

## 1- Identification

### 1.1 Project details

GEF ID

4668

Umoja No:

SB-001062.01.04.01

Project Title

Demonstration of effectiveness of diversified, environmentally sound and sustainable interventions, and strengthening national capacity for innovative implementation of integrated vector management (IVM) for disease prevention and control in the WHO AFRO

Duration months

*Planned*
*Extension*

60

30-Jun-23 (24)

 Economy Division, GEF Chemicals and Waste,  
 Chemicals and Health Branch

Division(s) Implementing the project

Name of co-implementing Agency

Executing Agency(ies)

WHO

Names of Other Project Partners

Project Type

FSP

Project Scope

Regional

Region (delete as appropriate)

Africa

Countries

 Botswana, Ethiopia, Gambia, Kenya,  
 Liberia, Madagascar, Mozambique,  
 Namibia, Senegal, Swaziland, Tanzania,  
 Uganda, South Africa, Zambia, Zimbabwe

Programme of Work

Chemicals Pollution and Action

GEF Focal Area(s)

Chemicals and Waste

GEF financing amount

USD 9,550,000

Co-financing amount

USD 308,218,797

Date of CEO Endorsement

7-Mar-16

Start of Implementation

24-Jun-16

Date of first disbursement

11-Jul-16

Total disbursement as of 30 June

USD 7,146,600

Total expenditure as of 30 June

USD 8,624,913

Expected Mid-Term Date

31-Mar-20

Completion Date

*Planned*

31-Dec-21

*Revised*

31-Dec-22

Expected Terminal Evaluation Date

30-Jun-23

Expected Financial Closure Date

30-Jun-23

EA: UNSDCF/UNDAF linkages

EA: Link to relevant SDG target(s) & indicator(s)

<p>Mozambique: The UNDAF 2017-2020 strategic objective is to achieve a situation where "The population of Mozambique, especially those living in the most vulnerable conditions, enjoy prosperity through equitable access to resources and quality services in a peaceful and sustainable environment". The Government, with UN support international gender standards, equitable access to timely, quality and affordable health care and a healthy environment.</p> <p>Zimbabwe: The 2016-2020 Zimbabwe United Nations Development Assistance Framework (ZUNDAF) has a sustainable impact in its contribution to ending poverty, achieving gender equality, transforming all lives, and protecting the planet. The ZUNDAF offers opportunities to strengthen partnerships, linkages and programming, including those with other major development frameworks.</p> <p>Botswana: The United Nations Sustainable Development Framework (UNSDF) 2017-2021 focuses on strengthening coherence between Agencies, and promotes greater, accountability, efficiency, effectiveness and sustainability in Botswana's pursuit of sustained and inclusive economic growth, social development and environmental protection.</p> <p>Namibia: The United Nations Partnership Framework (UNPAF) 2019-2023, strives towards partnership to enhance the coherence and efficiency to achieving the longer-term SDGs, the Africa Agenda 2063, and the country's human rights obligations and other commitments under internationally agreed conventions and treaties, including Social transformation, environmental sustainability and good governance.</p> <p>Eswatini: The UNDAF 2016-2020 aims to catalyze sustainable changes that will strengthen systems during and beyond the period covered (2016 – 2020). Three priority areas have been identified for the UNDAF; Poverty and inequality reduction, inclusive growth and sustainable development, Equitable and efficient delivery and access to social services, and Good Governance and Accountability.</p> <p>Zambia: The United Nations Sustainable Development Partnership Framework (2016-2021) vision is based on seven key principles, including: i) gender responsive sustainable development; iii) respect for human rights; and vii) private-public partnerships. Progress towards middle-income Zambia comes with addressing inequality, strengthening social protection and reducing vulnerabilities</p>
<p>The AFRO II Project is directly linked with the 2030 Agenda for SDG 1, 3, 6, 11, 12, 13 and 17 with their associated sub-goals and targets. The progress made towards respective goals, sub-goals and associated targets to which they contribute are as follows:</p> <p>- Goal 1: End poverty in all its forms everywhere;</p> <p>Targets 1.1, 1.2 and 1.5</p> <p>- Goal 3: Ensure healthy lives and promote well-being for all at all ages; Target 3.1, 3.2 and 3.3.</p> <p>- Goal 6: Ensure availability and sustainable management of water and sanitation for all; Target 6.3.</p> <p>- Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable; Targets 11.1 and 11.5; sub-goals 11.a and 11.b</p> <p>- Goal 12: Ensure sustainable consumption and production patterns; Target 12.4; sub-goal 12.a.</p> <p>- Goal 13: Take urgent action to combat climate change and its impacts; Target 13.3, and sub-goal 13.b.</p> <p>- Goal 17: strengthen the means of implementation and revitalize the global partnership for sustainable development. Target 17.3, 17.9 and 17.17.</p>

1.2 Project description

<p>1.2 Project Description</p> <p>Project Objective:</p>
--

To strengthen national capabilities for implementation and scaling up of evidence-based, innovative, diversified and environmentally sound disease vector control interventions with multi-stakeholder participation within context of Integrated Vector Management

