



**World Health
Organization**



**For research on
diseases of poverty**
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TDR Portfolio of Expected Results for 2020-2021

Version 15 March 2019

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ER 1.1.1 Country preparedness for disease outbreaks

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for policies

Section I. Expected Result Identification

ER type: Evolved

Manager's Name: Corinne Merle

TDR staff involved: Michelle Villasil, others TBD

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): Vectors, Environment and Society (VES)

Funding sources: UD + DF

Partners and collaborators: Endemic country programmes and researchers, WHO regional offices

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** Not country specific

Diseases: Arboviruses: Dengue, Chikungunya, Zika

Start date: 01-Jan-2013

End date: 31-Dec-2022

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information Obtained when applicable

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$150,000	\$150,000	\$ 0
US\$ 50M budget	\$200,000	\$200,000	\$ 0

Section III. Objectives and results chain

Objectives: To enable countries to improve their response capacity to arboviruses outbreaks

ER outcome: Country preparedness and policy decisions for arbovirus outbreaks informed or facilitated by TDR outputs

Output 1: Expanded countries' capacities to use EWARS tool

Indicator: Number of countries using EWARS tool

Target date: 31-Dec-2020

Output 2: Regional plan to improve arbovirus disease surveillance and vector control in West Africa

Indicator: Agreement on the regional plan

Target date: 31-Dec-2021

Approach to ensure uptake: National control programmes and WHO (HQ, ROs) fully involved in research planning, implementation and analysis

Uptake / use indicator: TDR outputs considered among evidence informing guidelines and policy decisions or control programme advisory committee recommendations

Target date: 31-Dec-2023

Publication plan: Scientific meetings, Open access journals, TDR website

Approach to ensure gender and geographic equity: Gender specific Zika issues as they relate to outbreak surveillance and response will be taken into account during research design. All affected regions will be considered.

Section IV. Concept and approach

Rationale: 1. Dengue and Zika outbreaks have shown the importance of coping capacity (surge capacity) and case management under disease outbreak conditions. Availability of training materials based on lessons learnt in past outbreaks will facilitate and accelerate adequate managerial response during the next epidemic.

2. Chikungunya and Zika virus outbreak surveillance and response tools are needed. TDR is in a unique position to lead this because of its prior experience and track record with research for Dengue.

3. In response to a request from Burkina Faso, TDR organized a regional meeting in West Africa to map the issues, knowledge and capacity gaps for vector control, surveillance and outbreak response, and design a plan to build capacity in the region through OR/IR generated evidence-based interventions. There is a need now for an action plan at regional level that synergizes the efforts of all key stakeholders.

Design and methodology: - EWARS training in relevant countries

- Consensual discussion with West African countries and key stakeholders

Approach to ensure quality: Scientific working group and, as applicable, other expert review of proposals, progress reports, monitoring of application of the research protocol.

Significant risk 1: Lack of interest outside epidemic peaks resulting in insufficient funding

Actions to mitigate: Raise awareness of potential donors; explore alternative ways of supporting work

Estimated leverage description: TBD

Estimated 2020-21 (US\$)

ER 1.1.4 Country resilience to the threat of drug-resistant infections

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for policies

Section I. Expected Result Identification

ER type: Evolved

Manager's Name: Rony Zachariah

TDR staff involved: Ekua Johnson, Christine Halleux, + TBD, Corinne Merle, Annette Kuesel, Michelle Villasol, Abdul Masoudi, Mariam Otmani del Barrio

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): (1.1.7) Maximized utilization of safety information for public health decision-making, (1.1.8) Maximized utilization of safety information for public health decision-making

Funding sources: UD and DF (AMR DH fund)

Partners and collaborators: WHO country offices, Fleming Fund (funder), implementing partners, research institutions in target countries, relevant MoH departments/programmes, FIND, hospitals/clinics in selected countries (TBD)

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global **Country(ies):** AMR: Ghana, Uganda, Colombia, Viet Nam, Myanmar, Nepal.

Others: no specific countries identified as yet

Diseases: Across infectious diseases of poverty

Start date: 01-Jan-2018

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on

Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information Obtained when applicable

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$3,500,000	\$ 0	\$3,500,000
US\$ 50M budget	\$4,970,000	\$370,000	\$4,600,000

Section III. Objectives and results chain

Objectives: 1. Support countries in developing workable approaches to implementation of effective strategies for detecting and containing drug resistant infections. 2. Build local capacity to conduct operational research (OR).

ER outcome: Guidelines, policies or policy implementation plans (as applicable) informed by TDR outputs

Output 1: OR/IR strategies for countries to build effective systems for monitoring and responding to emerging drug resistance of all relevant infectious agents

Indicator: Strategies endorsed by stakeholders at relevant levels

Target date: 31-Dec-2023

Output 2: Documentation of practical approaches to improve targeted treatment and reduce drug misuse and risk of resistance development

Indicator: Reports/publications made available

Target date: 31-Dec-2023

Output 3: (Subject to funds availability - US\$ 50 million budget scenario) - Evaluation of biomarker to guide management of fever at field level

Indicator: Evidence on potential of at least one biomarker generated

Target date: 31-Dec-2023

Output 4: Strategies for monitoring and responding to potential emergence of drug resistance

Indicator: Report to scientific working group (and DF agency, as applicable)

Target date: 31-Dec-2023

Approach to ensure uptake: Early engagement with partners, regular updates to relevant programmes and involvement of relevant stakeholders in consultations, policy and issue briefs

Uptake / use indicator: New or updated/improved guidelines, policies, policy implementation plans and/or practice (as applicable) informed by TDR outputs

Target date: 31-Dec-2025

Publication plan: Scientific meetings, Open access journals, TDR website, Partner websites

Approach to ensure gender and geographic equity: Beneficiaries: Drug resistance affects both sexes alike.

Geographic equity will be dependent on the disease addressed. Calls for proposals will include the information that TDR is encouraging women scientists to apply.

FOR DF: Collaborators will be those participating in the preparation and submission of the proposal funded by third parties - if applicable.

Section IV. Concept and approach

Rationale: AMR is a global public health challenge as it makes standard treatments ineffective and allows infections to persist and spread to others. To implement effective plans for containment of /response to emerging drug resistance, countries need support for: a) Improved surveillance and monitoring of the AMR situation in countries; b) Identifying drivers of antimicrobial drug resistance in human populations and enhancing AMR prevention; c) Improving antimicrobial stewardship and procedural interventions; d) build adequate and sustainable structures and capacity for evidence-informed decision-making at national level; and d) foster mechanisms for knowledge sharing to maximize the potential for broader research impact.

Design and methodology: The approach will be multi-disciplinary as appropriate for the outputs and include the SORT IT approach.

Approach to ensure quality: Selection of partners following specific selection criteria, follow-up and monitoring of projects; selection of investigators with appropriate expertise through review of their proposals by the scientific working group complemented by external subject matter experts, and with specific training activities, as applicable.

Significant risk 1: Lack of engagement from countries

Actions to mitigate: Country stakeholders from all levels will be involved from the beginning

Estimated leverage description: TBD

Estimated 2020-21 (US\$)

ER 1.1.5 Directions for development and accelerated access to new tools and strategies

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Optimized approaches for effective delivery and impact assessment of public health interventions

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: TBD

TDR staff involved: Annette Kuesel, Corinne Merle, Christine Halleux, Rony Zachariah, Abdul Masoudi, Ekua Johnson, Michelle Villasol

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): Research for implementation

Funding sources: UD

Partners and collaborators: TBD

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): TBD

Diseases: Multiple

Start date: 01-Jan-2018

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information No formal partners yet identified so no FENSA yet needed.

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$110,000	\$110,000	\$ 0
US\$ 50M budget	\$130,000	\$130,000	\$ 0

Section III. Objectives and results chain

Objectives: 1. Foster innovation to fill gaps in new products for neglected infections

2. Engage stakeholders

3. Identify priorities, opportunities

ER outcome: 1. Researchers, developers, funders provided with knowledge available through TDR on specific gaps, needs, opportunities, potential approaches, partners, products and technologies.

2. Knowledge applied by partners resulting in more efficient processes.

Output 1: Outputs of TDR research projects and TDR staff and adviser expertise used to provide directional perspective for R&D new tools (including advice/support to R&D sponsors) as well as new ways of implementing the tools

Indicator: Number of R&D initiatives informed by TDR research project output or TDR staff /adviser expertise (at least 4 by 2023)

Target date: 31-Dec-2023

Output 2: Optimized methodologies to assess response to case-based and population-based interventions

Indicator: Number of methodologies revised and optimized; uptake of revised methodologies; quality of resulting research

Target date: 31-Dec-2023

Output 3: Strategy development, implementation and monitoring

Indicator: Scientific working group meeting reports and recommendations

Target date: 31-Dec-2021

Approach to ensure uptake: Quality of work generated and inclusiveness of stakeholders will underpin these activities

Uptake / use indicator: Number of: a) projects/initiatives which take into account TDR contributions/directions; and b) researchers, developers, organizations, funders utilizing TDR input/output

Target date: 31-Dec-2023

Publication plan: TBD

Approach to ensure gender and geographic equity: Gender and geographic equity considerations will be included

Section IV. Concept and approach

Rationale: Control programme objectives cannot be reached for many poverty-related infectious diseases, especially NTDs, because they lack new effective and safe tools for their diagnosis and treatment, as well as efficient methods for quantifying the effect.

Design and methodology: Inclusiveness and openness are the guiding principles. The scope of this project covers essential, intertwined elements to develop and assess the right tools that will help achieve control and elimination targets.

Approach to ensure quality: The entire project will be open to public scrutiny by definition, which will ensure quality.

Significant risk 1: Resistance to change by key stakeholders unwilling to adopt new solutions

Actions to mitigate: Achieving critical mass of supporters; showing concrete results

Estimated leverage description: It is difficult to quantitate leverage across this spectrum of activities. When it comes to R&D by third parties it will be in the tens/hundreds of millions.

Estimated 2020-21 (US\$)

ER 1.1.7 Maximized utilization of data for public health decision-making

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for implementation

Section I. Expected Result Identification

ER type: Evolved

Manager's Name: Rony Zachariah

TDR staff involved: Christine Halleux, Corinne Merle, Michelle Villasol, Abdul Masoudi, Ekua Johnson + relevant RCS staff

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): (1.1.8) Maximized utilization of safety information for public health decision-making

Funding sources: UD and DF

Partners and collaborators: Public health programmes in target countries, ministries of health, NGOs, academic institutions

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): Multiple TBD

Diseases: Multiple TBD

Start date: 01-Jan-2012

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on

Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information This is the plan for 2020-2021, No definitive info at this point about the new NSA requiring FENSA compliance review.

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$210,000	\$210,000	\$ 0
US\$ 50M budget	\$600,000	\$400,000	

Section III. Objectives and results chain

Objectives: 1. Stimulate and support the effective use of public health system data for evidence-based decision-making

2. Promote and support research data sharing for evidence-based decision-making (guidelines/policy/practice and research)

ER outcome: Strengthened evidence-base for policy and practice decisions in terms of both disease control and research

Output 1: Build capacity for the effective collection and analysis of data

Indicator: Number of data analyses conducted and reported

Target date: 31-Dec-2023

Output 2: Publications and policy briefs informing evidence-based policies/ practice documents

Indicator: Number of publications and policy briefs informing evidence-based policies/ practice documents

Target date: 31-Dec-2023

Approach to ensure uptake: Research questions identified and documents discussed early with programmes and stakeholders at national and international levels, as well as WHO offices where applicable

Uptake / use indicator: Number of new or changed policies /practice guidelines and/or decisions taking into account outputs from this project

Target date: 31-Dec-2023

Publication plan: Open access publications will be developed if and when appropriate; documents for WHO control programmes

Approach to ensure gender and geographic equity: Geographic and gender equity depends on condition/question identified. If calls for proposals are issued, they will specify that women are encouraged to apply.

Section IV. Concept and approach

Rationale: WHO and countries need evidence for informing operational decisions, recommendations/guidelines and policies. TDR can play a key role in crystallising questions that may be answered by available evidence, and in strengthening country capacity for compilation and analysis/interpretation of available data. This will also identify knowledge and information gaps and consequently inform research agendas and move research into action.

Design and methodology: Priority areas will be identified by the countries and WHO programmes. Countries will play a central role in identifying the implementing staff.

Approach to ensure quality: TDR facilitated training of country-identified implementers, customized to their capacity, milestones and targets, including publishing as a part of quality control; Standard Operating Procedures where appropriate customized to their capacity.

Significant risk 1: Possibility of "weaning funding for TDR" for classical SORT IT courses

Actions to mitigate: Fundraising efforts, including outside usual regular donors

Significant risk 2: Loss of quality as we franchise the model to other institutions

Actions to mitigate: Quality indicators and strict methodology to be implemented by institutions franchising the SORT IT model

Estimated leverage description: TBD

Estimated 2020-21 (US\$)

ER 1.1.8 Maximized utilization of safety information for public health decision-making

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for implementation

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Christine Halleux

TDR staff involved: Corinne Merle, Olumide Ogundahunsi, Ekua Johnson

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): 1. Research Capacity Strengthening (RCS) for building capacities in countries; 2. (1.1.7) Maximized utilization of data for public health decision-making

Funding sources: UD + DF for ADP project

Partners and collaborators: Other departments (HIV, TB, etc.) within WHO, University of Ulster, UNDP and PATH, national control programmes, researchers and research institutions (academia, others), MoH and national control programmes in countries

Review mechanism: Scientific working group, and the Access and Delivery Partnership scientific advisory group convened by UNDP for the ADP project

WHO Region(s): Global

Country(ies): Not country specific

Diseases: Not disease specific. This area of work is across diseases, beyond infectious diseases

Start date: 01-Jan-2014

End date: 31-Mar-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information FENSA clearance obtained when applicable - was not required for all partners

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$220,000	\$220,000	\$200,000
US\$ 50M budget	\$800,000	\$400,000	\$400,000

Section III. Objectives and results chain

Objectives: 1. Provide policy-makers with essential information on drug safety and contribute evidence on safety for WHO treatment and normative guidelines

2. Build capacity in countries to collect, assess and use drug safety data for decision-making

ER outcome: Strengthened evidence on drug safety

Output 1: Improved evidence of drug safety in specific patient groups (e.g. HIV positive, pregnancy, MDR-TB)

Indicator: At least 50% increase in data content on the two key databases established by TDR (pregnancy and aDSM); and one analysis of data run per year for each database

Target date: 31-Dec-2021

Output 2: Innovative approaches for safety monitoring piloted that facilitate and improve normative guidance (e.g. safety monitoring in mass drug administration, cohort studies in high risk populations, community-based surveillance)

Indicator: Evaluation report on approaches using the mHealth tool facilitating safety monitoring in the field

Target date: 31-Dec-2021

Output 3: Capacity for safety monitoring of new drugs built in target countries

Indicator: Adverse event reporting rates in target countries

Target date: 31-Mar-2023

Approach to ensure uptake: Involvement of different WHO departments and control programmes; capacity built at country level

Uptake / use indicator: Incorporation of evidence in treatment guidelines; use of new tool by countries or research groups

Target date: 31-Dec-2023

Publication plan: Scientific meetings, Open access journals, TDR website

Approach to ensure gender and geographic equity: Safety in pregnancy targeted in output 1. Data from DEC. Contracts with qualified women investigators favoured.

