Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 15-Feb-2022 | Report No: PIDA31529

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Madagascar	P174903	Pandemic Preparedness and Basic Health Services Delivery	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
AFRICA EAST	11-Feb-2022	24-Mar-2022	Health, Nutrition & Population
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Republic of Madagascar	Ministry of Public Health	

Proposed Development Objective(s)

To strengthen cross-sectoral capacity for pandemic preparedness and response and improve the provision of basic health services and quality of care

Components

Component 1: Strengthening Capacities for Pandemic Preparedness and Response
Component 2: Strengthening the Resilience and Performance of Basic Health Services
Component 3: Project Management and Monitoring
Component 4: Contingent Emergency Response Component (CERC)

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	134.90
Total Financing	134.90
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	100.00

IDA Credit	50.00
IDA Grant	50.00
Non-World Bank Group Financing	
Trust Funds	34.90
Global Financing Facility	32.00
Health Emergency Preparedness and Response Multi-Donor Trust	2.90

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

The 2020 Human Capital Index (HCI) estimates that a child born today in Madagascar will be only 39 percent as productive as could be as an adult, had he or she enjoyed complete education and full health. Worse, Madagascar's trendline for the HCI has remained unchanged over the last decade. Ninety-seven percent of 10-year-old children cannot read and understand a basic text; 40 percent of children remain stunted; and only 3 percent of the extreme poor are covered by social protection services. Although the under-5 child mortality rate and the prevalence of stunting have both improved since 2010, these remain among the highest in the world. Similarly, although the adult survival rate has improved, it is still among the lowest quarter of all countries. The picture for education is concerning, with quality decreasing, as reflected in harmonized test scores and primary educational completion rates falling to 63 percent in 2019 from 68 percent in 2013. All key components of the HCI show strong inequalities by income with test scores indicating a two-tier education system, with one level of quality for the richest and another for everyone else. With children unable to reach their potential, the country will not have the needed labor force to fuel a productive economy that can create jobs, boost prosperity, and reduce poverty in the long-term.

Prior to the COVID-19 pandemic, Madagascar was on a modest growth trajectory. The economic recovery that began in 2013 gradually strengthened until 2019, supported by the return to political stability which helped to restore investor confidence, reopen access to the main export markets, restore flow of concessional finance and encourage structural reforms. Despite positive momentum, growth

peaked at a still modest level of 4.4 percent in 2019 and averaged 3.5 percent over the period of 2013-19, barely exceeding population growth and remaining insufficient to ensure rapid poverty reduction.

The pandemic led to the deepest recession since 2002 and reversed more than a decade of progress in poverty reduction. The initial impact of the COVID-19 crisis was very severe, with the collapse of export earnings and private investment leading to a contraction of GDP by 7.2 percent in 2020, the strongest in the last two decades. A second wave of the pandemic in 2021 and continued border closures have delayed recovery, with growth estimated at 1.8 percent in 2021. Mining, tourism, textile and transport industries were the hardest hit by this crisis, while domestically oriented sectors were dragged down by falling household incomes and disruptions to supply chains. Overall, per capita income fell by about 10 percent between 2019 and 2021, representing the most intense economic shock since the crises of 1991 and 2002. Additionally, the climate change-induced drought, amplified by outbreaks of Rift Valley fever and migratory locusts, has spurred a food crisis in the South, driving nearly 50 percent (1.3 million) of the people from the region's 10 hardest-hit districts into acute food insecurity.[1] In this context, the poverty rate is estimated to have increased from 76.5 percent in 2019 to 80.7 percent in 2020, then to 81.1 percent in 2021, bringing nearly 2 million people below the international poverty line of US$1.90/inhabitant/day (in 2011 purchasing power parity) within two years. In addition to the impact of the crisis on poverty, access to social services has also been negatively affected.

Over the past decade, maternal, neonatal and infant mortality rates have improved but remain persistently high in Madagascar. Between 2008 (Demographic and Health Survey [DHS] 2008-2009) and 2018 (Multiple Indicators Cluster Survey [MICS] 2018), the maternal mortality ratio fell from 498 to 426 deaths per 100,000 live births, a reduction of just over 14 percent. The neonatal mortality decreased from 26 to 19 per 1,000 live births (by 27 percent) between 2008 and 2018 but has increased again to 26 per 1,000 live births in 2021 according to DHS 2021 results. Infant mortality rate also decreased from 48 to 40 per 1,000 live births (by 17 percent) between 2008 and 2018 but has risen again to 47 per 1,000 live births in 2021 (DHS 2021). Only 39 percent of deliveries occurred within a health facility in 2018 (MICS 2018) and this percentage remained the same in 2021 (DHS 2021). The percentage of deliveries assisted by skilled medical professionals has not improved much over the last 10 years, rising slightly from 43.9 percent in 2008 to 44.3 percent in 2012 and 46 percent in 2018, although no change was observed in 2021 (DHS 2021). This stagnation is due to multiple reasons, including the limited number of skilled health workers, the distance to medical centers combined with the lack of transportation in rural areas, and most importantly preference for traditional births.

Fertility rate remains high at 4.2 children per women and is driven by adolescent fertility rate which is still very high at 143 per 1,000 (DHS 2021). Despite improvements, access to reproductive health services and family planning for women and girls remains problematic. Overall, 15 percent of women currently in union have unmet needs for family planning. Just over two in five women in union use a modern contraceptive method (43 percent). If all unmet needs were met, contraceptive prevalence could reach 64 percent among women in union (expressed need). Utilization of contraception is the lowest (37.5 percent) among adolescent 15-19 years, and yet almost one-third (31 percent) of them have already

[1] https://www.wfp.org/news/climate-magnifies-hunger-madagascar-forecasted-poor-rains-bring-dread-and-despair
https://news.un.org/en/story/2021/10/1103712
https://reliefweb.int/report/madagascar/climate-magnifies-hunger-madagascar-forecasted-poor-rains-bring-dread-and-despair

begun their reproductive lives (27 percent have already had a live birth and 5 percent are pregnant with their first child). These trends are explained by social and cultural norms that consider the number of children born as wealth and in many regions, encourage early sexuality and marriage for girls. However, early pregnancies increase the risk of maternal mortality among adolescent girls and also affect their prospects for continued schooling and future employment.

Madagascar faces a range of routine climate shocks which are increasing in frequency and intensity due to climate change and are dominated by annual cyclones and floods. Over 30 floods or heavy rainfall events affected Madagascar in the past 30 years, killing hundreds of people and affecting thousands. Madagascar has one of the highest cyclone risks in Africa, averaging 3-4 cyclones per year, which are expected to increase due to rising global temperatures and the subsequent increasing ocean temperatures. Cyclones bring torrential flooding which can result in severe damage and losses across sectors. The DHS (2008-2009) found that 49 percent of households were affected by a cyclone, flood, or drought in the year preceding the survey (this question was not asked in most recent DHS 2021). Simultaneously, the southern part of Madagascar is plagued by persistent, climate-change induced drought, spurred by increasingly high temperatures and low rainfall, leading to reduced harvests and consequently an increase in malnutrition and childhood diseases. In addition, the country has had extensive deforestation, with between 40 and 90 percent of its natural forests destroyed, threatening the natural habitat of the country's extensive and diverse indigenous animal population.

Madagascar is highly vulnerable to infectious disease outbreaks and the country's climate change vulnerable context amplify this risk disease outbreaks. Like the other African countries, Madagascar has experienced severe infectious disease outbreaks over the last five years. The country was also affected by a measles epidemic that lasted almost seventeen months between August 2018 and December 2019. In 2014, the country faced a polio epidemic due to vaccine-derived strains of polio (VDPV). Malaria is a substantial health threat in the country with an estimated 2.16 million cases and 50,000 deaths in 2018. Climate change is expected to increase the duration, scope, and intensity of malaria outbreaks through increased temperatures and rainfall creating optimal mosquito conditions in the country and expanding transmission areas.[2] In 2017, the country experienced a record level pneumonic plague outbreak affecting two densely populated cities including the capital Antananarivo with 2,417 reported cases and 209 deaths with considerable health and socio-economic consequences. Plague is endemic in Madagascar, but the bubonic form is most common, usually resulting in small, isolated outbreaks. The rapid spread of pneumonic plague in the country has been linked to optimal climatic conditions allowing rat populations, the vectors of the infection, to thrive.[3] In 2019, plague was reported in parts of the country that were not previously impacted by the disease with a likely climatic link underpinning the change in transmission patterns, and a new surge of plague cases was reported in August 2021. Along with known climate-related infectious diseases, given the high level of climate vulnerability in the country, the country is also at risk

[2] https://www.jstor.org/stable/pdf/26808340.pdf?refreqid=excelsior%3A251444975393388b13d4a4acec7e2062&ab_segments=&origin=
https://documents1.worldbank.org/curated/en/936661516004441146/pdf/121945-12-1-2018-11-21-5-WorldBankMadagascarClimateChangeandHealthDiagnosticJan.pdf

[3] https://www.climatelinks.org/sites/default/files/asset/document/2019_USAID_ATLAS_Madagascar%20Plague%20Lit%20Review.pdf; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7733672/

of climate-related emerging infectious diseases. Zoonotic diseases are a particular risk in the context considering the high biodiversity and decreasing natural habitats, resulting in increased interaction between animals and humans.[4] Further information on climate-related infectious diseases in Madagascar can be found in Annex 4.

