Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 02-Jun-2021 | Report No: PIDA31975

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Madagascar	P176841	Support to COVID-19 vaccine purchase and health system strengthening	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
AFRICA EAST	08-Jun-2021	22-Jun-2021	Health, Nutrition & Population
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	Government of Madagascar	Ministry of Public Health	

Proposed Development Objective(s)

This Project's Development Objective is to support the Government of Madagascar to acquire and deploy COVID-19 vaccines, and to strengthen its immunization services.

Components

1-Acquisition of vaccines and medical supplies
2-Strengthening health systems for the effective deployment of vaccines
3-CERC

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

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

DETAILS

World Bank Group Financing

International Development Association (IDA)	100.00

IDA Credit	100.00

Environmental and Social Risk Classification

Substantial

Decision

Other Decision (as needed)

B. Introduction and Context

Country Context

1. The 2020 Human Capital Index (HCI) estimates that a child born today in Madagascar will be only 39 percent as productive as an adult than if he or she enjoyed complete education and full health. Worse, Madagascar's trendline for the HCI has remained unchanged over the last decade. Among alarming indicators is the 42 percent stunting rate, the 4th highest worldwide. Education outcomes are also weak: children who enter school at age 4 can expect to get 8.4 years of schooling, but when adjusted for learning, they can only expect to get 4.7 years. 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.

2. The economic performance of Madagascar prior to the COVID-19 pandemic had been robust, and structural reforms were ongoing. Following a prolonged period of political instability and economic stagnation over the period 2009-13, growth accelerated to reach an estimated 4.8 percent in 2019, its fastest pace in over a decade. The return to constitutional order in 2013 was instrumental to this economic revival, as it contributed to restoring investor confidence, reopening access to key export markets, reinstating flows of concessional financing, and encouraging structural reforms. The government's reform agenda was supported by World Bank development policy and investment operations in support of human development, governance, and a conducive climate for private-sector-led growth, which contributed to the successful turnaround. All closed projects and Development Policy Financings (DPF) implemented during the CPF spanning from FY17 to FY21 were rated as moderately satisfactory or higher. Despite a steady decline in previous years, the percentage of the population living below the international poverty line of US$1.90 (2011 purchasing power parity) per day was still estimated at 74.5 percent in 2019, significantly higher than the regional average of 41 percent.

3. Extreme poverty increased significantly in 2020, with vulnerable populations in urban areas particularly affected. Job losses in key manufacturing and service sectors, as well as the sudden loss of income for informal workers affected by lockdowns in major cities contributed to pushing a large number of people into extreme poverty. Against this background, the poverty rate (at US$1.9/day) is estimated to rise to 79.7 percent in 2020, up from 76.5 percent in 2019. Urban populations were more immediately affected by the COVID shock, but rural households were impacted as well by contracting demand, particularly for off-farm activities. The COVID-19

crisis also coincided with severe droughts in the Southern part of Madagascar, hampering livelihoods of at least 1.5 million people so far.

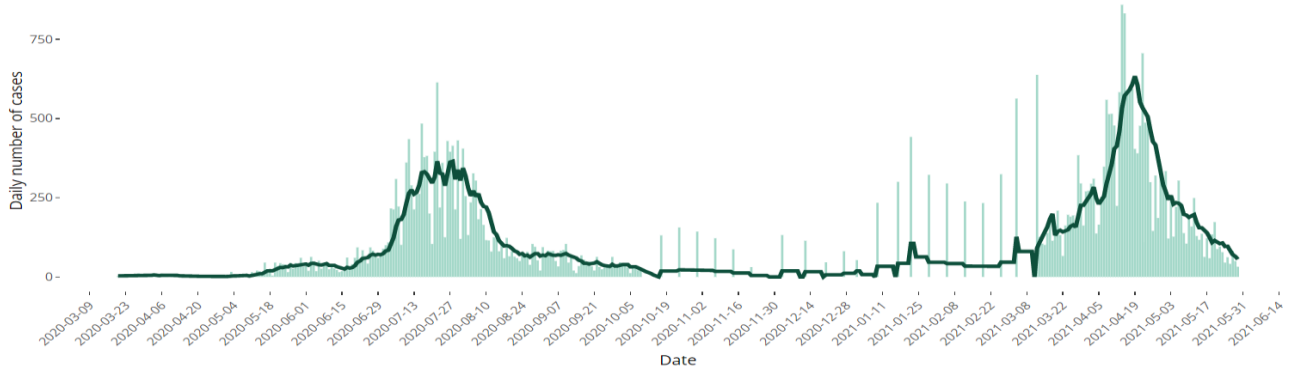
4. The economic downturn due to the COVID-19 crisis, compounded by recurring natural disasters and chronic poverty, continues to threaten Madagascar's economic development and long-term stability. The impacts of the crisis could reverse past progress in poverty reduction and deepen fragility. Prior to the current crisis, Madagascar was one of the poorest countries in the world and lagged on human capital indicators[1], including high rates of malnutrition, stunting, and children out of school. The coronavirus outbreak has intensified these challenges while pushing urban populations and notably women and youth, into positions of greater vulnerability due to strict confinement measures. Declining income per capita and rising inequality could sharpen the risk of social unrest, while the fiscal shock would also be heightened. Impacts of the current crisis on both poverty and stability could be compounded by further shocks, particularly from natural disasters.