Section IV. Concept and approach

Rationale: In most developing countries, weak pharmacovigilance systems and generalized under-reporting explain that safety information is often lacking. A lot of work is needed at different levels and has been identified as a priority to ensure safe use of drugs in developing countries. This is even more important in a programme where the drugs are distributed on a large scale and used as preventive treatment where the balance risk/benefit will be more easily challenged.

This ER looks at different ways of working with developing countries and programmes to help them strengthen safety monitoring systems, collect and collate safety data, and use adequately data available to extract any useful safety information. This should help generate data and evidence that will be used for policy decision and programme implementation.

Design and methodology: The following methodology will be used:

- a) Strengthening of collaboration around central databases for collection of safety data and analysis of pooled data to identify evidence related to drug safety;
- b) Development and field testing of the mHealth tool to facilitate data collection around safety monitoring; and
- c) Capacity building at country level.

Approach to ensure quality: Regular monitoring of project implementation; involvement of experts in project design (pharmacovigilance, neonatologist, etc.) from the beginning.

Significant risk 1: Non-acceptance of results by different WHO departments or countries

Actions to mitigate: 1) Involvement of WHO partners and countries in the review of evidence obtained from the beginning of the project

2) Capacity built at country level to understand and interpret the data obtained

Significant risk 2: Low quality implementation at country level

Actions to mitigate: Careful selection, adequate training prior to country implementation and regular monitoring

Significant risk 3: Refusal from sites or countries to share data

Actions to mitigate: Involvement of WHO partners and countries in the project planning from the beginning of the projects; advocacy to highlight the benefit of data sharing

Estimated leverage description: Leverage is expected through voluntarily participation of collaborators, experts and partners. Countries directly financing projects.

Estimated 2020-21 (US\$)

ER 1.2.1 Strategies to achieve and sustain disease elimination

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for implementation

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Annette Kuesel (Oncho, LF) - TBD (VL)

TDR staff involved: Christine Halleux, Michelle Villasil

Number of partners/staff/consultants: TBD (potentially: P Oliaro / A Kroeger as consultants)

Synergy with other TDR work stream(s):

Funding sources: UD

Partners and collaborators: Control programmes and research institutes in countries, Medicines Development for Global Health, Division Provinciale de la Santé de l'Ituri (DPS Ituri) du Ministère de la Santé Publique de la RDC, Communauté Evangélique au Centre de l'Afrique (CECA20) DRC; Luxembourg Institute of Health, University of Health and Allied Sciences, Ghana, Erasmus University Medical Center, University of Antwerp, Royal Veterinary College, Imperial College London, EDCTP (funder)

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): TBD

Diseases: VL, Oncho (LF)

Start date: 01-Mar-2014

End date: 31-Dec-2025

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information FENSA clearance obtained when needed (for partnership for moxidectin evaluation) - to be evaluated for new future partners

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$760,000	\$760,000	\$ 0
US\$ 50M budget	\$1,500,000	\$1,500,000	

Section III. Objectives and results chain

Objectives: Generate evidence to guide programmes on strategies to achieve and sustain elimination, where and when to stop intervention and how to certify elimination

ER outcome: Guidelines and policy decisions informed by TDR outputs

Output 1: Generate evidence on sustainable strategies for the elimination of VL in the sub-Indian continent

Indicator: Report to scientific working group; results delivered to the country control programmes

Target date: 31-Dec-2021

Output 2: Improved basis for monitoring progress of preventive chemotherapy-based elimination programmes towards elimination and for decisions to stop interventions

Indicator: Report to scientific working group; results delivered to the country control programmes

Target date: 31-Dec-2021

Output 3: Data to support WHO guidelines and onchocerciasis endemic country registration and policies on moxidectin for onchocerciasis elimination

Indicator: Study reports provided to WHO and countries (directly and/or via ESPEN)

Target date: 31-Dec-2024

Approach to ensure uptake: Control programmes and researchers from concerned countries are fully engaged in the design and implementation of the research

Uptake / use indicator: TDR outputs considered among evidence informing decision-making at global, regional and national levels

Target date: 31-Dec-2026

Publication plan: Scientific meetings, Open access journals, TDR website

Approach to ensure gender and geographic equity: Work will target LMICs in Africa and Nepal/Bangladesh.

Whenever possible funding to women investigators will be favoured. Whenever possible results of research will be disaggregated by gender.

Section IV. Concept and approach

Rationale: Some diseases are targeted for elimination in certain areas. Research is needed to inform appropriate strategies and practices. While some of these can be broadly applied, others need to be targeted to the disease, and/or the interventions and/or specific epidemiological setting and/or the extent to which prevalence/incidence of infection have been reduced and the elimination goal (elimination as a public health problem or elimination of transmission). TDR has been funding and managing research to support elimination goals for onchocerciasis and VL in past biennia and is continuing this work as recommended by the scientific working group.

Design and methodology: Continuation of collaboration between researchers and national/regional or global control programmes. Research will be designed to address specific knowledge gaps and research priorities, and will be conducted by qualified investigators (with appropriate training).

Approach to ensure quality: Selection of investigators and proposals with appropriate expertise through review of their proposals and progress reports/renewal requests by the scientific working group complemented by external subject matter experts (ad hoc reviewers). Grant proposal review by external reviewers nominated by funders, if applicable.

Significant risk 1: Insufficient funding

Actions to mitigate: Raise awareness of potential donors; explore alternative ways of supporting work

Estimated leverage description: TBD

Estimated 2020-21 (US\$)

ER 1.2.6 Optimized approaches for effective delivery and impact assessment of public health interventions

Team: Research for Implementation (IIR)

Strategic working area: Research for Implementation

Workstream and outcome: Research for implementation

Section I. Expected Result Identification

ER type: Evolved

Manager's Name: Corinne Merle

TDR staff involved: Annette Kuesel, Christine Halleux, Michelle Villasol, Abdul Masoudi, Ekua Johnson, Rony Zachariah

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): Research Capacity Strengthening and (1.1.4) Country resilience to the threat of drug-resistant infections

Funding sources: UD + DF

Partners and collaborators: Control programmes and research institutions in target countries

Review mechanism: Scientific working group + other ad hoc or collaboration-based review systems as appropriate

WHO Region(s): Global

Country(ies): Target countries/regions as required

Diseases: Case-based: Tuberculosis, malaria, potentially Schistosomiasis. Population-based: Schistosomiasis, STH, Malaria, Oncho, LF

Start date: 01-Jan-2015

End date: 31-Dec-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information When applicable

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$850,000	\$550,000	\$300,000
US\$ 50M budget	\$1,400,000	\$800,000	\$600,000

Section III. Objectives and results chain

Objectives: 1. Build country programme capacity to develop research questions and generate data to inform effective implementation of their policies

2. To support national programmes with evidence for the selection and effective implementation of strategies to control diseases through either case- or population-based approaches

ER outcome: Guidelines and policy decisions informed by TDR outputs

Output 1: Strengthened regional networks of West African National Tuberculosis Programmes (WARN-TB) and Central African Tuberculosis Programmes (CARN-TB) capable of identifying research priorities and designing and conducting OR/IR to generate the evidence-base for policy decisions to achieve the goals of the EndTB strategy

Indicator: Report provided to scientific working group and stakeholders at country, regional and global level

Target date: 31-Dec-2021

Output 2: Extend the WARN-TB approach to other geographical areas and/or other disease burdens

Indicator: Report provided to scientific working group and stakeholders at country, regional and global levels

Target date: 31-Dec-2023

Output 3: Approaches to optimized delivery and effectiveness of seasonal malaria chemoprevention in West and Central Africa evaluated and other NTD control strategies

Indicator: Report provided to scientific working group and stakeholders at country, regional and global levels

Target date: 30-Jun-2023

Approach to ensure uptake: Involvement of different WHO headquarters, regional and country departments, key stakeholders such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, NGOs and control programmes; capacity built at country level

Uptake / use indicator: Evidence taken into consideration in treatment and normative guidelines

Target date: 31-Dec-2024

Publication plan: Peer review publications, presentation at international congress, dissemination in-country including policy brief

Approach to ensure gender and geographic equity: Men and women researchers equally represented. Activities focused initially in West and Central Africa (see rationale), consolidate what was built in these 2 regions and use the lessons learned to expand to other areas/diseases.

Section IV. Concept and approach

Rationale: Disease control is based on either case- or population-based approaches, depending on the nature and the prevalence of the disease, and the efficacy/safety profile of available medications. Country programmes need to build capacity to generate research questions and data that will allow them to effectively implement policy standards. In other cases, the evolving background epidemiology and programme objectives require that standard approaches be reconsidered and evidence generated to inform guidelines and policies.

Design and methodology: 1. Regional workshops: NTP network workshops to define research priorities and capacity building needs to develop a national TB research plan and share progress and issues (collaboration with relevant WHO programmes, in particular WHO/GTB)

2. Training: Activities addressing training needs through: (i) a regional training programme; and (ii) a "learning by doing" approach with technical support and mentoring for the development and conduct of pilot projects that generate data for the implementation and scale-up of new public health interventions; and

3. Technical and financial support for scaling-up public health interventions and documenting their implementation through research.

Approach to ensure quality: - Careful interactive development of the workplan of the full project and risk assessment

- Careful selection of key partners

- Close monitoring of progress

Significant risk 1: Insufficient engagement of national control programmes

Actions to mitigate: Adequate communication strategy to maintain interaction of all partners within the network

Significant risk 2: Inability of some control programmes to define research priorities and capacity building needs

Actions to mitigate: Shared experience and expertise within the regional network and external technical support provided for the weakest control programmes

Estimated leverage description: TBD

Estimated 2020-21 (US\$)

ER 1.3.10 Urban health interventions for the prevention and control of vector-borne and other infectious diseases of poverty

Team: Research for Implementation (VES)

Strategic working area: Research for Implementation

Workstream and outcome: Research for innovation

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Mariam Otmani del Barrio

TDR staff involved: Florence Fouque, Bernadette Ramirez

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): Research for implementation

Funding sources: UD

Partners and collaborators: Universities and research consortium in Latin America

Review mechanism: Scientific working group and ad hoc expert reviewers

WHO Region(s): Latin America

Country(ies): Not selected yet

Diseases: Urban vector-borne diseases

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information All partners are State-actors for now

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$150,000	\$150,000	\$ 0
US\$ 50M budget	\$300,000	\$300,000	

Section III. Objectives and results chain

Objectives: To generate new knowledge and evidence generated on effectiveness of interventions to prevent and control vector-borne diseases by addressing socioeconomic determinants in health in urban settings

ER outcome: Evidence generated to inform policy and practice on control of infectious diseases in urban settings in low- and middle-income countries

Output 1: New knowledge and evidence generated on effectiveness of interventions at household level to prevent and control vector-borne diseases by addressing identified socioeconomic determinants of health in urban settings

Indicator: Evidence published from 2 different selected research teams in a selected country in Latin America, addressing urban health issues in tropical diseases

Target date: 31-Dec-2021

Output 2: Evidence review on human mobility in urban areas and its impact on disease transmission (particularly dengue and Chikungunya)

Indicator: Evidence generated from 2 different selected research teams in a specific location which has experienced recent demographic increase, addressing urban health issues in tropical diseases

Target date: 31-Dec-2021

Approach to ensure uptake: Evidence generated will also inform the development of information briefs for policy and practice. Local decision-makers will be part of the community engagement strategy in the implementation phase. In addition to oversight by an expert committee, quality assurance mechanisms include fact checking, peer review of concept paper, technical and copy editing

Uptake / use indicator: Increased national, regional and international attention triggered through research results; number of reports and publications generated; number of meetings with decision-makers at local level

Target date: 31-Dec-2021

Publication plan:

Approach to ensure gender and geographic equity: Intersectional gender analysis will be applied and tools facilitated by the TDR team for local researchers to ensure disaggregated data.

Section IV. Concept and approach

Rationale: Urban health interventions to prevent and control infectious diseases would benefit from incorporating a gender analysis in order to understand bottlenecks in implementation of interventions and to ensure that social determinants of health are addressed to design effective prevention and control strategies for all urban settings.