B. Sectoral and Institutional Context

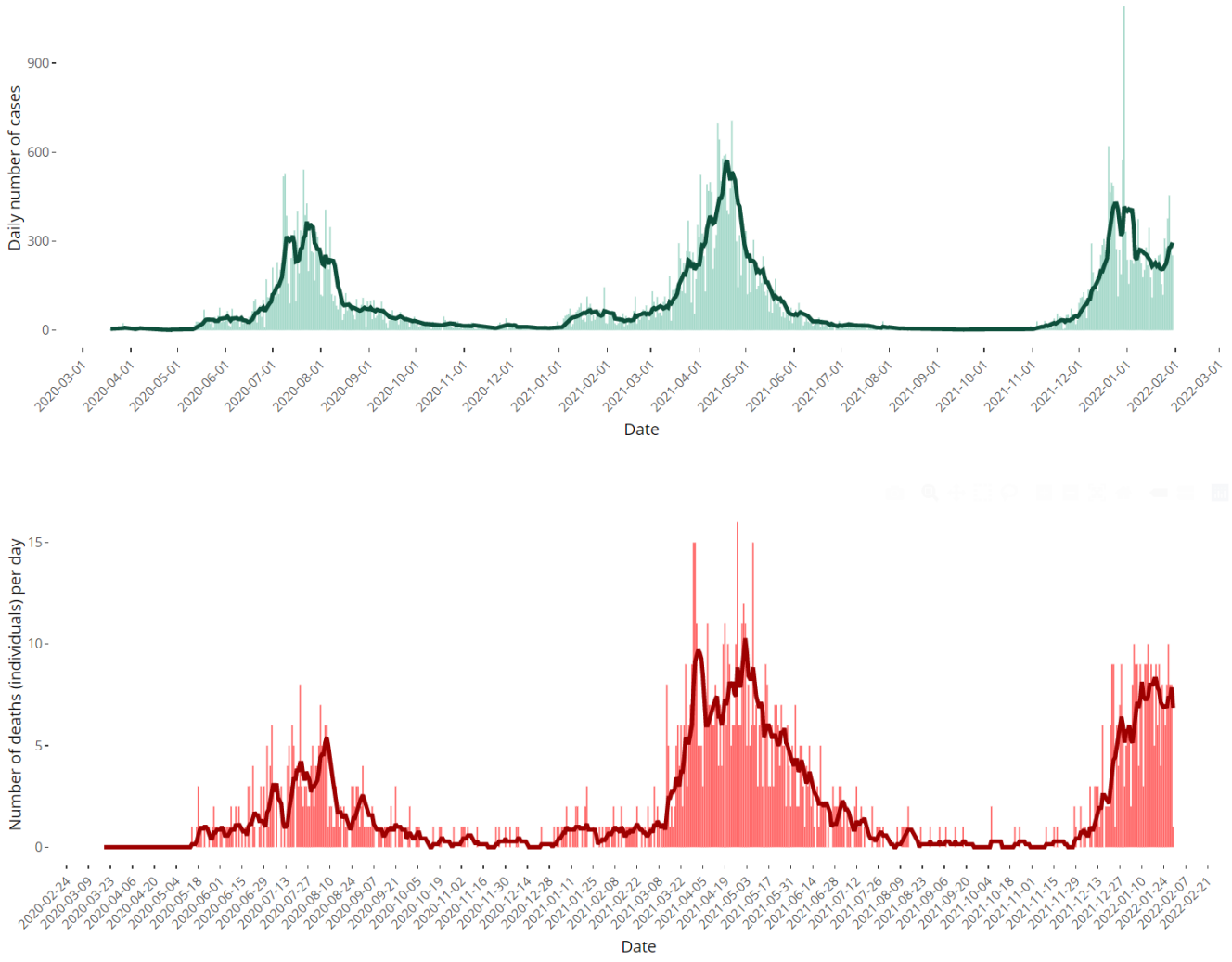
Sectoral and Institutional Context

COVID-19 Situation and Response in Madagascar

Madagascar declared a state of health emergency due to the COVID-19 pandemic (decree 2020-359 of March 21, 2020) and has since repeated issuing and lifting health emergency declarations. The first health emergency was lifted on October 18, 2020. It was reinstated in early April 2021 due to the second wave (decree 2021-390 of April 3, 2021) and lifted again on September 4, 2021. As of January 30, 2022, Madagascar reported 59,849 cases and 1,283 official deaths since the start of the outbreak. The first cases (three cases, all imported) were confirmed on March 20, 2020, and a first peak was reached in July/August 2020 when the number of cases rose fourfold in one month, with the highest number of new cases reaching 360 per day. The capital city of Antananarivo was impacted most, but all of Madagascar's 22 regions were affected. The epidemiological situation worsened during the second wave with the presence of the South-African variant that hit Madagascar in March–April 2021, resulting in over 600 new daily cases (and peaking on April 14, 2021, with 854 new cases). The death rate has also increased; it is now estimated at 2.13 percent compared to 1.4 percent in 2020. As of February 11, 2022, 4,049,060 vaccine doses had arrived, of which 1,158,361 doses had been administered, and 926,543 individuals (around three percent of the total population) had been fully vaccinated**.**

[4] https://bassconnections.duke.edu/project-teams/how-do-people-affect-zoonotic-disease-dynamics-madagascar-2018-2019
https://www.sciencedirect.com/science/article/pii/S0001706X21004034
https://www.american.edu/cas/economics/ejournal/upload/clark_accessible.pdf

Figure 1: Evolution of COVID-19 outbreak in Madagascar (number of new cases and deaths, per week), March 2020 - January 2022



Source: https://www.covid19mg.org/dashboard_fr.html

An emergency contingency plan for COVID-19 was prepared by the Government of Madagascar with support from partners and before first cases were confirmed in-country. The World Bank responded swiftly to provide financial support in order to ensure preparedness for COVID-19 by triggering the Contingent Emergency Response Components (CERC) of the Improving Nutrition Outcomes Project (PARN) Using the Multiphase Programmatic Approach (MPA) on April 3, 2020 for US$20 million. The Bank support and involvement was a catalyst to accelerate the country preparedness and response. In response to the increasing needs and the financial gaps due to the escalation of the pandemic, the

Government has developed and validated a Multisectoral Social Emergency Plan. The health response plan, part of this multisectoral plan, was validated by the Council of Ministers on July 1, 2020. Additional financial support for health response was provided by triggering the CERC of existing projects in the World Bank Madagascar portfolio on September 3, 2020, adding US$40 million to the health sector.[5] Main strategies for the health response include: (i) coordination; (ii) strengthening disease surveillance system, including at the community level, and contact tracing; (iii) developing and strengthening testing capacities (network of laboratories equipped and personnel trained); (iv) ensuring management of positive cases in hospitals and primary health care facilities (training of staff, equipment and PPEs) and ensuring continuity of essential health services (such as immunization and safe deliveries); (v) logistical support to social activities (transfers of drugs and inputs, ambulances, waste management, etc.); and (vi) communication at all levels to prevent disease spread. In addition to the World Bank financing, other Development Partners are also contributing to finance interventions under this plan, such as the UN agencies (UNICEF, WHO, UNFPA, UNDP), multilateral agencies (Gavi, the Vaccine Alliance and Global Fund) and bilateral partners.

Critical Areas to Address Weaknesses on Pandemic Preparedness and Response

The COVID-19 pandemic further highlights the need for Madagascar to strengthen its disease outbreaks preparedness and response capacities. A Joint External Evaluation (JEE) assessed Madagascar's International Health Regulations (IHR 2005) core capabilities in July 2017.[6] It has pointed out some strengths related to relevant operational capacities as well as some major weaknesses, which are summarized in table 1 below:

Table 1: Summary of the 2017 Joint External Evaluation

Scores by Group	Capacity of the 19 Technical Areas
Low scores 1–2 (Low capacity)	• Legislation, policy, and national financing • Coordination, communication, and International Health Regulations promotion • Resistance to antimicrobials • Food health security • Biological safety • Preparedness • Link between public health and security authorities • Medical means and staff deployment • Entry points

[5] The CERC of ongoing projects in the World Bank Madagascar portfolio was triggered on September 3, 2020 and an additional US$123 million was leveraged to prevent further deterioration of the crisis and help fill part of the financing gap of the country's Multisectoral Emergency Plan, with a focus on health (US$40 million), social protection (US$45 million) and private sector mitigation related measures (US$33 million). Though this activation of the IDA Immediate Response Mechanism / CERC in response to COVID-19, the CERC of the Sustainable Landscape Management Project (P154698) was triggered to finance the US$40 million of the additional health sector response.

