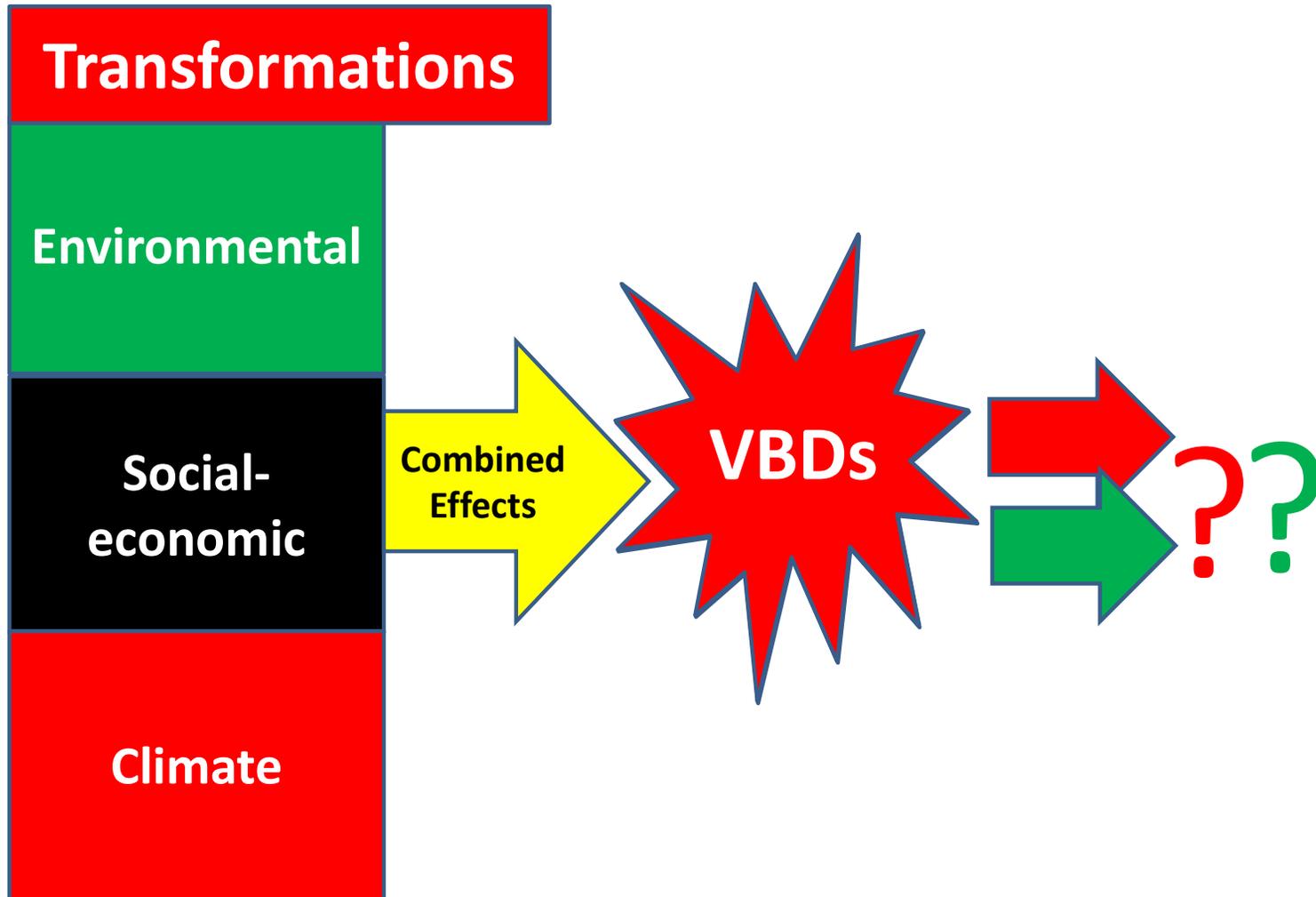


# **Group 1 – South Africa**

# What motivated the study?



## **Purpose of Mother Project (TDR/WHO/IDRC Programme)**

**Contribute to reducing population health vulnerabilities and increase resilience against VBD risks under climate change conditions in Africa**