Design and methodology:

Approach to ensure quality:

Significant risk 1: Weak capacities at country level to effectively apply an intersectional gender analysis in research processes

Actions to mitigate: Ensuring interdisciplinary teams, with social scientists and biomedical scientists and entomologists

Estimated leverage description:

Estimated 2020-21 (US\$)

ER 1.3.11 Multi-Sectoral Approach (MSA) for prevention and control of malaria and emerging arboviral diseases

Team: Research for Implementation (VES)

Strategic working area: Research for Implementation

Workstream and outcome: Research for integrated approaches

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Florence Fouque

TDR staff involved: Bernadette Ramirez, Mariam Otmani del Barrio, Abdul Masoudi

Number of partners/staff/consultants: 5

Synergy with other TDR work stream(s): Synergy with (1.3.3) Vector-borne diseases and climate change, and (1.3.10) Urban health interventions for control of vector-borne diseases

Funding sources: UD and DF

Partners and collaborators: Swiss TPH, Swiss Development Cooperation

Review mechanism: Through ad hoc expert review groups, approved by TDR senior management, and through TDR advisory bodies, including scientific working groups, STAC and JCB

WHO Region(s): All

Country(ies): Not defined yet

Diseases: Vector-borne diseases

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information All partners are State-actors

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$400,000	\$400,000	\$ 0
US\$ 50M budget	\$500,000	\$500,000	

Section III. Objectives and results chain

Objectives: 1. Support research activities on case studies implementing MSA approaches for several chosen diseases and contexts, following the topics already established in the previous part of this ER, which are: i) industrial activities and VBD transmission, with a special focus on gold-mining activities that are strongly disturbing the malaria ecosystems; ii) integrated vector control strategies using Dengue Virus as a proxy; iii) displacement of people and consequences on VBD transmission, with impact of migration (for economic or civil unrest or war reasons), displacement of temporary workers and any other population movements; iv) impact of environmental changes including climatic changes, biological changes such as biodiversity loss and consequences on VBDs cycles and social changes also taking into account water management; and v) intersectoral collaborations for prevention and control of VBDs and how stakeholders are working together to achieve the implementation of a global strategy.

2. Help countries to deploy MSA through capacity building activities, guidance documents, networking and workshops.

ER outcome: 1) Research priorities on MSA for prevention and control of VBDs defined.

2) Materials to implement MSA at regional and country levels available.

3) Countries implementing MSA for prevention and control of VBDs.

Output 1: Knowledge and evidence for MSA generated and made available for stakeholders

Indicator:	A guidance framework document published; 2 to 3 case studies supported and ongoing
Target date:	31-Dec-2021

Output 2: MSA for prevention and control of VBDs implemented in some countries for some VBDs

Indicator:	5 countries implementing multisectoral approaches, with monitoring and evaluation of epidemiological results
Target date:	31-Dec-2021

Approach to ensure uptake: Case studies selected in countries affected by poverty and infectious diseases, with strong involvement of stakeholders

Uptake / use indicator: Evaluation of stakeholders' understanding and commitment to MSA through questionnaires

Target date: 31-Dec-2021

Publication plan: Scientific publications in peer-reviewed open access journals from case studies; guidance documents published

Approach to ensure gender and geographic equity: Gender and geographical data requested in the proposals for case studies and included in the selection process to ensure equity.

Section IV. Concept and approach

Rationale: Vector-borne diseases, including malaria and emerging arboviral diseases, account for about one quarter of all infectious diseases. Although there has been significant progress for malaria, with a recent decrease in malaria morbidity and mortality rates, other diseases, such as those caused by arboviruses like dengue, chikungunya, yellow fever and more recently Zika, are expanding, with an increased number of cases and fatalities. It has become evident that the prevention and control of these diseases have to include more than a single orientated approach, since the transmission patterns are driven by vector host-pathogens relationship where natural conditions, human societies and vector parameters are dynamically interacting.

In addition, malaria and emerging arboviral diseases are the result and a cause of lack of development. The burden of the diseases is highest in the most vulnerable populations, also suffering from the lowest development. The

Multisectoral Action Framework for Malaria (MAFM) developed by the Roll Back Malaria Partnership and the United Nations Development Programme, adds this development dimension, by making actions outside the health sector essential components of prevention and control of vector-Borne Diseases (VBDs). A Concept Note was issued by the Swiss TPH and SDC in February 2016, entitled: "Leveraging the Sustainable development Goals to intensify transdisciplinary & multisectoral collaboration in the global malaria response", to draft the context of this approach, as well as the conceptual framework, along with some thematic areas of potential interest and proposals for the way forward: "The Framework calls for action at several levels and in multiple sectors, globally and across inter- and intra-national boundaries, and by different organizations. It emphasizes complementarity, effectiveness and sustainability. It involves new interventions as well as putting new life into those that already exist, and coordinates and manages these in new and innovative ways".

Following its launch in 2016, the MAFM was expanded to other VBDs through collaboration at different levels, with partners from development agencies, UN organizations such as TDR, and other countries that are willing to push forward an agenda for the control of VBDs in the context of the Sustainable Development Goals (SDGs). Preliminary discussions were held between potential partners in September and October 2016 to define the goals and the space of a multisectoral approach for VBDs.

In this context, a collaboration on Multi-Sectoral Approach (MSA) for the prevention and control of malaria and emerging arboviral diseases has started between the Swiss Agency for Development and Cooperation (SDC), the Canadian International Development and Research Centre (IDRC), the Swiss Tropical and Public Health Institute (Swiss TPH) and TDR/VES, to build a multi-disciplinary approach.

Design and methodology: To promote the MSA and define the conceptual framework, an action plan with several steps was started in 2016:

- Step 1 was to gather evidence through a landscape analysis through commissioned reviews. The 4 current partners (SDC, Swiss TPH, IDRC and TDR) have proposed the terms of reference for one commissioned review (with a total of 6 commissioned reviews) on the topics in line with their institutional objectives.
- Step 2 was to convene a workshop to present the evidence to a panel of experts and to discuss the research on case studies, stakeholder involvement, capacity-building needs and any other topic that may put the MSA into concrete actions. The workshop was organized in June 2017.
- Step 3 is to launch a call for applications to support the cases studies. The objectives, eligibility and selection criteria of the selected applications are discussed among the partners.
- In parallel and to advocate for the MSA, a new working group on multisectoral action for malaria (MAMWG) will be launched. Swiss TPH will provide the institutional support for this network.
- Also in parallel, the building of a course dedicated to MSA on VBDs will be discussed; on site courses or MOOC are options.

Approach to ensure quality: 1) Call for applications on case studies will include precise objectives and request detailed methodology for well described expected results.

2) Review processes well established at all stages.

Significant risk 1: Calls for applications do not result in proposals that support the requested criteria

Actions to mitigate: Work with the most promising applications to improve them

Significant risk 2: Insufficient involvement of stakeholders

Actions to mitigate: Understand (through a consultancy work) which barriers are acting at stakeholder level and which incentive should be developed to improve involvement

Estimated leverage description: Activities developed by countries that will apply MSA.

Estimated 2020-21 (US\$) 1,000,000

ER 1.3.12 Strategies to promote gender-responsive health interventions on prevention and control of infectious diseases of poverty

Team: Research for Implementation (VES)

Strategic working area: Research for Implementation

Workstream and outcome: Gender equity

Section I. Expected Result Identification

ER type:

Manager's Name: Mariam Otmani del Barrio

TDR staff involved: Bernadette Ramirez, Florence Fouque

Number of partners/staff/consultants: TBD

Synergy with other TDR work stream(s): TDR research for implementation

Funding sources: UD and DF

Partners and collaborators: Research teams in countries; WHO and other entities working on gender and public health (e.g. WHO/GER, WHO/HRP; WHO Alliance for Health Systems Research); Health programmes interested in and using research evidence

Review mechanism: Scientific working group plus ad hoc review group(s) dealing with specific calls

WHO Region(s): Global **Country(ies):** African countries included in the first phase of the current gender project, including Southern Africa, East and Western Africa countries.

Diseases: Vector-borne diseases

Start date: 01-Jan-2018

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on

Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$600,000	\$300,000	\$300,000
US\$ 50M budget	\$850,000	\$550,000	\$300,000

Section III. Objectives and results chain

Objectives: Strengthen research capacities and provide innovative tools to generate evidence that informs the design and implementation of gender responsive health interventions to control and prevent infectious diseases of poverty.

ER outcome: Strengthened capacities and innovative tools provided to promote gender responsive health interventions on control and prevention of VBDs and other infectious diseases of poverty.

Output 1: Piloted and Applied intersectional gender analysis tool within infectious disease research projects

Indicator: 5 to 7 case studies developed and/or lessons learned documented on applying an intersectional gender lens in infectious disease research projects

Target date: 31-Dec-2020

Output 2: Upscaled training course modules on gender-based analysis in research on vector-borne diseases and climate change

Indicator: 2 courses included in at least 2 university curricula or TDR regional training centres' curricula

Target date: 31-Dec-2021

Output 3: Developed a TDR Strategy/Strategic Plan on gender and intersectionality on infectious diseases of poverty

Indicator: TDR Strategy/Strategic Plan on Gender and Intersectionality launched and disseminated in regions

Target date: 30-Mar-2021

Output 4: New knowledge and evidence generated on the intersection of sex and gender with other social stratifiers to address power relations, social exclusion, marginalization and disadvantages in access to health services, health impacts and prevention and control of infectious diseases

Indicator: Research studies implemented and evidence generated to inform policy and practice

Target date: 31-Dec-2021

Approach to ensure uptake: Engagement with senior management at universities; research teams that involve at least 50% women, engagement with various ministries and public health services

Uptake / use indicator: Engagement with ministry officials, including MoH, MoFA and MoEd

Target date:

Publication plan: Peer review publication of a Toolkit to conduct intersectional gender

Approach to ensure gender and geographic equity: Gender parity will be ensured when establishing external review panels, convening meetings of experts, issuing contracts, and in general within all of our collaborations.

Section IV. Concept and approach

Rationale: Great progress has been made towards combatting infectious diseases of poverty (IDPs). However, considerable public health challenges remain, including gender and intersecting inequalities that affect health conditions associated with infectious diseases. This ER focuses on gender intersecting inequalities that influence differentials in vulnerability to, and the impact of, particular health conditions associated with infectious diseases in low- and middle-income countries.

This expected result recognizes that gender norms, roles and relations influence people's susceptibility to different health conditions and they also have a bearing on people's access to and uptake of health services, and on the health outcomes they experience throughout the life-course. It also acknowledges that WHO has recently recognized the importance of being sensitive to different identities that do not necessarily fit into binary male or female sex categories. In this context, delivery and access to prevention and control approaches and products to prevent and control infectious diseases should not be one-size-fits all but instead should benefit from approaches that take into account the complex interaction of several social stratifiers, and their influence in health outcomes. There is growing recognition that gender roles, gender identity, gender relations, apart from institutionalized gender inequality influence the way in which an implementation strategy works (e.g. for whom, how and why). There is also emerging evidence that programmes may operate differently within and across sexes, gender identities and other intersectional characteristics under different circumstances and contexts. Research should inform implementation strategies to avoid ignoring gender-related dynamics that influence if and how an implementation strategy works.

Therefore scientists, including those focusing on research for implementation, would benefit from adequately considering sex and gender intersecting social dimensions within their research programmes, by strengthening both the practice and science of implementation, and by contributing to improved health outcomes and reduction of gender and health inequalities.

Design and methodology: 1. Development and pilot of a toolkit on intersectional gender analysis in research on infectious diseases of poverty.

2. Methodologies and gender analysis frameworks will be detailed and explained within the above-mentioned toolkit and presented in a practical "hands-on" toolkit for researchers to incorporate a gender analysis with an intersectional lens, throughout the whole research process, from research study design to the dissemination of research findings stage.

Approach to ensure quality: Oversight by expert committee and quality assurance through fact checking, peer review of documentation, technical and copy editing.

Significant risk 1: Knowledge translation outcomes on gender equality are usually beyond the control or influence of projects

Actions to mitigate: For this programme stakeholders, including from the affected communities, research teams and policy/decision-makers, will be engaged from the beginning and during the course and completion of the projects to ensure their active involvement with the expectation that the results will be utilized as effectively as possible

Estimated leverage description: Leverage is expected through funding support from WHO partners working on gender equality and environmental health.

Estimated 2020-21 (US\$) 300,000

ER 1.3.14 Testing of innovative strategies for vector control

Team: Research for Implementation (VES)

Strategic working area: Research for Implementation

Workstream and outcome: Research for innovation

Section I. Expected Result Identification

ER type: New

Manager's Name: Florence Fouque

TDR staff involved: Bernadette Ramirez, Mariam Otmani del Barrio, Abdul Masoudi

Number of partners/staff/consultants: 5

Synergy with other TDR work stream(s): All workstreams having a vector-borne disease component

Funding sources: UD + DF

Partners and collaborators: WHO/NTD and the International Atomic Energy Agency (IAEA)

Review mechanism: Through ad hoc expert review groups approved by TDR senior management, and through TDR advisory bodies, including the scientific working groups, STAC and JCB

WHO Region(s): All **Country(ies):** Not defined yet

Diseases: Arboviral diseases such as Dengue, Chikungunya, Zika and Yellow Fever

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information All partners are UN departments and agencies.

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$900,000	\$100,000	\$800,000
US\$ 50M budget	\$1,300,000	\$300,000	\$1,000,000

Section III. Objectives and results chain

Objectives: 1. Better understanding of the attractiveness/repulsiveness mechanisms for mosquitoes of both sexes at different physiological ages to achieve technical outcomes 1 and 3.

2. Development and validation of innovative sexing methods to achieve technical outcome 1.

3. Development and testing of new entomological indicators that have proven links with disease transmission to achieve technical outcome 2.

4. Development of trapping systems and baits for improved monitoring of the mosquito dynamics of both sexes to achieve technical objective 3.

5. Social sciences objectives: Community participation, stakeholder engagement, costing.

ER outcome: 1. Improve the sexing of mass-reared mosquitoes to reduce and minimize the number of females contaminating batches of sterile males, before the releases.

2. Assess the impact of an integrated approach that include SIT technology on vector population density and disease transmission into a controlled field situation.

3. Monitor and follow up on the dynamics of target mosquito populations, including assessing eventual population replacement by other species, after the experimental SIT deployment.