[6] Joint External Evaluation of IHR Core Capacities of the Republic of Madagascar. Geneva: WHO; 2017 (WHO/WHE/CPI/REP/2017.66). License: CC BY-NC-SA 3.0 IGO.

	• Chemical risks • Radiological emergency
Mixed scores (Some indicators low, others high)	• Zoonoses • Immunization • National laboratory system • Notification • Staff development • Emergency interventions • Communication on risks
High scores 3-4-5 (Developed capacity)	• Real-time surveillance

In order to have functional and sustainable capacity, the country will need to further strengthen all 19 JEE technical areas by implementing the recommendations, essentially to focus on: (i) the development and implementation of legislative frameworks, conducive to (ii) multi-sectoral coordination in the implementation of the International Health Regulations (2005); (iii) building capacity of the IHR Focal Point and the relationship with all key sectors in prevention, detection and response; (iv) drafting and implementation of required procedures taking into account the whole-of-threats approach; and (v) analysis and mapping of epidemic and disaster risks, using a multi-sectoral approach that will enable the updating and establishment of preparedness and response plans against zoonoses, emerging and re-emerging infectious diseases and environmental risk factors using the "One Health" approach.

While none of the 19 technical areas in the JEE tool expressly assesses the functions of national public health institutes (NPHIs), these have emerged as playing a critical role in coordinating, developing, and strengthening public health capacities, helping countries achieve IHR implementation, and improving population health. In 2017, the African Union created the Africa Centres for Disease Control and Prevention (Africa CDC) to support public health throughout the continent. Africa CDC has prioritized the development of strong NPHIs in all African countries and has developed guidance for countries. A model where multiple government agencies responsible for various public health functions create a platform to improve coordination and mobilization of limited resources across various agencies would be adopted by the Government of Madagascar. In October 2018, Africa CDC through its Eastern Africa Regional Collaborating Center (RCC) conducted an assessment and mentorship visit to Madagascar. The Minister of Public Health and the Secretary General reaffirmed their commitment to establish this multi-sectoral coordination platform related to Africa CDC's activities in Madagascar.

Madagascar validated its National Action Plan for Health Security (NAPHS) 2020-2024 on October 8, 2021. This Plan aims to address the identified weaknesses and ensure stronger preparations and response to epidemics. At the end of 2024, the target set by Madagascar is to reach the scores of 4 or 5 (developed capacity) for all the indicators of the 19 technical areas of the IHR 2005. It is key to seize the current COVID-19 crisis to build a stronger and more resilient health system to detect and respond to the health crisis and adopt a “One Health” approach. This multi-year national health security plan would allow prioritizing interventions and financing to accelerate capacities strengthening. Its implementation will strengthen the system of health emergencies and other major public health events in Madagascar. Indeed, the main objective of this plan is to prevent, detect and respond to the national and international

spread of diseases through public health actions that are proportionate and limited to the risks to public health. This will contribute to the reduction of morbidity and mortality associated with any potential public health emergency. The plan was developed by the Malagasy Government, in collaboration with development partners and other key stakeholders, and is aligned with WHO's Strategic Preparedness and Response Guidelines.[7] The plan also outlines the roles and responsibilities of each stakeholder, which will be reviewed and updated at regular intervals to reflect the evolving pandemic.

COVID-19's Adverse Impact on Health Services Delivery and Utilization, Particularly Reproductive, Maternal, Neonatal, Child and Adolescent Health and Nutrition (RMNCAH-N)

The COVID-19 outbreak has had an adverse impact on delivery and utilization of essential health services, particularly related to RMNCAH-N. Immediately following the first wave of COVID-19 from March to October 2020 in Madagascar, the World Bank carried out a follow-up analysis of essential health services during the COVID-19 pandemic.[8] Significant and persistent disruptions were observed for outpatient consultations, compared with previous trends and seasonality. Outpatient consultations were substantially lower between April 2020 and February 2021 than previous years – by 12.5 percent lower in April 2020, 7.3 percent in June, 18 percent in July, 24 percent in August, 15 percent in September, 11 percent in October, and 10 percent in February 2021. Compared to expected levels, disruptions were particularly intense in April, May, and October 2020 for most indicators measuring essential health services.

Almost 30 percent of all deaths in Madagascar are still attributable to preventable infectious and parasitic diseases, yet coverage rates for immunization are dropping. With declining immunization coverage rates, outbreaks are on the rise. Complete immunization coverage for children 12 to 23 months old dropped drastically from 62 percent in 2008 to 33 percent in 2018. A slight increase to 38 percent was observed in 2021, according to DHS 2021. Survey data from the same period show that only 48 percent of priority drugs and 51.9 percent of vaccines were available in Malagasy facilities (Service Delivery Indicator 2016, Report No. AUS18887), as financing for immunization is a binding constraint on coverage. The drop in immunization coverage is driven by several factors, including the lack of off-grid refrigeration capacity (and maintenance thereof) and of qualified human resources, as well as the insufficient number of operational immunization outreach services.

Particularly severe and persistent disruption of two essential RMNCAH services have been observed – family planning and routine child vaccination. An analysis of the data from the national health management information system (*Système d'information sanitaire* [SIS]), shows that in January 2021, the utilization of family planning services in health care settings were 14 percent lower than what would have been expected based on the past utilization trends. The disruptions have deepened in the following months, with utilization of family planning being lowered by 18 percent in February, 17 percent in March, 23 percent in April, and 29 percent in May 2021 than what would have been expected based on the utilization in the past years. Similar trend has been recorded for child immunization, with BCG, 3rd dose of pentavalent and the 2nd dose of polio vaccination being 14 percent, 22 percent and 24 percent lower,

[7] World Health Organization (2020). 2019 Novel Coronavirus (2019-nCoV) Strategic Preparedness and Response Plan. https://www.who.int/docs/default-source/coronaviruse/srp-04022020.pdf.

[8] Data analysis from the national health management information system (*système d'information sanitaire*; SIS) conducted by a World Bank Development Economics (DEC)/GFF team.

respectively, in May 2021 than expected. While those disruptions' impact on health outcomes is not known, a modeling exercise supported by the Global Financing Facility (GFF) in 2020 has shown that persistent disruptions in the essential health services at a magnitude similar to what has been seen in Madagascar could result in as much as 18 percent increase in under 5 mortality. Therefore, actions to re-establish the provision of essential health services are urgently needed to prevent a high secondary impact of the pandemic on health and well-being of women, children, and adolescents in Madagascar.

Major Weaknesses in the Health System Hindering Quality Service Delivery

The main drivers to poor service delivery relate to staffing (doctors and nurses) and frontline workers that are chronically under-financed. The primary health care system has neither the skilled human resources nor the financial resources to carry out their basic functions. Madagascar's health system spends US$20 per person per year, less than a quarter of the regional average (US$84). Ensuring that financing reaches health centers and the centers have some autonomy in the use of these funds is essential for quality service provision**.** Since 1995, Total Health Expenditure has remained around 4-5 percent of GDP. Only about 20 percent of the health sector budget is financed by domestic Government resources with regular salary expenditures accounting for 71 percent of allocated domestic financing in 2022, a level much higher than generally observed in low-income countries. This has resulted in limited resources for operational activities at the community and primary levels as well as limited autonomy of health centers to manage the available funds, impacting negatively service delivery of health services for the most vulnerable population. Indeed, community and primary levels of the health system should ensure the delivery of the basic quality package of preventive and curative services, as the basis for a resilient and performing health system.

Mechanisms to protect the poorest from health financial risks and assure access to basic health services are very limited and fragmented. Although several mechanisms have been instituted, including community health insurance and vouchers (for example, vouchers for children and pregnant women exist only in some regions and free services are provided only for specific programs), they suffer from fragmentation, do not cover all regions or all population groups, and the Equity Fund (*Fonds d'Equité*) is not yet operational. To achieve the objective of Universal Health Coverage, Madagascar needs a revised strategy to increase financial accessibility to basic health services to complement the law on health financing protection that is under preparation. It would require formalizing the eligibility for free health care, and financing for an equity fund to support the enrollment and free access to care for these groups.

