



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 19-Oct-2017 | Report No: PIDISDSA21396



BASIC INFORMATION

A. Basic Project Data

Country Madagascar	Project ID P160848	Project Name Madagascar: Improving Nutrition Outcomes using the Multiphase Programmatic Approach	Parent Project ID (if any)
Region AFRICA	Estimated Appraisal Date 18-Oct-2017	Estimated Board Date 12-Dec-2017	Practice Area (Lead) Health, Nutrition & Population
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Unité de Programme National de Nutrition Communautaire (UPNNC), Unité Central de Coordination des Projets (UCP) - Ministry of Public Health	

Proposed Development Objective(s)

To increase utilization of a package of reproductive, maternal and child health and nutrition (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.

Components

Scale up coverage and utilization of the RMCHN Minimum Package
Strengthen capacity to manage and deliver the RMCHN package
Project Management, Capacity Building and Operations Support
Contingent Emergency Response Component (CERC)

Financing (in USD Million)

Financing Source	Amount
International Development Association (IDA)	80.00
Scaling up Nutrition	10.00
Total Project Cost	90.00



Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

1. **Madagascar, an island nation of approximately 24 million people, has significant human development and economic development challenges despite unmatched biodiversity and natural resources.** With strategic investments in human capital and more effective management of its wealth of natural resources, there is great potential for long term growth. However, the country is plagued with cyclical political instability and by high exposure to extreme climate events, further exacerbated by climate change. Periods of growth have repeatedly been interrupted by crises that have decimated social sector outcomes, deterred investors, depressed tourism, destabilized foreign aid, and deepened poverty.

2. **Today, Madagascar is one of the poorest countries in the world, with 72 percent of its mostly rural population living in absolute poverty.**¹ The incidence of extreme poverty is higher among women-headed households. Factors that are most predictive of higher welfare in rural areas are the size of cultivated land, the proximity to an urban center, electrification, and the opportunity for off-farm employment. Over the past ten years, increased severity of weather shocks has also been an important cause of declining well-being for those at the bottom of the consumption distribution. By 2030, the UN projections suggest that the population will increase from 24 million to 36 million people. The share of children under 15 will be one of the highest globally. Madagascar ranks 154 (out of 188) in the 2014 Human Development Index (HDI). Development indicators for rural areas lag behind urban areas on several dimensions: incomes are lower, infant mortality rates are higher, life expectancy is shorter, illiteracy is more widespread, malnutrition is more prevalent, and more people lack access to clean water and proper sanitation.

3. **Since the end of the 2009-2013 crisis, Madagascar has been addressing some of the sources of fragility to help mitigate future risks.** The Government has set five priority areas for reform and investments in its 2015-2019 National Development Plan (NDP): (i) improve governance and restore the rule of law; (ii) preserve macroeconomic stability; (iii) support inclusive growth and local development; (iv) build adequate human capital; and (v) manage its natural capital in a sustainable way. Under the fourth objective of the NDP, Ministries have developed sound sectoral plans in consultative ways to strengthen fundamental education, establish social safety nets, and improve basic health and nutrition services. Most recently, the Government completed the preparation of the National Nutrition Strategy (PNAN III). These programs established the

¹ World Bank (2016), Shifting Fortunes and Enduring Poverty in Madagascar: Recent Findings.



foundations for the World Bank Group to support Madagascar in investing in its children's development, as part of its commitment under the "Investing in Early Years" approach.

4. Madagascar has the fourth highest rate of stunting² (chronic malnutrition) among children under the age of five in the world (47 percent). It is considered the most important impediment to each child's potential and to the country's long term development. The Government, which has successfully been addressing acute malnutrition over the past 20 years in the context of cyclical vulnerability and food insecurity, has set its sights on reducing stunting from 47 percent to 33 percent.³ With the support of development partners, the Government has designed a program that this proposed Multiphase Programmatic Approach⁴ (MPA) will support over a period of 10 years, with an IDA envelope of up to US\$200 million.

5. In line with the experiences of other countries that have substantially reduced stunting, this MPA is designed to reach close to 75 percent of children under the age of 5, starting in the 8 regions that have the highest stunting rates in the country and progressively expanding to 15 regions. By 2027, the program is expected to reduce the number of stunted children by 30 percent (about 600,000 children) in targeted regions. It will start by scaling up the utilization of a high-impact package of nutrition and health interventions known to reduce stunting (e.g. micronutrient supplementation and promotion of breastfeeding). To ensure greater efficiency and sustainability, there will be a series of improvements in systems to deliver nutrition and health services, particularly at the community level. These investments will set the foundations for expanding various results-based approaches in these sectors in the later stages of the program. Technology solutions – such as a nationwide tablet-based health/nutrition information and surveillance system and smartphones for job aides – will contribute to improving the quality of services at facility and community levels. The program will also finance a package of neglected tropical disease (NTD) interventions at community level. While the program primarily focuses on health and nutrition investments, other sectoral programs, namely social safety nets, water, sanitation and hygiene (WASH), and climate smart agriculture supported by IDA and other development partners, will be essential in achieving the country's objective.