Output 1: Improved methodology available for sexing of mass-reared mosquitoes, minimizing the number of females contaminating the batches of sterile males, before the releases

Indicator: The number of females contaminating batches of sterile males before the releases should be less than 0.1%

Target date: 31-Dec-2021

Output 2: Assessment of the impact of an integrated vector control approach that includes the SIT technology on vector population density and disease transmission into a controlled field situation

Indicator: 2 multi-country research projects selected and ongoing, providing evidence on *Aedes aegypti* adult female densities before and after release, and epidemiological endpoints on disease transmission

Target date: 31-Dec-2021

Output 3: Monitoring and evaluation after the experimental SIT deployment of the consequences on target mosquito populations and the environment

Indicator: 2 multi-country research projects selected and ongoing, providing evidence on *Aedes aegypti* adult female densities before and after release, and epidemiological endpoints on disease transmission

Target date: 31-Dec-2021

Approach to ensure uptake: Call for applications, including all technical and operational requirements and involvement of vector control stakeholders in the proposal and at all steps of the project

Uptake / use indicator: Number of vector control operational services collaborating in the proposals

Target date: 31-Dec-2021

Publication plan: Scientific publications in peer-reviewed open access journal; guidance documents published

Approach to ensure gender and geographic equity: Gender and geographical data requested in the proposals for case studies and included in the selection process to ensure equity.

Section IV. Concept and approach

Rationale: The Sterile Insect Technique (SIT) is based on the release of sterile male insects to mate with wild female insects which will then not produce offspring, decreasing strongly the natural population of the target insect, sometimes even reaching local eradication. This technique was successfully implemented against numerous insect pests of agricultural importance including fruit flies, moths and tsetse flies on the African continent.

The proposal presented herein will be developed and implemented as a joint collaboration with the Department of Nuclear Sciences and Application of the International Atomic Energy Agency (IAEA), which has the required expertise within its joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, and the WHO Neglected Tropical Diseases department, represented by TDR. This joint effort has the objective of assessing how the SIT can be adapted and improved for mosquito vectors of diseases, and to provide the proof of principle to demonstrate the impact and efficiency of this biological vector control tool both on suppressing vector densities and on reducing disease incidence, as well as implementation recommendations for future deployment.

The almost industrial rearing of some mosquito species, including *Aedes aegypti* and *Aedes albopictus*, major vectors of arboviruses, and some *Anopheles* sp., have already been developed. However, separation of the sexes (required to release sterile males) still lacks complete efficiency, with a very small percentage of females escaping the sexing system. Whereas this percentage is perhaps acceptable for agricultural pests, its acceptability for mosquitoes is conditioned by the absence of the impact on disease transmission. Consequently, the project will investigate different methods to improve this sexing. Moreover, the use of attractiveness/repulsiveness mechanisms, based on physiological products, will be evaluated as new sexing tools, as well as new trapping systems to improve the monitoring of wild and sterile male populations.

The project will then move to the experimental field testing of the technology on mosquitoes in a few trial areas where disease transmission is endemic and/or epidemic, but with specific ecological conditions, such as the presence of natural barriers (to better control the target population and avoid the immigration of fertile females). Entomological indicators will be developed and adapted to monitor mosquito densities, survival and vector competence, and epidemiological data will be collected to follow the incidence of the disease during all phases of the programme, including during the sterile male releases and thereafter.

The collected data will then be discussed with the WHO operational departments and made available in the most useful form for eventual recommendations and policy guidelines.

Design and methodology: Key activities and timelines:

- Phase 1: January to June 2019 – Resource mobilization and development of a call for proposals, including criteria for selection of applications, building of Gaant charts, ad hoc review committees and Special Project Teams.
- Phase 2: June 2019 to September 2019 – Selection of projects
- Phase 3: September 2019 to September 2021 – Projects ongoing
- Phase 4: September 2021 to June 2023 – Second round of projects funding
- Phase 5: July 2023 to June 2024 – Implementation of the results and policy recommendations and applications

Approach to ensure quality: 1. Call for applications will include precise objectives and request detailed methodology for well described expected results. 2. Review processes well established at all stages.

Significant risk 1: Calls for applications do not result in proposals that support the requested criteria

Actions to mitigate: Work with the most promising applications to improve them

Significant risk 2: Poor involvement of vector control agencies

Actions to mitigate: Work very closely with WHO regional offices and WHO Representatives to improve exchanges and collaboration with national vector control agencies

Estimated leverage description: Countries will adopt the SIT technology to be integrated into their vector control activities.

Estimated 2020-21 (US\$) 1,000,000

ER 1.3.3 Population health vulnerabilities to VBDs: Increasing resilience under climate change conditions

Team: Research for Implementation (VES)

Strategic working area: Research for Implementation

Workstream and outcome: Environmental change impact

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Bernadette Ramirez

TDR staff involved: Mariam Otmani del Barrio; 1 admin staff (to be named)

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): Research Capacity Strengthening - Aims to build capacity for transdisciplinary policy-oriented, cross-collaboration and research networking while addressing vulnerabilities to vector-borne diseases in the context of climate change; Partnership and Engagement - in collaboration with AFRO; IIR - aligns with the work of IIR in the area of intervention research, i.e. evaluating methods, tools and strategies for effective control of tropical diseases, including VBDs.

Funding sources: Undesignated funding (US\$45M scenario) - US\$ 400,000

Partners and collaborators: WHO - AFRO, UN Environment

Review mechanism: The Special Project Team (SPT) will provide a technical advisory function as follows: a) overall scientific and technical review and oversight; b) technical advice in drafting and issuing the calls for letters of intent and proposals; and c) review and recommendation of proposals for funding

WHO Region(s): African region
recommendations for proposals

Country(ies): To be determined depending on funding

Diseases:

Start date: 01-Jul-2012

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$700,000	\$400,000	\$300,000
US\$ 50M budget	\$900,000	\$500,000	\$400,000

Section III. Objectives and results chain

Objectives: To operationalize and implement a One Health approach, embedded into the health and environment strategic alliance of country task teams, to enable African countries to manage the impact of VBDs in the context of climate change

ER outcome: Translation of the new knowledge, evidence and tools from the TDR-IDRC research initiative into policy and practice, leading to the design of prevention and preparedness response strategies against VBD threats linked to climate change is imperative. It is likewise important to identify and systematize the metrics necessary to assess the public health efficiency and cost effectiveness of the implementation of such intervention approaches for a better understanding of the outcomes and benefits to human, animal and ecosystem health.

Output 1: Consolidate the outcomes and outputs from the TDR IDRC research initiative (VBDs and climate change) to align with implementation of the 2018 Libreville Strategic Plan of Action; development of a draft plan for a One Health approach

Indicator: Draft plan for operationalizing a One Health approach

Target date: 31-Dec-2021

Output 2: Undertake situation analysis and stakeholder mapping relevant to research translation

Indicator: Report on situation analysis and stakeholder mapping

Target date: 31-Dec-2021

Output 3: Multisectoral country task teams established to implement a One Health approach to increase resilience to vector borne diseases under climate change conditions

Indicator: 3-5 functional country task teams implementing the One Health approach

Target date: 31-Dec-2021

Output 4: Develop a metrics-based assessment to evaluate progress with implementation of the One Health approach

Indicator: Metric framework generated and scorecards used

Target date: 31-Dec-2021

Approach to ensure uptake: TDR and collaborating research institutions will conduct networking and policy-advice activities to promote the products generated from the research programme:

a) Translation and dissemination of the scientific knowledge, evidence and adaptation tools and strategies generated through partnership and networking (south-south and north-south). Project recipients will facilitate the transfer of research findings to various user groups including academics, policy-makers and the public through a range of means including via TDR, projects and partner websites. They will present the results in relevant fora and national dialogues and publish the results in scientific journals from the various disciplines of the investigators, as well as through interdisciplinary publication channels. TDR and collaborators will also produce scientific synthesis and research summaries on the research results;

b) Promotion of research-to-policy uptake of the research results by engaging in researcher, practitioner and policy dialogues at local and national levels through research-to-policy dialogue, policy documents, media, involving policy-makers in research meetings/workshops, implementation and evaluation of the projects, strategy events such as Community of Practice meetings and stakeholder consultations;

- c) Enhancement of public awareness of climate change adaptation options by communicating research findings to communities, health officials and policy-makers through various means (including publications, feedback seminars, dissemination of scientific results to the general public, popularization of research findings by the media in collaboration with research institutions using films and other forms of documentation);
- d) Promotion of intersectoral collaboration by integration of representatives of other sectors in the transdisciplinary research activities and in the research meeting process; and
- e) Undertake monitoring and evaluation activities (internal and external M&E) to ensure that expected outputs and outcomes are achieved in line with project objectives. In collaboration with the researchers, TDR's communications team and IDRC, the results of the programme will be widely disseminated using various means.

The overall performance of the programme will be monitored and evaluated by both TDR and IDRC. In addition to the annual report, TDR activities are reported in the TDR newsletter and on its website.

Uptake / use indicator: 1. Increased national, regional and international attention triggered through research results; 2. Use of tools by African countries for increased resilience to VBD risks under climate change conditions; 3. Number and significance of events where decision-making by public health officials is a focus; 4. Number of reports, workshops, meetings, national fora and media popularization produced/organized; and 5. Evidence of impact of capacity built in research institutions and communities

Target date: 31-Dec-2021

Publication plan: At least three publications (open access) expected from projects supported by TDR

Approach to ensure gender and geographic equity: All proposals follow gender-sensitive approaches, with all research activities having an explicit gender perspective/framework and taking into account possible gender differentials in the epidemiology and transmission of VBDs and will, if possible and appropriate, define gender-sensitive approaches to the community-based adaptation strategies to reduce population health vulnerabilities. This perspective is further stressed in the call for proposals and during proposed training and workshops where the participation of women researchers is actively encouraged. Best approaches to engage women in programmes and activities aimed at climate change adaptation for health and reduced risk for VBDs will also be addressed.

Section IV. Concept and approach

Rationale: Translation of the new knowledge, evidence and tools from the TDR-IDRC Research Initiative into policy and practice, leading to the design of prevention and preparedness response strategies against VBD threats linked to climate change, is imperative. It is likewise important to identify and systematize the metrics necessary to assess the public health efficiency and cost effectiveness of the implementation of such intervention approaches for a better understanding of the outcomes and benefits to human, animal and ecosystem health.

In a parallel development, WHO Member States in Africa have acknowledged the linkage between health and environment and have committed to promote an integrated approach to addressing priorities and challenges concerning health and the environment. By adopting the 2008 Libreville Declaration and the 2012 Luanda Commitment, ministers in both the health and environment sectors have committed to multisectoral joint actions to implement country-specific national adaption plans (NAPs) through the Health and Environment Strategic Alliance (HESA) in the respective countries and the establishment of country task teams. This commitment was further affirmed through the recently signed 2018 Libreville Strategic Plan of Action¹ to scale up health and environment interventions in Africa for 2019-2029, which is focused on addressing the environmental determinants of human health and ecosystems integrity, and envisioned to contribute to the achievement of the objectives of the 2015 Paris Agreement on Climate Change, the 2016 Marrakesh Ministerial Declaration on Health and Environment and Climate Change and the 2030 United Nations Sustainable Development Goals (SDGs).

One of the approaches that could prove to be valuable in the implementation of joint interventions on health and environment is the One Health approach, which ensures that human, animal, and environmental health concerns are addressed in an integrated, multisectoral and holistic manner, and to provide a more comprehensive understanding of the problems and potential solutions than would be possible with siloed approaches by the

stakeholders concerned (researchers, public health practitioners, environment, agricultural sectors, communities and other relevant partners). At the same time, the OH approach is quite complex, making its practical implementation and operationalization complex, and thus, the stakeholders concerned will benefit from capacity building on the One Health approach to build resilience against VBDs under climate change conditions.

- Builds on the accomplishments of the TDR-IDRC Research Initiative (vector-borne diseases and climate change)
- Sharing knowledge and evidence for scalable community- based adaptation experiences
- Introduces sustainable development practices that make communities more resilient both to immediate climate variability and long-term climate change
- Good documentation of scalable practices and integrating them into sectoral policies through case studies research

Design and methodology: VES will work closely with the relevant institutional partner (e. One Health Platform, Swiss Tropical Public Health or Global Health Institute) for the design and development of a draft plan for guidance in operationalizing a One Health approach for VBDs and climate change, taking into consideration the new knowledge and evidence from the TDR-IDRC Research Initiative and the 2018 Libreville Strategic Action Plan to Scale Up Health and Environment Interventions in Africa. To be included are the following: synthesis report on the outcomes and outputs from the TDR-IDRC Research Initiative and an analysis of how the research products can be aligned with implementation of the 2018 Libreville strategic plan of action (manuscript/s prepared and submitted for journal publication); undertake situation analysis and stakeholder mapping relevant to research translation towards operationalizing the One Health approach to VBDs and climate change; review needs for institutional capacity, organizational set-up, financial and administrative systems and make specific recommendations in the draft plan to identify strategic objectives (based on research needs and where the gaps are in capacity building), key result areas, deliverables and indicators; develop a results and resources framework as part of the draft plan; propose a metrics-based assessment including a scorecard to evaluate achievement of objectives for the draft plan.

Approach to ensure quality: VES will collaborate with the WHO Regional Office for Africa (AFRO), through the Department of Protection of Human Environment (PHE), for implementation of the programme by ensuring that project outcomes feed into national climate change and health policy processes.

Significant risk 1: Health researchers, country task teams and other stakeholders may find it difficult to work under transdisciplinary circumstances (e.g. climate, agriculture, etc)

Actions to mitigate: The cross-sectoral approach will be promoted from the outset as an essential aspect required for the proposals and throughout the project implementation

Significant risk 2: Knowledge translation outcomes are usually not under the control or influence of projects

Actions to mitigate: For this research programme, stakeholders, including from the affected communities, country task teams and policy/decision-makers, will be engaged from the beginning, at inception and during the course and completion of the research projects, to ensure their active involvement in conducting and reporting on the research with the expectation that the results will be utilized as effectively as possible. It is anticipated that the periodic review of successes and failures of the projects and of the implementation of the research programme will allow timely remediation to potential problems that might occur during implementation

Estimated leverage description: Leverage is expected through voluntary participation of experts and partners in programme implementation (particularly in technical implementation and training). Additional leverage is expected through technical/funding support from other partners at AFRO and UN Environment.

