

CASE STUDY

Regional Disease Surveillance Systems Enhancement (REDISSE) Series of Projects

GUINEA, SENEGAL, SIERRA LEONE, GUINEA BISSAU, LIBERIA,
NIGERIA, TOGO, BENIN, MALI, MAURITANIA, NIGER

1. PROJECT HIGHLIGHTS

| Key Cross-Country Benefit | Key National Benefit |
|---|---|
|  <p><i>Avoiding large-scale spread of diseases that could pose a threat to the international health system.</i></p> |  <p><i>Protecting national public health through extensive disease surveillance that enables timely and appropriate mitigation and treatment.</i></p> |

2. QUICK FACTS

| Categories | Project Details |
|---------------------------------------|--|
| Project Name | Regional Disease Surveillance Systems Enhancement (REDISSE) Series of Projects |
| Project Description | The lack of timely and comprehensive disease surveillance mechanisms imposes a significant threat to public health in West Africa and adjacent regions. REDISSE aims to increase the international cooperation and coordination in the region regarding disease surveillance to enable effective disease mitigation and responses. |
| Global Public Good (GPG) Theme | Global public health |
| Sub-Theme | Preventing the emergence and spread of communicable diseases |
| Sector | Health |

Disclaimer: We based the case study on the information cited and publicly available as of May 2023. The findings – especially concerning the GPG perspective – have been concluded to our best knowledge. The views expressed are the authors’ assessments and do not necessarily reflect the project stakeholders’ views. Any errors that remain are our responsibility.

| | |
|---|---|
| Countries of Implementation | Guinea, Senegal, Sierra Leone (Phase 1), Guinea Bissau, Liberia, Nigeria, Togo (Phase 2), Benin, Mali, Mauritania, Niger (Phase 3) |
| Region | Sub-Saharan Africa |
| Income Category | Low-income economies, lower-middle income economies, upper-middle income economies |
| Implementation Period | 2016-2024 <ul style="list-style-type: none"> - Phase 1: 2016 – 2023 - Phase 2: 2017 - 2023 - Phase 3: 2018 - 2024 |
| Project Volume | US\$ 381.06 million |
| Financial Source | International Development Association Grant : US\$ 40 million (Phase 1), US\$ 7 million (Phase 2), US\$ 70 million (Phase 3) International Development Association Credit : US\$ 70 million (Phase 1), US\$ 140 million (Phase 2), US\$ 50 million (Phase 3) Multi-Donor Trust Fund : US\$ 4.06 million (Phase 1) |
| Instruments | Investment Project Financing |
| MDB Involved | World Bank |
| Implementing Partner | West African Health Organization (WAHO) |
| Link to Detailed Project Information¹ | https://documents1.worldbank.org/curated/en/965001467305866621/pdf/PAD1752-PAD-P154807-OUO-9-IDA-R2016-0154-1-Box396265B.pdf https://documents1.worldbank.org/curated/en/418701488682867914/pdf/PAD-RE-DISSE-II-02092017.pdf https://documents1.worldbank.org/curated/en/380191524492655455/pdf/MALI-NIGER-MAURITANIA-PAD-04182018.pdf |

3. WHY IS THIS A GOOD PRACTICE

This project is a good practice example for implementing the following features that promote GPG provision:

¹ Unless otherwise stated, the information used in this case study can be found in this source.

- **Ambition:** The project is structured in three phases and targets 11 countries overall, demonstrating a high ambition level. Overall, it aims at becoming one of the crucial pillars in the whole region of West Africa regarding the effective fight against disease spread.
- **Sustainability:** One of the main endeavours of the project is institutional capacity building, both at the national and the regional level. Those institutions can persist even after the immediate project intervention is finished, perpetuating the initiative, and making it sustainable. This is conditional on the respective national states providing sufficient financing to continue operating the systems.
- **Scalability:** The project is scalable by design. The structure follows a series of independent projects as well as various phases that include different countries. It follows from this that REDISSE can be scaled to include more countries, for example in future project phases, or to include more project dimensions in the form of independent projects.
- **Transformability:** REDISSE aims to transform the focus of public health from crisis response to disaster risk reduction. This means that, instead of reacting to occurring diseases, the approach is to improve the disease prevention capability and to avoid those diseases to spread rapidly and undetected in the first place.