Improving health human capital outcomes requires better human resource investments, to address inadequate resources, distribution, training, and management. Health workforce planning and management are challenging: (i) workforce requirements and recruitment involve various actors including the Ministry of Public Health (MoPH), the Ministry of Finance (MoF), and the Ministry of Civil Service; (ii) staff recruitment and deployment processes remain centralized and suffer from lack of transparency and corruption; and (iii) training requires collaboration between the MoPH and Higher Education Institutions, and the Ministry of Higher Education, and the private sector. Moreover, health personnel are poorly prepared: none of the clinicians interviewed during the Service Delivery Indicator (SDI 2016) survey correctly diagnosed five tracer conditions, and only 22 percent adhered to clinical guidelines for managing maternal and newborn complications. Preservice education of health personnel in Madagascar suffers from a lack of financial resources, inadequate facilities, lack of qualified teachers

and educational materials, as well as outdated curricula that do not conform to international standards. Due to the limited capacity of public preservice institutions, a proliferation of poor-quality private training institutions was also observed during the past decade. Strengthening the capacity of preservice institutions and establishing a national exam as a requirement to obtaining the diploma and the license to practice would help improve the number and quality of graduates and thus for the country to have a midwifery and nursing workforce that will contribute to improving access to quality services at all levels of the system.

The deployment of health personnel is also characterized by regional imbalances wherein persistent gaps in critical staffing positions exist predominantly in rural areas, placing the rural population at a disadvantage. During the last five years, an average of 70 percent of domestic health spending was allocated to human resources. Nonetheless, in public facilities there is only 1 doctor available per 13,018 inhabitants, 1 nurse per 9,497 inhabitants, and 1 midwife for 10,200 inhabitants, far from the World Health Organization (WHO) standard (e.g., 22.3 doctors per 10,000 population). In addition to the staffing gap in rural areas, there is an imbalance in the skills mix, particularly for doctors, wherein only 28 percent of doctors operate in rural areas, covering 79 percent of the population.[9] More broadly, many primary health care (PHC) facilities are not headed by doctors as intended by the health sector regulations, and many of these doctors change posts frequently. According to a small-scale survey conducted by the World Bank in 2020, 75 percent of the surveyed PHC heads were not medical doctors but rather nurses, midwives, or even volunteers not formally part of Madagascar's civil service.

The Government has introduced measures to improve the governance of health service delivery, but much remains to be done to reduce the impact of governance weaknesses on the availability and quality of care. Some reforms were supported by the first phase of the Human Capital Development Policy Operation (approved in March 2020; P168697). For health financing to primary health care, a reform from November 2019 has effectively established a new flow of funds for the health sector throughout the country through collaboration between the MoPH, the Ministry of Decentralization, and the MoF, and development partners. Funds for primary health care facilities (*Centres de Santé de Base* [CSB]) are now managed at the *commune* level instead of the health district level, thus closer to the service delivery, and heads of CSBs have now more decision-making power for allocation of these resources. A review of the 2022 Finance Law shows that funds allocated to CSBs has increased threefold, and it would be important to strengthen the capacity of local stakeholders in management of those funds. On workforce management, the ongoing census of government personnel[10] including health personnel will contribute to (i) creating a unified and reliable database on the composition and allocation of personnel across the country and (ii) reducing financial losses from irregularities in the payroll value chain.[11] The Government is also deploying a unified human resource management information system 'Augure' across all the public administration to harmonize HR business processes, improve workforce management and allocation, and enhance transparency and control, of which several modules are currently operational. Related to the health sector workforce, measures to strengthen regulation for pre-service training of qualified health workers have been taken but still need to be implemented to ensure increased clinical skills of health staff. In addition, the Government has piloted several initiatives to

[9] National Health Human Resources Development Plan - *Plan National de Développement des Ressources Humaines en Santé (PNDRHS)* -, Madagascar, 2015
[10] The census is co-financed by the PARN and PRODIGY projects.
[11] The Court of Account (2018) estimates losses around EUR 10-30 million due to irregularities in payroll management.

improve retention and attract qualified candidates in remote areas but those have been so far fragmented and seen limited success. Overall, there remains limited mechanisms for strengthening accountability and citizen engagement. This contributes to an unresponsive delivery system.

To move the Human Capital agenda forward in Madagascar and strengthen links with other sectors, such as education, social protection and governance, it is key to prioritize interventions. As part of the GFF, Madagascar has been engaged since 2017 in a process of prioritizing interventions and regions of focus to improve equity and maternal, adolescent and child health and nutrition outcomes, using available resources. The GFF is a global partnership which supports the improvement of well-being of women, children, and adolescents, while also driving long-term transformational changes in health systems, particularly in health financing. It aims to achieve this through strengthening the dialogue among key stakeholders under the leadership of governments and supporting the identification of a clear set of priority results that all partners commit their resources to achieving: (i) getting more results from existing resources and increasing the total volume of financing from four sources (domestic government resources, financing from IDA, aligned external financing, and private sector resources); and (ii) strengthening systems to track progress, learn, and course-correct. Through the GFF process, Madagascar has developed a draft Investment Case (IC) based on a thorough analysis of the system bottlenecks and evidence-based interventions, strengthened coordination with its financial and technical partners and built a consensus on the priorities the country should focus on to significantly improve maternal, child and adolescent health and nutrition outcomes. The Investment Case was developed using newly available data from the MICS 2018 and ensuring a strong leadership and ownership from the Government. The IC was validated and disseminated in December 2021.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

To strengthen cross-sectoral capacity for pandemic preparedness and response and improve the provision of basic health services and quality of care.

Key Results

Proposed PDO indicators are:

- Indicators related to the Health Regulation on coordination, surveillance and laboratory capacity (with a target of a 3 or 4 score on the JEE by the end of the project, i.e., developed or demonstrated capacity in the area):
    - Progress towards establishing an active, functional national One Health platform;
    - Interoperable and interconnected real-time electronic notification; and
    - Laboratory Quality System;
- Number of women using a modern contraceptive method.
- Percentage of CSBs meeting revised national standards.

D. Project Description

The project activities under each of the three project components (the fourth component is a zero cost CERC) are designed to support the Government in implementing the activities presented in the NAPHS 2020-2024, National Strategic Plan for Public Health Surveillance, and the GFF IC for reproductive, maternal, neonatal, adolescent and child Health.

Component 1: Strengthening Capacities for Pandemic Preparedness and Response *(US$60 million, including US$57.1 million equivalent IDA and US$2.9 million HEPR TF)*

This component will help strengthen Madagascar's capacity to prepare and respond to the ongoing pandemic and other infectious disease outbreaks, by strengthening multisectoral systems and adopting a One Health approach. The priority interventions are those identified in the NAPHS 2020-2024 validated on October 8, 2021, which builds on the 2017 joint external evaluation.

Sub-component 1.1: Develop Necessary Assessments to Implement One Health Approach (US$2.9 million HEPR TF)

Develop necessary assessments to implement the One Health approach to prepare and respond to the COVID-19 pandemic and infectious disease outbreaks, and to support interoperable and interconnected systems, through technical assistance, studies, development of related manuals and multisectoral outreach. Technical assistance will thus be provided to:

(i) analyze the current organization of the ministries according to the One Health approach and their capacity to respond to epidemics/pandemics, health system resilience modeling and to provide recommendations for improvement;

(ii) conduct a situational analysis of the existing information systems of the different sectors according to the One Health approach and propose recommendations for improving the use of information and communication technologies from the community level to the central level. Consultancy services will be sought to analyze the level of use of ICTs in the information system of the different sectors and make recommendations for greater use. An operational manual for conducting

rapid health risk and/or needs assessments for communities recently affected by emergencies will be developed as well as accompany the training;

(iii) evaluate the feasibility of interoperability of the different systems and support the implementation of an interoperable and interconnected real-time electronic notification system;

(iv) develop procedures manuals to facilitate the timely distribution of material resources to the community in the context of emergencies, as well as mechanisms to obtain or reallocate financial resources to support emergency response and recovery; and

(v) elaborate and validate a multi-sectoral health risk and emergency communication strategy, including rumor management, grievance and information tracking mechanism.

Sub-component 1.2: Improve Cross-sectoral Coordination, Collaboration and the Capacity in Preparedness and Response (US$20.1 million equivalent IDA)

This sub-component will support strengthening the *One Health* regulatory framework in Madagascar and operational preparedness and response capacity, especially at the local level. The project will support the establishment of the operational coordination platform, including the development of a roadmap and legal and regulatory framework and setting up the related financing mechanisms for the implementation of the IHR (2005). It will also strengthen institutional mechanisms for intersectoral collaboration and strong partnerships with other countries and regional organization such as Africa CDC. Interventions that will be supported include:

(i) **technical assistance to support set-up of the operational coordination platform with One Health approach**, such as for drafting the needed legal act, and partnership building activities for outbreak preparedness, improvement and harmonization of policies, legislation, and operating procedures and the establishment of national and regional financing mechanisms to ensure swift mobilization of resources for animal health and public health emergencies including climate shocks (cyclones, droughts, floods, and climate-related disease outbreaks). Africa CDC will provide complementary technical assistance to support this activity. Participation in national IHR-Performance of Veterinary Services (PVS) transition workshops[12] which will allow for analysis and improvement of collaboration between the two sectors in the prevention, detection and response to zoonotic diseases and other health events at the animal-human interface (food safety, antimicrobial resistance) will be organized.