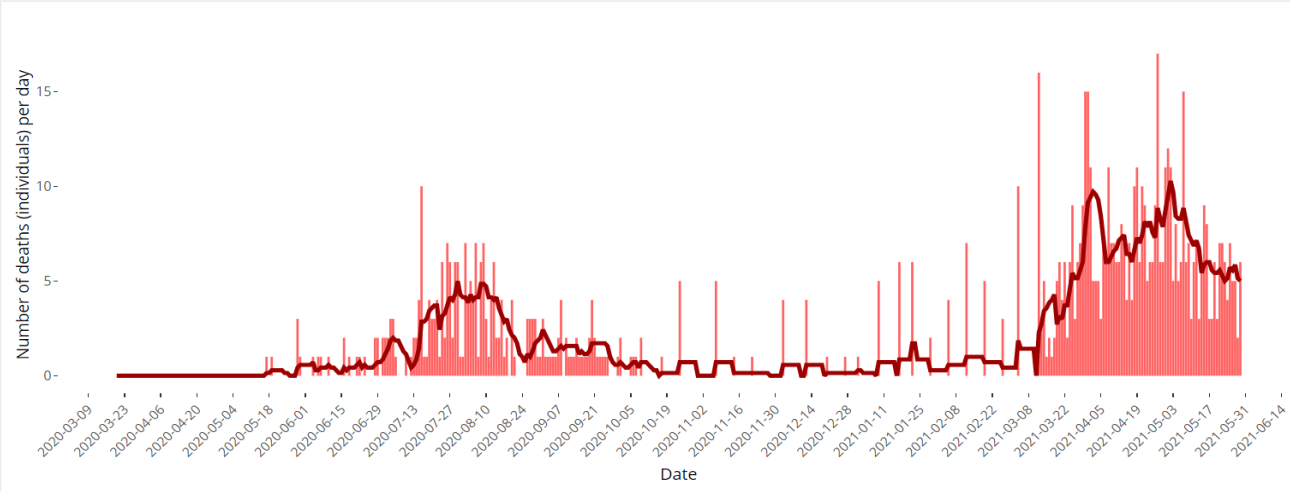
Sectoral and Institutional Context

5. Madagascar declared the state of health emergency due to the global COVID-19 pandemic (decree 2020-359 of March 21, 2020) and this was lifted on October 18th, 2020. As of May 29, 2021, Madagascar reported 41,221 cases and 835 official deaths since the start of the outbreak. The first cases (three imported) were confirmed on March 20, 2020 and a first peak was reached in July (number of cases multiplied by four in a month), mainly in the capital city Antananarivo, and all 22 regions of the country have been affected. The epidemiological situation has worsened with the second wave with the South-African variant (that hit Madagascar in March-April 2021). While during the first peak, the highest number of new cases per day was 360 (average during peak in July/August 2020), for this second wave it is over 600 new daily cases (and peak on April 14, 2021 with 854 new daily cases) and increased lethality rate (now estimated at 2.03 percent while it was 1.4 percent during 2020).

[1] As of October 2020, Madagascar had a Human Capital Index of 0.39, reflecting that a child born in Madagascar today will be 39 percent as productive when she grows up as she could be if she enjoyed complete education and full health.

Figure 1: Evolution of COVID-19 outbreak in Madagascar (number of new cases and deaths, per week) March 2020-May 2021 (as of May 29, 2021)





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

6. Over the past decade, maternal, neonatal and infant mortality rates have improved but remain persistently high in Madagascar. Between 2008 (DHS 2008-2009) and 2018 (MICS 2018), the maternal mortality rate fell from 498 to 426 deaths per 100,000 live births, a reduction of just over 14 percent. The neonatal mortality fell from 26 to 19 per 1,000 live births (27 percent) and the infant mortality rate also decreased from 48 to 40 per 1,000 live births (17 percent), during this period. Only 39 percent of deliveries occur within a health facility. The percentage of deliveries assisted by skilled medical professionals has not improved dramatically over the last 10 years, going from 43.9 percent in 2008, to 44.3 percent in 2012, and 46 percent in 2018. 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—mainly—preferences for traditional births.

7. The COVID-19 outbreak has had an adverse impact on health services' delivery and utilization, particularly Reproductive, Maternal, Child Health and Nutrition (RMCHN). Immediately following the first wave of the COVID-19 pandemic from March to October 2020 in Madagascar, a follow-up analysis of essential health services during the COVID-19 pandemic was conducted by a World Bank Development Economics (DEC)/ Global Financing Facility for Women, Children and Adolescents (GFF) team. Significant and persistent disruptions were observed for outpatient consultations, given previous trends and seasonality. Indeed, data showed significant decreases in outpatient consultations reaching 22 percent in August 2020, 15 percent in September 2020, and 8 percent in October 2020. Compared to expected levels, disruptions were particularly intense in April, May, and October 2020 for most indicators measuring essential health services. Slight changes were noted for family planning (2 percent) and antenatal care services (1 percent).

8. Almost 30 percent of all deaths in Madagascar are still attributable to preventable infectious and parasitic diseases, yet coverage rates for immunization are dropping. As a result, immunization coverage rates are on the decline, and outbreaks 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. At the same time, only 48 percent of priority drugs and 51.9 percent of vaccines were available in Malagasy facilities (SDI 2016), as financing for immunization is a binding constraint on coverage.

9. COVID-19 had a significant impact on child immunization indicators. They declined by 18-20 percent in April 2020, and 7-12 percent in October 2020. According to new findings released by the GFF (2020)[2], mathematical models indicate that large service disruptions in Madagascar have the potential to leave 424,000 children without oral antibiotics for pneumonia, 796,000 children without Diphtheria-Tetanus-Pertussis (DPT) vaccinations, 81,600 women without access to facility-based deliveries, and 645,100 fewer women receiving family planning services. As a result of disruptions in all essential services, child mortality in Madagascar could increase by 18 percent and maternal mortality by 12 percent over the next year.

10. The government has created legal and policy frameworks to advance gender equality however much remains to be done due to deeply rooted cultural norms and beliefs impacting health, education and livelihoods for women and girls. While women's socially ascribed roles consist of caring for the home, family members, health and education, they do not have authority over household spending and need their husband's approval. This also impacts women's ability to make decisions about reproductive health and family planning. Similarly, the same norms may restrict women's access to vaccines as they need to seek husband's approval to access health services. In addition, gender norms that tolerate violence against women and girls contribute to high prevalence rates of gender-based violence (GBV) in the country. The prevalence of child, early, and forced marriage is high with 48 percent of women between 20 and 24 married by the age of 18 and 12.7 percent married before age of 15 (MICS 2018). Forty-one percent of ever-married women have experienced emotional, sexual, or physical violence by their partners or husbands during their lifetime. Women and girls are at increased risk of violence during the COVID-19 period. Income loss and limited mobility, compounded with existing gender role expectations, may contribute to increases in intimate partner violence and other forms of GBV. A COVID impact evaluation conducted by the United Nations Population Fund (UNFPA) showed an increase in domestic violence during the first wave in 2020, and the number of reported cases through the number 813 green line (domestic violence hotline) has increased by 5-fold by June 2020.

Madagascar's Response to COVID-19 and World Bank Support

[2] https://www.globalfinancingfacility.org/country-briefs-preserve-essential-health-services-during-covid-19-pandemic

11. The Government of Madagascar declared a State of Emergency on March 21, 2020 closing schools, suspending events, limiting inter-regional traffic, closing borders, and limiting activity of private companies and public institutions. A multitask Operations Command Center led by the Ministry of Interior and Decentralization was also set up to coordinate the Government response. Measures to enhance resilience to shocks were and are being implemented through the preparation of a health security plan to respond effectively to future epidemics and progress toward the operationalization of the National Disaster Fund.

12. A costed emergency contingency plan for COVID-19 was prepared in February 2020 by the Government of Madagascar with support from development partners. The World Bank responded swiftly to provide financial support in order to ensure a strong response to COVID-19 through the contingency emergency response component (CERC) of the Improving Nutrition Outcomes Project Using the Multiphase Programmatic Approach P160848 triggered on April 3, 2020 for US$20 million, P173950). The World Bank support and involvement was a catalyst to accelerate the country preparedness and response.

13. Due to the increasing needs and financial gaps in the accelerating pandemic, the Government has developed a Multisectoral Social Emergency Plan, validated by the Council of Ministers on July 1, 2020. The World Bank has allocated US$169 million to support the Government's health, social, education, water and sanitation plans, and leveraged an additional US$123 million to finance the Multisectoral Emergency Plan through other CERCs and further mitigate the pandemic's impacts on health, social protection and the private sector[3]. The additional financial support for health response was provided by the Madagascar World Bank portfolio CERC which was triggered on September 3, 2020 and added US$40 million in financing to the health sector. Main strategies as part of the health response include: (i) coordination; (ii) strengthening disease surveillance system, including at 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, oxygen therapy and Personal Protective Equipment (PPE)) 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, Global Fund) and bilateral partners.