#### Project Components:

Component 1: Promote evidence-based multi-sectoral policy-making for IVM and strengthen multi-sectoral alliance in the promotion & implementation of environmentally sound & effective innovative interventions for diseases vector control. Outcome 1: Countries develop and implement integrated cross sectoral policies, strategies and plans and have managerial capacity to fully comply with terms of the SC on the use of DDT for diseases vector control through implementation of IVM. Output 1.1: Capacity and systems to notify the SC DDT Register with close MoH/MoE collaboration. Output 1.2: National IVM strategies developed and regionally harmonized to the Global Vector Control Response. Output 1.3: National teams have technical capacity and equipment for entomological monitoring to inform national IVM plans and policies

Component 2: Support countries to implement IVM approaches and demonstrate effectiveness of diversified, environmentally safe innovative vector control methods including use of alternative chemicals to DDT for malaria control. Outcome 2: Three effective alternative IVM approaches demonstrated in at least 12 sites in 6 countries. Output 2.1: Maps of vector distribution and resistance compiled for demo sites and regional resistance database updated. Output 2.2: Three effective IVM approaches developed and demonstrated in six countries.

Component 3: Dissemination of knowledge and sharing of experiences to all stakeholders at national, sub-regional and regional level in order to influence decision making – evidence base. Outcome 3: Countries and regional institutions are using guidelines on IVM and social impact assessments to guide and influence policies on DDT. Output 3.1: Updated national and regional manuals and guidelines on IVM. Output 3.2: Better understanding of KAP related to malaria and raised awareness of IVM methods among communities and practitioners. Output 3.3: National assessments of social impact of DDT on vulnerable groups. Output 3.4: Data on DDT usage and amount/ location of obsolete DDT in project countries.

#### Organizations Involved:

The Global Environmental Facility (GEF) – Funding Agency; UN Environment Programme (UNEP) – Implementing Agency; WHO-AFRO – Executing Agency; Countries (Ministries of Health, Ministries of Environment, others)– Executing bodies; and International Centre of Insect Physiology and Ecology (ICIPE) - Executing Agency Contractor.

### 1.3 History of project revisions (TM)

Version	Date	Main changes introduced in this revision
Rev0 (CEO)	3-Mar-16	
Rev1 (Agreement EA)	24-Jun-16	
Rev2 (Amendment 1)	21-Dec-20	Reduced contribution to EA - revised budget and workplan
Rev3 (Amendment 2)	22-Jun-22	No-cost Extension - revised budget and workplan

## 2- OVERVIEW OF PROJECT STATUS

EP PoW

UNEP Subprogramme(s)

Subprogramme 5: Chemicals and Pollution Action

Specify the POW Outcomes, indicators and Direct Outcomes

PoW Outcomes: 3A and 3C  
PoW Outcome Indicators: i, ii, iii, iv and vi  
Direct outcomes to which project contributes: 3.1, 3.5, 3.9, 3.10, 3.11, 3.13

## 2.1 UNI

TM: Progress towards delivering the stated PoW

The project is contributing towards development of integrated vector management (IVM) strategies in the beneficiary countries. The strategies developed in countries supports control of vector borne diseases with elimination of use of DDT. The project is also contributing to support countries in reporting by the countries regarding the DDT questionnaire. The entomological survey provides necessary information to take informed decision on the vector borne diseases, while the training programmes help in building of local capacity. National assessment of social impact of DDT to vulnerable group was carried out. Overall, the project supports countries meeting their obligations towards the Stockholm Convention.

## 2.2. GEF Core Indicators

GEF Core Indicators

9, 11

9.4, 9.5, 9.7, 11

Indicative expected Results

TM: GEF core indicators targeted by the

Indicators	Expected value at	
	Mid-term	End-of-project
9.4	7	7
9.5	6	6
9.6	0	305
11	0	9600

Implementation Status

2022

Ongoing

	PIR #	Rating towards outcomes (section 3.1)	Rating towards outputs (section 3.2)	Risk rating (section 3.3)
FY 2022	6th	MS	S	L
FY 2021	5th	MS	MS	L
FY 2020	4th	MS	MS	M
FY 2019	3rd	S	S	L
FY 2018	2nd	S	S	L
FY 2017	1st	MU	MU	M
FY 2016				
FY 2015				

**EA:** Summary of status  
(will be uploaded to GEF Portal)

The six project countries made relatively moderate progress in the collection of data in demonstration sites and adaptation of policy documents. However, project implementation was adversely affected by the Covid-19 pandemic during the one-year reporting period ending 30 June 2022. The pandemic compounded with other challenges resulted in a request for the second no-cost extension of the until 31 December 2022. Despite the constraints, communication, technical assistance, and commitment by project staff and stakeholders had been maintained.