4. PROJECT INFORMATION

4.1 CHALLENGES OF GPG PROVISION IN THE COUNTRY CONTEXT

The region of West Africa is prone to the (re-) emergence of infectious diseases. Those are, among others, the Ebola virus disease (EVD) epidemic, the avian influenza, and other zoonotic diseases that originally stem from animals. In this case, the disease outbreak does not only impose a threat to public health, but also to economic prosperity. Livestock is an important income source. If it is also affected by diseases—as for example in the case of avian flu—this might lead to a loss of this resource and thus income opportunity. In **West Africa, various factors contribute to a high risk of the occurrence and spread of communicable diseases.** First, close contact between humans and animals, for example due to overlaps in living spaces or through food intake, facilitates the transmission of pathogens between different species. Second, antimicrobial resistances are prevalent in the region and further increase the breeding ground for diseases. Third, a weak public health system and missing disease surveillance mechanisms make it difficult to keep track of their occurrence and distribution. Known or unknown diseases can spread largely unhindered and are only detected late in the day.

Preventing the emergence and spread of communicable diseases is an important contribution to the public health, in West Africa and beyond. **In today's globalised world, diseases are quickly carried across borders and impose risks not only to the countries of emergence, but to global public health.** The dynamics of outbreak, rapid spread, and severe consequences of the recent Covid-19 pandemics have shown the relentless impact of these transmission chains. Preventing the emergence and spread of communicable diseases in one region thus clearly has positive externalities that go far beyond that region.