14. This financial support was crucial for preparedness and response during the second wave: support for testing (eight GenExpert machines being procured and for more than US$10 million of tests and laboratory reagents; contract with Pasteur Institute for testing and genomics analysis); drugs and key consumables to manage mild or severe cases (total amount US$6.8 million); strong support to oxygen therapy (technical assistance with UNICEF and maintenance of oxygen generators in main hospitals to ensure delivery of oxygen); PPE for health workers (more than 400,000 washable masks for community health workers; 395,000 filtering facepiece 2 (FFP2) masks and 165,000 surgical masks, and additional protective items such as gloves, protective suits, etc.) and key equipment (85 ambulances, 6 digital X-ray, 562 tablets).

[3] The Madagascar World Bank portfolio CERC was triggered on September 3rd, 2020 and an additional US$123 million was leveraged to finance the urgent gaps in the Multisectoral Emergency Plan and prevent a further deterioration of the crisis. The proposed $123 million helped fill part of the financing gap of the 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 P154698 - Sustainable Landscape Management Project was triggered to finance the US$40 million of the additional health sector response.

15. The COVID-19 crisis overwhelmed and already overstretched health system. The COVID-19 crisis highlighted the need to urgently strengthen the national health system**.** Support under the proposed project will help to ensure adequate capacities to deliver the COVID-19 vaccination campaign. Pursuing investments to build a stronger and more resilient health system is essential to continuously assessing and respond to the ongoing health crisis. Key support from the World Bank will be provided with a pipeline Project (Pandemic Preparedness and Support to Basic Health Services- US$ 150 million- P174903- to be approved Q2 FY22) complementing the proposed vaccination project.

16. Madagascar announced it would vaccinate its population against COVID-19 (announced officially by the President of Madagascar on March 26, 2021) and joined the COVAX Facility in early April 2021.

17. Madagascar started its vaccination campaign on May 10th, 2021 with 250,000 doses received from COVAX on May 8th, 2021 (doses from Democratic Republic of Congo with an expiry date of end June 2021). As of May 31st, 36,641 people have received a first dose. Approximately 25 percent of people vaccinated were health workers (8,611). The other people vaccinated are persons with comorbidities and the elderly (aged 60 or more). Women represent 47 percent of the people vaccinated to date. Vaccination is currently available in 22 regions (and in 80 percent of health districts) and all districts are expected to be covered with functional sites by June 15th.

18. This late decision to access COVAX put the country behind in the queue for large scale vaccines access. Support to build the capacity for vaccine deployment is urgent as the epidemiological situation has worsened with the second wave triggered by importation of the B. 1.351 variant. While during the first peak in July/August 2020, the highest number of new cases per day was 360, for the second wave (peak in April 2021) it was over 600 new daily cases. Capacities of the health system were overwhelmed (lack of capacity to care for severe cases with oxygen and insufficient health workers, disruption of other essential health services). Entering the winter season, a third wave is likely to occur around July-August.

19. Building community trust and vaccine confidence are crucial to vaccine acceptance and the COVID-19 response. Madagascar has seen a large and recent increase in vaccine hesitancy. In a March 2021 survey conducted by UNICEF in collaboration with the Ministry of Health (MoH), 30 percent of respondents expressed hesitancy around accepting a COVID-19 vaccine. The most common reasons for not wanting the vaccine are the beliefs that COVID-19 does not exist and/or that it poses no threat. More recent reports from the ongoing vaccination campaign indicate the hesitancy has further increased since the launch of vaccinations in Madagascar. Social media abounds with rumors that the initially imported 250,000 doses are either expired or otherwise ineffective and/or dangerous. Publicly displayed reluctance among prominent political figures to receive the vaccine compounds the recent rise in hesitancy.

20. As of May 31, 2020, three weeks after the start of the vaccination campaign, some key lessons are already emerging which requires some adjustments in the strategy, especially on:

i. ***Targeting:*** to ensure utilization of the available doses by the end of June 2021, while demand is still low, expand targeted groups for this first campaign and increase outreach strategies with support from community health workers to vaccinate vulnerable people (elderly and in remote areas);

ii. ***Communication***: enhance communication about safety and efficacy of vaccines to limit fake news and mistrust, with support at several levels: community health workers, religious leaders and medicine professors.

National Capacity and COVID-19 Vaccination Plan

(i) Vaccine Readiness Assessment

21. The MoH developed the National Vaccination Deployment Plan (NVDP) without finalizing its Vaccine Readiness Assessment, to benefit from available vaccines without delay. The Vaccine Introduction Readiness Assessment Tool/Vaccine Readiness Assessment Framework (VIRAT/VRAF) was finalized on May 31st, 2021. The assessment has shown that Madagascar has put in place all most of the elements required for COVID-19 vaccine rollout. Nonetheless, key gaps remain and will need to be addressed, including through the proposed project. The gaps include strengthening national coordination, and surveillance systems, identification of target population groups, and strategic communication to address growing vaccine hesitancy. The VIRAT/VRAF assessment will be regularly updated as more information becomes available. The NVDP further details country needs and these gaps have also been identified in the second wave response Plan developed by the Government of Madagascar (GoM), summarized in Table 2 below. The project is designed to address those identified gaps.

Table 2: Summary of Vaccination Readiness Findings from the VIRAT/VRAF 2.0 Assessment[4]

Readiness domain	Readiness of government	Key gaps to address before deployment
Planning and coordination	The National Coordination Committee as well as a National Technical Working Group (NTWG) to lead the operational aspects of vaccine introduction have been established. However, they are not fully functional. The program objectives have been defined and agreed by all key stakeholders. A COVID-19 vaccine procurement channel has been identified. The GoM joined the COVAX facility on April, 2021 for procurement of COVID-19 vaccines. Additional vaccine doses will be procured through African Vaccine Acquisition Task Team (AVATT) of Africa Union (AU) and other channels. The first phase of the vaccination campaign started on May 10, 2021. A NDVP has been developed by the Madagascar MOH with technical support from partners based on WHO guidelines.	Gaps include ensuring full functionality of the coordination committees and Technical Working Groups.
Budgeting	The budget for the COVID-19 vaccine program was developed, discussed with all stakeholders, and approved by the Minister of Health. Budgeted micro-plans were developed and finalized which was key for the initiation of the vaccination program.	Gaps include (i) Developing budget tracking capacity in order to be able to monitor COVID-19 program specific budget execution, (ii) overall capacity for budgeting and executing national immunization services.
Regulatory	All necessary regulatory frameworks are in place. This includes: - Emergency authorization procedures for new vaccines at country level on the basis of the WHO EUL - Regulatory procedures for the import of vaccines including special customs exonerations procedures and inspection procedures for fast processing - Regulatory procedures for the import of supplies related to COVID-19 vaccines	No gaps identified in assessment.
Prioritization, targeting, surveillance	Identification of target groups completed. Prioritization was informed by (i) the Strategic Advisory Group of Experts (SAGE) recommendations in terms of prioritization of vulnerable populations; (ii) recommendations from the Scientific Committee supporting the Government in the COVID-19 response, and (iii) local epidemiological data. Vaccination will follow a 3-phase approach. Data on vaccine progress and adherence to priority groups is reviewed on a daily basis and shared with all relevant coordination committees.	Gaps include (i) Strengthening the capacity to identify and target the prioritized population groups, overall. In particular, strengthening the ability to identify individuals' comorbidities and other priority-relevant personal information; (ii)