WHO continued to technically support overall project implementation in all six countries, including development of the IVM strategies in Kenya and Senegal. ICIPE supported data collection efforts in six project countries, spearheaded publication of one peer reviewed paper in Trials Journal, a booklet on Pulling together on health and environment, and producing a documentary on the project in six countries. Quarterly technical project implementation reports and financial reports including co-financing have been submitted by all project countries. Demonstrations on Larviciding in Botswana and Namibia, and House screening in Mozambique and Zambia have been completed. All countries have collected epidemiological and entomological data for the 2021/2022 transmission season from the project sites. All countries committed during the ad hoc PSC meeting to finalize all the remaining activities. The project workplan and procurement plans have been aligned with the expiry date of 31 December 2022.

To accelerate progress towards attainment of strategic priorities and targets of contributing towards the reduction and elimination of POPs, and to demonstrate alternatives, and reduction in use of DDT for malaria control in project countries, the following activities have been prioritized in the remaining period of project implementation: Multisectoral coordination meetings, trainings and technical support; analysis of epidemiological and entomological data; Development of awareness communications, and knowledge product / strategies and materials, conducting social impact assessments, and production of reports on DDT usage.

COMPONENT 1: Technical assistance has been provided for the development of Integrated vector management strategies in Senegal and Kenya. The total number of Project countries with IVM strategies is now 13 except The Gambia which is scheduled to accomplish this end in 2022 Q3. All countries have completed the DDT questionnaire and submitted to the SSC secretariate. A stakeholders consensus meeting is yet to be conducted as part of the IVM development process in the Gambia.

COMPONENT 2: Technical support missions have been provided for Zambia for the documentary on House screening. Implementation of house screening is complete in Mozambique and Zambia data collection and cleaning has been completed and analysis is complete in Mozambique and ongoing in Zambia. Baseline household census complete, data available in Zimbabwe and data cleaning is ongoing in preparation for analysis. The primary malaria vectors are Anopheles funestus and Anopheles arabiensis. Anopheles funestus

bites predominantly indoors while *Anopheles arabiensis* bites both indoors and outdoors in both rural Zambia and Mozambique. *Anopheles rufipes* is implicated in malaria transmission in rural Zambia. House screening is associated with a 50% reduction in malaria prevalence in children between 5-10 years in rural Mozambique. Larviciding has been completed in Botswana and Namibia. Data collection and cleaning completed as well as data analysis except for Namibia. Larviciding with Bti was associated with a 76.6% reduction in the mean number of anopheline larvae. We observed a mean 40% reduction in culicine larvae after the application of Bti. After one round of larviciding with Bti, the mean number of anopheline adult densities reduced by 56.7%. Larviciding was associated with an 84.3% reduction in adult anopheline mosquitoes resting indoors and 99.1% with mosquitoes outdoors. Malaria cases between the second year of baseline (2020/2021) and the intervention year (2021/2022) reduced by 16.7% after the application of larviciding. The risk of getting malaria in the treatment areas decreases from 1.34 (95% CI 0.638-3.00) to 0.41 (95% CI 0.77-2.97) after larviciding with Bti. In Namibia, Larviciding with Bti dropped by 87.5% aquatic habitats with early anopheline larvae, 54.2% reduction of aquatic habitats with late stage anopheline larvae while 16.7% reduction of water bodies with culicine larvae. After one round of larviciding with Bti, the mean number of anopheline adult densities reduced by 76.1% and culicine mosquitoes by 74.4%. One manuscript was submitted to Malaria Journal on May 27th, 2022. "Six decades of malaria vector control in southern Africa: a review of the entomological evidence-base." Another manuscript is in preparation. "Anopheles rufipes transmits malaria both indoors and outdoors alongside *Anopheles funestus* and *Anopheles arabiensis* in rural south-east Zambia." Two posters are in preparation. "Integrated Vector Management (IVM): Targeting mosquito feeding, resting, and breeding behaviours to prevent malaria transmission," and "AFRO II Malaria Project: House screening and bio-larviciding as additional Malaria Vector control tools."

COMPONENT 3: ICIPE has developed visibility products for the project including:, A Documentary on AFRO II Project (<https://youtu.be/SyP8rQETZIs>), Booklet 1: Pulling together for Health and Environment: AFRO II Malaria Project, a documentary on House screening in Zambia, and the AFRO-II Project micro-site ( <http://afro-ii.icipe.org>) in the icipe website. ICIPE is also developing a second Booklet. Booklet 2: AFRO II Malaria Project: Towards Malaria elimination in Southern Africa: Reinforcing Vector Control with House screening and Bio-larvicides. The regional consultant to assist the Executing Agency with component 3 has been recruited and is working with the project countries. 2018-2020 data has been collected and the DDT Questionnaires submitted by project countries. The consultant is facilitating compilation of data including that of Obsolete DDT.

EA:Planned Co-finance

243,103,508

EA: Actual to date:

121,290,966

## 2.4 Co-finance

**EA:** Justify progress in terms of materialization of expected co-finance. State any relevant challenges.

Following the raising of awareness on significance co-financing reporting, WHO shared a template for co-finance, identifying typical items such as easily accessible total budget and co-finance initiatives for integrated vector management, to be included in quarterly and annual reports. Tier 1 countries have utilized the agreed upon modalities for reporting co-financing (in-kind and actual expenditure) to capture programmatic co-financing (monetary/in-kind) by programme managers through a standardized reporting format and revised their co-finance and have included vector control programme expenditure. The reported co-financing for the Fiscal year 2021-2022 amounted to USD 25, 332, 418 either in cash or monetary value of the contribution by the existing and running vector control programs. Tier II countries have not reported on co-finance regardless of their commitment at the inception of the project.