Estimated 2020-21 (US\$)

ER 1.3.5 Advancing social innovation in health care delivery through research, capacity strengthening and advocacy

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Beatrice Halpaap

TDR staff involved: Elisabetta Dessi, Pascal Launois, Mary Maier, Corinne Merle, Bernadette Ramirez, Priyanka Shresta and staff across TDR as relevant

Number of partners/staff/consultants: 12 FTE in low and middle- income countries

Synergy with other TDR work stream(s): All (cross TDR)

Funding sources: Undesignated funds

Partners and collaborators: In 2014 TDR launched the Social Innovation in Health Initiative (SIHI), in collaboration with the Bertha Centre for Social Innovation and Entrepreneurship at the University of Cape Town, the Skoll Centre for Social Entrepreneurship at Oxford University, and the London School of Hygiene and Tropical Medicine. Since 2016, SIHI has expanded to partner institutions which have become SIHI country hubs in low- and middle-income countries. These include Makerere University, the University of Malawi, the University of the Philippines, CIDEIM, ICESI Universidad, and Social Entrepreneurship to Spur Health. SIHI also has collaborations with funding agencies, donors, and international organizations and other contributing partners to promote social innovation in health.

Review mechanism: Ad hoc expert review group, scientific working group

WHO Region(s): Global

Country(ies): Colombia, Malawi, Philippines, China, South Africa, Uganda

Diseases: Not disease specific, people centred approach

Start date: 01-Jan-2014

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$350,000	\$150,000	\$200,000
US\$ 50M budget	\$1,150,000	\$350,000	\$800,000

Section III. Objectives and results chain

Objectives: 1. Promote and support research for social innovation: Support research for community-engaged social innovation models and develop tools/ mechanisms to embed research in the process. 2. Strengthen country capacity: Partner with research institutions in low- and middle-income countries to advance social innovation and research capacity. 3. Convene and catalyse culture change: Share best-practice learning and engage strategic influencers to further the adoption and scale of social innovation.

ER outcome: The application and usefulness of social innovation in health care delivery demonstrated, disseminated and scaled up through research hubs in low- and middle-income countries.

Output 1: At least 4 social innovation research hubs in low- and middle-income countries established and functioning

Indicator: At least 4 research hubs have institutionalized social innovation as a multidisciplinary approach in their organization to enhance health care delivery research (promotion, convening, research, research capacity, knowledge management)

Target date: 31-Dec-2021

Output 2: Growing number of partners which share resources and synergize efforts.

Indicator: At least 3 new collaborations to advance social innovation in health in the regions and/or develop new research and capacity strengthening tools

Target date: 31-Dec-2021

Approach to ensure uptake: Advocacy for social innovation in health at global and national levels; Engagement of low- and middle-income country stakeholders in leading the Social Innovation in Health Initiative

Uptake / use indicator: Advocacy for social innovation in health further conducted by global health and national stakeholders; primary social innovation research hubs have engaged new collaborators in their country and region

Target date: 31-Dec-2021

Publication plan: It is anticipated that some of the case study research conducted will be published in the TDR Gateway; a publication plan will be developed in 2019.

Approach to ensure gender and geographic equity: Social innovations provide solutions to enhance health care delivery and reach vulnerable populations.

The Social Innovation in Health Initiative (SIHI) focuses on the needs of countries in the Global South and in their leadership in enhancing social innovation in health. We have initially identified only one institution in low- and middle-income countries engaged in the promotion of and research on social innovation and social entrepreneurship in health. One of the main focuses of this expected result is to build upon the strength of this institution and engage new institutions in the Global South through collaboration and skills development.

SIHI contributes to the implementation of the WHO framework for people-centred integrated health services and of the WHO community engagement framework, which are critical elements to reach universal health coverage and leave no one behind.

Gender equity has been especially looked at when establishing external review panels, convening experts, issuing contracts, and in general within our collaborations. The next step is to explore the development of research grant schemes to enhance social innovation in health care delivery, specifically: (i) for women and child health; and (ii) led by women.

Section IV. Concept and approach

Rationale: Why Social Innovation?

Over the past decades, great advances have been achieved by innovation in drugs, devices and vaccines but we have neglected to innovate in the delivery process. Well-intended policies and interventions have not achieved their desired outcomes due to communities not being involved in creation and implementation. The Sustainable Development Goals call for a new healthcare paradigm, inclusive of social, environmental and economic factors responsible for illness and disease. Social innovation contributes to Universal Health Coverage and the SDGs:

- Social innovation uses a people-centred perspective. It is based on valuing communities and individuals living across the global south as competent interpreters of their lives and essential contributors in solving the challenges to access quality health services.
- The social innovation approach extends beyond silos, sectors and disciplines to inclusively integrate all actors around the needs of communities.
- Social innovation results in the implementation of new solutions that enable greater equity, affordability and sustainability of healthcare services for all.

This is a great opportunity for TDR to build upon a long history of research on community-based interventions to explore ways to sustain these.

Design and methodology: An initial phase (2014-2015) aimed at: (i) establishing a partnership; (ii) providing evidence of the value of social innovation in health through a series of case studies; and (iii) building a community for social innovation in health, convening the various actors to design a research and capacity strengthening agenda. A second phase (2016-2017) called for global collaboration, where to integrate healthcare delivery interventions and the social innovation approach in health systems policy and practice. This is achieved through three focus areas:

Research: Conduct, support and disseminate research on key social innovation priority areas.

Practice: Develop, test and transfer an innovation laboratory model for systems capacity strengthening.

Influence: Engage a global-south community of people and partners interested and passionate about social innovation in health.

A third phase (2018-2021) focuses on the establishment and sustainability of country research hubs to play a leadership role in advancing social innovation in health through research, capacity and advocacy.

Approach to ensure quality: In addition to oversight by expert committee quality assurance mechanisms, include fact checking, peer review of concept papers, technical and copy editing.

Significant risk 1: Sustainability of efforts and collaborations established is a key challenge.

Actions to mitigate: Support interested research institutions in low- and middle-income countries to: (i) become hubs, institutionalize research for social innovation in their organization and transfer and disseminate capacity to others; and (ii) fundraise for further activities.

Significant risk 2: Ensure coherence and synergy as the network expands

Actions to mitigate: Define partnership criteria with roles and responsibilities and explore the establishment of an advisory committee to steer the initiative

Estimated leverage description: SIHI various partners and stakeholders contribute directly to promote and advance social innovation in health care delivery. TDR funding greatly leverages resources from: (i) established academic centres whose regular activities focus on social innovation (Bertha Centre, Skoll centre, the Social Entrepreneurship to Spur Health, research hubs in low- and middle-income countries - time, infrastructure, events, grant schemes); (ii) new interested partners who dedicated time to work with us (not funded) (e.g. LSHTM, Fondation Mérieux, Ahimsa) and (iii) experts (convenings, review panels).

Estimated 2020-21 (US\$)

ER 2.1.1.1 Strategic support to WHO regional activities: The regional training centres

Team: Research Capacity Strengthening

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER type:

Manager's Name: Pascal Launois

TDR staff involved: Mahnaz Vahedi, Najoua Kachouri

Number of partners/staff/consultants: 6

Synergy with other TDR work stream(s):

Funding sources: Undesignated funds

Partners and collaborators: Research and academic institutions in LMICs; WHO disease control programmes and research departments at headquarters, regional and country offices

Review mechanism: External review; internal management evaluation

WHO Region(s): Global **Country(ies):** Not country specific

Diseases: Not disease specific

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$1,250,000	\$1,050,000	\$200,000
US\$ 50M budget	\$1,450,000	\$1,250,000	\$200,000

Section III. Objectives and results chain

Objectives: 1. Support RTCs to become operational in the implementation of short training courses on Good Health Research Practices and Research for Implementation in the region.

2. Facilitate effective coordination of the six selected RTCs to become an effective network.

ER outcome: Increase health research quality in LMICS through their ability to organize, manage and conduct health research

Output 1: Support RTCs to become operational in the implementation of short training courses on Good Health Research Practices and research for implementation in the region

Indicator: At least two different short training courses on IR or Good Health Research Practice implemented in each RTC

Target date: 31-Dec-2021

Output 2: Support RTCs to become operational in the dissemination in their region of short training courses on IR and Good Health Research Practices

Indicator: Two satellite institutions per RTC ready to implement at least one training course in IR or Good Health Research Practices

Target date: 31-Dec-2021

Output 3: Support RTCs to become operational in the regional dissemination of short training courses on IR and Good Health Research Practices

Indicator: Two satellite institutions per RTC ready to implement at least one training course in IR or Good Health Research Practices

Target date: 31-Dec-2021

Output 4: An effective coordination of the RTC initiative

Indicator: Number of courses included in the RTC curricula

Target date: 31-Dec-2021

Approach to ensure uptake:

Uptake / use indicator:

Target date:

Publication plan:

Approach to ensure gender and geographic equity:

Section IV. Concept and approach

Rationale: Capacity in good health research practices and project management skills so that health research is efficiently and effectively organized, planned, implemented, monitored and evaluated is needed in LMIC institutions. There is also a need to develop capacities in research for implementation. These skills are not readily taught in academic scientific curricula. Our vision is to develop effective and efficient engagement and leadership of health researchers from disease endemic countries in disease control efforts for poverty alleviation and development. The main objective is to establish an RTC in each of the six WHO regions, which will help decentralize short course training programmes for good practices/bioethics/project planning and evaluation as well as IR training courses

Design and methodology: 1. Engaging already selected RTCs in Colombia, Ghana, Indonesia, Kazakhstan, the Philippines and Tunisia in implementing and disseminating good health research practices and research for implementation training courses (TC, development strategic plan).

2. Identification of the training gaps in good health research practices for each RTC in response to specific needs (TC and site visit).

3. Develop training courses (if not already available) in response to these identified needs.

4. Implementing the training courses in the RTC training programme (TDR direct and indirect support through grants and selection of experts needed for the implementation of first courses).

Approach to ensure quality: Qualification of trainers using ToT (Training-of-Trainers) courses; high quality standards developed for ToT courses; External evaluation after five years

Significant risk 1: Unable to identify suitable satellite institutions for dissemination of the package of training courses

Actions to mitigate: Involve the WHO regional office from the beginning to ensure selection of the most appropriate institution with existing capacity building initiatives

Significant risk 2: Poor uptake of the courses on good health research practices and research for implementation by LMICs in each region

Actions to mitigate: Promote the training courses through regional offices and collaborative research networks

Significant risk 3: Poor performance of an RTC

Actions to mitigate: Periodic external evaluation

Estimated leverage description: The number of sites and researchers that meet international good practice standards will be increased and, as a consequence, so will the number of projects financially supported by national or international bodies.

Estimated 2020-21 (US\$) 500,000

ER 2.1.1.2 WHO regional office collaboration and small grants

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type:

Manager's Name: Garry Aslanyan

TDR staff involved: Pascal Launois, Elisabetta Dessi

Number of partners/staff/consultants: none

Synergy with other TDR work stream(s):

Funding sources: Undesignated funds

Partners and collaborators: All six WHO regional offices, country offices and institutions in countries as appropriate

Review mechanism: Strategic review by scientific working group; small grants review by the regional office, TDR and external reviewers; and project review by regional external reviewers

WHO Region(s): Global

Country(ies): Global

Diseases: RCS, KM and research priorities in all TDR related infectious diseases of poverty, plus region specific priorities

Start date: 01-Jan-2018

End date: 31-Dec-2019

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$1,100,000	\$1,000,000	\$100,000
US\$ 50M budget	\$1,500,000	\$1,300,000	\$200,000

Section III. Objectives and results chain

Objectives: 1. Financial and technical support for regional research, capacity building and knowledge management priorities.

2. Promote enhanced collaboration between TDR and all WHO regional offices.

ER outcome: Research capacity will be enhanced and research will generate region specific evidence and solutions for priority public health issues

Output 1: Small Grants schemes operationalized in at least 5 regional offices

Indicator: Small grants calls launched, projects selected and funded

Target date: 02-Dec-2019

Output 2: Functional collaboration frameworks with at least 5 regional offices established

Indicator: Evidence of collaboration frameworks effectiveness based on successful joint projects and activities

Target date: 02-Dec-2019

Approach to ensure uptake: All small grants calls will require inclusion of research update sections and periodic monitoring of research results will be conducted to assess and recommend potential update strategies

Uptake / use indicator: At least 8 cases of new/improved solutions, implementation strategies or innovative knowledge resulted from research funded by small grants are successfully applied in DECs

Target date: 12-Dec-2019

Publication plan: TDR to enable publication of results from small grants in each region and bring this to RSG, Regional ACHRs and others, as appropriate

Approach to ensure gender and geographic equity: Preference will be given to competitive female candidates of small grant calls and to countries with less developed research capacity. Possibility of outsourcing some of the responsibilities to RTCs or other institutions in regions or engaging fellows from other RCS initiatives.

Section IV. Concept and approach

Rationale: The integrated approach to strategic regionalization of TDR activities will ensure regional focus and increased visibility of TDR's new strategy, as recommended by STAC and the JCB. This expected result is a key activity that facilitates TDR's global engagement functions. It will also facilitate the engagement of WHO control programmes and research units at both headquarters and regional offices. This approach will:

- Facilitate planning in a coherent way through networks and collaboration with regional offices, bringing together the different initiatives of TDR under an overarching approach
- Foster the role of LMICs in research and priority settings in support to the development of better approaches for control of diseases, focusing on regionally identified research and training needs
- Promote better integration on TDR's research, capacity strengthening and knowledge management functions

Design and methodology: Each round of calls will be evaluated and verified before the next annual cycle is launched, collaborate with KMS focal points on research proposal writing training. Main steps of implementation will include: (1) Rounds of discussions with each regional office; (2) internal TDR prioritization of RCS and research priorities in each region; (3) request and review priorities list from each regional office; (4) Joint discussion and agreement on synergetic areas of interest to TDR and each regional office; (5) development and review of the call for proposals; (6) issue and disseminate calls for proposals through TDR and regional office networks; (7) screening and selection of the proposals; (8) funding and implementation of projects; (9) monitoring and reporting; and (10) results translation, publication and dissemination.

Approach to ensure quality: scientific working group review, extensive internal TDR and RO input. Use standardised templates for call for proposals, reviews and follow ups.