(ii) **training and capacity building in IHR (2005) of human, animal and environmental health personnel**. This set of activities will first consist of the creation of a single database of national experts and all stakeholders in IHR, and the development of a mapping of available personnel and an advocacy document for investment in human resources for the three sectors. Provisions will also be made for: establishing a sustainable training program in field and applied epidemiology which will consist of integrating basic epidemiology and Integrated Disease Surveillance and

[12] Organized by the World Health Organization (WHO) and the World Organization for Animal Health (OIE), with participants from public health and animal health services.

Response (IDSR) training into the initial training program for nurses, doctors, para-veterinarians, and veterinarians who will also be service providers at the basic health service level and will provide veterinary services; developing and implementing an updated personnel strategy for a functional multi-sectoral workforce, operational research, knowledge sharing activities including simulation exercises to validate core capacities in the IHR (2005) monitoring and evaluation framework; and participating in regional and international health crisis management initiatives. Climate-related diseases will be incorporated through specific modules and training materials in the field and applied epidemiology training program.

(iii) **investments to strengthen emergency response capacity at the local level**. Health aspects of emergency response will be developed such as response to diseases outbreaks, including climate-related disease outbreaks, and health aspects of other emergencies, including climate shocks, such as emergency medical services in response to flooding, cyclones, and drought. More specifically, these risk and disaster management services would provide logistical support in emergency situations.[13] This will include strengthening emergency operations centers and response capacity (one center permanently functional at the national level, 23 centers at the regional level and 114 centers at the district level, for rehabilitation, capacity building, equipment, and functionality), establishing and managing a database of multidisciplinary rapid response teams that will be available for rapid deployment, developing and managing stockpile mechanisms to ensure availability of supplies during an emergency response, including response to climate shocks (storage facilities available in at least 20 remote districts at risk in the event of a health emergency, 75 health facilities provided with computer equipment for stock management, etc.), establishing outbreak treatment centers (rehabilitation), rapidly mobilizing and deploying resources in response to major infectious disease outbreaks (pre-positioning of equipment, materials, reagents and supplies necessary to ensure the management of health emergencies at the regional level to support the districts, two to three months before an epidemic/pandemic), strengthen the capacity to detect and manage public health events at the nine main Ports of Entry (standardize the technical platform and infrastructure: international immunization centers, quarantine centers, contact and case treatment centers, isolation room equipment, acquisition of starter kits of vaccines and consumables, etc.) and implementation of the health risks and emergencies communication plan, including rumor management, grievance and information monitoring mechanism.

Sub-component 1.3: Strengthen Human and Animal Disease Surveillance Systems (US$18 million equivalent IDA)

Strong and interconnected disease surveillance systems are essential for rapid response and close monitoring of potential outbreaks, including climate-related disease outbreaks. Under this sub-component, the project will support:

[13] National Response Plan COVID-19, 2nd wave and beyond: Madagascar health sector – October 2021

(i) **technical assistance to develop harmonized procedures for surveillance, notification, diagnosis and response to priority diseases, including climate related diseases** based on:

- reviewing, updating and mapping health risks and priorities diseases, including a focused review of climate-related priority diseases;

- mapping available capacities, resources, and actors; and

- updating cross-sectoral multi-hazard plans for epidemic and pandemic preparedness and response, including for climate related diseases.

(ii) **harmonization of electronic disease surveillance with the IDSR approach**. This includes the development of harmonized guidelines, protocols and tools to improve surveillance and reporting processes as well as the development of common methodologies and protocols for the efficient flow and use of surveillance data (applicable to public and private actors involved in disease surveillance) to be integrated into regional/international public health management information systems.

(iii) **investments to ensure interoperability between disease surveillance and laboratory information systems which will be integrated in the District Health Information Software (DHIS2) health system platform.** Support will be provided for the development/strengthening of the required information and communication technology (ICT) infrastructure (equipment, integration of the electronic animal and environmental monitoring platform into the Health information system DHIS2, Implementation of the backup and data security procedure), to strengthen the surveillance system as well as the mechanism for multisectoral collaboration in detection and response (communication credits, data, management tools, investigation activities for data quality, etc.). It will need also strengthening the capacity to functionalize surveillance systems and ensure appropriate use: Antimicrobial Resistance (AMR) (detection and notification) training and mentoring programs, available and implemented as part of One Health, prevalence survey on antimicrobial use at the hospital level, AMR data available on DHIS2 platform, developing an operational infection prevention and control system for health care facilities and agricultural facilities, ensuring appropriate use of all antimicrobials in human and animal health and in agriculture (pharmacovigilance), establishment of regionally adapted surveillance systems/networks to monitor zoonotic diseases at regional and national levels, strengthen the surveillance system as well as the multisectoral collaboration mechanism in the detection and response to foodborne diseases and food contamination (including the operationalization of three food analysis laboratories: two laboratories at the central level and one at the regional level) and ensuring transmission of reports to WHO, World Organization for Animal Health (OIE) and World Food Programme (WFP). These strengthened and integrated disease surveillance systems will extend to climate-related diseases and will be particularly beneficial in understanding their shifting transmission patterns, which are impacted by the country's changing climate.

(iv) **investments to expand and improve sentinel surveillance sites for AMR and human and animal diseases, including at the community-level.** Currently 11 sites are operational with 33 additional sites to be supported for training, provision of supplies, delivery of consumables,

management tools, office supplies and sampling kits, PPE. This will involve strengthening community-level surveillance structures and processes for detection of events in communities (human and animal). It will involve improving community-level surveillance capacity for active surveillance: timely reporting by community-level surveillance officers as well as district health and veterinary facilities, and reducing the time between sample collection and laboratory confirmation and reporting, developing and implementing a plan to ensure adequate coverage for community surveillance by the central level; and technical assistance would be provided by Pasteur Institute for the expansion of the sentinel surveillance site.

(v) **piloting innovative digital surveillance approaches to improve monitoring and control of infectious disease outbreaks**. An innovation of mobile laboratory would be considered, whose objective is to screen and detect pathogens in real time at the level of sites during investigations for quick and urgent decisions especially in remote areas. Digital monitoring will also support quick transmission of real time data during climate chocks.

Sub-component 1.4: Strengthen the Quality of Laboratories (US$19 million equivalent IDA)

The project will aim to set up and operationalize a network of high-quality laboratories for human and animal health in Madagascar, which would be integrated in the Africa CDC RISLNET, currently being supported by the World Bank-financed Africa CDC Project. To achieve this objective, the following interventions would be supported:

Technical assistance for mapping of laboratories, development and implementation of an overall laboratory policy to strengthen the quality of laboratory services (quality assurance, maintenance, norms and standards, supply of reagents and consumables, etc.). Assessment of existing human and animal health laboratory facilities and networks for prioritization of interventions will be among the first activities;

Set up of an external evaluation program for laboratory quality including setting-up of external evaluation program, including quality policies (development of standards, quality assurance systems, procedures and protocols; Quality Policy at the laboratory level, based on WHO/AFRO and the Performance Veterinary Services tool).[14] It will strengthen existing reference laboratories and possibly identify new ones for specific diseases or diagnostic techniques; strengthen networking and information sharing; and harmonize laboratory quality assurance policies based on international standards;

Strengthening laboratory capacities by purchasing specialized and high-quality equipment and by training staff in virology, bacteriology, and immunology. This support would improve the technical platform for 24 laboratories at the national and regional levels (17 for human health and 7 for animal health). A national biosafety and biosecurity system across the three sectors (human, animal and environmental health) will also be implemented to minimize the risks of accidental or intentional infections; and

Establishing/strengthening of the laboratory information management system (LIMS) or equivalent mechanism (training of staff, equipment). The LIMS would allow laboratory data sharing between relevant One Health sectors, especially for priority diseases with epidemic

[14] https://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/OIE_PVS_Pathway_Laboratory_Manual_2014.pdf

potential. This One Health Lab-Network will be led by the three main research centers in Madagascar: National Center for the Application of Pharmaceutical Research (*Centre National d'Application des Recherches Pharmaceutiques* [CNARP]) for human health, Malagasy Institute of Veterinary Vaccines (*Institut Malgache des Vaccins Vétérinaires* [IMVAVET]) for animal health and National Environmental Research Center (*Centre National de Recherches sur l'Environnement* [CNRE]) for Environment, and thus, to optimize strategic decisions and orientations based on research results for the different sectors involved. Measures to improve data management will include strengthening the capacity of laboratory personnel in the analysis and use of laboratory surveillance data; strengthening laboratory data management systems to improve the efficiency of bottom-up and top-down reporting; ensuring the interoperability of laboratory data management systems and integrated with the regional laboratory system.