**What are the research gaps impeding control, prevention and elimination of VBDs of public health importance (malaria and schistosomiasis) in arid regions of southern Africa in the advent of climate change?**

**Inadequate information for developing and strengthening stakeholder-driven adaptation strategies to improve resilience and reduce vulnerability of communities to vector borne diseases in the advent of climate change**

## Specific Research Gaps

1. Lack-of/or inadequate information on **temporal trends** of the **burden** of malaria and schistosomiasis
2. Lack-of/or inadequate information on vulnerable **community perceptions** on the influence of climate change on VBDs with special focus on malaria and schistosomiasis
3. Lack-of/or inadequate information on the influence of **socio-economic, environmental, climatic and institutional factors** on the **transmission dynamics** of malaria and schistosomiasis
4. Lack-of/or inadequate **stakeholder-driven adaptation strategies** to increase resilience and reduce population health vulnerabilities due to malaria and schistosomiasis
5. Lack of strategies to strengthen **capacities among research groups** and **vulnerable communities** to enable them to assess and mitigate population health vulnerabilities related to malaria and schistosomiasis



Shakawe and Ngarange Villages



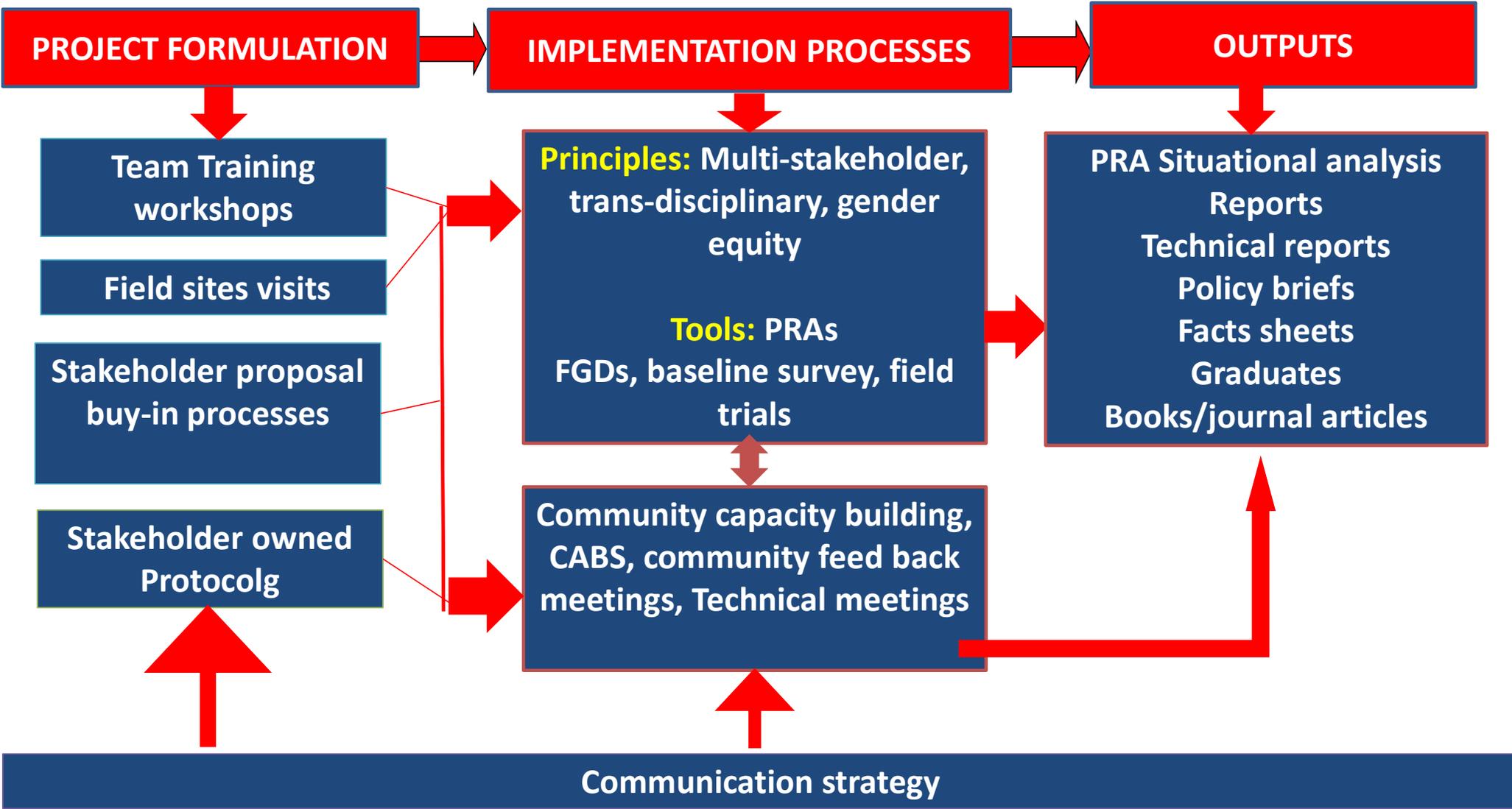
Buvuma, Ntalale and Seronga Wards, Gwanda, District,