## 2.5. Stakeholder

**EA:** Stakeholder engagement  
(will be uploaded to GEF Portal)

The Executing Agency, WHO-AFRO has delegated the WHO Offices in each project country to supervise and support day to day implementation of project activities, provision of policy and technical guidance through National Project Coordinators as well as collaboration with various relevant sectors.

National Malaria Control Programs (NMCPs) lead the execution of the project in each country in collaboration with the health, agriculture and environment sectors as the main actors involved along with stakeholders from urban planning, rural development, local governments etc. Execution of an Integrated Vector Management project like this one requires multi-sectoral involvement and commitment. A Regional Project Steering Committee (RPSC) composed of experts in the various fields relevant to the project has been established to advise the WHO-AFRO on all technical issues. National Project Steering Committees (NPSCs) composed of sectoral representatives have also been established and play advisory and supervisory role.

The National Project Coordinators and the Project Steering Committees (PSCs) work closely together with existing national structures like the Global Fund CCM (Country Coordination Mechanism) to allow full transparency, efficiency, and sustainability even after the project lifetime.

The Executing Agency has subcontracted International Centre of Insect Physiology and Ecology (ICIPE) in Kenya which is one specialised partner for supporting the development and execution of specific demonstration projects in representative areas in each country. ICIPE works with the national malaria control programs in the development of the demonstration projects based on the latest scientific principles in the field of Integrated Vector Management.

The entire execution of these demonstration projects is within the responsibilities of the national malaria control programs. The national programmes regularly report on progress and expenditure to the Executing Agency.

## 2.6. Gender

**EA: Gender mainstreaming**  
(will be uploaded to GEF Portal)

Gender dimensions have been reflected at both operational - and policy-level interventions for sound chemical management. Vector control efforts in all project countries implementing indoor residual spraying (IRS) have involved women at all levels of the intervention e.g. importation, transportation, storage, usage and disposal. Implementation of demonstration projects has involved women during the entomological and epidemiological surveys to collect baseline data. The project countries are consolidating data numbers of women involved in project activities. The social impact assessments for DDT have involved gender related aspects in six countries.

## 2.7. ESSM

**EA: Environmental and social safeguards management**  
(will be uploaded to GEF Portal)

The project is envisioned to yield significant environmental benefits since it is based on IVM, which is anchored on judicious use and safe management of insecticides and aligned with the DDT Road Map that aim to identify and prove viable, alternatives to DDT, thereby reducing the need for DDT use. Project implementing countries will conduct an inventory with quantification and risk assessment of the current obsolete DDT stockpiles and the development of plans for environmentally sound disposal and adopting the approach to prevent accumulation. The project will establish enabling environments through policy, legal and regulatory frameworks and best practice that minimise the human and environmental risk associated with pesticide use and accumulation.

Efforts to ensure sound management of chemicals, including Persistent Organic Pollutants (POPs), have important social dimensions. Social factors have an impact on the level and frequency of exposure to toxic chemicals, the kinds of chemicals encountered, and the resulting impacts on human health. For these reasons, during need's assessment and implementation of alternatives intervention to DDT in IRS, the project will pay attention to the socioeconomic and social dimensions, especially women and children, to avoid negative impacts due to the proposed alternatives. In that respect, the project will target women and children in communities for communication and raising awareness about the project activities and benefits. Capacity building will be conducted as a crucial component if the desired impact of IVM is to be harnessed.

## 2.8. KM

**EA: Knowledge activities and products**  
(will be uploaded to GEF Portal)

In the last period the knowledge management activities were based on exchanges and sharing of experience between country teams developing the research protocols for the demonstration pilots. This was done during regular reporting via the Executing Agency and at the Regional Steering Committee meeting. Countries used their own systems for recording the baseline data collected (entomological surveys and insecticide resistance monitoring), as this will aid long term sustainability and official use of these data. However the project promotes consistency and comparability between data through a single technical support contract with ICIPE in Kenya, which ensures technical experience sharing between the countries.

A communication strategy has been developed to ensure documentation of the interventions being rolled out (e.g. house screening and winter larviciding) and to share these pilots with the public and decision makers.



## 2.9. Stories

**EA:** Stories to be shared  
(section to be shared with communication  
division/ GEF communication)

Three visibility materials have been developed and one article has been published in a peer-reviewed journal:

AFRO-II Project micro-site ( <http://afro-ii.icipe.org>) in the icipe website. The site has descriptive information regarding the Project intervention methods; Staff; Participating countries; Resources including photos of the implementation; and Media articles and other informational materials.

