

DRAFT TRANSLATION  
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# Cross-Border Collaboration Initiative to Combat Malaria

## TRANS-KUNENE ANTI-MALARIA INITIATIVE

### Implementation Strategy

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MINISTRY OF HEALTH

REPUBLIC OF ANGOLA

AND

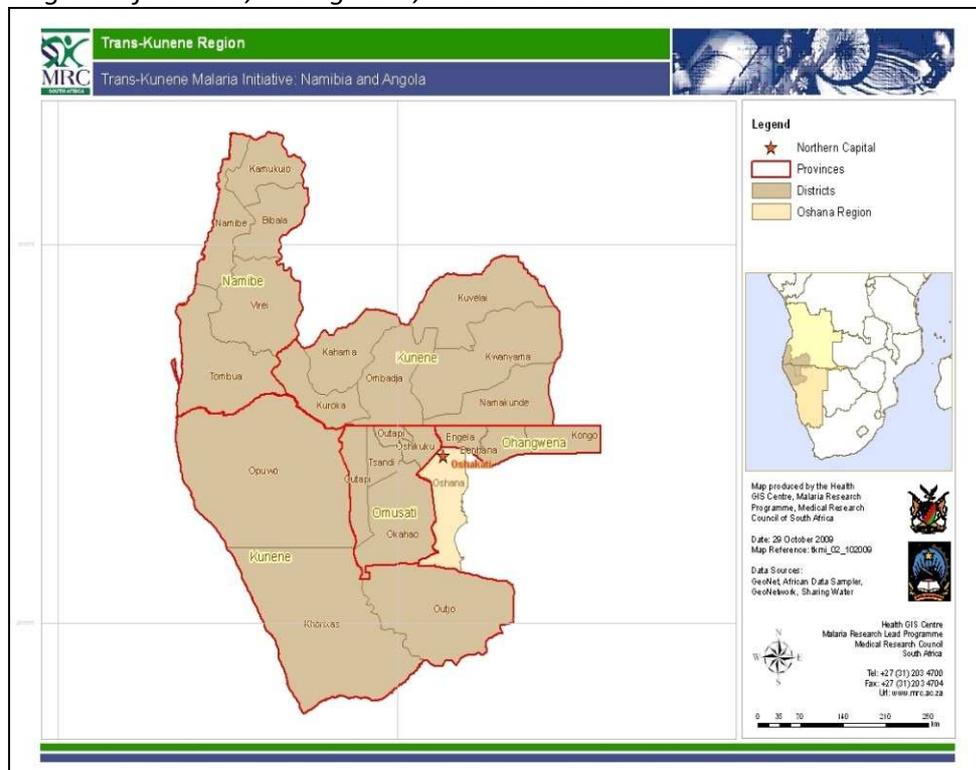
MINISTRY OF HEALTH AND SOCIAL SERVICES

REPUBLIC OF NAMIBIA

## 1. Introduction

The Republics of Namibia and Angola share a common border that extends east from the Atlantic Ocean to the Zambezi River. The five administrative areas (known as provinces in Angola and regions in Namibia) on both sides present seasonal manifestations of the illness between the months of November and April every year. More than 230,000 cases are reported (2008, confirmed through parasitology and clinically diagnosed) among a population of approximately 1.6 million residing in the border area on both sides. The group of five regions that are adjacent to the border along the Cunene river which flows between the two Countries is known, by technical consensus, as the “Trans-Kunene” region. The Trans-Kunene area consists of the provinces of Cunene, namely Santa Clara and Namacunde and in Namibia, the areas of Kunene, Ohangwene, and Omusati.

*Figure 1: The Trans-Kunene region of the provinces of Namibia and Cunede in Angola and the regions of Kunene, Ohangwene, and Omusati in Namibia.*



Studies and observations show that the Republic of Namibia achieved declines in the transmission of malaria, particularly in the South and Central regions (considered to be free of indigenous transmission).

Angola and Namibia are part of a subregional initiative to eliminate malaria, known as “elimination 8”, together with six other countries of Central and southern Africa. Within this ambit, the countries establish for themselves the objectives of eliminating malaria, starting with the “frontline four” (including Namibia), which are the four countries with potential (given the reduced indices of transmission, favorable climatic and ecological factors) of eliminating malaria in the coming 7-10 years. The efforts to eliminate malaria in the Republic of Namibia will concentrate on the reduction of transmission of malaria in the northern region of Namibia, particularly the area bordering Angola. It is also anticipated that the progress achieved in the Republic of Namibia and the strengthening of the synchronized activities in the Republic of Angola will accelerate control of the disease and establish the basis for malaria’s pre-elimination and elimination.