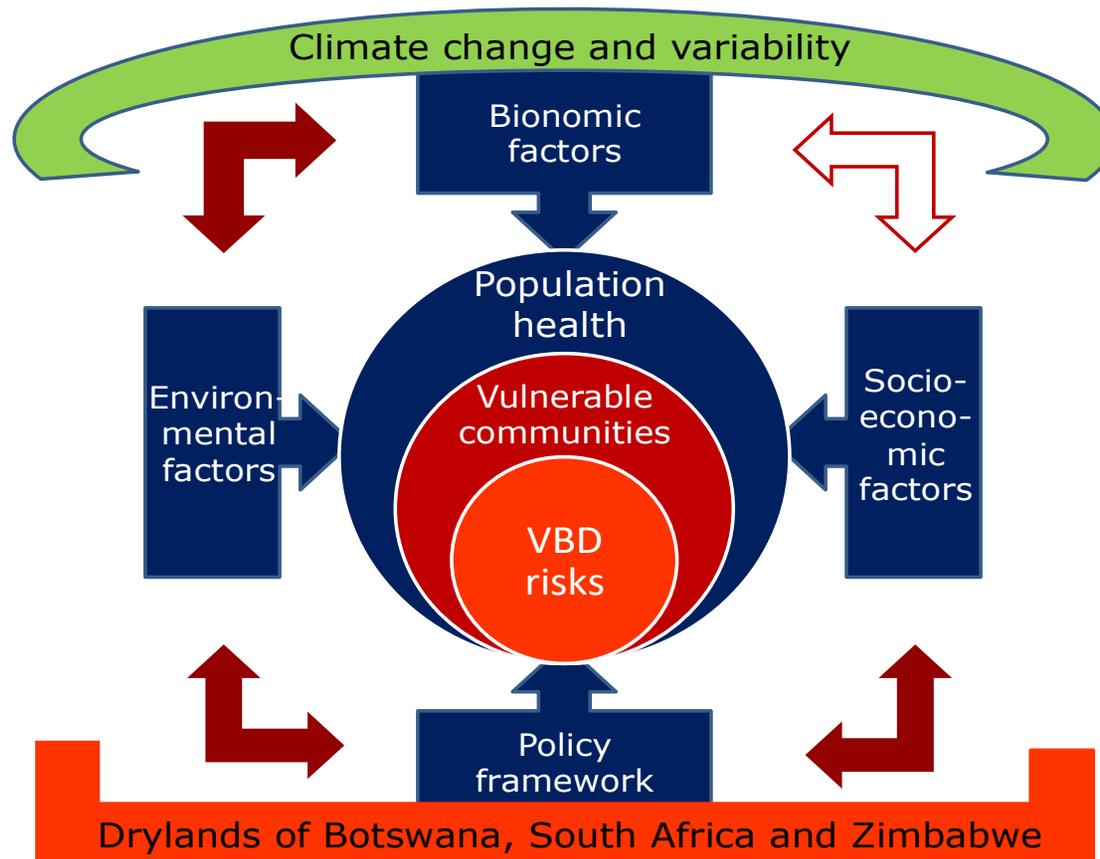
Ndumo area district, Kwa



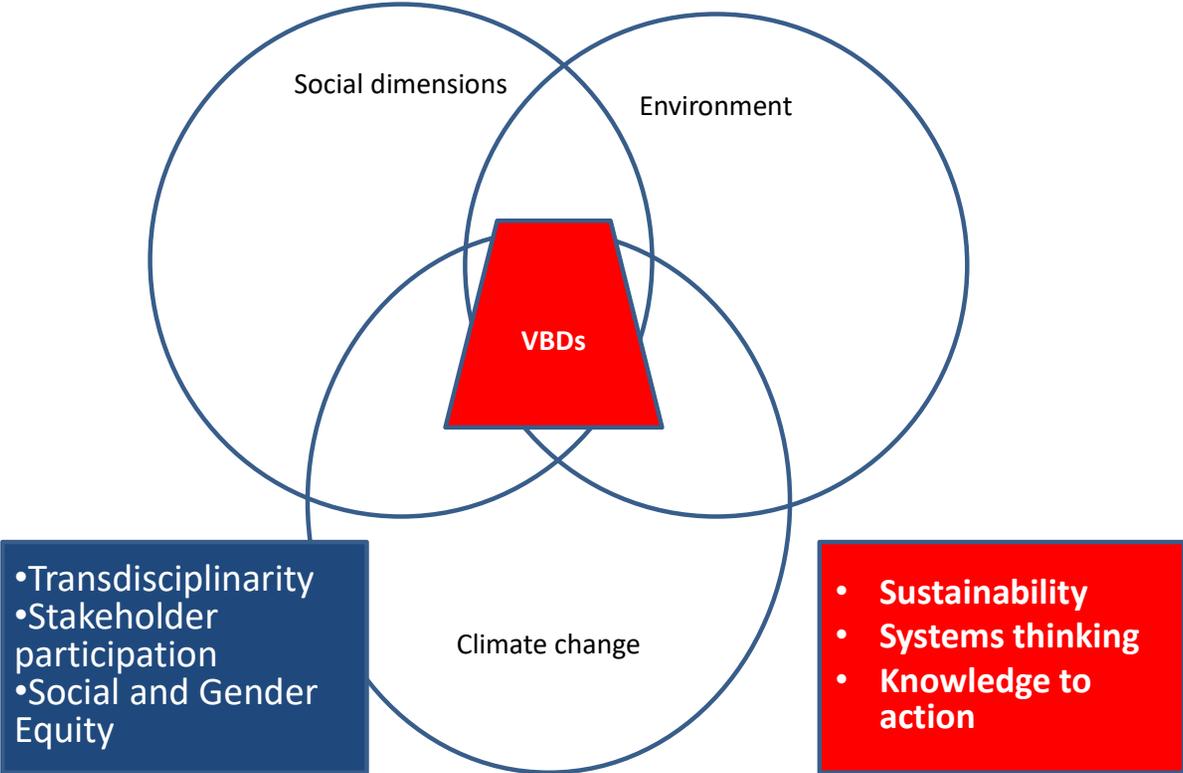
# Implementation Process

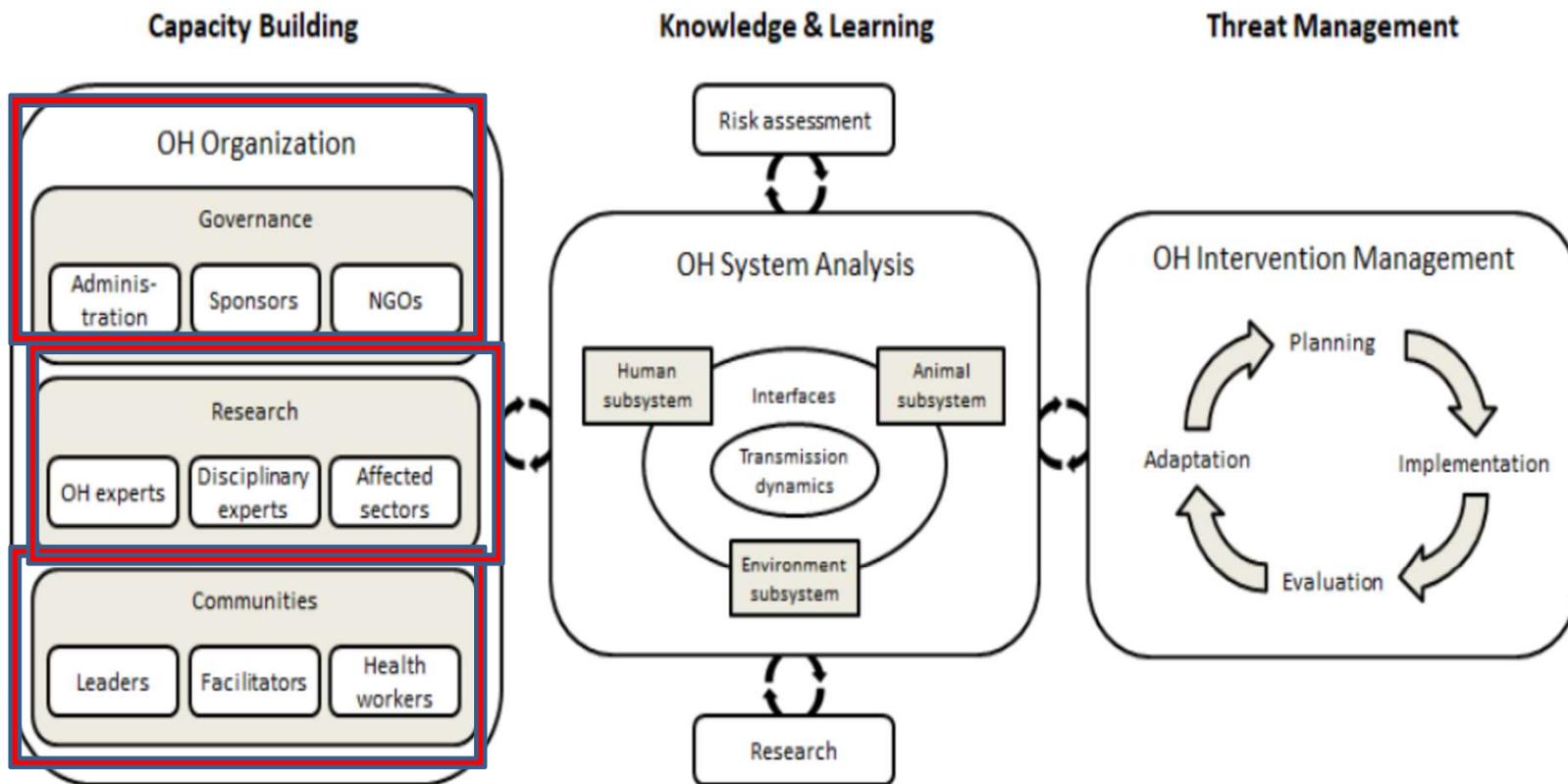


# Project Conceptual Framework



# Ecohealth Approach - Research Themes





**Figure 2.** Components of an adaptive One Health approach

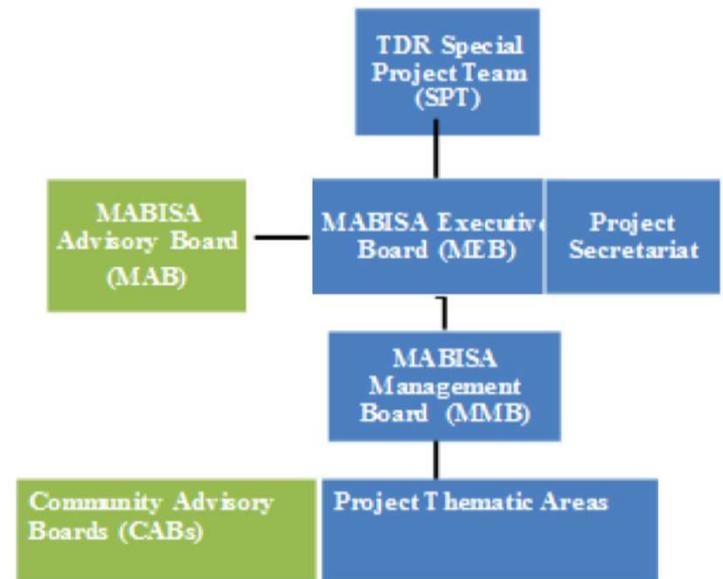
# Capacity Building

## Communities

- CAB –action plan
- CRA
- CCG
- Health workers at different levels
- Researchers
- Local Health Centres
- **Incentivisation**
- **Change makers**

## Research

- Experienced PI
- PI identifies experts
- Mentees (students)
- All relevant sectors but they are involved as drivers



# Knowledge and Learning



## HOT SPOTS

1. Poor sanitation
2. Poor knowledge
3. Limited capacity
4. Poor Community engagement
5. Poor management(Lack of control programs)
6. Increased habitats
7. Delayed health care seeking behaviour
8. Misdiagnosis

# Threat Management

- Agreed on framework
  - Planning at all levels; include M & E plan
  - Implementation with participation of stakeholders and the researched