A Documentary on AFRO II Project in six countries. The video captured the implementation of various project activities in the field including footage of Afro-II activities, and various interviews with key stakeholders, from the national malaria programme down to the community level. Link:

<https://youtu.be/SyP8rQETZls>

Booklet 1: Pulling together for Health and Environment: AFRO II Malaria Project.

The booklet gives a brief history and progression of the AFRO II project over the years to its current phase.

Sangoro OP, Fillinger U, Saili K, Nkya TE, Marubu R, Masaninga F, Casimiro TS, Tarumbwa C, Hamainza B, Baltazar C, Mberikunashe J, Chisanga B, Menale K, Chanda E and Mutero CM. Evaluating the efficacy, impact, and feasibility of community-based house screening as a complementary malaria control intervention in southern Africa: a study protocol for a household randomized trial. *Trials* (2021) 22:883 <https://doi.org/10.1186/s13063-021-05768-7>

To Step 2

### 3. RATING PROJECT PERFORMANCE

#### 3.1 Rating of progress towards achieving the project outcomes

Project objective and Outcomes	Indicator	Baseline level	Mid-Term Target or Milestones	End of Project Target	EA: Summary by the EA of attainment of the indicator & target as of 30 June	TM: Progress rating
<b>Objective</b>						
To strengthen national capabilities for implementation and scaling up of evidence-based, innovative, diversified and environmentally sound disease vector control interventions alternative to DDT (with special emphasis on malaria) with multi-stakeholder participation within context of IVM	Quantity of DDT used annually (kg) for malaria control (in Botswana, Mozambique, Namibia; Swaziland, Zambia, Zimbabwe)	About 305 tons of DDT used annually across all project countries.	Year 3: 30 tons of DDT reduced in DDT demo countries Year 4: 50 tons of DDT reduced in demo countries	Year 5: 305 tons of DDT reduced in all countries	Quantitative data on amounts of DDT used has been collected for all demo countries and submitted to the SSC secretariate. In 2021 demo countries used 103 tons of DDT thereby reducing the quantities used by 289 tons from 392 tons in 2017 .	S
	Evidence on effectiveness of large-scale house screening, larviciding and evidence based systematic community education and communication-IEC for malaria vector control documented	Wide spread pyrethroid resistance, and limited IVM options increased the risk of introducing and/or re-introducing DDT in many countries. No well documented evidence, experience and lesson on alternative interventions,.	Outcomes of demo communicated with relevant sectors and streamlined in malaria control strategies	6 demonstration projects completed	Post-intervention data for 2021/2022 season has been collected in 4 countries (Botswana, Mozambique, Namibia and Zambia) based on Country-tailored protocols approved by the ethical review committee. Zimbabwe has completed Baseline household census data collection. eSwatini has completed collection of baseline epidemiological and entomological data. A second no-cost project extension has been approved to ensure efficient data analysis and documentation of project outcomes.	S
	IVM strategy/approach streamlined in malaria programme practices in six (6) countries	Only 1 country reports regularly on amounts of DDT use to the Stockholm Convention secretariat		All 7 countries regularly report on the status use of DDT to the Stockholm Convention secretariat	Further to the orientation of the countries on the reporting and use of DDT via a UNEP/BRS Webinar in 2021, the component 3 consultant worked with all the countries to ensure timely submission of reports to the StockholmConvention secretariate. All project countries submitted their DDT report.	S
<b>Outcome 1</b>						
Countries develop and implement integrated cross sectoral policies, strategies and plans and have managerial capacity to fully comply with terms of the SC on the use of DDT for diseases vector control through implementation of IVM	No of countries adopting national IVM strategy	6 out of 7 countries using DDT notified DDT Register	14 countries with improved capacity to implement IVM.	14 countries with improved capacity to implement IVM.	Technical assistance has been provided for the developmentof IVM strategies in Kenya and Senegal, andThe Gambia that is scheduled to finalize the process in 2022 Q3. So far, Twelve (Botswana, eSwatini, Kenya, Liberia, Madagascar, Mozambique, Namibia, Senegal, South Africa, Uganda, Zambia, Zimbabwe) have developed IVM strategies.	S

	No. of countries preparing and sending regular reports to the Stockholm Convention on DDT use and stockpiles	Only 1 country is in full compliance with SC reporting requirements. South Africa & Swaziland regularly report every three years to the SSC	Year 4: all 7 countries using DDT will register and report to the SC (1. Using DDT and notified the DDT Register; 2. Submitting National Reports);	All 7 countries regularly report on the status use of DDT to the Stockholm Convention secretariat	All the 7 countries (Botswana, eSwatini, Mozambique, Namibia, South Africa, Zambia, Zimbabwe) have collected the 2020 data and reported in 2021 to the Stockholm Convention. All the countries are compliant with Stockholm Convention reporting requirements on DDT.	S