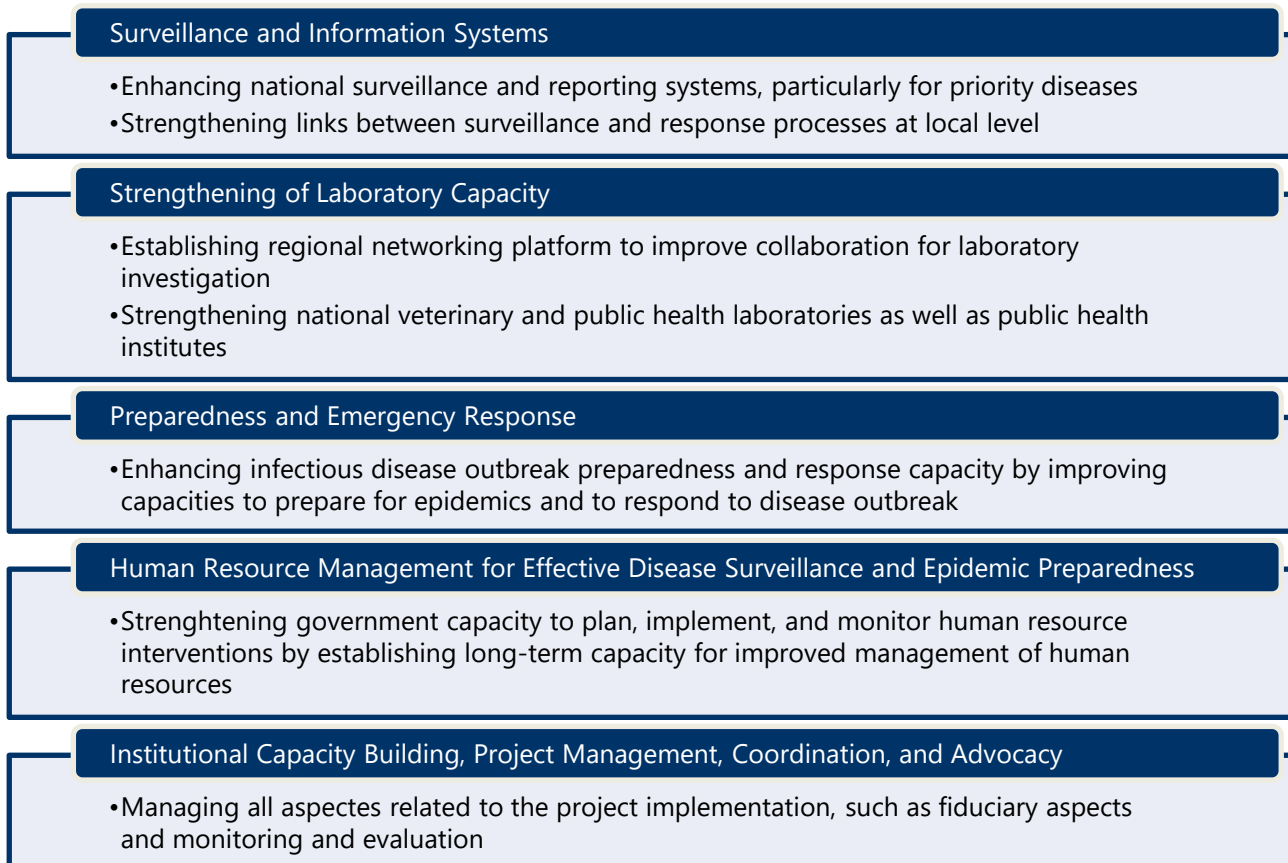
4.2 INTERVENTION

4.2.1 Project Design and Agents of Change

As discussed above, one important factor to mitigate the emergence and spread of infectious diseases is an effective and timely disease surveillance. This includes appropriate plans to assess and respond to disease occurrences. The **Regional Disease Surveillance Systems Enhancement (REDISSE) Series of Projects is targeted at establishing well-functioning and connected disease surveillance systems to track prevalent disease dynamics and potential needs for intervention.**

The REDISSE project consists of three phases that cover different countries. **It follows a series of interdependent projects (SOP) design.** Through this, it is possible to divide the overarching goal of an increased disease surveillance capacity into smaller, tangible steps. The project components are described in Figure 1:

FIGURE 1: PROJECT COMPONENTS



Source: Oxford Economics based on [World Bank \(2016\)](#), [World Bank \(2017\)](#), and [World Bank \(2018\)](#).

The project is implemented by WAHO, the regional office of the WHO for Western Africa, in cooperation with the governments of the participating countries and the Economic Community of West African States (ECO-WAS). Acknowledging the regional focus of the project, it is partly financed by the regional IDA funds. **Those regional funds can be distributed if a project has a specific emphasis on international cooperation, includes multiple countries, fosters initiatives that have significant positive externalities, and contributes**

to policy harmonisation between countries. This is the case for REDISSE: it is aimed to yield significant positive externalities and synergy effects both between the countries that are part of the project's different phases and towards the countries in the region that are not immediately involved in the project.

4.2.2 Expected Results

The expected results are monitored and assessed based on the following performance indicators:²

- 1) Progress towards establishing an active, functional regional One Health Platform
- 2) Laboratory testing capacity for detection of priority diseases: number of countries that achieve a Joint External Evaluation (JEE) score of 4 or higher out of 5
- 3) Progress in establishing indicator and event-based surveillance systems: number of countries that achieve a JEE score of 4 or higher out of 5
- 4) Availability of human resources to implement IHR core capacity requirements: number of countries that achieve a JEE score of 3 or higher out of 5
- 5) Multi-hazard national public health emergency preparedness and response plan is developed and implemented: number of countries that achieve a JEE score of 4 or higher out of 5
- 6) Progress on cross-border collaboration and exchange of information across countries: number of countries that achieve a score of 4 or higher out of 5

As the project is still in the implementation status, no final impact assessment can be conducted yet. However, the results' reports that reflect on the current project status draw a positive conclusion for all three phases. **The progress towards the achievements of the Project Development Objective as well as the overall implementation progress are assessed as satisfactory for phase 1³, moderately satisfactory for phase 2⁴, and moderately satisfactory for phase 3⁵.**

² JEE corresponds to the Joint External Evaluation, a tool to monitor the implementation of the International Health Regulations.