  - Evaluation – self and external (include M & E)
  - Adaptation – Theory of change; do things differently or do different things

# Future Research identified by the Project

1

Designing effective community-based strategies for elimination of malaria in endemic areas where they have reached the elimination phase, and reducing the burden of schistosomiasis to a level where the public health impact is low.

2

Operational research, which involves monitoring and evaluating the level at which communities are using results from the research project to increase their adaptation and resilience to climate-induced environmental and socio-economic changes. This work has already been initiated.

3

Validation and integration of indigenous knowledge systems from communities on the treatment, prevention and control of vector-borne diseases.

1 Monitoring the incidence of malaria has the potential to reveal future trends of the disease, thereby leading to improved control strategies. We therefore recommend that this be done in all endemic areas.

Risk Man; K20, K21

2 We recommend that localized DALYs using local sources of information be used to estimate burden of malaria.

Imp and Risk K28

3 We recommend that policy makers, in making informed decisions on health budget allocation, should use information on the burden of malaria.

Capacity; K1, K2

4 We recommend that epidemiological surveillance is specific for local settings and provides guidance on how limited resources should be used appropriately for control.

5 Climate change is expected to have a significant effect on snail populations and may have a significant effect on transmission of the vector. The impact of the vector population change in endemic areas is uncertain.

Int. Science, K17,

6 We recommend that policy makers ensure that health facilities are easily accessible to the community to reduce out of pocket spending by the poor when a household member suffers from malaria.

Capacity, K1, K3

7 We recommend using community-based participatory programs and local activities (drama, and presentations) to promote indigenous knowledge translation on malaria control.

Capacity; K5, K4

8 Policy makers should consider the existence of indigenous knowledge on malaria in their plans for malaria control and control in the community.

Capacity; K4, K5

9 Policy makers should ensure that indigenous knowledge on the treatment of malaria is widely used but the knowledge is limited to the older generation. Policy makers should ensure preservation of this knowledge.

Int Science, S5, K15

10 Policy makers should consider testing of the efficacy of the treatment and prevention methods used by the community as this may assist in the development of malaria drugs and mosquito repellents.

Int Science, S5 ( K13-K15)

11 Communities are capable of collecting and analysing data to predict the occurrence of malaria using indigenous knowledge. We recommend that this data be analysed and incorporated into the early warning system for malaria at district level.

Capacity; S2 (K4-K6); K13-K14

This proposition covers all the 4 pillars (Capacity, Intervention Science, Risk Management, Impact and Risk)