of the population and social groups in Nyabondo are educated on malaria and malaria prevention through **information events, trained personnel and easily understandable teaching materials.**
2. **Draining of stagnant bodies of water** (potholes and pools caused by the production of clay bricks) to reduce the number of mosquito breeding sites. Work is to be carried out as team work on a **community level** (maintenance of water channels etc).
3. Further reduction in mosquito numbers through treatment of at least 50% of stationary breeding sites with environmentally friendly means such as **Bti** and **Neem**
4. Distribution of at least 5'000 additional **mosquito nets**, to increase coverage and correct use of the nets to 70%.

## Partner Organisations

International Centre of Insect Physiology and Ecology *icipe* [www.icipe.org](http://www.icipe.org); Kenya Medical Research Institute KEMRI [www.kemri.org](http://www.kemri.org); Public Health Department of the Ministry of Health; St. Joseph Mission Hospital Nyabondo; Millennium Institute MI [www.millennium-institute.org](http://www.millennium-institute.org)

## Sustainability

Sustainability calls for a holistic vision: healthy people, animals and plants in a healthy environment. (4x Health, 4-H Strategy). Every project supported by Biovision effects considerable improvements in at least one of the four health areas. The key to effectively replicating the success of the project is the availability of specific information on the methods applied and the results achieved. With this approach and its 'helix of effects', living conditions are improved and the poverty of the people is gradually overcome while the environment is protected.



Nyabondo is situated in Western Kenya on a high plateau near to Lake Victoria.

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