6. Madagascar did not achieve any of its Millennium Development Goals (MDGs) by 2015. 47 percent of deaths are still attributable to largely preventable communicable, maternal, neonatal, and nutritional diseases.⁵ The infant mortality rate (42 per 1,000 live births in 2012⁶) and child mortality rate remain high (72 per 1,000 live births in 2008-2009⁷) as does the maternal mortality ratio (478 per 100,000 live births in 2012⁸). The total fertility rate (TFR) was 5.0 births per woman in

² Stunting is defined as height-for-age less than minus two z-scores below the median of the WHO child growth standards. In other words, 47 percent of children in Madagascar are the same height (or shorter) as the shortest 2.3 percent of the same age cohort in the general population (globally).

³ Madagascar: National Nutrition Action Plan (2017)

⁴ The MPA was approved by the Executive Directors of the World Bank Group on July 13, 2017, to provide an adaptive and programmatic approach which would allow clients to structure a long, large or complex engagement as a set of smaller linked operations (or phases), with intermediate shorter-term targets.

⁵ Institute for Health Metrics and Evaluation (2017). Global Burden of Diseases.

⁶ MDG Survey, 2012-2013.

⁷ DHS 2008-2009.

⁸ MDG Survey, 2012-2013.



2012;⁹ the TFR of women in the lowest wealth quintile was 2.5 times greater than women in the highest wealth quintile.¹⁰ Early childbearing is common; 36 percent of women report a first pregnancy before the age of 18.¹¹ Madagascar is in the top ten countries in Sub-Saharan Africa for adolescent pregnancies, with an adolescent birth rate of 122 per 1000 women aged 15-19. In addition, the poorest regions carry the highest burden of neglected tropical diseases (NTDs).¹²

Nutrition: A National Emergency

7. Stunting presents a significant challenge to reaching the twin goals of socioeconomic growth and prosperity for all. Madagascar also has high rates of micronutrient deficiencies, i.e. a lack of important vitamins and minerals that are linked to growth, development and immune function, such as iodine, Vitamin A and iron. Micronutrient deficiencies are linked to poor diets (quality, diversity, and quantity) and illness, and contribute to stunting and poor health and development outcomes. In addition, 8 percent of children 0-5 years are wasted (too thin for their height), which increases the risks of morbidity and mortality. Globally, malnutrition is estimated to contribute to 45 percent of all child deaths and anemia contributes to around 20 percent of maternal deaths. Stunting is associated with cognitive delays and low educational attainment; stunted children are more likely to do poorly in school,¹³ thus decreasing lifelong income earning potential and labor force productivity. The annual costs associated with malnutrition in Madagascar are estimated at 7 to 12 percent of the Gross Domestic Product (GDP).

8. Global evidence has shown that the period from conception to two years of age, the “first 1000 days”, is a critical window to ensure adequate nutrition because of the rapid pace of physical growth and brain development. Stunting during this period is a marker of often irrevocable effects on children’s health and development. The period of intervention is even shorter for many children in Madagascar because on average, 40 percent of children are stunted by the age of 12 months as opposed to 24 months as seen in other countries. Growth retardation starts during pregnancy; 30 percent of Malagasy children are born stunted, which is likely linked to the high rates of early pregnancy,¹⁴ and maternal malnutrition (27 percent of women are classified as “thin” and 7 percent are short).¹⁵ Micronutrient deficiencies in women and children are also common, for example 50 percent of children aged 6-59 months and 35 percent¹⁶ of women of reproductive age are anemic and 52 percent¹⁷ of children are Vitamin A deficient.

9. Stunting is the result of a cumulative process that starts in pregnancy and continues in infancy and early childhood as repeated experiences of illness such as diarrhea, malaria, or

⁹ MDG Survey, 2012-2013.

¹⁰ MDG Survey, 2012-2013.

¹¹ MDG Survey, 2012-2013.

¹² NTDs, for example, soil-transmitted helminthiasis, lymphatic filariasis, and schistosomiasis, are responsible for absenteeism from school, and as many poor households are malnourished. NTDs and other illnesses further impact the overall well-being of the child.

¹³ For every 10 percent increase in stunting at national level, the proportion of children reaching the final grade of primary school drops by 7.9 percent. [Le Cout de la Faim – Madagascar (2016). Etat de Madagascar]

¹⁴ This is because the developing fetus has to compete for nutrients as the mother is still growing

¹⁵ Institut National de la Statistique (INSTAT) et ICF Macro. (2010). Enquête Démographique et de Santé de Madagascar 2008-2009. Antananarivo, Madagascar: INSTAT et ICF Macro.

¹⁶ INSTAT and ICF Macro (2010).

¹⁷ Children 6-59 months old; Stevens, G. A. *et al* (2015). Trends and mortality effects of vitamin A deficiency in children in 138 low-income and middle-income countries between 1991 and 2013. *Lancet Global Health*, Sep;3(9): e528-36.



acute respiratory infection, combined with insufficient dietary intake cause a child’s growth to falter. The risk factors underlying childhood stunting are much more complex than simply increasing household access to food, as seen in Madagascar where the highest rates of stunting are in the regions with the greatest food production, predominantly rice. The underlying causes of stunting are multifactorial, related to maternal and child care and feeding practices (e.g. appropriate infant and young child feeding practices), food security (access, availability and utilization of food), water and sanitation, and hygiene. These factors are in turn rooted in institutional and economic issues such as poverty and governance, as well as the frequent natural disasters that affect the country. In Madagascar, childhood health and nutrition indicators are extremely poor, as shown in Table 1. Water and sanitation indicators are also poor, particularly in the rural areas, with 45 percent of the population practicing open defecation and 66 percent of rural households without access to clean water.¹⁸ Close to 60 percent of the country (13 million people) are estimated to be living on resources that do not allow them to afford sufficient food intake.¹⁹