³ World Bank (2022a): <https://documents1.worldbank.org/curated/en/099235006162211445/pdf/P15480703d8bb70110938e09d65bcdec249.pdf>

⁴ World Bank (2022b): <https://documents1.worldbank.org/curated/en/09934001206222538/pdf/P1590400c78b770440b1b50dd12aa83928a.pdf>

⁵ World Bank (2022c): <https://documents1.worldbank.org/curated/en/099510003102276151/pdf/Disclosable0Ve03000Sequence0No00008.pdf>

5. PROJECT IMPACT

5.1 NATIONAL BENEFITS

The countries that are targeted by the REDISSE Series of Projects are vulnerable regarding the outbreak of various diseases. A lack of appropriate infrastructure and trained medical staff hamper an effective disease treatment. Those countries face significant public health deficits which translate into various societal frictions and economic losses. Accordingly, supporting the establishment of disease surveillance mechanisms yields several benefits for the client countries. **They are supported in the development of an effective disease surveillance system that increases the public health standards on site and mitigates undiscovered and potentially dangerous disease spreads.**

Paradigm shift

from crisis response to embracing a health disaster risk reduction approach and better risk management



Prevention is significantly less costly than mitigation: in the case of Ebola, to fight the spread of emergence and to support the corresponding health systems of the countries that were being hit, the World Bank alone provided financial support in the scope of more than US\$ 1.6 billion.⁶ The countries also need to spend a significant amount of money to combat the consequences. Comparing this to the project costs for REDISSE, which correspond to less than US\$ 400 million overall across all countries, makes it clear that the investment in an appropriate prevention mechanism is significantly more beneficial and efficient than corresponding mitigation measures.

A decreased vulnerability towards communicable diseases also prevents potential economic losses. Increased resilience in the area of income flows and employment opportunities can be additional indirect benefits from a functioning disease surveillance system.

5.2 CROSS-COUNTRY BENEFITS

One main feature that makes diseases difficult to combat is that they can quickly spread over multiple countries and that the corresponding health systems are often not sufficiently aligned to each other to pursue joint action. Related to this, the infection dynamics in one country strongly influence other countries. Accordingly, well-functioning disease surveillance that prevents the emergence and spread of communicable diseases in certain countries gives strong positive externalities to third-party countries that are not directly part of the intervention. In the case of REDISSE, **fostering the disease surveillance in some Western African countries can improve the health status in the whole region and beyond**, as potential infection origins can be detected early and appropriate measures can be taken to prevent the spread to other countries or even globally.

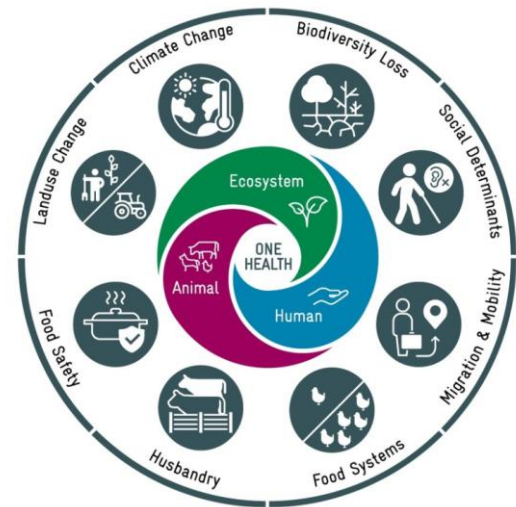
⁶ World Bank (2018): <https://documents1.worldbank.org/curated/en/703711517234402168/pdf/123023-REVISED-PUBLIC-World-Bank-One-Health-Framework-2018.pdf>

As described by the World Bank, “it is important to note that collaboration and collective action across borders to address disease threats is one of the clearest examples of a global public good”.⁷

Additionally, the project contributes to the **One Health Approach** and correspondingly supports various GPGs that are—directly or indirectly—linked to human health. The One Health Approach emphasises the fact that the health of humans must not be considered independently of environmental and societal influences. It advocates a systematic and holistic approach to protect public health, vital ecosystems, and biodiversity. Accordingly, strengthening human health through disease surveillance contributes to strengthening multiple other goals, as can be seen in Figure 2.