Significant risk 1: Insufficient managerial and technical staff at the regional office

Actions to mitigate: Possibility of outsourcing some of the responsibilities to the regional training centre or other institution in the region or engaging fellows from other RCS initiatives

Significant risk 2: Instability and inconsistency of regional focal points

Actions to mitigate: Ensure broader engagement of other staff in regional offices and support and buy-in from appropriate directors in each regional office

Estimated leverage description: Staff time in regional offices and possible matching funds.

Estimated 2020-21 (US\$) 250,000

ER 2.1.2 Targeted research training grants in low- and middle-income countries

Team: Research Capacity Strengthening

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Dermot Maher

TDR staff involved: Mahnaz Vahedi, Edward Mberu Kamau, Nacer Tarif

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): All

Funding sources: TDR core funding

Partners and collaborators: The following universities are partners with TDR in this scheme: James P Grant School of Public Health, BRAC University, Dhaka Bangladesh; Universidad de Antioquia, Medellin Colombia; University of Ghana, Accra, Ghana; Universitas Gadjah Mada, Jogjakarta, Indonesia

Review mechanism: M&E framework, RCS scientific working group

WHO Region(s): Regions of Africa, the Americas, South-East Asia, the Eastern Mediterranean and the Western Pacific

Country(ies): Low- and middle-income countries in all WHO regions except Europe

Diseases: IR with a focus on NTDs, TB/HIV and malaria

Start date: 01-Jan-2020

End date:

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$3,550,000	\$3,050,000	\$500,000
US\$ 50M budget	\$6,750,000	\$6,050,000	\$700,000

Section III. Objectives and results chain

Objectives: Train early career leading to master's degree

ER outcome:

Output 1: Early career trainees completed their degrees in their home countries or within the region

Indicator: At least 70 trainees enrolled or completed their master's trainings

Target date: 31-Dec-2021

Output 2: PhD trainees completed their degree within the region

Indicator: At least 8 trainees completed their PhD

Target date: 31-Dec-2021

Output 3: A global network (intra-inter-regional) of TDR supported scientists in IR developed

Indicator: Joint annual networking meeting held for planning, lessons learned, improving communications and collaborations amongst seven universities in different regions

Target date: 31-Dec-2021

Approach to ensure uptake: The participating universities will be encouraged to develop partnerships with home institutions of the fellows to provide integration opportunities for the grantees, for example through an agreed mentorship and return home plan between the trainee

Uptake / use indicator: Number of graduates employed in their home country or region upon completion of training

Target date: 31-Dec-2023

Publication plan: Fellows are encouraged to publish at least one peer reviewed article; TDR supports publication in Open Access journals; earliest publications expected by mid to end 2022

Approach to ensure gender and geographic equity: All trainees will be from LMICs. Applications received in languages other than English are given equal opportunity. We encourage gender and geographical equity to be taken into account in the selection of candidates without compromising the quality of the application. The key challenges for women in LMICs (including lack of access to relevant education for women and structural barriers in research institutions) may be far beyond the TDR mandate. We aim at having 40-50% of women trainees in our scheme.

Section IV. Concept and approach

Rationale: Human resources for health research is often accorded low priority as a component of human resources for health in general. A critical mass of indigenous health researchers is necessary for meaningful engagement of DEC in research agenda setting and conduct of research related to their own priority health issues.

Early career grants: TDR has a tried and tested approach to identifying potential DEC researchers through support for postgraduate research degrees. While in the past the field of study has been largely unrestricted, early career grants to be awarded in 2020-2021 will focus on disciplines highly relevant to research for implementation (for example Epidemiology, Biostatistics, Medical Sociology, Anthropology and Health Economics and Policy). In

addition, it will seek to address inequities in health research capacity in LMICs and facilitate mentorship and research support. The proposed career grants will enhance the capacity of recipients to:

- appreciate core competencies of research for implementation in planning and managing health research programmes (when applicable);
- communicate research results effectively to inform policy and practice; and
- widen their professional network at national and international level.

Through the TDR Global platform, this scheme will proactively engage TDR alumni and co-sponsors as facilitators/mentors.

Design and methodology: There will be open calls for applications from individuals with confirmed registration/admission to a recognized training institution in an LMIC. Women will be encouraged to apply. Applications will be reviewed and selected by universities' admission processes.

Approach to ensure quality: All articles will be published in peer reviewed Open journals.

Significant risk 1: Some grantees from LMICs are likely to work on other SDG related goals (beyond infectious diseases of poverty), thus reducing the burden of research for implementation in infectious diseases of poverty

Actions to mitigate: Provide linkages with WHO regional offices, TDR supported regional training centres and other TDR funded projects

Significant risk 2: Competition from similar, well-funded initiatives

Actions to mitigate: Seek to identify a specific niche and complementarity/collaborative approaches with such initiatives; promote the concept and value of targeted training in research for implementation

Significant risk 3: Lack of transparency or inadequacy in selection of students resulting in inequity, lack of diversity and admission of low quality students; inadequate quality training offered by some of the selected universities

Actions to mitigate: As a sponsor, TDR will provide input in students' final selection and provide regular oversight of the scheme. Subsequently TDR, in consultation with the scientific working group, will make appropriate decisions on how best to optimize the scheme.

Significant risk 4: Allocating inadequate resources to sustain the scheme resulting in discontinuation of the scheme with premature termination for the students

Actions to mitigate: Sufficient undesignated funds earmarked for the scheme; looking for designated funds to scale up the scheme

Estimated leverage description: TDR Global will provide a platform for partnership with previous TDR grantees and expert committee members to serve as mentors for trainees in their countries/regions. These partnerships will seek to benefit both the mentor and mentee as well as tap into past TDR investments.

Estimated 2020-21 (US\$) 250,000

ER 2.1.4 Advanced training in Clinical Product Development (Career Development Fellowship grants)

Team: Research Capacity Strengthening

Strategic working area: Research Capacity Strengthening

Workstream and outcome:

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Pascal Launois

TDR staff involved: Mahnaz Vahedi, Najoua Kachouri

Number of partners/staff/consultants: 3

Synergy with other TDR work stream(s): All

Funding sources: Bill & Melinda Gates foundation

Partners and collaborators: IFPMA; pharmaceutical companies; Product Development Partnerships (PDPs); public research institutions

Review mechanism: External review to identify relevance, effectiveness, efficiency and outcomes of the programme with the goal to assist recommendations and future decision-making; internal management evaluation

WHO Region(s): Global

Country(ies): Not country-specific

Diseases: Not disease-specific

Start date: 01-Jan-2020

End date: 31-Mar-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$2,400,000		\$2,400,000
US\$ 50M budget	\$2,400,000		\$2,400,000

Section III. Objectives and results chain

Objectives: Develop R&D leadership in low- and middle-income countries for control of infectious diseases of poverty through targeted research and development training in priority health issues by: 1. increasing the critical mass of highly skilled scientists in R&D in low- and middle-income countries; and 2. provide a dedicated platform and online community for alumni.

ER outcome: Highly skilled trainees (for drugs, vaccines and diagnostics) in LMICs leads clinical trials in their country/region.

Output 1: Highly skilled scientists in R&D in LMICs

Indicator: 30 fellows trained

Target date: 25-Mar-2023

Output 2: R&D skills gained during the training implemented in the home institution through a re-entry grant

Indicator: 70% of home institutions involved in national or international R&D projects

Target date: 25-Mar-2023

Output 3: Mapping institutional clinical research capacity at regional level using the TDR framework for core competencies

Indicator: A map of institutional clinical research capacity by country/region

Target date: 25-Mar-2021

Output 4: Mapping training programmes which address clinical research team core competencies

Indicator: A compendium of training programmes developed

Target date: 25-Mar-2021

Approach to ensure uptake: Publications of success stories along the grant; annual reports; compendium developed; reports

Uptake / use indicator: 70% of fellows have implemented their skills in their working environment

Target date: 15-Mar-2023

Publication plan:

Approach to ensure gender and geographic equity: Implementation of solutions identified in the gender challenge contest developed in 2018-2019.

Section IV. Concept and approach

Rationale: An increasing number of new products for infectious diseases of poverty are in the pipeline of product development organizations. However, engagement of LMICs in the process has been limited due to a lack of expertise. Scaling up of the CDF programme to clinical product development in partnership with EDCTP that develops a similar project is in line with the RCS strategy to develop individual and institutional capacity.

Design and methodology: 1. Identification of potential training partner institutions (pharmaceutical companies, PDPs, research institutions)

2. Selection of fellows based on clear criteria (e.g. gender, geographical distribution and needs).

3. Training in response to the needs.

4. Reintegration in home country after completion of the scheme by developing a specific re-entry grant (avoiding brain drain).

5. Developing an alumni community through annual meetings and an online platform.

Approach to ensure quality: Selection of partners through IFPMA (an NGO recognized by WHO) with no direct approach with the pharmaceutical companies; selection of fellows by both TDR and partners by using a clear selection criteria (inclusion/exclusion criteria- review committee); competitive open calls; clear roles& responsibilities for fellows, home and host institutions and TDR; letter of award regularly reviewed by committee

and LEGAL unit in WHO; regular progress reports (six and 12 months during the training and 12 months after the training); random validation (15%) of the information concerning expertise obtained from grantee done by website manager; feedback from both partners and fellows on the efficiency of the programme.

Significant risk 1: Insufficient interest of clinical product development partners as training partners

Actions to mitigate: Adequate communication with pharma companies through IFPMA; proactive approach to identify new partners outside existing pharmaceutical companies

Significant risk 2: Geographical distribution biased to the African region due to the EDCTP Partnership which focus only on sub-Saharan countries

Actions to mitigate: Distribute calls for applications through WHO's regional and country offices and TDR networks outside Africa and through social media

Significant risk 3: Insufficient funds to cover all training needs

Actions to mitigate: Develop a multi-funder model by adding new funding partners; develop a partnership with more financial involvement of host partners

Significant risk 4:

Actions to mitigate:

Estimated leverage description: Host institutions as in-kind support (accommodation, meeting support, trainings in situ and support for site visits in LMICs; ECTP partnership.

Estimated 2020-21 (US\$) 1,200,000

ER 2.1.6 UNDP structured capacity building in research for implementation to improve access and delivery of health technologies in LMICs

Team: Research Capacity Strengthening

Strategic working area: Research Capacity Strengthening

Workstream and outcome: Research for implementation - systematically identify and address barriers that limit effective introduction and use of health technologies within country contexts

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Olumide Ogundahunsi

TDR staff involved: Olumide Ogundahunsi, Edward Kamau, Nacer Tarif

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): (1.1.8) Maximized utilization of safety information for public health decision-making (IIR)

Funding sources: UNDP Designated

Partners and collaborators: UNDP

Review mechanism: Annual reports reviewed by the scientific working group and UNDP

WHO Region(s): Regions of Africa and South-East Asia

Country(ies): Ghana, Indonesia, India,

Malawi, Senegal, Tanzania, Thailand, plus others to be identified

Diseases: Malaria, tuberculosis, NTDs

Start date: 01-Apr-2020

End date: 31-Mar-2023

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs No

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks No

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on

Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information TDR partners and collaborates with UNDP. TDR is responsible for its activities and deliverables with national institutions in member states. Activities of other entities (PATH) is managed by the UNDP within the agency's responsibility.

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$1,000,000	\$ 0	\$1,000,000
US\$ 50M budget	\$1,000,000	\$ 0	\$1,000,000

Section III. Objectives and results chain

Objectives: 1. Uptake and use of TDR IR resources in LMICs.

2. Capacity in research for implementation in LMICs through targeted training or research teams.

3. Application of IR to optimize access and delivery of health interventions, including health technologies in LMICs.

ER outcome: LMICs properly identify and address factors that impede the effective access and delivery of health technologies.

Output 1: LMICs adopt and use TDR IR resources (IR Toolkit, MOOC, short courses on IR in RTCs, etc.)

Indicator: At least 5 LMICs use TDR IR resources in their research and training activities

Target date: 31-Mar-2023

Output 2: LMIC research teams trained to develop and implement research for implementation projects and disseminate the findings

Indicator: At least 2 LMIC research teams develop and fund IR projects to address implementation bottlenecks

Target date: 31-Mar-2023

Output 3: LMICs use IR to optimize and scale up health interventions (including technologies, policies and strategies)

Indicator: At least 3 research for implementation projects aimed at addressing a specific access and delivery issue conducted and reported

Target date: 31-Mar-2023

Output 4:

Indicator:

Target date:

Approach to ensure uptake: Engagement of relevant stakeholders including implementers and communities from the planning stage

Uptake / use indicator: Number of countries using research for implementation to improve access and delivery of health interventions

Target date: 31-Mar-2023

Publication plan: Country reports published on suitable platforms, e.g. TDR Gateway

Approach to ensure gender and geographic equity: A 5-step approach as outlined below will be used:

1. Analysis of disaggregated data by country and gender
2. Identification of problems associated with gender and geographic equity
3. Propose measures to overcome the problems identified and develop strategies to implement the measures
4. Implement the measures proposed
5. Evaluate the effectiveness of the measures

Section IV. Concept and approach

Rationale: Health and human development are interrelated. Diseases, inadequate access to health technologies (medicines, vaccines, diagnostics and devices) and poor implementation of health policies and strategies impact human development. Targeting tuberculosis, malaria and neglected tropical diseases for elimination in the context of the Sustainable Development Goals adopted by the global community underscores the importance of this relationship.

The optimum introduction (including access, delivery and usage) of new or proven (validated) interventions (treatment, policies, strategies, etc.) is critical for achieving good health outcomes and ultimately improvement of the health and wellbeing of populations. This however is often not the case due to implementation obstacles and barriers. These barriers are often related to failure to properly identify and contextualize regional, country or community specific characteristics and put in place actions to address them in real time or prior to deployment. Failure to address these impediments before large scale deployment of a new technology may result in considerable costs to the health system as well as loss of confidence in the technology by the target population. The importance of research in identifying solutions and options for overcoming implementation obstacles, barriers and bottlenecks (problems), in health systems and programmes is now widely recognized. A posteriori, these problems may be anchored in the factors related to the local community, national, regional, or health system contexts among others. There remains, however, limited understanding of the process of conducting research for implementation as distinct from other research domain. In the past 5 years, TDR has put in place a number of initiatives to raise awareness and knowledge on IR, especially in LMICs.