Table 1: Key health/nutrition service and behavior indicators

Indicators	%	Data source (most recent available)
<i>Child health and nutrition indicators</i>		
Child health monitoring (0 to 11 months and 1 to 5 years old)	52	Health Statistics Yearbook
Integrated management of child illness (IMCI)	34	IMCI Strategic Plan
Receipt of Vitamin A supplements in previous 6 months	43	INSTAT 2012-13
Exclusive breastfeeding (under 6 months)	42	INSTAT 2012-13
Minimum meal frequency (6-23 months)	4	DHS 2009
Consumption of foods rich in Vitamin A (6-23 mons)	43	INSTAT 2012-13
Vaccination (up to one year)	36	INSTAT 2012-13
Complementary food (lipid-based nutrition supplementation, LNS) for children	Pilot	Mahay Pilot ²⁰
Community-based nutrition education	35	PNNC Data
<i>Maternal health and nutrition:</i>		
ANC visit (at least one)	59	Health Statistics Yearbook
ANC visit (at least four)	26	Health Statistics Yearbook
Took 90+ iron tablets during pregnancy	8	DHS 2009
Assisted delivery	26	Health Statistics Yearbook
Reproductive health and family planning	28	Health Statistics Yearbook
Balanced energy/protein supplementation for pregnant women (LNS)*	Pilot	Mahay Pilot

10. Global evidence suggests that effective delivery of a set of 10 high impact nutrition interventions, focused on the first 1000 days, can significantly reduce stunting.²¹ A critical starting point is to ensure access and utilization of these interventions, which are delivered through coordinated community-based and primary care services through a strong maternal and child health

¹⁸ UNICEF and WHO (2012) Progress on Drinking Water and Sanitation. 2012 Update.

¹⁹ World Bank (2014) “Madagascar: Poverty, Gender, and Inequality Assessment.” World Bank Report No. 78131-MG

²⁰ The Mahay Pilot, a randomized control trial under the Emergency Support to Critical Education, Health and Nutrition Services Project (PAUSENS), specifically uses lipid-based nutrient supplements (LNS) formulated for pregnant women and children in Madagascar in one of the arms of the study.

²¹ Reduction of global prevalence of stunting by 20%: Bhutta et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? The Lancet, vol. 382(9890).



program. Furthermore, effective prevention and management of infectious diseases reduces the contribution of illness to malnutrition and stunting. Strengthening this basic health and nutrition service delivery platform will also facilitate synergies with other sectors for more rapid improvements in stunting.

11. **Given the complex challenges that contribute to high stunting in Madagascar, a significant reduction in the national stunting prevalence requires a long-term investment in a multisectoral approach.** To this end, the Government of Madagascar (GoM) recently approved the country’s first integrated minimum package of reproductive maternal and child health and nutrition (RMCHN), which prioritizes the recommended set of 10 high-impact nutrition interventions focused on the first 1,000 days. Scaling up this package is part of the country’s new multisectoral National Nutrition Strategy (PNAN III), which was launched in May 2017. Rather than promoting *ad hoc* utilization of nutrition interventions, the RMCHN package uses a “life-cycle approach”, providing a continuum of services during different periods of pregnancy, during and after childbirth, and in a child’s early life. The minimum package of services (see Table 2) should be utilized by the target population of pregnant women and children during the critical first 1,000 days to ensure uptake of the high-impact nutrition interventions, and by children through five years of age to ensure uptake of the full package of health interventions. Aligned with the PNAN III, the scale up of this RMCHN package will be complemented by other multisectoral interventions (e.g. social protection and WASH, further details below).

Table 2: RMCHN Minimum Package for Madagascar

High-Impact Nutrition Interventions ²²	Health Interventions/Delivery Platforms
<ul style="list-style-type: none"> • Breastfeeding promotion and complementary feeding education • Micronutrient supplementation in pregnancy • Targeted balanced energy-protein supplementation for pregnant women (preventive LNS) • Vitamin A supplementation • Therapeutic zinc with oral rehydration solution (ORS) for the treatment of severe diarrhea • Severe acute malnutrition (SAM) treatment • Targeted public provision of complementary foods for children (preventive LNS) • Targeted management of moderate acute malnutrition • Salt iodization (education/information) • Fortification of staples (education/information) 	<ul style="list-style-type: none"> • Antenatal care • Assisted delivery • Postnatal care • Vaccination • Child health monitoring • Integrated management of child illness (IMCI)²³ • Reproductive health and family planning • Malaria prevention and control/NTD control • Hygiene education • Community outreach services

12. **Health and nutrition are important strategic priorities for government, but the sectors are not yet well-prioritized in the Government’s budget.** Madagascar spends less on health than most other low income countries in Sub-Saharan Africa (SSA). Since 1995, the percentage of Total

²² As recommended in the 2008 Lancet series on nutrition (Bhutta et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? The Lancet, vol. 382(9890)); also, adopted by Madagascar in the recent PNAN III.