***Component 2*: Strengthening the Resilience and Performance of Basic Health Services (US$64.9 million equivalent, *including US$ 32.9 million IDA and US$32 million GFF*)**

The second component of the project aims to strengthen the resilience and performance of the Madagascar health system, in particular primary health care. Ensuring the availability, accessibility, and quality of basic health services for the population is especially important during the current pandemic environment, both to address its adverse consequences as well as to contribute to its resolution. The project aims to ensure that Madagascar's investments in pandemic preparedness go hand in hand with the strengthening of primary health systems. Interventions under this component will support the implementation of major reforms in the financing of health facilities and the management of human resources for health. These priority areas are aligned with those of the two phases of the Madagascar Human Capital Development Policy Operation.

Sub-component 2.1. Ensure the Availability of Essential Health Services (US$22 million GFF)

Under this sub-component, the project will ensure availability of health essential health services and related capacity-building, rehabilitation of health centers, outreach and Training, for purposes of to improve adolescent and reproductive health, family planning and youth-friendly health services. The project will also finance related commodities, and the deployment of routine children immunization (excluding the purchase of vaccines). These services were particularly disrupted during COVID-19 crisis in Madagascar, particularly related to RMNCAH-N such as reproductive health services (including family planning) and routine immunization for children**.** While those disruptions' impact on health outcomes is not known, a modeling exercise supported by the GFF in 2020 has shown that persistent disruptions in the essential health services at a similar magnitude could result in as much as 18 percent increase in under 5 mortality. Therefore, actions to re-establish the provision of essential health services are urgently needed to prevent a high secondary impact of the pandemic on health and well-being of women, children, and adolescents in Madagascar.

In order to re-establish the provision of the essential health services, the proposed project will fill financing gaps for reproductive health commodities for the first two years of the project, while advocating for increased domestic resources for health. Based on the GFF IC for reproductive, maternal, neonatal and child Health, needs for family planning and other reproductive health commodities are

critical in Madagascar and were exacerbated by the COVID-19 crisis. The project will finance the procurement of essential commodities including long-acting reversible contraception (intra-uterine devices and implants). The commodities would be managed through the existing supply chain management system and delivered through the existing delivery channels – largely health facilities. Supplies and equipment (intrauterine device and implants insertion kits) will also be procured. In addition, the project will support capacity building for health providers in order for facilities to be able to deliver integrated reproductive health and family planning services. Additional support will be provided for improving access to reproductive health and family planning services to underserved communities through mobile and outreach strategies, and through trained community health workers.

The project will also support the availability of adolescent and reproductive health services through the expansion of youth friendly health centers. COVID-related disruptions have likely impacted adolescent access to key reproductive health and family planning services. The proposed project will support strengthening public health centers' capacity in the provision of youth-friendly health services. Based on lessons learned from existing programs and the Adolescent Sexual and Reproductive Health Strategic Plan, activities will include (i) minor rehabilitations of 200 health centers to be more attractive to adolescents including a separate patient waiting area with TV and a private consultation room; (ii) training health center staff to provide integrated high-quality and nonjudgmental education, treatment and care including family planning and gender-based violence (GBV) services; and (iii) training of local/community influencers such as young peer educators and community health workers to support demand creation and raise awareness about the availability of adolescent and reproductive health services. The selection for the 200 health centers will consider the nine regions identified by GFF as priority regions for RMNCAH-N IC.

To generate demand, demystify issues and address social norms around reproductive health services including family planning, the project will support dedicated communication strategies to address these challenges, including technical assistance to the MoPH/Department of Family Health for developing communication strategies and plan. The development and implementation of these strategies would focus on: (i) increasing knowledge and understanding of benefits and risks; and (ii) information on where to access these essential products. The risk communication strategies for use of basic reproductive health services would be conducted using innovative technologies and use several media means and be adapted for the diverse targets (health workers, community leaders, local population). To address the specific needs of young people, specific information campaigns will be implemented. They will emphasize the dangers of early pregnancy and the benefits of contraception. Community engagement is also key in supporting demand for reproductive health services and contraceptives in a society that values the number of children as wealth. It is proposed to engage local leaders and local champions (especially men) will be identified and trained to mobilize their communities.

To address disruptions noted in routine immunization (decrease of vaccination rates for BCG, Pentavalent and polio), the proposed project will also provide financing for the catch-up vaccination campaign that will be carried out during the first two years of the project. The MoPH is planning to carry out the catch-up campaign using its outreach strategy ("*stratégie avancée*") model, where vaccines are delivered in the community by mobile vaccination teams in collaboration with community health workers. This model is being used in Madagascar routinely to deliver childhood vaccines in hard-to-reach areas. Vaccines and consumables for routine vaccination are provided by Gavi. The project will

complement this support by financing the cost of the deployment of the vaccines (BCG, the pentavalent vaccine, polio). The project would provide support for nine planned waves of the catch-up campaign in 2022 carried out by the staff of about 1,400 health centers in complementarity of facilities already supported under the PARN. It is expected that the catch-up vaccination campaigns will cover a total of 1.6 million children between 12 and 59 months of age nationwide that have missed vaccination (zero doses or partially vaccinated) and will contribute to restore immunization rates to their normal level.

Sub-component 2.2. Strengthen Primary Health Care Financing by Increasing the Autonomy and Accountability of CSBs and Financial Protection for the Poorest (US$22.9 million equivalent, including US$ 12.9 million IDA and US$10 million GFF)

Interventions under this sub-component will contribute towards the implementation of primary health care financing reforms, with the objective to strengthen financing for local level with: (i) increasing autonomy and accountability of CSBs on the supply side; and (ii) providing financial protection for the poorest when accessing care on the demand side.

The project will support the implementation of the allocation to CSBs reform. Under this reform, funds for CSBs are routed via health sub-accounts at the *commune* level (local health collectivities)**.** This reform is being led by MoPH and closely coordinated with other ministries (e.g., MoF, Ministry of Interior and Decentralization) and international partners (e.g., UNICEF, USAID, European Union) operating at the *commune* and health district levels. A consequence of this reform is that the administration of funds (at the commune) is now geographically and institutionally much closer to where funds are utilized (at CSBs), and CSB staff can express their needs in concertation with communities to be financed under the health sub-account. This is expected to improve CSBs' access to goods, services and small infrastructure investments for the provision of quality health services. Activities to be financed by the project to support the reform initiated by the Human Capital DPO are: (i) contracting civil society organizations (CSOs) to strengthen their involvement in monitoring the use of funds and supporting communities to have their needs addressed in the local health budget; (ii) supporting the development of a digital platform to help monitor, track, and publish information on the use of these funds and hold officials accountable; and (iii) supporting institutional development and capacity building activities, including public financial management and procurement, for several stakeholders involved in the reform: *commune* officials*,* regional and district health officers and primary health providers.

In addition to supporting the implementation of the new funds flow, the project will contribute to increasing the funds available for service provision at the CSB level (CSB Subgrants), in pilot districts within the nine priority regions of the GFF IC. The project proposes to increase funds available via the commune channel to some pilot CSBs in order to demonstrate the potential impact of additional resources for service delivery improvement. Criteria for selection of *communes* and additional amount to be transferred would be furthered detailed in the Project Implementation Manual (PIM). US$3 million would be allocated to this pilot, and research would also be supported.

Complementarily, the project aims at improving financial health protection for the poorest. A UHC strategy was developed in 2015 in Madagascar but its implementation to date has been limited by a lack of established procedures and coordination for effective purchasing in the public health sector. Several mechanisms to protect certain vulnerable groups have been developed through various initiatives. These include community health insurance, vouchers, and other mechanisms. However, these efforts suffer mainly from fragmentation and low coverage. Interventions proposed under the project will contribute to the implementation of the Health Financing Strategy to be adopted in order to build a sustainable mechanism for health financing protection. In Madagascar's highly vulnerable context, where 28 percent of the poorest reported being adversely affected by drought, cyclones, and late rains in 2012, improving universal health coverage for the poorest is expected to improve adaptation to the impacts on climate change.

The project will thus support: (i) technical assistance to further develop and implement the proposed mechanisms (such as technical/legal consultants to the MoPH to finalize the framework and operational documents and draft law as well as other texts for the creation of institutions/structures to implement the strategy) and information and training on the mechanism during the first year of the project; (ii) support operationalization of the strategy by financing communication/information and training for stakeholders as well as necessary equipment and information system; and (iii) fund the mechanism to support free access to care for the poorest and/or most vulnerable (pregnant women/children) in some of the nine priority regions (Universal Health Subgrants, envelope estimated to be US$10 million). Operational details for the financial protection mechanism would be further developed with support from the technical assistance to be provided by the project during the first year of the project, and criteria for identifying beneficiaries as well as minimum benefit package would be specified in the PIM. It is expected to build on existing schemes (vouchers program supported by the PARN) and the registry of vulnerable people that is being developed under social protection.