Design and methodology: 1. Establishment of a pool of resource persons drawn from TDR RTCs, IR toolkit development team, TDR Global, implementers and academia.

2) Consultation with in-country stakeholders to identify priorities and areas of need.

2) A structured capacity building programme from training to actual implementation of research project.

Approach to ensure quality: 1) Countries and teams to participate in the programme will be identified and selected based on defined criteria by the Access and Delivery Partnership.

2) Regular monitoring of implementation of the programme by TDR staff and consultants.

Significant risk 1: Issues addressed by the projects are of low priority to country needs

Actions to mitigate: Careful selection of concept notes and alignment with documented national research priorities

Significant risk 2: Implementation of project deviates from core objectives of the UNDP-led Access and Delivery Partnership

Actions to mitigate: Involvement of the UNDP Partnership in project planning prior to inception

Significant risk 3: Low quality implementation at country level

Actions to mitigate: Careful selection, adequate training of country partners prior to country implementation and regular monitoring by TDR staff, consultants and UNDP collaborators

Significant risk 4:

Actions to mitigate:

Estimated leverage description: Actual amount of funds leveraged will depend on the scope and number of research for implementation projects funded as a result of this ER (by countries or development partners). Additional non-monetary leverage will be through participation of collaborators, experts and partners.

Estimated 2020-21 (US\$) 250,000

ER 2.2.1 Knowledge Management, shaping the research agenda

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Robert Terry

TDR staff involved: Elisabetta Dessi, John Reeder, Dermot Maher, Florence Fouque and other team members TBC

Number of partners/staff/consultants: 3 plus consultants

Synergy with other TDR work stream(s): 1. Continuous identification of research and research capacity needs is key to inform stakeholder's strategies (HTM, WHO regional offices, funding agencies, countries); 2. Creation of public goods through development of tools and analysis of the health product pipeline for HIV, TB, malaria and NTDs; 3. as requested, provide technical support through WHO regional Offices to Member States engaged in health research.

Funding sources: UD and DF Swiss Agency for Development and Cooperation and UK Dept. Health and Social Care

Partners and collaborators: Duke University, Policy Cures Research

Review mechanism: Scientific working group

WHO Region(s): Global **Country(ies):**

Diseases: TB, HIV, malaria, NTDs, antimicrobial resistance

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$100,000	\$100,000
US\$ 50M budget	\$450,000	\$250,000	\$200,000

Section III. Objectives and results chain

Objectives: Continuous identification of research and research capacity needs is key to inform TDR's own portfolio of future priorities and to that of our stakeholders. TDR's engagement in this area ensures that its future priorities engage key stakeholders in disease endemic countries in setting the research agenda and ensuring research reflects their needs as well as guides stakeholder engagement.

ER outcome: 1) Continuous identification of research and research capacity needs to inform strategies (HTM, WHO RO, funding agencies, countries). 2) Creation of public goods through development of tools and analysis of the health product pipeline for HIV, TB, malaria and NTDs. 3) as requested provide technical support through Regional Offices to Member States engaged with health research

Output 1: Support through technical advice and/or workshop to TDR or its stakeholders

Indicator: Workshop held and reported

Target date: 30-Sep-2021

Output 2: Analysis of the health product pipeline for HIV, TB, malaria and NTDs combined with mapping of operational and research for implementation

Indicator: Report published

Target date: 30-Sep-2021

Output 3: Provide technical support on request through regional offices to Member States engaged in health research

Indicator: One support activity provided

Target date: 30-Sep-2021

Approach to ensure uptake: 1&2 Publication of results in reports and academic press. Create linkage with implementation agencies and LMICs ministries.

Uptake / use indicator: Quality of applications to apply and use TDR tools and analysis of the neglected disease pipeline and OR/IR mapping reports

Target date: 30-Sep-2021

Publication plan: Reports and academic publications

Approach to ensure gender and geographic equity: Priority given to disease endemic countries. Gender issues one of the weighted selection criteria for priority selection to ensure equitable distribution of priorities. New methodological approaches developed to priority setting to ensure gender balance is achieved.

Section IV. Concept and approach

Rationale: Continuous identification of research and research capacity needs is key to inform stakeholder's strategies (HTM, WHO RO, funding agencies, countries). This applies to TDR's own portfolio of future priorities and to that of stakeholders. Mapping of health product pipeline and support for OR/IR are key to providing the evidence that underpins advocacy to support research for implementation.

Design and methodology: Adapt and develop the TDR Portfolio to Impact R&D modelling tool as well as the methods to understand the funding available for operational research and research for implementation.

Approach to ensure quality: Application of good practice in priority setting (see World Health Report 2013) and publication in peer reviewed journals.

Significant risk 1: Failing to clearly define the need for and use of such priority setting processes

Actions to mitigate: Engagement with stakeholders - feedback from donors e.g. ESSENCE group

Estimated leverage description:

Estimated 2020-21 (US\$)

ER 2.2.2 Capacity strengthening to bring research evidence into policy (R&D funding)

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type: Continuing

Manager's Name: Robert Terry

TDR staff involved: Elisabetta Dessi, John Reeder, Dermot Maher, Florence Fouque, Garry Aslanyan and other team members TBC

Number of partners/staff/consultants: 3 plus 10 consultants

Synergy with other TDR work stream(s): Focus on building capacity in the methods and approaches to manage research evidence to inform policy is key in demonstrating the relevance of TDR supported research. In addition, ensuring access to other research outputs, including publications and data.

Funding sources: UD and UK Dept. for Health and Social Care

Partners and collaborators: EVIPNet, IDDO, stakeholders in Fleming Fund (AMR)

Review mechanism: Scientific working group

WHO Region(s): Global

Country(ies): To include: Viet Nam, Nepal, Myanmar, Ghana, Colombia, Uganda

Diseases: NTDs and AMR

Start date: 01-Jan-2020

End date: 30-Sep-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives No

Address knowledge gaps that no one partner can address alone No

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information Too early to know specific in-country partners

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$100,000	\$100,000
US\$ 50M budget	\$400,000	\$200,000	\$200,000

Section III. Objectives and results chain

Objectives: Research supported by TDR has relevance to country priorities as the research is used by other researchers, programme managers, communities and policy-makers to influence their behaviour, practice and policies. To achieve this requires a comprehensive knowledge management approach to ensure research is undertaken in line with best practice. The research needs to be openly disseminated and systems put in place to ensure managed sharing of data, reagents and research tools.

The appropriate ethical, technical and political challenges need to be appropriately addressed and researchers supported with training and infrastructure where necessary to encourage open innovation. Evidence must be synthesized and translated into other media to enable its communication and translation into new recommendations, guidelines and policies, which in turn must be translated into action through research for implementation. Existing approaches, such as the EVIPNet, open access publishing and novel mechanisms to fund R&D need to be supported and applied and new approaches need to be developed.

ER outcome: Knowledge management training opportunities will be provided through workshops, online materials and support for TDR researchers in the areas of:

- Open innovation and new models of collaboration
- Data management and sharing
- Research dissemination and maximizing research uptake

Support for testing new forms of open innovation, infrastructure knowledge management approaches will be evaluated for what works and why and new approaches will be developed through commissioned research.

LMICs will be supported to develop research synthesis and policy briefs on issues related to infectious diseases of poverty, integrating TDR research activities (where appropriate) and convene decision makers to assess options for public health policy change.

- LMICs recognize and utilize the value of research for implementation in their health systems.

Output 1: Embed knowledge management and evidence for decision-making into the SORT IT AMR programme

Indicator: Creation of policy briefs and uptake to change policy and decision-making

Target date: 30-Sep-2021

Output 2: Data sharing: 1. support for capacity building; and 2. development of policy

Indicator: Development and use of data sharing platform in the TDR target diseases

Target date: 30-Sep-2021

Output 3: Application and use of knowledge management tools to improve the dissemination and mapping of TDR supported research

Indicator: Use of ORCID ID, application of the TDR open access policy, number of papers in the TDR Gateway

Target date: 30-Sep-2021

Approach to ensure uptake: The adaptation of existing approaches e.g. EVIPNet method is to ensure policy makers, researchers and knowledge brokers are brought together and work jointly on generating the policy. Partnership with organizations with a good track record in providing governance and infrastructure that supports high quality sharing of research data.

Uptake / use indicator: Citation, surveys, tracking changes in funding patterns, changes in clinical intervention approaches

Target date: 30-Sep-2021

Publication plan: Reports of the methodology and academic paper as appropriate; publication of policy briefs suited to the local context, language, etc.; publication on new open innovation approaches and their impact / improvement in the R&D processes evaluated; use of TDR Gateway publishing platform

Approach to ensure gender and geographic equity: Ensure policy brief development is undertaken with gender balance as one of the elements. Use the TDR gender tool for guidance.

Section IV. Concept and approach

Rationale: Continuous focus on translating evidence into policy is key in demonstrating the relevance of TDR's activities. The new evidence generated by research funded by or in collaboration with TDR, needs to inform the most effective delivery of disease control tools, strategies and policies. This will engage new stakeholders in countries such as policy-makers and programme managers.

Design and methodology: There are a large number of existing approaches to knowledge translation e.g. EVIPNet, SORT IT, WHO guidelines, work of the Alliance HPSR, Cochrane Collaboration, Norwegian Knowledge Centre, etc.; fewer established for research for implementation. Therefore needs consultation of experts and possibly a concept paper to design a 'new' approach. Methodology may need piloting in a workshop but existing approaches e.g. EVIPNet can also be utilized to ensure progress is made with what we have as new approaches emerge.

Approach to ensure quality: Use of scientific working group and expert peer review.

Significant risk 1: Lack of take-up of the recommendations from reports/briefs by policy-makers and programme managers

Actions to mitigate: Use of established methodology, embed knowledge management into whole process, rather than adding after research undertaken

Significant risk 2: Resistance to data sharing from within the research community

Actions to mitigate: Take a stepwise approach; start with a closed, managed system of sharing to build trust before moving to more open approaches

Estimated leverage description:

Estimated 2020-21 (US\$)

ER 2.3.1 Collaborative networks and Global Health Initiatives (GHIs)

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type:

Manager's Name: Garry Aslanyan

TDR staff involved: Elisabetta Dessi

Number of partners/staff/consultants: 2 consultants (for a specific period)

Synergy with other TDR work stream(s): TDR partnerships, resource mobilization and advocacy, Global Engagement, Research Capacity Strengthening, knowledge management and research

Funding sources: Undesignated funds

Partners and collaborators: Major international donors and funders of research, RCS

Review mechanism: ESSENCE Steering Committee

WHO Region(s): Global

Country(ies): Global, with focus in Africa

Diseases: All TDR related diseases and beyond

Start date: 01-Jan-2009

End date:

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact No

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes Yes

Foster regional, national, institutional and individual knowledge sharing and networking No

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$200,000	\$200,000	\$ 0
US\$ 50M budget	\$350,000	\$350,000	\$ 0

Section III. Objectives and results chain

Objectives: Engage funding agencies in policy dialogue in order to harmonize principles, policies, standards and practices related to research and capacity building in LMICs. Based on articulated TDR rules and the scope of Global Engagement with key global health and global health research issues to inform TDR's portfolio.

ER outcome: Funding principles, policies, standards and guidance documents are agreed and implemented by partners. TDR is partnering engaging with key GHIs and is seen as a key player in global health agenda.

Output 1: 2 tools and reports have been used to inform policy and/or practice of global/regional stakeholders or major funding agencies

Indicator: Two harmonized principles, policies, practices introduced and adapted by funding agencies and LMIC researchers/research institutions

Target date: 31-Dec-2019

Output 2: Funding agencies will continue to engage in annual policy dialogue between each other and with LMIC institutions and pilot countries

Indicator: One pilot country initiates dialogue between funding agencies and researchers/research institutions

Target date: 31-Dec-2019

Output 3: LMIC capacity in key areas such as research management, M&E and other will be strengthened in close collaboration with funding agencies

Indicator: 40 LMIC researchers trained in good practice fields

Target date: 31-Dec-2019

Output 4: Case examples of TDR's research, RCS and KM activities benefit and are shaped by global health research and global health agenda.

Indicator: TDR activities use ESSENCE documents as reference

Target date: 31-Dec-2019

Approach to ensure uptake: All good practice documents will be field tested and consulted as part of their development. This will ensure quality of update. The update will include wide dissemination of the good practice documents among the ESSENCE agencies. In addition, reviews of agencies policies and practices will be performed to verify the uptake.

Uptake / use indicator: Good practice documents are used by the agencies and policies are changed

Target date: 31-Dec-2017

Publication plan: At least one good practice document will be published each year

Approach to ensure gender and geographic equity: Gender, geographic equity and vulnerable populations are considered in the shaping and helping to shape funding agency policies through ESSENCE.

Section IV. Concept and approach

Rationale: The Global Engagement role of TDR and its successful implementation ensure that TDR remains the choice for the Secretariat by members of ESSENCE. There is a continuous need to influence funding agency policies and practices to support TDR's research, RCS and knowledge management priorities and activities and, in addition, to engage with new stakeholders for the same purpose. Global Engagement will not be done on an ad hoc basis; it will be preceded by careful analysis of needs and scope of such engagement. Similarly, TDR will need to continuously engage with GHIs to allow the Programme to advocate for policy influence in the areas closely linked to TDR's mandate. Having conducted a detailed analysis of the landscape in its first phase, TDR will work with relevant GHIs as a strong technical, convening and policy partner.

TDR will need to continue positioning itself in the global health architecture, especially at the time of the SDG era working towards 2030 goals where there will be a need to maintain focus on research on infectious diseases of poverty in line with the increased attention to universal health coverage.