²³ Integrated Management of Childhood Illness (IMCI) is an integrated approach to child health that focuses on the well-being of the whole child. IMCI aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age. IMCI includes both preventative and curative elements.



Health Expenditure has remained around 4-5 percent of GDP. In real terms, per capita health expenditure has remained at around US\$20 since 1995, far below the SSA average of US\$84. Only 20 percent of the health sector budget is financed by domestic government resources with the bulk of it used to pay salaries. Given this low government expenditure on health, households are the primary funders of the health sector. For several years, starting during the crisis, there were severe cuts to the National Nutrition Office (ONN) budget, with the allocation declining from US\$4.6 million in 2013 to US\$1.7 million in 2016. In 2017, the budget of ONN almost doubled, but most of the domestic resource envelope continues to be spent on salaries, with limited resources for operational activities.

13. Beyond financing constraints, the low utilization of RMCHN interventions is due to key systemic bottlenecks. These have been identified in a rich body of analytic work, including the Service Delivery Indicator Survey (SDI, 2016), Public Expenditure Review for Health (2015), and key population-based surveys as well as operational experience in Madagascar. The key bottlenecks include: (i) low coverage of health and community based nutrition services, with very high inequities in utilization of health services; (ii) on the demand side, significant financial, geographic and cultural obstacles to accessing health services for pregnant women and children; (iii) fragmented delivery of health and nutrition services because the two sectors are not coordinated, leading to unstandardized coordination and weak referral between community based nutrition services and primary care facilities; (iv) weak management and supervision capacity; (v) extremely poor skills of frontline health workers and insufficient personnel to deliver services; and (vi) absence of basic inputs and infrastructure at health facilities (These bottlenecks are described in more detail in Annex 2).

Institutional Context

14. Health and nutrition are managed as two separate sectors in Madagascar. The **Ministry of Health (MOH)** oversees the delivery of health services, which can be accessed at primary care facilities (Centre de Santé de Base, CSB) 1 and 2, at district and regional referral hospitals, and at university hospitals. Mostly depending upon the support of development partners (DPs), each *fokontany* (village) has a varying number of community health workers (CHWs) with different levels of training and responsibilities, reporting to primary care facilities. The **National Nutrition Office (ONN)** is tasked with multisectoral coordination, implementation, monitoring and evaluation, and research related to the National Nutrition Policy and Strategy. Regional Nutrition Offices (ORNs) ensure the multisectoral coordination of nutrition interventions at lower levels. The ONN is attached to the Prime Minister's Office and headed by a National Coordinator. While a separate sector for nutrition facilitates the effective delivery of vertical nutrition services, the ONN has faced challenges coordinating with other sectors. For example, given the hierarchy, the National Coordinator can neither formally mobilize the Ministers nor be a member of the Council of Ministers or participate in its meetings.

15. ONN oversees three programs, including the National Community Nutrition Program²⁴ (PNNC), which has proven to be an effective platform for delivering community-based nutrition services to reduce acute malnutrition through a network of about 7,000 rural sites, each run by a community nutrition worker selected by her community.²⁵ Until 2012, stunting

²⁴ <http://blogs.worldbank.org/health/madagascar-s-path-reducing-stunting-and-improving-child-development-outcomes>

²⁵ The program reaches over 2 million poor mothers and children under five years of age with community-based nutrition prevention and treatment services that are focused on acute malnutrition.



reduction was not a priority for this program. This began to shift following the results of a long term, multi-round impact evaluation of the country's community-based nutrition efforts led by the World Bank, which demonstrated that although the PNNC had an impact on acute malnutrition, rates of chronic malnutrition remained high. In response, the ONN revised the National Nutrition Strategy (2012-2015) to prioritize the first 1,000 days of life. The country also joined the global Scaling Up Nutrition (SUN) movement in 2012.

16. Delivery of health and nutrition services is fragmented, starting with MOH and ONN at the central health level and extending to the community level. There are mandates for intersectoral coordination between the two institutions, but there is no joint vision for improving maternal and child health and nutrition outcomes that can guide a unified approach to service delivery. Despite the complementarity between the activities of community-based health and nutrition workers, there are no established collaboration mechanisms for service provision, supervision, data collection, reporting and management. Coordination between community health/nutrition services and primary care services is not standardized and referral systems are weak at best. While this is a major gap, especially when considering joint delivery of an integrated RMCHN package through the health and nutrition sectors, this also presents a significant opportunity to improve impact by reorienting and coordinating existing systems.

C. Proposed Development Objective(s) (From PAD)

To increase utilization of a package of reproductive, maternal and child health and nutrition (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.