It becomes clear that this endeavour further interacts with several other GPGs when analysing the causes and consequences of communicable disease emergence and spread. For example, **deteriorating peace and security is both a reason and a result of extensive infection occurrence**. Violent conflicts hamper the development of effective disease surveillance structures and threaten adequate hygienic conditions. In turn, diseases can cause migration movements and societal distortions. Food security is also hampered. Additionally, the emergence and spread of diseases is closely linked to **biodiversity** and **climate change mitigation**. Changing climatic conditions and the loss of natural habitat and biodiversity distort the natural equilibrium, which in turn impacts the emergence of diseases. Under the One Health Approach—originally implemented by the WHO—this strong interlinkage is addressed. It acknowledges the high interdependence between human health, animal health, and the state of the environment.

FIGURE 2: ONE HEALTH APPROACH



Source: [GIZ \(2022\)](#)

6. LESSONS FOR FUTURE GPG PROVISION

6.1 SUCCESS FACTORS

REDISSE follows a comprehensive and multi-phased approach that spans several countries and various fields of intervention. This is crucial, as preventing the emergence of communicable diseases follows a weaker link logic. This means, the overall level of communicable disease emergence is determined by the worst-performing countries. Accordingly, the **comprehensive and collaborative approach of REDISSE is one of its main success factors**. It would not be possible to establish well-functioning and successful surveillance systems for the individual countries on their own. Instead, interconnectedness between countries is key and can be ensured within the organisational framework of REDISSE. Additionally, REDISSE fosters the dissemination of global

⁷ World Bank (2016): <https://documents1.worldbank.org/curated/en/965001467305866621/pdf/PAD1752-PAD-P154807-OUO-9-IDA-R2016-0154-1-Box396265B.pdf>

standards, for example the International Health Regulations (IHR), and follows a close collaboration with relevant multilateral institutions, in particular the WHO, whose regional office (WAHO) implements the project.

REDISSE does not only follow a holistic approach with respect to the countries involved and the institutional model—as discussed above—but also regarding the diseases that should be mitigated. In particular, it follows an **all-hazard approach**. This means, beside disease-specific measures, it implements a framework that fits the mitigation of various diseases, not only those that are at a certain point in time most prominent. This enables an adaption capacity with respect to potential future diseases that emerge without prior knowledge.

In general, the project targets one area that is of increased importance: **the human-animal-environment interface**. Changing climatic conditions, population growth, and habitat conflicts between humans and animals further increase the risk of new diseases emerging. REDISSE is a good practice model on how to take action to closely monitor these kinds of developments.

The close cooperation between WAHO as know-how provider and implementing agency, and the World Bank as reputable and efficient financier, is key for a successful project of this type.

6.2 HOW TO REPLICATE THE GOOD PRACTICE

In addition to that, the following lessons can be learnt from the project and can be used to replicate the good practice project:

- Disease surveillance works significantly better if it follows a **joint approach by several countries**, as the spread of diseases does not stop at national borders.
- Often, the same countries are hit by multiple infections at once. As those countries are well known based on previous disease history, it is useful to focus prevention effort on them.
- In an interconnected and globalised world, disease surveillance becomes increasingly important, as outbreaks in one part of the world can rapidly spread to other parts and lead to severe negative consequences.
- It makes sense to complement disease surveillance mechanisms by measures that prevent the causes of disease occurrence, e.g., in the form of vaccinations or improved hygienic conditions.
- The issue that the project addresses – disease surveillance – is highly relevant in today's connected world. The rapid spread of Covid-19 has recently clarified the importance of connected and comprehensive disease surveillance structures. REDISSE is suitable to be replicated to target this challenge, as its project components are equally relevant in various world regions. The challenge will be to convince governments to build up REDISSE-like projects and to keep the structures functioning, also in times without obvious outbreaks of endemics.



[[It is important to note that collaboration and collective action across borders to address disease threats is one of the clearest examples of a global public good.

(World Bank (2016))