Design and methodology: For ESSENCE, regular identification of critical issues of common interest and systematic consultation between members and stakeholders to develop good practice documents, including: (1) identification of issues requiring

funding agencies' collaboration; (2) analysis and survey of various information related to the issue; (3) drafting of a good practice document; (4) organizing a consultation to test the content of the document; (5) developing a final draft and getting endorsement of the ESSENCE members; (6) launch and dissemination of the document; and (7) monitoring of update and evaluation. For GHIs: (1) interface with like-minded GHIs based on the results from the analysis; (2) gather up-to-date and clear understanding of portfolios, activities and opportunities; (3) identify joint funding priorities; (4) implement joint project(s); and (6) evaluate achievements.

Approach to ensure quality: Documents are consulted and peer reviewed, training or other material reviewed and piloted.

Meeting and consultations include external independent stakeholders, including STAC, SC and JCB

Significant risk 1: Perception that the needs of LMICs are not well represented in the decision-making process of ESSENCE

Actions to mitigate: Additional efforts to engage LMICs in priority activities and dissemination

Significant risk 2: Requires intense and proactive TDR staff time and effort for the success of ESSENCE

Actions to mitigate: Staff are available and time allocated

Significant risk 3: Inadequate prioritization of cost opportunities for engagement with certain GHIs

Actions to mitigate: Closely following rules of engagement that will be developed

Estimated leverage description: ESSENCE member funding agencies will support specific areas of joint interest to the agency

and the network. GHIs will be requested to co-fund some of the activities.

Estimated 2020-21 (US\$) 100,000

ER 2.3.3 TDR Global - the community of former trainees, grantees and experts

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome:

Section I. Expected Result Identification

ER type:

Manager's Name: Michael Mihut

TDR staff involved: Beatrice Halpaap, Elisabetta Dessi, Mary Maier, Pascal Launois, Mariam Otmani, Edward Kamau

Number of partners/staff/consultants: 0.5

Synergy with other TDR work stream(s): Portfolio and Programme Management, Research Capacity Strengthening, Research for Implementation

Funding sources: UD

Partners and collaborators: RTCs, universities in TDR's 7-University scheme

Review mechanism: Ad hoc external advisory group consisting of former TDR grantees, trainees and experts, meeting annually face-to-face and via teleconference twice a year; consulting via email several times a year

WHO Region(s): Global

Country(ies): Global

Diseases: Global

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact No

Build on strengths and resources within partner countries No

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? No

If not, please provide additional information No need, as these institutions are associated with TDR through other ongoing projects.

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$300,000	\$300,000	\$ 0
US\$ 50M budget	\$500,000	\$500,000	\$ 0

Section III. Objectives and results chain

Objectives: 1. Tracking the careers of current and former grantees, trainees and expert advisers

2. Map specific expertise

3. Enhance collaborations, including current and former grantees, trainees and expert advisers

ER outcome: 1. The impact of TDR grants on the careers of its grantees, trainees and expert advisors can be adequately assessed

2. Identifying desired capacity in a field and a geographical region is facilitated

3. New collaborations, networks and partnerships that include former or current TDR grantees, trainees and expert advisors are created

Output 1: A user-friendly, online platform that hosts the profiles of current and former grantees, trainees and expert advisers of TDR, as well as communications platforms

Indicator: Platforms are fit for function, user-friendly and improvements are done regularly, as needed

Target date: 31-Dec-2021

Output 2: Community engagement activities that foster collaboration and networking are implemented in line with the Community Engagement Strategy, using effective tools piloted in 2017-2019

Indicator: Thematic mobilization activities as well as country-based mobilization activities that engage the TDR Global community are taking place and communities of interest are created at grassroots level

Target date: 31-Dec-2021

Output 3: Surveys / crowdsourcing that gather and prioritize ideas from trainees, grantees and experts to support mentorship and themes of interest for the community

Indicator: Surveys / crowdsourcing tools collect ideas and prioritize them for action by the TDR Global community

Target date: 31-Dec-2021

Output 4: Enhanced efficiency and effectiveness via increased regional focus and support of TDR Global activities, by involving institutions from regions and working in synergy with existing project-based activities.

Indicator: Being able to do more activities with the same resources as compared to the previous biennium

Target date: 31-Dec-2021

Approach to ensure uptake: The main challenge, identified since the design phase of TDR Global, has remained community engagement and uptake by users. In the previous biennium we tested over ten different tools for engagement, and we will utilize those that are most adapted to the type of activity envisaged and that are the most effective and efficient. We will further emphasize institutional involvement and regional focus, to provide better sustainability to mobilization initiatives and to the best ideas for collaboration.

Uptake / use indicator: Champions from TDR Global community engaging other users on topics of interest and creating new collaborations

Target date: 31-Dec-2021

Publication plan: Publication on the effectiveness of various community engagement tools used to engage former grantees, trainees and experts; publication on the mapping of collaborations between institutions

Approach to ensure gender and geographic equity: The advisory group is made up in equal proportion of women and men. One of the main topics for engagement is gender equity and helping women researchers in their careers. TDR Global encourages South-South and North-South collaboration, mentorship and knowledge sharing.

Section IV. Concept and approach

Rationale: Over its 45-year history, TDR has built and supported a vast pool of human resources to address infectious diseases of poverty through research and training. This is the “TDR Global” community. The goal of the TDR Global initiative is to harness this global community in engendering new and expanded collaborations for research and training on infectious diseases of poverty.

Design and methodology: TDR Global is mapping the expertise of its members, who are recipients of TDR training or research grants as well as worldwide experts who have served on TDR committees. The first phase involved the development of a web-based platform and the piloting of several different engagement tools (TDR Talks, webinars, email, LinkedIn group discussions, problem-solving workshops, crowdsourcing tool, internship, thematic mobilizations, country-focused mobilizations, TDR Global ambassadors, etc.), that will be refined and adapted for engaging community members into new collaborations, e.g. to create mentorship programmes, identify expert reviewers, engage in online consultations or discussions on key thematic areas, and catalyse potential research partnerships across the globe.

Approach to ensure quality: An external advisory group is reviewing the plans, the activities and the implementation of the TDR Global project.

Significant risk 1: TDR community does not populate their data into TDR Global which may impact the ability: i) to assess the impact of TDR's grants on their careers; and ii) of platform users to find specific expertise and establish collaborations

Actions to mitigate: Login and registration in the system are now mandatory for new TDR direct grantees / trainees; focus on regional support to steer TDR Global members to complete their profile as part of community engagement exercises, country-based mobilizations, etc.

Significant risk 2: A platform requiring extensive human resources may affect its sustainability

Actions to mitigate: Identify resources that can work on this project in an efficient manner (e.g. RTCs, universities, other)

Significant risk 3: A drop in TDR's income may affect the ability to maintain the platform as developed

Actions to mitigate: Develop a clear budget with scenarios and contingency plans; Explore designated funding options to sustain the system

Significant risk 4: Decentralizing TDR Global to regional training centres may affect its sustainability and quality

Actions to mitigate: TDR Global is included in the RTCs sustainability plan and performance assessment framework

Estimated leverage description: Leverage is expected through: (i) voluntarily participation of experts and partners in the development of the system; and (ii) contribution from TDR alumni and other experts in providing technical support to TDR activities.

Estimated 2020-21 (US\$) 100,000

ER 2.3.4 Effective incorporation of intersectional gender analysis in research and training on infectious diseases

Team: Global Engagement

Strategic working area: Global Engagement

Workstream and outcome: Gender and equity in research and training on infectious diseases of poverty

Section I. Expected Result Identification

ER type: New

Manager's Name: Mariam Otmani del Barrio

TDR staff involved: Mariam Otmani

Number of partners/staff/consultants:

Synergy with other TDR work stream(s): Research for Implementation, Research Capacity Strengthening

Funding sources: TDR

Partners and collaborators: TDR units, co-sponsors, HRP, RTCs and partner research institutions

Review mechanism: Scientific working groups and ad hoc review committees

WHO Region(s): WHO regions; regions covered by RTCs

Country(ies): Global

Diseases: Infectious diseases of poverty

Start date: 01-Jan-2020

End date: 31-Dec-2021

TDR criteria: why are these partnerships relevant / Important?

Add value by maximizing outputs Yes

Use existing resources and knowledge translation platforms, resulting in maximum impact Yes

Align with our goals and objectives Yes

Address knowledge gaps that no one partner can address alone Yes

Integrate respective mandates and strengths to achieve broad impact Yes

Build on strengths and resources within partner countries Yes

Reduce burden on partners in countries by combining administrative/ peer review processes No

Foster regional, national, institutional and individual knowledge sharing and networking Yes

Increase visibility of efforts by better communicating results and reaching out to broader networks Yes

FENSA clearance

Have all non-State actor partners and collaborators been cleared through PNA against the Framework on Engagement with Non-State Actors (FENSA)? Yes

If not, please provide additional information

Section II. Budget 2020-2021

	UD + DF	UD	DF
US\$ 40M budget	\$100,000	\$100,000	
US\$ 50M budget	\$200,000	\$200,000	

Section III. Objectives and results chain

Objectives: This ER will comprise the following objectives:

- Design and improve engagement strategies to promote gender-responsive health interventions;
- Foster and contribute to gender-responsive research for implementation, evidence, policy and practice; and
- Build and strengthen research capacities on gender-based analysis in research on infectious diseases of poverty.

ER outcome: Gender-responsiveness mainstreamed in TDR research programmes, research for implementation projects and research capacity strengthening efforts

Output 1: Implemented TDR Strategy on gender and intersectionality across TDR projects and programmes

- Indicator:**
- TDR Strategy on gender and intersectionality launched and disseminated across regions and through RTCs; Number of recommendations from TDR expert group meetings on intersectional gender research implemented, including engaging the broad research community in intersectional gender analysis beyond the social sciences domain and increase the number of Regional Training Centres that use and promote TDR's intersectional gender analysis toolkit
 - Number of research calls that are gender sensitive
 - Increase the number of research projects that take an intersectional gender lens in their conceptualisation and design

Target date: 30-Nov-2021

Output 2: Ensured technical and research support for gender responsive interventions in research for implementation projects and programmes

- Indicator:**
- Gender analysis included in TDR research programmes outputs (e.g. gender-responsive evidence generated by research team from SIT-Wolbachia project)
 - Disseminated intersectional gender analysis toolkit on research on infectious diseases across research partners
 - Created opportunities across the research for implementation portfolio to generate gender responsive evidence (e.g. in the TB domain)

Target date: 31-Oct-2020

Output 3: To ensure gender responsive research capacity strengthening efforts by engaging with RTCs, stakeholder universities and other research partners

- Indicator:**
- Gender and intersectionality mainstreamed in Massive Open Online Course (MOOC) on IIR
 - Designed ToT/curricula on intersectional gender analysis in research for implementation training offered at postgraduate programmes in schools of public health across TDR collaborating universities
 - Engage with universities to increase the number of students that conduct gender research within their master's thesis or ensure gender-sensitive themes in their thesis

Target date: 30-Dec-2021

Output 4: New knowledge and evidence generated on the intersection of sex and gender with other social stratifiers to address power relations, social exclusion, marginalization and disadvantage in access the health services and health impacts from infectious diseases.

- Indicator:**
- Research studies implemented and evidence generated to inform policy and practice and used to engage with TDR stakeholders including research institutions, funders and public health practitioners.

Target date: 30-Dec-2021

Approach to ensure uptake: Engagement with University senior management, research teams (with at least 50% of women researchers), engagement with Ministries and public health services.

Uptake / use indicator: Engagement with universities, RTCs, ministries of health, finance and education

Target date: 30-Nov-2021

Publication plan: Intersectional gender analysis toolkit published, disseminated and used for further engagement with various stakeholders

Approach to ensure gender and geographic equity: Gender parity will be ensured when establishing external review panels, convening meetings of experts, issuing contracts, and in general within all our collaborations.

Section IV. Concept and approach

Rationale: Great progress has been made towards combatting infectious diseases of poverty. However, considerable public health challenges remain, including gender and intersecting inequalities that affect health conditions associated with infectious diseases. ER 2.3.4 draws on ER 1.3.12 and builds synergies with it to focus on gender intersecting inequalities that influence differentials in vulnerability to, and the impact of, particular health conditions associated with infectious diseases in low- and middle-income countries.

This expected result recognizes that gender norms, roles and relations influence people's susceptibility to different health conditions and they also have a bearing on people's access to and uptake of health services, and on the health outcomes they experience throughout the life-course. It also acknowledges that WHO has recently recognized that it is important to be sensitive to different identities that do not necessarily fit into binary male or female sex categories. In this context, delivery and access to prevention and control approaches and products to prevent and control infectious diseases should not be one-size-fits all but instead should benefit from approaches that take into account the complex interaction of several social stratifiers, and their influence in health outcomes. There is growing recognition that gender roles, gender identity, gender relations, apart from institutionalized gender inequality influence the way in which an implementation strategy works (e.g. for whom, how and why). There is also emerging evidence that programmes may operate differently within and across sexes, gender identities and other intersectional characteristics under different circumstances and contexts. Research should inform implementation strategies to avoid ignoring gender-related dynamics that influence if and how an implementation strategy works.

Therefore scientists, including those focusing on research for implementation, would benefit from adequately considering sex and gender intersecting social dimensions within their research programmes, by strengthening both the practice and science of implementation, and by contributing to improved health outcomes and reduction of gender and health inequalities.

Design and methodology: 1. Implementation of this ER will draw on a pilot tested toolkit on intersectional gender analysis in research on infectious diseases of poverty. 2. Methodologies and gender analysis frameworks will be detailed and explained within the afore-mentioned toolkit and presented in a practical "hands-on" toolkit for researchers to incorporate a gender analysis with an intersectional lens, throughout the whole research process, from research study design up to the dissemination of research findings stage.

Approach to ensure quality: Oversight by expert committee and quality assurance through fact checking, peer review of documentation, technical and copy editing

Significant risk 1: Knowledge translation outcomes on gender equality are usually beyond the control or influence of projects

Actions to mitigate: For this programme stakeholders, including those from the affected communities, research teams and policy/decision-makers, will be engaged from the beginning and during the course and completion of the projects to ensure their active involvement, with the expectation that the results will be utilized as effectively as possible

Estimated leverage description:

Estimated 2020-21 (US\$)