[4] A multi-partner effort led by WHO and UNICEF developed the Vaccine Introduction Readiness Assessment Tool (VIRAT) to support countries in developing a roadmap to prepare for vaccine introduction and identify gaps to inform areas for potential support. Building upon the VIRAT, the World Bank developed the Vaccine Readiness Assessment Framework (VRAF) to help countries obtain granular information on gaps and associated costs and program financial resources for deployment of vaccines. To minimize burden and duplication, in November 2020, the VIRAT and VRAF tools were consolidated into one comprehensive framework, called VIRAT-VRAF 2.0

		Strengthening information collection for further epidemiological planning and preparedness.
Service delivery	Protocols for infection prevention and control measures have been updated. Protocols for the consent to vaccinations are currently being drafted. Currently, consent is only sought and given verbally. The COVID-19 vaccine distribution plan is available. Fixed sites and outreach sites are being readied for the mass vaccination efforts.	Gaps include (i) Support for establishing consent protocols; (ii) Support for the implementation of updated safety and infection prevention protocols, (iii) Identify and support deployment of outreach vaccination sites.
Training and supervision	A training plan is available and training modules have been developed, using inputs from WHO. Initial training of trainers, supervisors and vaccinators took place for the first vaccination phase. Additional vaccinators are being hired. These will be health professionals from the public sector, the private sector, as well as sufficiently qualified medical school students.	Gaps include (i) Re-quantify personnel and training needs as the vaccination scales up; (ii) Support for covering additional training needs.
Monitoring and evaluation	GoM's health information system is being extended to accommodate individual-level tracking of vaccinated persons. This will allow monitoring the progress of and coverage among the prioritized population groups, as well as individual follow-up. Currently, information about vaccinated individuals is collected at the level of the vaccination sites on paper-based tally sheets that are digitalized at the district level on a weekly basis and then sent to the regional level for further aggregation. A phone hotline with limited bandwidth is in place and is operational for feedback and grievances in relation to the ongoing vaccine effort. Measures for data protection, and appropriate data governance regulation are being put in place to monitor legitimate, appropriate and proportionate collection, use and processing of data by health information systems.	Gaps include (i) Strengthening security and data protection; (ii) Establishing a robust mechanism for feedback and grievances in relation to the vaccine program; (iii) Establishing an individual-level digital vaccine registry
Vaccine, cold chain, logistics, infrastructure	Terms of reference and standard operating procedures to coordinate COVID-19 vaccines and deployment of ancillary products are in place. A distribution strategy and plan for vaccines and ancillary products is available. Dry storage and cold chain capacity and infrastructure were assessed at all levels with associated costing for the cold chain equipment needs with the WHO sizing tool. The analysis revealed needs for vaccines requiring normal refrigeration (+2 - +8 C) for an initial 17% coverage of the population. The current capacity is sufficient for the first phase doses (3% priority targets). Additional equipment should become available in August 2021 via the CCEOP2 (Cold Chain Equipment Optimization Platform). For the third phase of the immunization campaign an increase in cold chain capacity will be necessary. Stock management and monitoring tools were developed with support from WHO. The system management tool is used for stock monitoring at regional and central level. At vaccination sites stock monitoring is currently paper-based.	Gaps include (i) lack of additional capacity in the national logistics working group for coordinating COVID-19 vaccine and ancillary products deployment and, (ii) strengthening of logistics, cold chain capacity and transportation capacity for vaccines and ancillary products, (iii) assessing energy needs and coverage (primary and back-up power, especially in cold chain), IT/communications (including internet connectivity) and water, (iv) strengthening and expanding stock management and distribution of vaccines and key supplies through the Government's existing Vaccine Logistics Management and Information System (VLMIS), (v) various aspects of waste management

	A revised national medical waste management plan is available as well as other documentations to ensure the security of health workers, patients, users and the community by reducing health and environmental risks Standard operating procedures (SOPs) and guidelines for the collection and disposal of medical waste to the relevant stakeholders are in place.	including support for the supervision and procurement of materials.
Safety surveillance	Guidelines, documented procedures and tools for planning and conducting vaccine pharmacovigilance activities (i.e. AEFI reporting, investigation, causality assessment, risk communication and response) are available. A limited number of trained staff to perform surveillance are operational. A technical committee for pharmacovigilance has been set up in accordance with the regulation texts and meets regularly to assess recent AEFI.	Gaps include: overall capacity of the surveillance system, including (i) additional trained human resources, (ii) data collection, management and analysis capacity
Demand generation and communication	A national communication and social mobilization strategy for the introduction of the Covid-19 vaccine has been developed. It pays special attention to the inclusion of women and vulnerable communities in order to reduce cultural and social barriers to the COVID-19 vaccination, as well as to inform about the benefits and risks of the vaccines. Given recent reports about rising hesitancy since the launch of COVID-19 vaccinations in Madagascar, a rapid crisis response communications plan has been developed, with adapted messages and materials for communication and advocacy. It remains consistent with the above strategy.	Gaps include: (i) further strengthening of communications and citizen engagement initiatives through data on beliefs, attitudes, rumors and narratives concerning the COVID-19 vaccines, (ii) addressing ongoing misinformation and disinformation campaigns, (iii) mobilizing public figures such as local and religious leaders for communication efforts, (iv) capacity building/training for external affairs/public relations officers. .

(ii) National Vaccination and Deployment Plan (NVDP)

22. The Government of Madagascar approved an NVDP on April 30, 2021, as a basis for the receipt of the first COVAX shipment (first batch arrived on May 8, 2021).

23. The NVDP aims to provide guidance to the various stakeholders in the process of introducing the vaccine(s). It was developed by members of the NTWG under the lead of the Director General of Preventive Medicine, responsible for the technical coordination of the introduction of the vaccine(s) in the country. The National Coordinating Committee, under the leadership of the Ministry of Health, provides strategic guidance for the introduction of the vaccine. The National Academy of Medicine of Madagascar, which serves as the Technical Advisory Group on Immunization, has guided the government in making decisions about the introduction of the vaccine(s) and also provided scientific guidance to the NTWG throughout the process of developing the NVDP. In particular, the plan highlights distribution platforms, including storage and conservation, demand promotion to reach eligible populations by June 2023 with free and voluntary vaccines, monitoring and evaluation (M&E) mechanisms to capture complete, timely, and accurate COVID-19 data for evidence-based decision making, and tools and mechanisms for implementation management and pharmacovigilance, specifically vaccine safety monitoring, Adverse Events Following Immunization (AEFI) management and injection safety.

24. The plan is divided into three phases to cover 50.5 percent of the population, targeting health workers as well as those work in the public and private sectors, elderly populations aged 70 and over, people with chronic conditions (diabetes and high blood pressure), and social workers and officials who are in direct contact with the population. These groups were determined through a national prioritization exercise, oriented by the WHO SAGE Framework, and based on criteria of vulnerability to COVID-19 morbidity and mortality, and the need to ensure continuity of essential services. The plan seeks to vaccinate 14,209,024 people by the end of June 2023 through fixed (public and private health facilities), advanced and mobile (fokontany, retirement homes, etc.) vaccination sites.