Sub-component 2.3. Strengthen Human Resources Management (US$20 million equivalent IDA)

Interventions under this sub-component will support strengthening human resources management and quality of service delivery to support implementation of policy reforms towards professionalization of healthcare workers and improving workforce management and retention in targeted areas (GFF priority regions). The project will support implementation of policy reforms introduced under the Human Capital DPO, to (i) support professionalization of the health workforce and develop critical cadres to strengthen service delivery at CSB levels and (ii) improve workforce management, distribution, and retention of health workers to facilitate continuity of service provision. Having better qualified, distributed and motivated health workers would contribute to improved quality of service delivery.

Provision of quality healthcare is a key challenge partly because of the inadequate numbers of health workers and inequitable distribution of available workers. Furthermore, there is low productivity due to high absenteeism, tardiness, high workload, and lack of training; and these issues are exacerbated by late payment of salaries, lack of transparency in recruitment and allocation of staff, poor performance management, and inequitable distribution of workers. A small survey conducted by Transparency

International in 2021 found that health workers suspect favoritism and corruption in the recruitment process. The anecdotal evidence on absenteeism rates also suggests low job satisfaction but also weak systems of accountability for attendance and performance. In addition**,** management and capacity issues in the health administration, particularly on aspects related to human resources and financial management, impact negatively on civil service professional development and quality of service delivery.

The project will thus support the following three areas. First, it will support improvement in human resources management with the design and implementation of HRM policy reforms and gradual introduction and use of workforce planning tools (job descriptions; job and skills frameworks; employment dashboards; computerized HRM system) with narrow application to priority positions at CSB level including facility managers, nurses, midwives. In addition, support will also be provided for the establishment of a transparent and merit-based recruitment and mobility process. This will allow the MoPH to have the analytical tools and methods to better map and respond to real staffing and skills needs and gaps across the country. It will also facilitate matching between supply and demand and ensure that potential candidates have timely access and information on advertised/open positions in health facilities. Currently, the World Bank is supporting a census of all government personnel, including health sector staff. The census will be critical to identify personnel that are effectively in-service at the facility-level and will help identify and exclude ghost-workers, double-dippers, etc. This data will support policymakers to make recruitment policies more effective and targeted on real needs. Specifically, it will be critical that policymakers use the census to: (i) design a tailored recruitment process and preservice and in-service training according to real needs; and (ii) establish an annual strategic workforce planning exercise to inform the design of recruitment needs.

Second, to improve health personnel motivation and retention in priority rural and remote posts,[15] the project will support the roll-out of incentive 'packages' for persons assigned to and accepting posting in these areas. The packages will be based on different combinations of monetary and non-monetary job attributes and awarded on the basis of performance agreements. They will build on PBF activities currently implemented by the PARN project (P160848) as well as support improvement of working conditions (minor rehabilitations of CSB and basic equipment including purchases of solar panels to improve electricity availability). Interventions will include financing of the motivation package for priority health centers in rural and remote areas and implemented gradually throughout the project (to be detailed in the PIM). To support the efficient use of resources as well as reduced fraud and fund misuse, the project will support activities aimed at improving control, oversight and transparency.

The sub-component will support the financing of specific expenditures for the motivation and retention package for health workers in priority remote and rural areas (PBC 1). Project expenditures will include government-managed transfers of remote area allowances to health workers in priority areas and transfers of funds for primary health care facilities to the *commune* level in priority areas.

PBC 1: Share of CSBs in priority areas that have filled medical and paramedical posts in compliance with HR norms (US$7.5 million). The PBC will incentivize improved coordination and synergies among

[15] Priority areas will be defined based on geographical and accessibility data collected through the census exercise and will include areas within the nine priority region of GFF IC.

ministries involved in HRH reforms (Health, Finance, Education, Interior) to ensure equitable distribution of health professionals over the country. The indicator "Share of CSBs in priority areas that have filled medical and paramedical posts in compliance with HR norms" captures the impact of the incentive 'packages' to attract and retain health professionals in CSBs in priority areas. The funds will only be released on verification of the professional taking up a position in the priority areas for a specific period and effectively receiving the remote-based monetary allowances. The submitted results will be independently validated by an appointed independent agency (to support the Court of Account) acceptable to the World Bank. All results (including verification of effective payments on a sample of health workers) must be accepted and cleared by the World Bank before payments are made. The PIM will detail the cost and parameters of the incentives and benefit package and criteria for identifying priority areas (e.g., based on geographical location and accessibility). Each beneficiary will receive the incentives from the project for not more than three (3) years. Recipients must remain in their post to continue to receive the package. The Government may commit to continue the payment for similar incentives and benefits to the individuals after the fourth year of the project. The process and request for release of funds will be detailed in the PIM and will ensure transparency and traceability of funds.

Third, the project will also support improvement in quality of the Malagasy health workforce by investing in preservice training and continuous education. The proposed project will support the reform of preservice education through the implementation of a national unique exam for nurses and midwives for the obtention of their degree. Activities include the development of the legal framework and the organization of the national exam for the first two years while advocating for national resources for the future. Additional support will also be provided to the professional Boards for developing and implementing the legal framework for licensing/certification of health providers. To complement the operationalization of the national unique exam, preservice institutions will be strengthened with technical assistance for the revision and harmonization of training curricula in accordance with evidence-based practices and the upgrading to standards of the six public institutions for paramedics. Activities include (i) technical assistance to the MOH and the inter-ministerial commission for the development of professional frameworks ("*référentiels métiers*") and revision of the midwifery and nursing curricula to be consistent with the occupational frameworks and evidence-based practices; (ii) rehabilitations and equipment of the six public institutions (*Institut de Formation Interrégional des Paramédicaux* – IFIRP) for additional classrooms, IT laboratory and a skills/simulation laboratory; and (iii) support to both public and private preservice institutions with implementation of the new curricula and new standards in order to maintain their accreditation through training and supervision. The new curricula will include specific modules on climate shock preparedness and response measures.

In order to support health workforce certification based on continuous education, the project will support the development and implementation of a digital training platform for health personnel that incorporates innovative learning approaches. This platform will be managed in collaboration with the *Institut National de Santé Publique et Communautaire* (INSPC) and the Faculties of medicine. As such these institutions will receive support in terms of technical assistance and equipment, as well the regional training offices (*bureau regional de formation - BRF*) which have the mandate to coordinate trainings and continuing education for health providers at the regional level.

All activities in Component 2 will be informed by the results of an innovative survey to be rolled out in

2022 that will explore the quality of stewardship and management of the health sector at the central, district, and commune levels, the quality of governance of health facilities, and the experiences and perceptions of health personnel on workforce and financial management arrangements. The survey results will allow to identify and prioritize actionable transparency and accountability measures that may best address and counter weak processes and practices. The survey instrument builds on existing surveys carried out by the World Bank including the Bureaucracy Lab's extensive work on survey methodologies.

Component 3 Project Management and Monitoring (US$10 million equivalent IDA)

Project management will be financed under this third component. This component primarily finances operational costs and capacity building to ensure effective coordination, management, and implementation of the two components of the project. Specifically, it will support costs of coordination, contracting and management of project implementation consultants, monitoring and evaluation (M&E), independent verification, quality surveys, external audit and project management. Workshops and seminars to advance the work under the project will be eligible for financing. There will be comprehensive training and coaching for all implementing agencies. It will also finance environmental and social (E&S) activities, including waste management. Monitoring of the project's climate-related activities will also be included in this sub-component.