#### Outcome 2

Three effective alternative IVM approaches demonstrated in at least 12 sites in 6 countries	No of countries that plan for specific IVM approaches based on the pilot results	All (tier 1) project countries are currently using DDT for malaria vector control. Wide spread high level of pyrethroid resistance, and very high cost of alternative insecticides pose a serious risk of countries reverting back to use of DDT, where pyrethroids are becoming ineffective, meaning DDT use is set to increase.	Year 4: 6 countries designed, implemented and evaluated demo project One regional sensitization workshop for high level decision makers on the outcomes of the project	Year 5: National consensus workshop to revise or incorporate (updating) IVM approaches in malaria and other vector borne diseases strategic document	In the last year (2021-2022), post-intervention data collection has been conducted. ICIPE has produced two Technical Reports, the 2021 Annual report and the First Semester 2022 Technical Report outlining the progress in each of the six demonstration countries. Thirteen countries have developed detailed IVM Strategies informed by vector control needs assessments and built requisite capacity for their implementation during the multi-stakeholder national consensus meetings. National stakeholder meeting including MOE held as part of the IVM development process in 13 countries to facilitate technical capacity building by ICIPE in designing and rolling out IVM approaches.	S

#### Outcome 3

Countries and regional institutions are using guidelines on IVM and social impact assessments to guide and influence policies on DDT use	No. of decision and policy makers surveyed acknowledging that social and health impacts have influenced the decisions made on DDT use at national level	There is little acknowledgement that social and health impacts have influenced national decisions on DDT use.	Year 4: Results of social impact assessments compiled, and shared with decision makers 7 consensus building workshops organized to disseminate social impact assessment results	Year 5: 7 countries have completed survey analysis and compiled reports	A consultant has been engaged and is working with the project countries to finalize Social Impact assessment surveys and compile reports based on the developed questionnaires and workplans in all 6 demonstration countries .	S

#### Outcome 4


For joint projects and where applicable ratings should also be discussed with the Task Manager of co-implementing agency.

### 3.2 Rating of progress implementation towards delivery of outputs

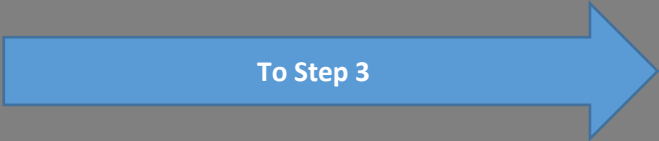
Output	Expected completion date	Implementation status as of 30 June 2021 (%)	Implementation status as of 30 June 2022 (%)	EA: Progress rating justification, description of challenges faced and explanations for any delay	TM: Progress rating
<b>Under Comp 1</b>					
Output 1.1: Capacity and systems to notify the SC DDT Register with close MoH/MoE collaboration	2018, Q3	100%	100%	Complete since 2018.Zimbabwe notified DDT use via the SC DDT Register	S
Output 1.2: National IVM strategies developed and regionally harmonized to the Global Vector Control Response	2022 Q2	100%	100%	All the 13 countries earmarked for development of IVM Strategies have accomplished this task including insecticide resistance plans in line with the Global Vector Control Response.	S
Output 1.3: National teams have technical capacity and equipment for entomological monitoring to inform national IVM plans and policies	2019, Q3	100%	100%	240 Sweep nets, 228 CDC light traps, 288 collection cups, 228 replacement bulbs, 228 Batteries, 72 Automatic battery chargers, 120 mosquito cages, 144 dippers, 12 microscopes, 12 Knapsack motorised blowers, 72 Prokopack samplers, 360 Prokopack collection cups, 120 Prokopack batteries, 72 Prokopack chargers, Commodities and equipment procured for all and delivered to all countries. WHO and ICIPE have organized and trained teams in 6 counties for entomological data collection.	S
1.4: Training, technical support and provision of equipment to countries to support implementation of evidence based national policies and plans for IVM to a harmonized standard	2019; Q4	100%	100%	Trainings have been conducted and scaled-up across the countries to inform implementation of national policies and plans. Technical support missions provided for 6 countries and entomological equipment has been procured and delivered.	S
<b>Under Comp 2</b>					
Output 2.1. Maps of vector distribution and resistance compiled for demo sites and regional resistance database updated	2022, Q4	85%	95%	Data collection on vector distribution and insecticide resistance in 6 countries has been completed. Countries have shared data with ICIPE for reports and publications. Updating of insecticide resistance data, compilation and finalization of report is planned for 2022 Q4.	S
Output 2.2: Three effective IVM approaches developed and demonstrated in six countries	2020, Q2	85%	100%	Baseline data has been completed in six countries and data shared with ICIPE for reports and publications. Implementation of winter larviciding and House screening demo interventions have been completed in respective countries and data shared with ICIPE for reports and publications. Three articles have been published, one submitted for peer review, Five manuscripts are under preparation, including three project end point articles.	S
<b>Under Comp 3</b>					
Output 3.1: Updated national and regional manuals and guidelines on IVM	2022, Q4	50%	95%	A total of 13 countries have developed /updated IVM strategies informed by the outcomes of the project. A consultant has been engaged to develop the Regional guidelines for management of Vectorborne diseases in the context of IVM and GVCR. The guideline is scheduled to be finalized in 2022 Q4 and will inform further iterations of national IVM strategies.	S