Table 3: Priority groups for vaccination Madagascar

	Population group	Number of people	% of population
Phase 1	**3% of population**		
1	Health workers (including public, private, and non-profit, and community health workers (APEs)	18,947	0.07%
2	Patients with co-morbidity	339,646	1.21%
3	Population over 70 years old	441,436	1.57%
4	Defense and security forces	23,250	0.08%
5	Social workers	20,821	0.07%
	Total phase 1	844,100	3%

	Population group	Number of people	% of population
Phase 2	**14% of population**		
1	Health workers (including public, private, and non-profit, and community health workers (APEs)	8,120	0.03%
2	Patients with co-morbidity	2,867,524	10.19%
3	Population over 60-69 years old	852,851	3.03%
4	Defense and security forces	23,250	0.08%
5	Social workers	187,390	0.67%
	Total phase 2	3,939,135	14%
Phase 3	**33.5% of population**		
1	Population over 18 years old not reached during previous phases	9,425,788	33.5%
	Total	**14,209,024**	**50.5%**

25. The total cost of the NVDP is estimated at US$263.8 million, 80.43 percent of which is for the purchase of vaccines doses and consumables, 0.26 percent for cold chain strengthening, 19.31 percent for operational costs. For the first phase corresponding to the vaccination of three percent of the population representing the high-risk priority groups, assuming a two-dose vaccine, the estimated cost is US$ 2.08 million for the 844,100 individuals. For Phase 2 the vaccination of 14 percent of the population and representing the other high-risk groups (3,939,135 individuals), the cost is estimated at US$9.7 million. The cost of vaccines and consumables for these two phases, 17 percent of the total population will be funded by COVAX. An additional three percent of population (totaling 20 percent) would also be covered by COVAX.

26. The World Bank's support will finance the following:

a) deployment costs for Phase 1 and 2: COVAX will provide the vaccines free for these two phases, but not cover in country deployment costs (through its bridge funding, GAVI is financing the deployment of the initial 250,000 doses received);

b) vaccines and deployment costs for 20 percent of the population under Phase 3; the government and partners will cover the 10.5 percent of the population under Phase 3.

Table 4: National vaccine coverage and purchase plan

Note: The below figures are estimates as of May 30, 2021. The table will be updated as more information becomes available.

Source of financing	Population targeted		Vaccines				Number of doses	Estimated total U$ (millions)	World Bank's VAC Status of the vaccine	Contract Status
	%	Number	Source	Name	Price ($/dose)	Shipping[5] ($/dose)				
COVAX	20%	5,627,336	COVAX Facility	AstraZeneca	0	0	2	NA	WHO EUL + 1 SRA	Official request submitted to COVAX, confirmation received
World Bank (IDA) for vaccine acquisition and deployment (AZ)	10.0%	2,813,668	COVAX Facility	AstraZeneca	7	0.36	2	41,417,195	WHO EUL + 1 SRA	Official request submitted to COVAX, TBC
World Bank (IDA) for vaccine acquisition and deployment (J&J)	10.0%	2,813,668	AVATT	Johnson & Johnson	10	0.36	1	29,149,602	WHO EUL + 1 SRA	
Government and other partners (A&Z)	5.25%	1,477,176	COVAX Facility and direct purchasing	AstraZeneca	7	0.36	2	21,744,027	WHO EUL + 1 SRA	NA
Government and other partners (J&J)	5.25%	1,477,176	AVATT and direct purchasing	Johnson & Johnson	10	0.36	1	15,303,541	WHO EUL + 1 SRA	
Total:	50.50%	14,209,024						107,614,364.54		

[5] Costs associated with shipping only, does not include costs of deployment within country.

27. Strong collaboration between partners in support of the Ministry of Health contributed to an effective response, contributed to the swift preparation of the NDVP and was crucial for the campaign roll-out. Under the joint leadership of MoH and WHO, regular exchange with all major development partners (multilateral, bilateral, international and local NGOs) helped bolster the MoH in its COVID-19 and in formulating the vaccination strategy. Key partners, including World Bank, WHO, UNICEF, USAID, France also contributed to strategic meetings between MoH and COVAX.

28. Coordination mechanisms have been set up for monitoring of the vaccination campaign. Daily meetings are held with key stakeholders (MoH, representatives of health districts and medical associations, key partners including the World Bank) and the wider NTWG on campaign roll out weekly.

29. For vaccine acquisition outside the COVAX Facility, Madagascar will have to enter into indemnification arrangements with manufacturers. The COVAX Facility has negotiated a form of indemnity on behalf of AMC participants, which was adopted by Madagascar as the basis for the receipt of its first COVAX shipment. In parallel, a compensation program for individuals in AMC countries to cover any serious adverse events arising from vaccines received through COVAX is being established. For vaccines acquired outside COVAX, Madagascar will need to establish the necessary indemnification frameworks per manufacturer agreements prior the acquisition. Box 1 summarizes issues of liability and indemnification in vaccine acquisition. Box 2 highlights support that the World Bank will provide through the project to ensure readiness for any vaccine procurement pursued outside COVAX.

Box 1: Liability and Indemnification Issues in Vaccine Acquisition

- The rapid development of vaccines increases **manufacturers' potential liability** for adverse effects following immunization.
- Manufacturers want to protect themselves from this risk by including **immunity** from suit and liability clauses, **indemnification** provisions, and other **limitation of liability** clauses in their supply contracts.
- **Contractual provisions and domestic legal frameworks** can all operate to allocate that risk among market participants, but **no mechanism will eliminate this risk entirely.**

For COVAX-financed vaccines:

- COVAX has negotiated model indemnification provisions with manufacturers for vaccines purchased and supplied under the COVAX AMC.
- In providing vaccines through COVAX AMC, COVAX requests COVAX AMC Participants to have in place an indemnity agreement directly with manufacturers, and the necessary indemnity and liability frameworks for that purpose – either in the form of the COVAX model indemnification arrangements or prior bilateral arrangements with manufacturers.
- The COVAX Facility will have a no-fault compensation scheme for AMC countries as part of its risk mitigation strategy. This will cover vaccines supplied only through COVAX AMC.
- Madagascar will have to consider what it will take to implement these indemnification provisions (including statutory implementation) and how they can avail of the benefits of the no-fault compensation scheme.

For vaccines purchased outside of COVAX:

- Madagascar will need to enter direct indemnification arrangements with manufacturers.
- Madagascar does not currently have legislation in place to provide statutory immunity for manufacturers, and has no national no fault compensation scheme.
- Adoption of any such indemnification provisions or compensation scheme would have to be in accordance with Madagascar's own national strategy and framework.

Possible Bank support to Madagascar, depending on needs elaborated over the course of preparation, may include:

- Information sharing on (i) statutory frameworks in OECD countries and other developing countries; and (ii) overall experience in other countries
- Provide training and workshops for government officials to cover familiarize them with the issues.
- For World Bank-financed contracts, provision of Hands on Expanded Implementation Support

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

This Project's Development Objective is to support the Government of Madagascar to acquire and deploy COVID-19 vaccines, and to strengthen its immunization services.