Component 4: Contingent Emergency Response (CERC; US$0)

This component will facilitate access to rapid financing by allowing for the reallocation of uncommitted project funds in the event of an eligible crisis or emergency, either by a formal declaration of a national emergency or upon a formal request from the Government. Following a natural or man-made disaster or crisis that has caused, or is likely to cause, an imminent major adverse economic and/or social impact, the Government may request that the World Bank reallocate project funds to support emergency response and reconstruction. This component would draw upon uncommitted resources from other project components to cover emergency response. A CERC Manual, which detail the simplified financial management, procurement, guarantees, and other implementation arrangements, and an Emergency Action Plan, acceptable to the World Bank, will be prepared and constitute a disbursement condition for this component.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

From the assessment of the project, five Environmental and Social Standards (ESSs) are considered to be relevant: namely, ESS1 Assessment and Management of Environmental and Social risk and impact, ESS2 Labor and Working Conditions, ESS3 Resource Efficiency and Pollution Prevention and Management, ESS4

Community Health and Safety and ESS10 Stakeholder Engagement and Information Disclosure. In line with the World Bank Environmental and Social Framework (ESF) guidelines the environmental and social risk rating for this project has been classified as substantial. Project activities are expected to have long-term impacts are likely to be positive, as the project aims to improve disease surveillance, monitoring and containment in the country as well as health systems preparedness for future outbreaks. Key environmental and social risks include: (i) Occupational Health and Safety (OHS) issues as workers in healthcare facilities and laboratories that may be exposed to infectious disease contagion (the future infection spread risk is significantly associated with the management of medical waste generated in laboratories and other facilities alike; if not adequately handled and treated, medical waste can turn into a vector in spread of COVID-19 or new infections); (ii) community health and safety related risks (all project activities, ranging from operation of laboratories to community engagement interactions, present a risk of transmission in the community; the operation of laboratories and health centers have a high potential of infecting the wider population if not systematically managed and well controlled); (iii) potential risks around exclusion of vulnerable groups to access project supported services and facilities (real or perceived inequities also have the potential to lead to conflicts and citizen unrest); (iv) misunderstanding and social tensions resulting from the promotion of reproductive health services; and (v) Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks.

To assess and manage these risks and impacts consistent with the ESF, the project is preparing an Environmental and Social Management Framework (ESMF) that outlines the procedure for screening, classifying, assessing, monitoring and reporting each project activity, commensurate to the risk. The ESMF describes all the practices for handling, storing, treating, and disposing of hazardous and non-hazardous waste, as well as types of worker training required including training of staff to be aware of all hazards they might encounter. The ESMF also evaluates and addresses any risks associated with cold chain in managing hazardous/medical materials or agents as needed. A SEA/SH prevention and action plan is provided in the ESMF which includes a final assessment of related risks, mitigation measures, mapping of available resources and description of SEA/SH grievance mechanism (GM). All project activities shall be subjected to environmental and social screening and where necessary, specific instruments shall be prepared before commencement of applicable project activities. Specific mitigation measures will be outlined in the site-specific Environmental and Social Management Plans (ESMPs) and implemented, when necessary. This will provide for the application of best practices in COVID-19 diagnostic testing and handling the medical supplies and disposing of the generated waste. Safe work protocols shall be developed and implemented for hazardous tasks. Health screening and COVID-19 prevention measures for workers should be incorporated into the OHS procedures outlined in the ESMPs. Emergency response and handling procedures shall be developed to handle any accidents onsite. The management of medical and biomedical waste is addressed in the existing national medical waste management plan (NMWMP). The NMWMP that has been prepared and disclosed for the PARN Project (P160848) in April 2020 was updated in 2021 to include particular measures related to COVID-19 vaccines such as risks related to the transport, storage, handling and disposal of vaccines. The ESMF needs to reflect and address the cumulative impacts due to waste generation from several locations that could lead to additional stress on existing waste management facilities. To manage equitable access issues, the ESMF will identify targeted groups for the Universal Health Coverage as per the Universal Health Coverage Strategy developed in 2015, the main barriers they might face and mitigation measures. Measures are also being taken to support citizen engagement, including the existing Grievance Mechanism (GM). Community sensitization and capacity building activities will be carried out in order to engage the project's key stakeholders in E&S risks management and to ensure project ownership. A Stakeholder

Engagement Plan (SEP), including the project's GM, has been developed during early preparation of the project that will promote participation of vulnerable groups and consider sensitivities of GBV/SEA issues. TORs for all TA are required to address pertinent E&S aspects to ensure that TA products are consistent with the ESF including in their approach to downstream impacts (e.g., lab regulations, insurance eligibility criteria, etc.).

The Borrower has developed by appraisal: (i) a draft Environmental and Social Commitment Plan (ESCP); (ii) a draft Stakeholder Engagement Plan (SEP), including GM; and (iii) a draft Labor Management Procedures (LMP). The ESMF will be disclosed as an effectiveness condition. The E&S team of the World Bank-financed health projects PCU will be in charge of E&S management of the project. The team will be supported by the Health and Environment Department of MoPH for the implementation of medical waste plan, by the Directorate of Health Promotion to promote GM, by the Department for the Protection of Vulnerable Persons regarding GBV activities and the MPH shall appoint E&S regional focal points among its staff for operational support. Moreover, contracts to clarify the roles of the various agencies involved (WHO, UNICEF, etc.) should be considered. Agencies involved to support project activities will follow the project's ESMF and comply with all relevant ESSs.

E. Implementation

Institutional and Implementation Arrangements

The MoPH will be the primary implementing agency for this project. The existing Project Coordination Unit (PCU; *Unité de Coordination de Projets*) in the MoPH will be tasked with the day-to-day implementation of the Project. The PCU already supports the management of the PARN and its CERC, used for COVID-19 response in the health sector, the COVID-19 Vaccination Project as well as financing from other partners (Gavi and Global Fund). The PCU will be expanded to cover fiduciary and E&S management for the project, and coordination with key MoPH departments and other Ministries involved in project implementation. The PCU capacity will be enhanced through: (i) a dedicated focal point for the proposed project (to be recruited within PCU); (ii) additional fiduciary staff including: a procurement officer, a financial management specialist and an accountant; (iii) an M&E specialist; and (iv) other technical specialists as required at central and also regional or district levels (including potentially for public health and animal health, E&S at decentralized level, planning, logistics and communications, the regulatory authority). Focal points for environmental and social safeguards would also be designated within Regional Health Directorates to support monitoring safeguards aspects of the project. The PCU will prepare the work plan and annual budget (WPAB) which will be cleared by the Steering Committee of the project.

Multisectoral steering committee. A multisectoral steering committee will provide oversight for the project implementation and include representatives of the Ministries which are part of the One Health approach in Madagascar, and stakeholders relevant to the project and entrusted inter alia with strategic and policy guidance and approval of WPAB.

Technical implementation of the activities of the project. Project implementation will be under the responsibility of the MoPH. Other Ministries will be involved to implement specific activities under Component 1 (Ministry of Environment and Ministry of Livestock) and involvement of MoF, Ministry of

Higher Education, Ministry of Interior and Decentralization, Ministry of Civil Service will be key for successful implementation of Component 2. Implementation arrangements by sub-components is detailed in Annex 1.

To ensure cross sectoral collaboration for project implementation, focal points from each Ministry will be designated (same as the ones for the elaboration of the national health security plan), and they will participate in regular meetings with the PCU. Collaborative coaching will also be supported by the project (component 3). Also, an analysis of the institutional capacity of the ministries involved will be conducted and adequate support will be provided to address identified gaps.

At regional and district levels, decentralized entities from sectoral Ministries will play their role in implementing and monitoring project activities, according to their attributions. Regional and District Health Officers are in charge of implementing the national health policies in their geographical areas and supervise activities of PHC facilities.

At the local level, PHC workers and community health and nutrition workers will also play a key role to implement some of the project activities (such as communication towards communities for basic health services, such as vaccine and family planning and providing these health services to the population). They will also benefit from interventions financed under Component 3. Communes would also be part of the project as health sub-accounts are under the communes' budget. Finally, Civil Society Organizations would be contracted under Sub-component 3.1 to support implementation for the CSBs financing reform, providing technical assistance to communes and primary health care facilities, and ensuring transparency and accountability in the management of these funds.

To support implementation of the project, partnerships will be strengthened with UN agencies and other regional institutions (such as Africa CDC). Contracts are expected with WHO (to support capacities strengthening under component 1 and conducting JEE).

The project will be implemented in accordance with the PIM. The PIM will include a detailed description of (i) institutional coordination and day-to-day execution of the Project, including key milestones in Project implementation; (ii) monitoring, evaluation, reporting and communication; (iii) administration, financial management, procurement and accounting, including the Anti-Corruption Guidelines; (iv) eligibility criteria, modalities, terms and conditions, and procedures for preparation, targeting, approval, payment, verification, monitoring, evaluation, reporting and auditing of Subgrants; (v) modalities, procedures, amounts and verification mechanisms for payment of Incentive Packages and Performance-Based Conditions; (vi) environmental and social aspects; (vii) Personal Data collection, in accordance with applicable national law and best international practices; and (viii) such other administrative, technical and organizational arrangements.

CONTACT POINT

World Bank

Maud Juquois
Sr Economist (Health)

Ibrahim El ghandour
Public Sector Specialist

Borrower/Client/Recipient

Republic of Madagascar

Implementing Agencies

Ministry of Public Health
Lethicia Lydia YASMINE
Dr
yleth20@yahoo.fr

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s):	Maud Juquois Ibrahim El ghandour

Approved By

Practice Manager/Manager:		
Country Director:	Zviripayi Idah Pswarayi Riddihough	16-Feb-2022