Angola and Namibia have a common interest in the sustained reduction of transmission in the north of Namibia and the south of Angola—essentially, the Trans-Kunene region—so that each can attain its individual and collective objectives for elimination. Situated along the border between the two countries, the Trans-Kunene region is strategic and important for the objectives of both countries. By establishing a zone of effective control of malaria along the border, Namibia will reduce the incidence of the disease and simultaneously reduce the possibility of the introduction of cases across the border. From Angola’s perspective, reinforcing control of the disease in the south of the country will form the basis for its elimination strategy, beginning with the reduction of transmission in the south and moving progressively to the north, the more highly endemic area. Thus, the creation of an effective malaria control “Stopper” Contention Zone along the border will reduce the level of the disease on both countries and, simultaneously, the potential for importation of cases across the border into the Republic of Namibia, and will reinforce Angola’s malaria-control efforts in the south and establish the base for pre-elimination

strategy in the south and rapid reduction of malaria in the highly endemic area in the north.

## **2. Experience with other Cross-Border Initiatives**

Angola and Namibia were also encouraged by the success of the spacial initiative for the development of Lubombo (LSDI), a cross-border cooperation whose success evidenced the strategic potential to cross-border cooperation in eliminating malaria in the south of Africa. The LSDI malaria-control program was devised to extend malaria-control strategies to the south of Mozambique, in recognition of the fact that, despite the success of malaria control in South Africa and Swaziland, a regional approach focusing on the border areas was the only way to eliminate malaria definitively. The success of LSDI is highly promising as an approach to collaboration in the elimination of malaria. However, the model has not been used in our region, beyond Lubombo. The Trans-Kunene malaria initiative will seek to control malaria in Angola and Namibia, at the same time, and will provide an opportunity to test and develop the cross-border spacial model of malaria control looking toward progressive elimination in low-transmission areas and in areas of relatively high transmission.

## The Spatial Initiative for the Development of Lubombo

The potential of cross-border cooperation is pointed up by the Spatial Initiative for the Development of Lubombo (LSDI). LSDI was launched by Mozambique, South Africa and Swaziland in 1999, and it successfully carried out a malaria-control initiative in an area of 200,000 square kilometers. Among its most notable achievements was a 90% reduction in the incidence of malaria in the border area between South Africa and Swaziland (from 250 cases per thousand to less than 20 per thousand), and by 70% (from 625 per thousand to less than 200 per thousand) in the province of Maputo in Mozambique.

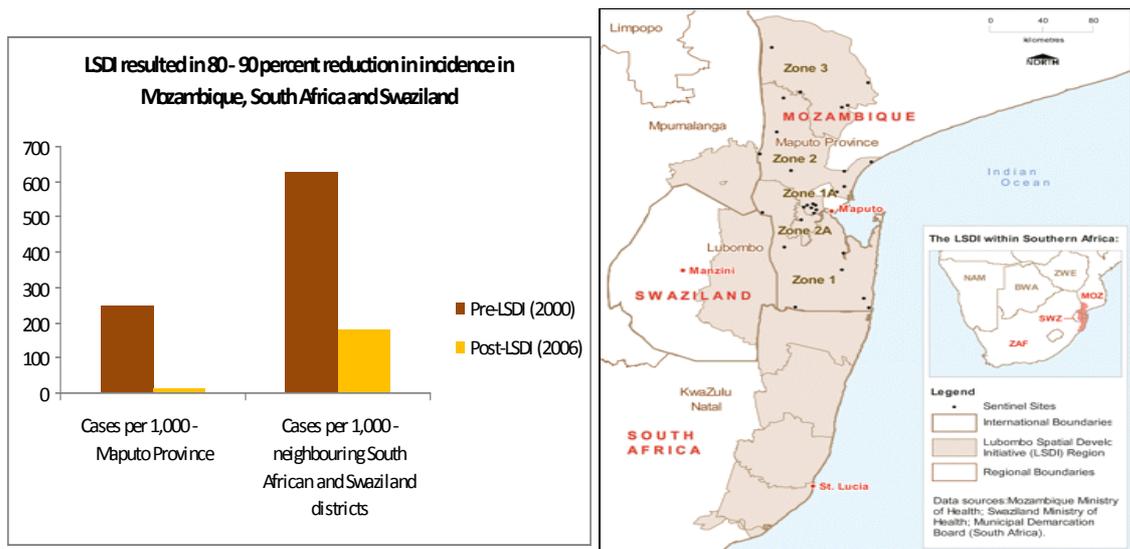
The main activities of LSDI were;

Coordinated execution of combined vector-control and therapeutic initiatives based on Artemisinin, bringing synergistic effects to bear on reduction of malaria transmission.

Common management of the project, carried out by a technical consensus committee and use of a public-private partnership (PPP).

Development of capacity for sustainable malaria control.

A very successful regional malaria information system to maximize the benefits of monitoring and evaluations.