Key Results

PDO level indicators:

- Percentage of the population fully vaccinated, based on prioritized populations as defined in national plan, by gender;
- Number of sites with functioning refrigerators purchased through the project.

Intermediate indicators:

- Number of complete doses of eligible COVID-19 vaccine purchased through the project that arrived in the country;
- Percentage of the population who received at least one dose of a COVID-19 vaccine, by gender;
- Number of health workers trained in vaccine administration within the project, by gender;
- Number of vaccination sites that received waste treatment equipment through the project;
- Proportion of adverse events following immunization (AEFI) reported and investigated based on national guidelines;
- Number of healthcare workers trained in gender-based violence (GBV) identification and case management;
- Percentage of immunization sites reporting data on time;
- Percentage of grievances addressed within 2 weeks of initial complaint being recorded.

D. Project Description

30. Under Phase 1 and 2 of the NVDP, the project will support deployment costs for the vaccines provided by COVAX (20 percent of population's need) and under Phase 3, vaccine acquisition and deployment costs to cover 20 percent of Madagascar's population (with two types of approved vaccines: AstraZeneca and Johnson & Johnson), while also strengthening the country's immunization system.

31. The overall budget of the project is US$100 million, with US$71 million in Component 1 for vaccine and medical supplies acquisition. Component 2 for the strengthening of health system to support vaccine deployment accounts for US$29 million and supports the strengthening of logistics, surveillance, implementation capacity, communication campaigns and project monitoring. Component 3 is a zero allocation CERC. Table 4 provides a summary of National Vaccine Coverage and Purchase Plan and Table 5 details project costs and Bank financing.

Component 1: Acquisition of vaccines and medical supplies (US$71 million)

32. In alignment with the Revised VAC, the World Bank will provide up to US$71 million to finance vaccine acquisition. The acquisition is expected to be implemented through the AVATT and COVAX purchasing mechanisms. The vaccines to be acquired are the AstraZeneca and Johnson & Johnson vaccines[6]. The US$71 million will facilitate procurement of vaccines to fully immunize up to 20 percent of Madagascar's population, around 5.63 million people. These acquisitions will be complemented by other sources, as detailed in Table 4, to reach the Government's current coverage target of 50.5 percent of the population. This figure corresponds to the entire adult population of Madagascar. This financial support is aligned with the NDVP. In addition to vaccines, this component will finance vaccination supplies needed for vaccine delivery and distribution. These supplies include cotton swabs, needles, syringes, etc.

Component 2: Strengthening the health system for the effective deployment of vaccines (US$29 million)

33. This component will support the deployment of vaccines and key investments in the health system. These investments are essential to ensure effective delivery of COVID-19 vaccines and strengthening the health system in the long-term.

Sub-component 2.1: Strengthening logistics, cold chain and vaccination sites (US$14.6 million)

34. Strengthening logistics and cold chain. The current vaccine logistics system and cold chain have critical weaknesses[7]. The project will alleviate some of the constraints by providing support at all levels of the system. This includes operationalizing the distribution strategy, identifying needs in cold chain equipment and appropriately strengthening the cold storage infrastructure, and strengthening the existing GoM's system for tracking and monitoring the distribution of vaccines (VLMIS)–all coordinated by the national vaccine logistics working group. Strengthening transport and tracking systems will entail the

[6] AZD1222 (also known as ChAdOx1_nCoV19/ commercialized as COVISHIELD in India) - AstraZeneca/Oxford; Ad26.COV2.S - Johnson & Johnson

[7] Maya M.V.X. van den Ent, Andre Yameogo, Eric Ribaira, Celina M. Hanson, Ramiandrasoa Ratoto, Saholy Rasolomanana, Chrysanthus Foncha, François Gasse. Equity and immunization supply chain in Madagascar. Vaccine, Volume 35, Issue 17, 2017, Pages 2148-2154.

procurement (and maintenance) of vehicles for vaccine transportation and supervision. Strengthening the cold chain will entail the procurement of solar direct drive refrigerators and refrigerators using low Global Warming Potential refrigerants. The latter is being done in close coordination with similar initiatives, such as the ongoing World Bank LEAD project[8].

35. This sub-component will support COVID-19 vaccine transportation mechanisms, from collection of vaccines at the port of entry in the country and their deployment to vaccination sites and administration of the vaccines. These operational costs will cover deployment of vaccines provided by COVAX (20 percent coverage of the population) and those directly procured by the project (covering an additional 20 percent of the population), thus around 40 percent of Madagascar population. This will also involve the temporary recruitment of health workers for the acute phase of deployment, per diems for all staff involved in conducting the campaign (health workers doing counselling and administering the vaccine, people ensuring registration) and the use of mobile outreach services to expand vaccination efforts.

36. Supporting vaccination centers and points of delivery. Based on the experience of the ongoing deployment of the initially received 250,000 doses, the MoH has identified that health facilities are not sufficient and not sufficiently prepared for the vaccination of adult population groups. The project will support the establishment of vaccination centers (vaccinodromes) through the procurement of tents, tables, chairs and beds and support their deployment across the country. These vaccination centers will complement the hospitals and primary health care facilities that now are already providing COVID vaccination services, allowing in particular integration with RMCHN services for women.

37. Targeting strategies to remove barriers to women's access to vaccination. This will include: (i) support to community-level vaccination points that target women (ii) inclusion of women who work in informal sectors and as community health workers into applicable priority groups; (iii) provision of vaccines and accurate COVID-19 vaccine information as part of ante-natal care and reproductive health services (and other RMNCAH-N) targeting women; (iv) mobile brigades for hard-to-reach and vulnerable populations, including people living with disabilities.

Subcomponent 2.2: Strengthening surveillance and information systems (US$3.2 million)

38. Vaccine safety and surveillance. This project constitutes an opportunity to strengthen the existing monitoring system for AEFI. This includes the designation of expert groups trained to review vaccine safety data and flag serious AEFI as well as identifying potential clusters of AEFI, should they occur. The project will also support the establishment of appropriate policies and structures for the indemnification and compensation of individuals who suffer from AEFI.

39. Strengthening Madagascar's capacity for genomic sequencing will allow for better surveillance and epidemiological decision making based on the present and future COVID-19 variants. The genomic sequencing will be essential to map the spread of current and future variants of concern, and to implement an effective vaccine response. Vaccination monitoring systems will be strengthened to apply to other vaccine preventable diseases, including those induced by climate shocks.

40. Information systems supporting the roll-out of vaccines. The project will strengthen information systems to support data quality and data infrastructure to i) improve the distribution of vaccines to end-users, ii) prevent elite capture; iii) help identify false and sub-standard products. Strengthening of the

[8] Madagascar - Least-Cost Electricity Access Development Project - LEAD (P163870)

vaccine logistics information system will facilitate the tracking vaccine distribution from their port of entry to the vaccination site. Individual level immunization tracking will allow for digital vaccine certification (supplemented by paper-based systems) and help reduce elite capture of vaccines. The project will strengthen the MoH's ability to collect quality data from frontline health facilities and their use of this data in decision making. This investment will be done in close collaboration with the departments of disease surveillance and planification. This subcomponent will require the procurement of a limited number of data entry devices to be used at vaccination sites[9] of airtime (data credit) for data syncing, and the recruitment and deployment of additional personnel.