Output 3.2: Better understanding of KAP related to malaria and raised awareness of IVM methods among communities and practitioners	2022, Q4	65%	95%	ICIPE has developed Knowledge products on IVM including: Booklets on "Pulling together for Health and Environment: AFRO II Malaria Project" and "AFRO II Malaria Project: Towards Malaria elimination in Southern Africa: Reinforcing Vector Control with House screening and Bio-larvicides." Two consultants have been engaged to develop the "KAP survey guidelines for vector control in the WHO AFRO" and "Practical guideline for IEC/BCC to facilitate elimination of DDT use and adopting alternative interventions for malaria vector control in the WHO AFRO".	S
Output 3.3. National assessments of social impact of DDT on vulnerable groups	2020, Q2	85%	100%	The regional consultant to assist the Executing Agency with component 3 has been recruited and is working with the countries. All the countries are collaborating with the MoE as the national partner to deliver Social Impact Surveys.	S
Output 3.4: Data on DDT usage and amount/ location of obsolete DDT in project countries	2020, Q2	85%	100%	Initial inventory on the use of DDT and on availability and distribution of obsolete DDT has been completed in 6 countries. A total of 3,395,647kg (3743 tones) of DDT was used and with 658.21kg of obsolete DDT in demo project countries. All countries have compiled the 2018-2020 and submitted the DDT Questionnaire in 2021 to the SC secretariate.	S

Under Comp 4


Under Comp 5


The Task Manager will decide on the relevant level of disaggregation (i.e. either at the output or activity level).



<b>Implementation Status</b>	PIR 6
------------------------------	-------

Consolidated project risk		-				M	L	L	=	This section focuses on the variation. The overall rating is discussed in section 2.3.
---------------------------	--	---	--	--	--	---	---	---	---	--

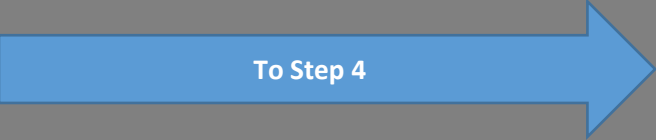
L

Table B. Outstanding medium & high risks

List here only risks from Table A above that have a risk rating of **M or worse** in the **current PIR**

Risk	Actions decided during the previous reporting instance (PIRt-1, MTR, etc.)	Actions effectively undertaken this reporting period	Additional mitigation measures for the next periods		
			What	When	By whom
1. Increased malaria transmission posed by reduced reliance on DDT or its withdrawal for IRS applications	Countries have developed IVM strategies that incorporate insecticide resistance management plans to inform the use of effective alternative insecticides and none-insecticide based interventions.	Countries have been edged to implement IVM strategies based on locally generated data including insecticide resistance to inform the targeting and deployment of effective alternative insecticides and none-insecticide based interventions.	Countries are encouraged to enhance capaity building on entomology and vector control and stregnthen data management systems through the DHIS sytem. Oversight by project manager and additional support from National Steering Committees	2022 Q4	WHO
2. Difficulties in acheiving planned co-financing targets.	NA. This is a new risk identified during current PIR stage.	Countries have to implement IVM strategies and during and beyond the project. Continuous support to countries are provided through regular dialogue in assessing the co-finance contribution made.	Rigoruos follow up with countries specially Tear II countries would be carried out to receive the co-finance contribution. The EA would organize dedicated session to brief countries on co-financing reporting. UNEP to follow up with the EA(WHO) on monthly basis on the progress in terms of realisation of co-financing and provide necessary support and guidance as and when required.	2022 Q4	WHO-UNEP

**High Risk (H):** There is a probability of greater than 75% that **assumptions** may fail to hold or materialize, and/or the project may face high risks.  
**Significant Risk (S):** There is a probability of between 51% and 75% that **assumptions** may fail to hold and/or the project may face substantial risks.  
**Medium Risk (M):** There is a probability of between 26% and 50% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.  
**Low Risk (L):** There is a probability of up to 25% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.





Project Minor Amendments

Minor amendments are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5% as described in Annex 9 of the Project and Program Cycle Policy Guidelines.

Minor amendments	Changes
Results framework	No
Components and cost	Yes
Institutional and implementation arrangements	No
Financial management	No
Implementation schedule	Yes
Executing Entity	No
Executing Entity Category	No
Minor project objective change	No
Safeguards	No
Risk analysis	No
Increase of GEF project financing up to 5%	No
Co-financing	No
Location of project activity	No
Other	No

Minor amendments
The onsite IVM training has been cancelled due to pandemic related travel restrictions. Funds in budget line 3201 used to finance development of IVM strategies for Tier II countries. Part of budget funds in 3302 for regional PSC will be used to support development of knowledge products including the Project Report for WHO. Revised workplan prepared in consultation with PSC with extended timelines.