Key Results

Project Development Objective Indicators

- Percentage of infants 0-5 months exclusively breastfed
- Percentage of children 6-23 months with minimum meal frequency
- Percentage of children 6-59 months receiving vitamin A supplementation within the past 6 months
- Percentage of women receiving any IFA tablets at last pregnancy
- Number of facility-based deliveries

Intermediate Results Indicators

- People who have received essential health, nutrition, and population (HNP) services
- Number of children immunized
- Number of women and children who have received basic nutrition services
- Number of women receiving ANC during the first 3 months of pregnancy
- Number of Severe Acute Malnutrition (SAM) cases treated in the outpatient SAM treatment program
- Number of functioning community sites
- Number of community health and nutrition workers trained by the project



- Percentage of community health and nutrition workers achieving satisfactory score on the community service delivery indicator (SDI) score
- Percentage of providers at the primary health facilities achieving satisfactory score on the community service delivery indicator (SDI) score
- Number of primary health facilities having tracer medications in stock
- Percentage of CSBs providing monthly activity reports on time
- Percentage of communes that organized at least 1 CoSan meeting in the past 6 months
- Grievances responded to and/or resolved within the stipulated service standard for response times

D. Project Description

17. This operation has four components: Component 1 – Scale up coverage and utilization of the RMCHN minimum package; Component 2 – Strengthen capacity to manage and deliver the RMCHN package; Component 3 – Project Management, Capacity Building and Operations Support; and Component 4 – Contingent Emergency Response Component (CERC). The following sections provide an overview of each component.

18. Components 1 and 2 will be informed by the following crosscutting areas: (i) **Climate change:** a “climate change and health/nutrition” diagnostic conducted during project preparation identified climate-related entry points and interventions for this program (e.g. scaling up solar refrigerators in all regions, solar batteries for all data collection tablets, and integrating climate change and health/nutrition education into relevant project activities); and (ii) **Gender:** Given the underlying role of gender inequality in the targeted nutrition behaviors and practices, community-based activities will be assessed and designed as gender-smart.

A. Project Components

Component 1: Scale up coverage and utilization of the RMCHN Minimum Package

19. **This component facilitates beneficiary access to the minimum RMCHN package and utilization of high impact nutrition interventions at critical times during pregnancy and a child’s first years of life.** To achieve this, the following activities will be supported: (i) rapid scale up of integrated community-based health and nutrition services linked to strengthened primary care facilities; (ii) comprehensive BCC and demand creation, including social mobilization and use of mass media; and (iii) free provision of the minimum RMCHN package and removal of other financial and geographic barriers to utilization.

20. **To reduce fragmentation in how services are delivered, two existing community-level cadres will be coordinated and aligned to deliver the RMCHN minimum package.** There are currently two parallel systems delivering community-based services for health and nutrition: community health workers supported by the MOH, and community nutrition workers supported by the ONN. As the first operationalization of the recently-approved National Community Health Worker Policy, beneficiaries will be able to access the package through an integrated nutrition and health



site (one per *fokontany* [village] in targeted areas). Each site will have a community health worker and a community nutrition worker who will be trained together, but who respectively will deliver health and nutrition aspects of the RMCHN minimum package in coordination with each other and with strengthened primary care facilities. This approach, jointly designed by the health and nutrition sectors, retains the technical expertise and substantial cachet of the National Community Nutrition Program (PNNC) that has been built over several years, while strengthening linkages and referrals between the community health and nutrition workers and primary care facilities. For the first time, it also links community nutrition workers to primary care facilities. Importantly, a nutrition focused community worker ensures a continued focus on the high-impact nutrition interventions within the RMCHN minimum package. To ensure that the supply side is equipped to deliver the package, the financing will support an essential equipment package, necessary inputs/ commodities for delivering the minimum package for free at primary care facilities and community sites, and the needed human resources.

21. To achieve community-level results in the short term, existing approaches will be adapted. The approach in which the PNNC contracts local NGOs to monitor and supervise community-based nutrition activities has been working effectively for several years. The role of local NGOs will be expanded to monitor and supervise all community workers and help to strengthen linkages with community structures such as the community health committees and primary care facilities. The NGOs will continue to be contracted through the PNNC with term of reference (TORs) that have been jointly developed by both sectors. Further, to help improve quality of service delivery, a performance-based financing approach will be used to incentivize community health and nutrition workers. This builds on experience in the nutrition sector, in which the NGOs pay community nutrition workers a small monthly incentive (~US\$8/month) based on a set of verified output indicators such as timely submission of data.²⁶

22. Supply-side support will be complemented with demand-side actions to remove beneficiaries' financial, geographic and behavioral barriers to utilizing the minimum RMCHN package. These efforts will combine strategies that have been successfully implemented in Madagascar to ensure free access to services with global successes that will be adapted to the Malagasy context, such as financing facility-based community outreach for priority services and scaling a fee exemption scheme²⁷ for RMCHN interventions. Technical assistance from Alive and Thrive will contribute to development of a comprehensive and contextualized BCC approach to catalyze a national movement to recognize and prevent stunting. Mass media campaigns, community mobilization, and caregiver counseling will increase access to information and generate demand for the RMCHN minimum package while also improving key nutrition behaviors. This approach will reach not only mothers/caregivers, but the people who influence their use of health and nutrition services (e.g. husbands, mothers-in-law, local decision makers and national decision makers).

²⁶ This is in line with the directive that the MOH recently issued to use the same performance-based approach for community health workers. Over the project duration a more complex set of indicators will be tested and phased in to improve both the quantity and quality of community health and nutrition services.