Sub-component 2.3: Strengthening capacities for managing and implementing immunization campaigns (US$5.7 million)

41. Strengthen capacities for (1) planning and coordination and (2) safe and efficient COVID-19 vaccine administration. The project will strengthen capacities of key administrative personnel at national and regional levels, in the following areas: planning, budgeting, and procurement, vaccine distribution from central level to the point of administration, quality control, regulation of vaccine safety and indemnification systems, and communications with the public. A climate vulnerability assessment and climate-sensitive planning to prepare for vaccination during potential climate shocks, as well as route optimization to reduce fuel use, will be conducted.

42. The project will also support the training of new and existing vaccinators and front-line health personnel. Trainings will include modules on vaccine management, conservation, safe injection, interpersonal communication, community engagement, detection and notification of adverse events post injection, protocols for conducting vaccination campaigns during climate shocks and reporting on vaccination activities. Importantly, the trainings will also include a GBV module to give health workers the competencies to prevent, identify, manage and refer possible cases of GBV. PPE for the vaccination teams is also included under this sub-component and is complementary to contributions by other development partners.

43. Bio-medical waste procedures and management. This project will also invest in and optimize plans and processes for collection and transportation of COVID-19 and other related medical waste to disposal sites. The project will additionally develop and implement guidelines and staff training to improve climate friendly medical waste management at the facility level with a focus on waste management in flood prone areas.

Sub-component 2.4: Strengthening Communication and addressing vaccine hesitancy (US$3 million)

44. To mitigate the dynamic of vaccine hesitancy, this sub-component will implement a national risk-communication plan to ensure community participation in COVID-19 vaccination efforts and accountability mechanisms. This project will capitalize on previous undertakings with the plague and measles epidemics by the GoM, use the existing network of community health workers, non-governmental organizations and women and youth-led civil society organizations. It will particularly draw on local leaders and heads of religious communities to inform the public about the risks and benefits of immunization. Strengthened social media monitoring and high-frequency analysis of beliefs and attitudes

[9] This acquisition will occur in close coordination with the WB digitalization project (Digital Governance and Identification Management System Project- PRODIGY (P169413)).

will complement existing phone survey instruments will deliver actionable on-time evidence for the communication campaign. Confidence in vaccines for other diseases, including climate-induced, outbreak prone diseases will also be incorporated in communication efforts.

45. The health promotion interventions will be tailored to the needs of vulnerable and hard-to-reach groups and designed to be easily understood by all. This includes vulnerable and hard-to-reach population groups, including certain groups of women and girls, and disadvantaged populations – for example, illiterate persons or those with a very limited access to health/COVID information. Building "vaccine literacy" for the COVID-19 vaccine is an opportunity to boost confidence in vaccinations more generally, contributing to greater utilization and retention in the childhood EPI program.

46. The communication campaign and behavioral change interventions will be empirically driven and gender-sensitive. To monitor perceptions and behavioral change interventions, financing will include beneficiary research on vaccine hesitancy, barrier to service access, and levels of vaccine uptake and the equity of vaccine distribution. In addition to the existing phone survey platform in collaboration with colleagues from the Poverty and Equity Global Practice this project will support a) social media sweeps and b) high-frequency, low-cost behavioral surveys in collaboration with the World Bank's behavioral economics team; and regular polling of vaccine hesitancy.

47. Applying a gender perspective to the research, the project will address women's limited access to information compared to male peers, opposition to vaccination in male-headed households, and the stigma facing predominantly female vaccinators. Multiple outreach media will be used, including messaging through radio, television, and community-based platforms in French and Malagasy. Providers will also be trained to provide women with accurate COVID-19 vaccine information as part of ante-natal care and reproductive health services (and other RMNCAH-N).

Sub-component 2.5: Project Implementation and Monitoring (US$ 2.5 million)

48. *Project implementation support.* This subcomponent will strengthen the existing Project Implementation Unit (PIU)[10], recruiting additional staff and covering operating costs, necessary training and equipment, support for procurement, financial management, environmental and social risk and impact management, and M&E and reporting activities. The PIU will support national M&E frameworks for vaccine deployment at national and subnational levels to align with epidemiological shifts, with timely recording and reporting of performance benchmarks. This will include: (i) collection of data from ministries and other implementation agencies; (ii) compilation of data into progress reports; (iii) carrying out of surveys; and (iv) carrying out of annual expenditure reviews. The project's climate activities will also be monitored.

Component 3: Contingent Emergency Response Component (CERC). No allocation.

49. This component will facilitate access to rapid financing by allowing reallocation of uncommitted project funds in the event of a natural disaster, either by a formal declaration of a state of emergency or upon a formal request from the Government of Madagascar. A CERC manual will be required.

[10] The PIU currently implements several projects funded by the World Bank and other development partners. These projects include the PARN (P160848) and its CERC for the COVID-19 response.

Table 5: Project Cost and Financing

Project Components	IDA Financing (US$ million)
Component 1: Acquisition of vaccines and medical supplies	**71.0**
Component 2: Health system strengthening for effective vaccine deployment	**29.0**
Sub-component 2.1: Strengthening logistics, cold chain and vaccination sites	14.6
Sub-component 2.2: Strengthening surveillance and information systems	3.2
Sub-component 2.3: Strengthening capacity for managing and implementing immunization campaigns	5.7
Sub-component 2.4: Strengthening communication and addressing vaccine hesitancy	3
Sub-component 2.5: Project Implementation and Monitoring	2.5
Component 3: CERC	**0**
Total Cost	**100.0**

Table 6: Summary of COVID-19 Vaccine Sourcing and Bank Financing

National plan target (population %)	Source of vaccine financing and population coverage				Specific vaccines and sourcing plans	Doses purchased with Bank finance (2 doses assumed)	Estimated allocation of World Bank financing
	COVAX grant	Bank-financed		Other*			
		Through COVAX	Through direct purchase				
Phase 1: 3%	3%				Predominantly AstraZeneca through COVAX	0	**Purchase**: US$71 million **Deployment**: US$26.5 million **Other**: US$2.5 million (Project implementation and monitoring)
Phase 2: 14%	14%				Predominantly AstraZeneca through COVAX	0	
Phase 3: 33.5%	3%	10%	10%	10.5%	**Bank-financed:** Combination of AstraZeneca and Johnson & Johnson through COVAX **Non-Bank-financed:** Additional doses through COVAX, AVATT, bilateral agreements and direct purchase.	8,441,004	

*Other: Includes coverage financed by the government, bilaterally, from other MDBs, etc.

50. Proposed interventions of the project are also complementary to other projects (active or pipeline) of the Madagascar portfolio, as detailed in the box below:

Box 2. Madagascar World Bank portfolio linkages to the proposed project

World Bank Project	Financing amount (US$ million)	PDO	Vaccine complementarity
Prodigy (P169413) Active	140	The Project Development Objective is to strengthen the Identity Management ("ID-M") system and government capacity to deliver services in Selected Sectors	Overall digital support, including to equip community health workers and health facilities with data input devices.
Pandemic preparedness and support to basic health services (P174903) Pipeline, to be approved Q2 FY22	150	To strengthen national cross-sectoral capacity for collaborative disease surveillance and epidemic preparedness and increase utilization of basic health services; and in the event of an eligible crisis or emergency, to provide immediate and effective response to said eligible crisis or emergency	Strengthening multisectoral capacities for pandemic preparedness and response, especially on surveillance and system strengthening, laboratory capacities.