GEO Location Information:

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to

Location Name Required field	Latitude Required field	Longitude Required field	Geo Name ID Required field if the location is not an exact site	Location Description Optional text field	Activity Description Optional text field
Zimbabwe					
Triangle, Mufakose A	21.00803029	31.4449845	Triangle, Zimbabwe (880015)	Mufakose A village, Triangle	AFRO II Project area
Triangle, Mufakose B	21.00905189	31.44896489	Triangle, Zimbabwe (880015)	Mufakose B village, Triangle	AFRO II Project area
Triangle, Mutilikwi, Section 61	21.12128472	31.40053493	Triangle, Zimbabwe (880015)	Section 61 village, Triangle	AFRO II Project area
Triangle, Mutilikwi, Section 62	21.12605849	31.38916236	Triangle, Zimbabwe (880015)	Section 62 village, Triangle	AFRO II Project area
Triangle, Mutilikwi, Section 63	21.13541544	31.34935301	Triangle, Zimbabwe (880015)	Section 63 village, Triangle	AFRO II Project area
Triangle, Mutilikwi, Section 64	21.11741155	31.32429582	Triangle, Zimbabwe (880015)	Section 64 village, Triangle	AFRO II Project area
Monyoroka, Chiredzi RDC	21.08153735	31.37326223	Triangle, Zimbabwe (880015)	Monyoroka, Chiredzi RDC	AFRO II Project area
Namibia					
Okathima Kanangolo	17.56666667	15.38333333		Study village	
Epyaliwa	17.41624722	15.33503056		Study village	
Okatha Kamuengwe	17.70268361	16.01887306		Study village	
Oneumba	17.83034167	16.11254722		Study village	
Okatale	17.4	15.93333333		Study village	
Okanghudi	17.43333333	16.13333333		Study village	
Mayana	17.89558333	19.90263889		Study village	
Sikondo	17.86605556	19.6335		Study village	
Diyana	18.01861111	21.39916667		Study village	
Tjova	17.96638889	21.07333333		Study village	
eSwatini					
Malindza	26.404997	31.73104	Malindza	Located in the Lubombo Region, under Dvokodvweni Inkhundla (constituency). Population of 491, within Project site size of 8.1 Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 19.
Kutsimuleni	26.307967	31.465199	Kutsimuleni	Located in the Manzini Region, under Mkhweni Inkhundla. Population of 457, within Project site size of 6.3Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 9.



Khuphuka	26.245396	31.634713	Khuphuka	Located in the Manzini Region, under Mkhweni Inkhundla. Population of 549, within Project site size of 9.4Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 5.
Hlane	26.2451	31.713581	Hlane	Located in the Lubombo Region, under Hlane Inkhundla. Population of 157, within Project site size of 8.5Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 12.
Manzana	26.132886	31.669032	Manzana	Located in the Hhohho Region, under Madlangempisi Inkhundla. Population of 618, within Project site size of 14.4Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 8.
Nyonyane	26.121758	31.451578	Nyonyane	Located in the Hhohho Region, under Madlangempisi Inkhundla. Population of 837, within Project site size of 65.8Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 10.
Bulandzeni	26.054921	31.460268	Bulandzeni	Located in the Hhohho Region, under Ndzingeni Inkhundla. Population of 741, within Project site size of 7.7Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 13.
Mangweni	25.918912	31.628476	Mangweni	Located in the Hhohho Region, under Mhlangatane Inkhundla. Population of 356, within Project site size of 8Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 13.
Ndvwabangeni	25.867932	31.640415	Ndvwabangeni	Located in the Hhohho Region, under Mhlangatane Inkhundla. Population of 517, within Project site size of 13.7Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 6.
Herefords	25.908565	31.465599	Herefords	Located in the Hhohho Region, under Mayiwane Inkhundla. Population of 609, within Project site size of 11.8Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 15.
Mvembili	25.773742	31.365244	Mvembili	Located in the Hhohho Region, under Timphisini Inkhundla. Population of 436, within Project site size of 10.7Km2	This is an intervention study site to receive Winter Larviciding. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 11.
Mashobeni	25.75077	31.450719	Mashobeni	Located in the Hhohho Region, under Timphisini Inkhundla. Population of 416, within Project site size of 6.6Km2	This is a control study site to continue with IRS Only. Total number of aquatic habitats for mosquito breeding geospatially mapped equals 3.
Zambia					
Nyimba Urban	14.52366091	30.79776973		Households Nyimba Districts	
Nyimba Urban	14.51452751	30.79010236		Households Nyimba Districts	
Nyimba Urban	14.55505139	30.80115913		Households Nyimba Districts	
Nyimba Urban	14.55131918	30.85779406		Households Nyimba Districts	
Nyimba Urban	14.53950775	30.80578475		Households Nyimba Districts	
Mkopeka	14.42730135	31.00014928		Households Nyimba Districts	
Mkopeka	14.47032403	31.0195955		Households Nyimba Districts	
Mkopeka	14.48220184	30.96190123		Households Nyimba Districts	
Mkopeka	14.42730135	30.99763519		Households Nyimba Districts	
Mkopeka	14.50271672	30.97759089		Households Nyimba Districts	
Mkopeka	14.47017064	31.02200799		Households Nyimba Districts	

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate. \*

[Annex any linked geospatial file]