²⁷ A recently published article in the *Health Affairs* on the World Bank-financed and PIVOT models in Madagascar shows that when fee exemptions were introduced for targeted medicines and services, the use of health care increased by 65 percent for all patients, 52 percent for children under age five, and over 25 percent for maternity consultations. These effects were sustained at an average direct cost of US\$0.60 per patient. See <http://content.healthaffairs.org/content/36/8/1443.full>



23. **The scale up of a standardized platform of primary care facilities and community-based services provides a flexible base to which selected services can be added/scaled with incremental costs to address the needs of specific populations, regions or priorities:** i) preventative lipid-based supplements (LNS) for children (aged 6 to 18 months); ii) treatment of Moderate Acute Malnutrition (MAM); and iii) early stimulation activities for children 6-30 months. The project will expand the collaboration initiated under PAUSENS with the local producers of lipid-based supplemental and therapeutic foods to ensure adequate supply of products and to use the private sector supply chain to deliver the products to primary care facilities and health/nutrition sites. This will help address one of the key bottlenecks, namely, the weakness of the medical input supply chain between the district and the primary health facility/community level. The project will also respond to differing regional epidemiological profiles by financing additional interventions. A package of Neglected Tropical Disease (NTDs) interventions will be delivered in project areas where NTDs are prevalent.²⁸ There will also be modest financing (\$450,000 total, for five years) for fully funding the Government's leprosy elimination plan.

Component 2: Strengthen capacity to manage and deliver the RMCHN package

24. **This component removes the key bottlenecks that can impede the scale up of the RMCHN package by:** (i) improving the quality of frontline workers at community and primary care facility levels and (ii) strengthening supervision and management functions at district and regional levels, including improvements in health and nutrition information management systems.

25. **This component will modernize the training of primary care and community workers, using technology.** As stated previously, the current capacity of providers to deliver the minimum package of services is weak. The training approach will consist of an initial pre-service training followed by a series of regular in-service/refresher trainings coupled with intensive supervision and coaching. The effectiveness of the training will be enhanced by the other areas of the project support,²⁹ including the use of smartphones job aids and tablets.

26. **To further improve quality, this component will also support an expansion of a performance based financing (PBF) model,**³⁰ maximizing the supply-side investment to provide a foundation to expand results-based approaches in subsequent phases of the program. The PBF model builds experiences from three country-level pilots. Under the model, primary care providers will be incentivized based on their achievement of agreed-upon, measurable performance targets, in this case around quality delivery of the RMCHN package. The project will scale the model to at least eight targeted districts.³¹ Resources will support the Government to establish to set up a web-based

²⁸ Previously financed through PAUSENS. A school-level NTD package to be financed under the new IDA/GPE Education Project will be delivered in complementarity to these activities.

²⁹ including the use of technology, such as smartphones and tablets, scaling a performance based financing model that improves quality of frontline providers by linking results to payment and strengthened supervision from regional and district levels

³⁰ The design of the model that will be scaled is being informed by the achievements and lessons learned of three previous pilots in Madagascar, including one under the PAUSENS.

³¹ As part of the model, district and regional level teams will have a performance framework whereby discretionary resources for operational expenditures will be linked to a set of improved management and supervision functions critical to delivering the package, aligning with existing performance frameworks.



portal to allow for tracking progress by region. There will also be complementary technical assistance support to USAID-funded districts for initial capacity building and training for PBF to support a uniform approach that can be scaled through USAID financing.

27. The success of the Government's program also depends on an effective management and supervision model, complemented by reliable and timely data for informed decision making at all levels. Currently, management and supervision at MOH and ONN is weak due to a combination of financing constraints and insufficient knowledge and skills to perform these functions well. In addition, the health and nutrition management information system is underdeveloped: data quality, timeliness, completeness, and accuracy are low across all levels.³² Also, data are not systematically shared between the health and nutrition sectors.³³ These issues make data-based planning, budgeting, and management difficult and pose a significant challenge to efforts to link financing to results. To alleviate these bottlenecks, the operation will finance:

- **Information technology (IT) solutions to improve data-based program management and quality service delivery.** In collaboration with the WHO, the project will finance the scale up of a tablet-based system at the primary care facility level for monthly reports and patient registers (built on a strengthened paper-based system), which will be integrated and scaled as part of an existing electronic disease surveillance system. Underpinning this initiative is a central focus on establishing a systematic process of data sharing across nutrition and health sectors at all levels. There will also be financing to test and scale electronic job aides to improve quality of primary care and community-based providers. The WHO has committed in-kind technical assistance for developing the software applications.
- **A capacity strengthening approach for regions and districts to effectively manage delivery of the RMCHN package.** Building on previous experience, technical assistance will be subcontracted to equip regional and district health and nutrition teams with skills to undertake effective planning, budgeting, and supervision and evidence-based, bottom-up planning. As part of the technical assistance, there will be a focus on knowledge/capacity transfer plan starting during Year 1 with a view to scaling down third party-contracted technical assistance over the life of the operation.

28. There will also be flexible financing for testing implementation modalities with other sectors such as WASH and SP. This component will also include technical assistance to inform reform. In addition to midline and endline surveys, two additional rounds of facility-based SDI surveys and three rounds of community SDI surveys will be financed. There will also be financing for rapid assessments and reviews to inform any needed midcourse corrections.

Component 3: Project Management, Capacity Building and Operations Support

29. This component will primarily finance operational costs and capacity building to ensure effective coordination, management, and implementation of components 1 and 2. This will include support to strengthen the capacity of the multisectoral steering committee to carry out its functions effectively. In addition, there will be capacity building of managerial and technical teams from the health and

³² Findings from an evaluation of the HMIS conducted by MEASURE (USAID) in 2015.