CERC under PADAP project (P154698) Active	40 (only CERC)		US$ 40 million allocated for emergency COVID-19 health response by providing PPE, key equipment, drugs and tests as well as oxygen therapy.
Improving Nutrition Outcomes using MPA (P160848), including CERC Active	100 (including US$20 million for CERC)	To increase utilization of an evidence-based package of RMCHN interventions and improve key nutrition behaviors known to reduce stunting in targeted regions and to provide immediate and effective response to an eligible crisis or emergency	Strengthening of community health workers and health information system.
Least-Cost Electricity Access Development Project - LEAD (P163870) Active	150	The Project Development Objective is to increase access to electricity services for households, enterprises, and health facilities in Madagascar.	Support electrification of health facilities in Madagascar
Investing in Human Capital DPF II (P171460) Pipeline, to be approved Q1 FY22	100	The development objective of the proposed second DPF in this series is to support the GoM's efforts to prioritize and sustain effective human capital development through two pillars: (i) more and better social services for under-served households and improved protection for women and children and (ii) more transparent and predictable investments in human capital.	Changes to flow of financing for primary health care facilities and medium- to long term effects on nurse and midwife capacity

51. Retroactive Financing: Retroactive financing of up to 20 percent will be included under the project, this will help to retroactively finance COVID-19 vaccines and ancillary supplies as needed/requested by the GoM.

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 preliminary assessment of the project, five ESS are considered to be relevant: such as 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 ESF guidelines the environmental and social risk rating for this project has been classified as substantial. While project activities are expected to have positive long-term impacts, the urgency and relative unknowns around COVID-19 vaccine deployment engenders several consequential risks that will need capacity building and monitoring. The project aims to improve disease surveillance, monitoring and containment in the country as well as health systems preparedness for future outbreaks. Based on the nature and magnitude of the activities and investments planned as well as medical waste due to project activities, potentially adverse impacts on the environment and risks to it are deemed site-specific, reversible, and manageable with adequate mitigation measures, especially on medical waste management and stakeholder engagement. Health facility support and vaccination deployment may engage the handling of infectious products that present risks of contamination for workers in labs and medical health care centers, and then for the communities. Project implementation will also involve different types of workers including PIU staff, health civil servants, local CSOs staff, community health and nutrition workers which may arise OHS concerns as well as potential SEA/SH (Sexual Exploitation and Abuse/Sexual Harassment) risks. The project specifically targets vulnerable and disadvantaged groups (elderly, disabled, chronically diseased people with no health insurance, migrants, single parent headed households, economically marginalized and disadvantaged groups especially residing in geographically challenging areas) however specifics measures will be necessary to include strong stakeholder engagement and inclusivity as identified in the project design. The project will have to ensure to review and update the existing Grievance Mechanism (GM) developed under the PARN project and ensure that there are dedicated staff responsible for broader social development and risk management issues. Prior to appraisal, the Recipient prepared and disclosed a Draft Environmental and Social Commitment Plan (ESCP) and a Draft Stakeholder Engagement Plan (SEP); and prior to effectiveness a Draft Labor Management Procedures (LMP), a Draft Environmental and Social Framework including SEA/SH Prevention and Response Action Plan and an updated National Medical Waste Management Plan.

E. Implementation

Institutional and Implementation Arrangements

52. **The Ministry of Health will be the primary implementing agency for this project**. The existing PIU in the MoH (*Unité de Coordination de Projets- UCP*), which supports the management of the Improving Nutrition Outcomes using the Multiphase Programmatic Approach Project (PARN) (P160848) and its CERC for COVID-19 health response, but also financing from other partners (GAVI and Global Fund) will be expanded to cover fiduciary and safeguards management for the project, and coordination with key MoH departments. The PIU capacity will be enhanced through: (i) a dedicated focal point for the proposed project; (ii) additional fiduciary staff including: a procurement officer, a senior accountant and an accountant; (iii) environmental and social safeguards specialists; (iv) an M&E specialist; and (v) other technical specialists as required (including potentially for public health, planning, logistics and communications, the regulatory authority, the directorate of pharmaceuticals). The UCP will prepare the work plan and annual budget (WPAB) which will be cleared by the Steering committee of the Project.

Box 3: Potential Supportive Roles for Partner Agencies in Implementation.

Organisation	Support areas and activities	Contribution (where known)
COVAX/GAVI	The COVAX Advanced Market Commitment (AMC) is expected to provide vaccines to cover 17 percent of the population. In addition, COVAX is providing financing to UN and international NGOs for technical assistance and cold chain improvements.	Amount in addition to procurement of vaccines for 17 percent of population is TBC. US$ 533,106 for deployment of initial 250,000 doses.
AVATT	GoM in contact with AVATT, has discussed official application to AVATT in council of ministers of May 6,2021 and is, in principle, planning to join the initiative.	TBC, potentially financing for the acquisition and deployment of 400,000 vaccine doses
WHO	WHO is supporting the GoM in the form of technical support to the national technical advisory group on immunization (GTCV) under the national academy of medicine, to inform COVID-19 vaccination policy, strategy, planning and monitoring, vaccine safety, capacity building, surveillance and advising on vaccine pharmacovigilance more generally.	TBC
UNICEF	UNICEF is supporting the development and implementation of national plan for vaccine deployment including support for the quantification and forecasting of supply needs, support to procure and install quality cold chain equipment at national and regional level, communication and mobilization and strategies for improved integration of COVID-19 vaccine deployment with routine EPI and other primary health care services.	TBC
Global Fund	The GoM has submitted a request under Accelerated C19RM for the procurement of PPE, COVID testing and treatment	USD 6,832,072
AU-Africa CDC	The partnership with AU-Africa CDC will be important for some of the components related to information systems and genomic surveillance. The government should leverage harmonized continental digital technologies to respond to COVID-19, with particular attention to digital inclusion, patient empowerment, data privacy and security, legal and ethical issues, and personal data protection, which are values enshrined in the official African Union Trusted Health Framework and its digital archetypes: the Trusted Travel and Trusted Vaccines platforms, provided free of charge to support the digitization of COVID-19 response efforts. Recently, the government requested Africa CDC's support in setting up an entity to coordinate actions related to Africa CDC's activities in Madagascar. The Regional Integrated Surveillance and Laboratory Network (RISLNET) is being deployed as part of the Africa CDC project and Madagascar's participation is essential in this regard. On genomic surveillance, Africa CDC could built the Next Generation Sequencing (NGS) capacity by supporting laboratory upgrades (essential diagnostics and equipment, support the deployment of technical staff) and enhancing the technical capacity of laboratory staff, through (i) the Institute for Pathogen Genomics which aims to build a continent-wide functional and operational network of pathogen genomics and bioinformatics and (ii) regional hubs of laboratories to facilitate	TBC

	coordination as well as training, knowledge sharing and technical support.	

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