Recognizing the need for carrying out a unified malaria-control program to eliminate malaria in the border region between Angola and Namibia, the two countries decided to form an alliance – the Trans-Kunene Malaria initiative (TKMI) – to work on malaria control along the common border. In the TKMI Initiative, there will be collaboration in the several strategic malaria-control areas, presenting as advantages joint coordination and sharing of resources in order to maximize the effects of the interventions. This

concept is based on rational articulation of the objectives of the initiative, as well as the arrangements for management and execution.

### 3. Socio-Epidemiological Context

In the Trans-Kunene region, malaria affects mainly the poor and rural communities, where there is limited access to healthcare and other social services, as well as low levels of education. Poverty is a contributing factor to malaria transmission; the Angolan provinces of TKMI, in particular, are still emerging from the effects of decades of civil war that destroyed the roads, the sanitation system, and other essential services.

Notwithstanding the notable efforts of the Angolan Government in the implementation of programs for rapid post-war recuperation of the highway, sanitation and other service infrastructures, and the guaranty of free healthcare for all, only an estimated 30% of the population in the border area has sanitation coverage.

In 2008, an estimated 234,000 cases of malaria (and 1,200 deaths) were reported in the Trans-Kunene region, approximately 90% occurring on the Angolan side of the border. The malaria level continues relatively elevated, with 143 reported cases per 1,000 inhabitants per year in the area.

The United States President's Malaria Initiative/United States Sgenc for iNternationla Developemnt. 2009. Opwerationla Plan for Mlaaira in Sngola.  
National Vector Contorl Program, Namibia. 2009. 2008 Inforomaion System. Naional Mlaarai ContorlmProgram, Angola. 2009. Nationa lMalaria Satitistics, , 2008.

*Tabela 1: Malaria Levels in the Trans-Kunene region.*

	Population	Malaria Cases (2008)	Deaths Caused by Malaria (2008)	Incidence (Per 1,000)
Cunene (Angola)	750,132 (est. 2007)	103,134	664	137
Namibe (Angola)	313,667 (est. 2006)	109,699	451	349
Kunene (Namibia)	74,682 (est. 2008)	2,036	6	27
Ohangwena (Namibia)	256,760 (est. 2008)	14,682	45	57
Omusati (Namibia)	241,566 (est.2008)	5,256	36	21
Total Trans-Kunene	1,636,807	234,807	1,202	143

The economic and social dimensions of poverty also favor malaria transmission in the region. Even though there are different levels of wellbeing along the frontier (with

Namibia presenting a somewhat better situation), there are regional challenges as regards access to healthcare services, trained human resources, sanitation and drinking water, as well as education.

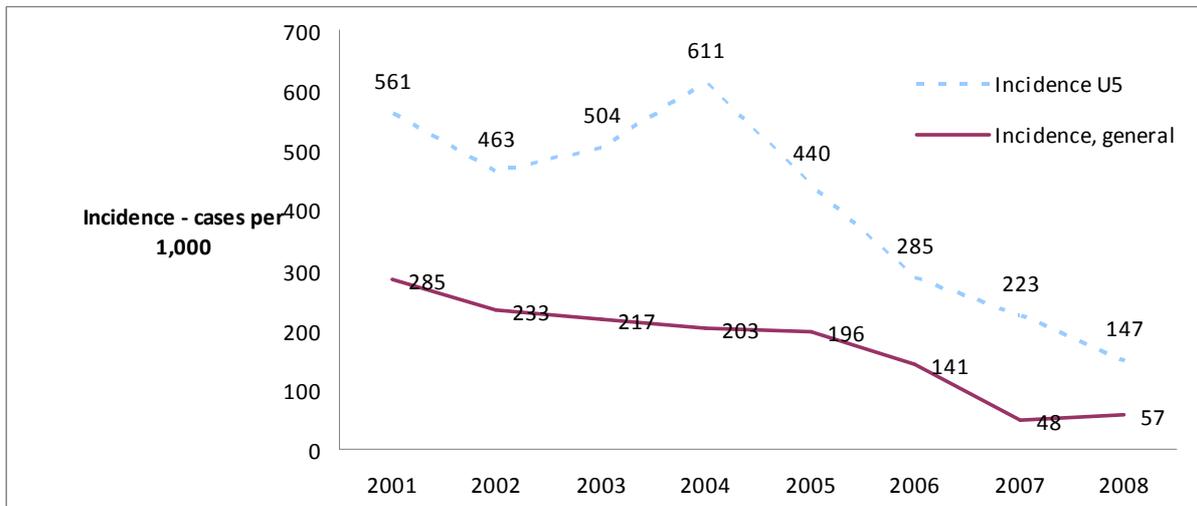
*Table 2: Indicators of Social Wellbeing and Development the Trans-Kunene region*

Region	Houses with at least 1(%) of ITNs	Houses with Potable Water (%)	Childgood Mortaility Rate (deaths per 1,000)	Female Literacy (%)	Distance (Km) to Helath Center
South of Angola	28	62	158	49	N/A*
Kunene	44	39	49	68	21
Ohangwena	66	22	95	93	10
Omusati	70	22	76	96	9

\* Only 30 % have access to health services.???