³³ The MOH has recently developed an ambitious roadmap for the reform of the HMIS. However, it is striking that despite the key role of the health sector in improving nutrition outcomes, the nutrition sector (ONN and PNNC) has not been engaged in a meaningful way in developing the roadmap.



nutrition sectors, at all levels of the system, on effective management and implementation of programs as well as relevant technical skills. At the central level, this will be essential to ensure a functional link between the project implementation entities and the technical directorates in these sectors. As this project is supporting a longer-term national effort towards the objective of stunting reduction, this component will also support technical assistance to identify opportunities and establish mechanisms for competency transfer to the National Institute of Public Health and the Medical Faculty (potentially others) in the areas of training, external verification and research³⁴. This will be undertaken in complementarity with planned capacity building and knowledge transfer activities in components 1 and 2 of this operation. The project will also finance the costs related to implementation entities within the MOH and ONN, namely the MOH's "Unite Centrale de Coordination des Projets"/Central Unit for the Coordination of Projects (UCP), which is responsible for managing all donor funds within the MOH, and the ONN's Unité de Programme National de Nutrition Communautaire/National Community Nutrition Program Unit (UPNNC), which is responsible for implementation of the PNNC. Both entities will be responsible for the fiduciary and monitoring and evaluation aspects of this operation.

Component 4: Contingent Emergency Response Component (CERC)

30. A no-cost CERC will be included under the proposed project in accordance with Operational Policy (OP) 10.00, paragraphs 12 and 13 for projects in Situations of Urgent Need of Assistance or Capacity Constraints. This will allow for rapid reallocation of project proceeds in the event of a natural- or man-made disaster or crisis that has caused, or is likely to imminently cause, a major adverse economic and/or social impact. Further, the risk of natural disasters in Madagascar is increasing with climate change; preparedness with emergency action plans and protocols is critical³⁵ and will help to ensure a higher state of readiness should financing under this component be triggered.

E. Implementation

31. The arrangements have been informed by lessons learned from the effective arrangements of the multisector PAUSENS operation.

32. **The ONN and MOH will have joint responsibility for overseeing the implementation of the first phase of the program.** The technical coordination and fiduciary aspects of the project will be co-managed by the existing fiduciary units within these institutions, namely the National Community Nutrition Program Unit (UPNNC) of the ONN and the Project Coordination Unit (UCP) of the MOH. The UPNNC and UCP have jointly agreed to divide fiduciary responsibilities across the four components. Overall, the fiduciary responsibility of community-based services will rest UPNNC and the fiduciary responsibility of primary care services as well as regional and district level activities will largely rest with UCP. To note, while the fiduciary responsibility of activities is divided between both implementing agencies; from a technical perspective, all the activities are undertaken in an integrated and/or high coordinated manner between both institutions from central down to

³⁴ The team will explore potential opportunities with the pipeline Regional Higher Education Program, Africa Centers of Excellence (ACEs) for Development Impact (P164546), to support the Government on a longer term agenda to build a high quality national work force on health and nutrition.

³⁵ The GoM has developed a climate change and health action plan which articulates this need. Other key donors on the climate change and health agenda will be consulted on how best to support the Government in completing these plans during the next consultation planned for the week of October 2, 2017.



community level.

33. Due to the design of this program, the Ministry of Finance (MOF) will chair a multisectoral Steering Committee (SC) to monitor implementation. The committee will comprise of the Directorate of Public Debt, MOH, the Prime Minister's Office, ONN, and civil society and will be expanded dependent on future program activities³⁶ and will be in place by December 12, 2017. To help ensure sustainability, the MOF's Public Debt/Projects Monitoring Services (DDP/SSP), the Directorate in charge of monitoring all external financing to the Government will oversee coordination of PIUs, monitor technical and financial progress of UPNNC and UCP, analyze the bottlenecks and formulate proposals for remedial measures, and facilitate joint multisector supervision missions. The DDP/SSP will also serve as the secretariat of the SC. Experience from PAUSENS demonstrated the importance of including a secretariat to manage information flows and to resolve some difficult issues at higher levels that could have impacted implementation. This secretariat will play a critical role facilitating communication between the representatives of the SC, the nutrition and health sectors, and their PIUs. The DDP/SSP will serve as the secretariat of the SC. As part of its secretariat functions, the DDP/SSP will prepare and/or consolidate all documentation needed for SC information, decision, and approval. The project Implementation Manual will further detail the operating mechanisms of these entities.

34. To ensure coordinated implementation and integrated supervision and monitoring of the operation, similar arrangements as those outlined for SC at central level will be established at lower levels; specifically establishing multisectoral technical committees consisting of regional/district health teams and regional nutrition teams. These technical committees will be able to coordinate activities with other sectors as the program rolls-out. At community level, local NGOs contracted through UPNNC will support health facilities and regional nutrition offices to effectively monitor health and nutrition community workers. The NGOs will also help primary care facilities to ensure that both cadres are effectively integrated into the commune health committees to effectively monitor and supervise community-based activities. From central to community level, implementation arrangements for the project will be monitored and assessed – every 6 months – with a more intensive yearly assessment to ensure effectiveness and allow for mid-course corrections. These assessments will also be key to informing arrangements for future phases of the program. Annex 6 provides an organizational chart as well as a detailed description of implementation and institutional arrangements, and outlines the specific roles and responsibilities of the entities involved in the project.