The Angolan provinces, in particular, face big challenges as a result of the recently terminated civil war. Because of the limited coverage of the healthcare system, preventive measures such as insecticide-treated nets (ITNs), indoor residual spraying (IRS), and treatment, are not available to a large majority of the population at risk. The national control program is seeking to establish and gradually increase key interventions and to ensure the availability of artemisinin-based combination therapies (ACT) in all healthcare units, particularly in the urban peripheries. Implementation of the indoor residual spraying program began in 2003 but has not been consistent through the years. Malaria control activities have been forcefully implemented by the Ministry of Health, through the national malaria-control program, and by its partners, in the hyper-endemic areas of the North of Angola, where there is a high level of disease.

Figure 2: Incidence of Malaria in Namibia, 2001 – 2008.



On the other side of the border, Namibia’s national program of malaria control achieved significant declines in malaria transmission through efforts during the last five years to improve the quality and coverage of indoor residual spraying, distribution of long-lasting insecticide-treated nets, as well as ready access to treatment. The Namibian Program, established in the 90s, benefited from broad experiences and capacities to expand control activities throughout the country; indoor residual spraying with DDT had been carried out since the 60s.

However, the progress toward elimination of malaria in Namibia may have been prejudiced by the elevated and continued levels of transmission across the border, since the parasite can be imported by contaminated emigrants. According to a study on the practicability of eliminating malaria in Zanzibar, the potential for stopping transmission of the disease in Zanzibar depended on the intensity of malaria transmission on the Continent, where most of the travelers come from. The risk of importing the parasite is a function of the number of travelers, whether they are contaminated, and on the potential of the local mosquitoes to become infected, thus contributing to the increase of transmission. IN the Tans-Kunene case, it has been found that the volume of emigrants (commercial travelers, immigrant workers, tourists) is high; these emigrants come from all parts of Angola, where the intensive of transmission is characterized So long as there is this migratory flux from Angola to Namibia, for commercial and other purposes, as

mesoendemic and stable, with long periods of exposure in Namibian territory, there will be an increased risk of transmission.

#### 4. Justification of the Project

The following are key characteristics of the Trans-Kunene region and, when considered in the malaria context, they are very important in analyzing malaria control factors in the region. These topics have long motivated discussions about collaboration between Angola and Namibia to control malaria and other diseases.

- **Socio-Cultural factors** – The community of the Oshiwambo tribe lies on both sides of the border, divided only by a fictitious administrative border. The social and cultural factors, including language, are shared by the communities of the Trans-Kunene region. The borders traced during colonial domination, dividing Angola and Namibia, divided the tribal lands of the Kwanyamas. Today, this results in regular movements of people across the border for family visits, because of the division of the community. The Himba community also reside on both sides of the border, that is, in the province of Namibe (Angola) and in the region of Kunene (Namibia), and they move across the border regularly in search of medical care, pasture for cattle and for trade.
- **Highly mobile population** – Movements of people across the border (officially through the border posts, and unofficial) is high (2,000 to 4,000 emigrants a day), with commercial travelers (mostly from Angola) traveling frequently between the two countries.<sup>1</sup> A regional agreement permits access of up to 60 km between the two countries for emigrants, which is used primarily for trading goods and services.
- **Difficult geographical access** – The rugged terrain of this area (mountainous topography), as well as terrible roads, limits the access to most of the people. Flooding further complicates the situation. Moreover, the war in Angola left a legacy of destruction of roads and other transport support infrastructures. 31 percent of the communities of the country remain isolated during at least five

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<sup>1</sup> University of Namibia, Multidisciplinary Research Center: Breaking Down Large Quantities into Small Units: Small Scale Cross-Border Trade between Namibia and its Northern Neighbors.

months per year because of the poor state of the roads. There are still mines in some areas, creating a further limit for the people.

- Demand for primary healthcare along the Boarder – The demand among Angolans for healthcare from Namibian health units is considerably notable. For example, the Odibo clinic (Namibia), literally situated on the border, reports that the number of patients treated at the unit is equal, comparing Angolans and Namibians. These large movements of people lead to a large circulation of the parasite into and out of both countries, probably with a net importation of cases to Namibia, which has a lower incidence of the disease. This is a key motivator for collaboration between the two countries to control malaria, given the large movements of people from high-risk transmission areas in the Trans-Kunene region. (See Annex I for more details on the cross-border movements.)