³⁶ Participation will be expanded dependent on future program activities



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

At the National level, this Project will target health facilities. The project has positive social development outcomes and low social risk. The project intervention will increase the delivery of quality health services to all beneficiary groups and provide the population access to the minimum package of services including immunizations, and vitamin supplementation to both pregnant women and children. The project will procure and deliver the relevant health commodities (drugs), an essential package of equipment to health facilities and will support community level health and nutrition activities. In view of the above; no negative environmental impacts will be provided by the proposed project. It is expected that with improvements in access and utilization of health services, the production of both medical and pharmaceutical waste in the targeted health facilities may increase and may adversely affect the environment and the local population if not managed and eliminated appropriately. Under Emergency Support to Critical Education Health and Nutrition Services Project (PAUSENS, P131945), the current National Medical Waste Management Plan (NMWMP) was prepared through a consultative process involving all stakeholders in the regional and national levels in the health sector. The NMWMP has given satisfactory results to manage risk and environmental impacts in the health facilities. This existing, comprehensive NMWMP will also be used under this project to mitigate potential environmental risks. The Ministry of Health has demonstrated ownership in dealing with medical waste management. They have a strong technical team in place, the Service d'Appui aux Genies Sanitaires (SAGS), which was in charge of supervising and monitoring the implementation of the NMWMP under PAUSENS. The experience with SAGS has been positive; SAGS successfully managed the NMWMP's supervision and operation under PAUSENS. It will continue its oversight and implementation role in this project as well. No civil works will be scheduled in the project design. The project is not expected to have long term significant negative social or environmental impacts and is classified as Category B.

G. Environmental and Social Safeguards Specialists on the Team

- Peter F. B. A. Lafere, Social Safeguards Specialist
- Andrianjaka Rado Razafimandimby, Social Safeguards Specialist
- Marina Rachel Gery Ramarosan, Environmental Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The project intervention will increase the quality of health services and the population's access to the minimum package of services. including immunizations, and vitamin supplementation to



		<p>both pregnant women and children. The project will procure and deliver the relevant health commodities (drugs), an essential package of equipment to health facilities and will support community level health and nutrition activities. In view of the above, no negative environmental impacts are expected from the proposed project. It is expected that with improvements in access and utilization of health services, the production of both medical and pharmaceutical waste in the targeted health facilities may increase and may adversely affect the environment and the local population if not managed and eliminated appropriately. During the preparation of original project, the current National Medical Waste Management Plan (NMWMP) was prepared through a consultative process involving all stakeholders in the regional and national level in the health sector. The Ministry of Health includes the status of implementation of the NMWMP in its annual technical report of the sector. This NMWMP was published in the country and disclosed through the Infoshop on 27 December 2014, it has been re-disclosed in the country and through the Infoshop as part of this new operation on September 11, 2017.</p>
Natural Habitats OP/BP 4.04	No	<p>OP 4.04 is not triggered on this project because the activities are focused with existing health centers to improve quality of health services and the population's access to the health and nutrition services. .</p>
Forests OP/BP 4.36	No	<p>The project will not be concerned with the management of forests.</p>
Pest Management OP 4.09	No	<p>The project will not be concerned with the purchase pests and pesticides. The project has developed a Medical Waste Management Plan in compliance with OP 4.01.</p>
Physical Cultural Resources OP/BP 4.11	No	<p>The project focuses on existing health centers to improve quality of health and nutrition services and the population's access to services. No environmental risks are foreseen on Physical Cultural Resources.</p>
Indigenous Peoples OP/BP 4.10	No	<p>There are no indigenous peoples as defined by the policy present in the project area.</p>
Involuntary Resettlement OP/BP 4.12	No	<p>The project will not involve any activities that would result in land acquisition, physical displacement, economic displacement or any other form of</p>



		involuntary resettlement as defined by the policy.
Safety of Dams OP/BP 4.37	No	The policy is not triggered since the project will not invest in dams nor will any project activities rely on the operations of existing dams.
Projects on International Waterways OP/BP 7.50	No	The policy is not triggered since project activities will not affect any known International Waterways.
Projects in Disputed Areas OP/BP 7.60	No	The policy is not triggered since project activities will not affect any known disputed areas.

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

Activities related to the project approach in components 1 and 2 aim to improve the quality of health and nutrition services at the community level and in the primary health centers at the commune level (CBS 1 and 2). They may lead to an increase in the production of both medical and pharmaceutical waste in the various care centers. This could involve risks associated with the handling and disposal of infected materials. If medical waste and expired medicines are not properly managed and disposed of on site or safely contained in a secured zone they could pollute the soil and water or contaminated the medical personal and families whose income is derive from the triage of waste. The country has a comprehensive medical waste management plan in place to help mitigate adverse effects of medical waste and disposal of expired medicines. Therefore, no large and irreversible impacts are expected.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
Not applicable. No potential indirect or long term impacts are anticipated in the project area.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.
Not applicable.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Ministry of Health already has an operational National Medical Waste Management Plan (NMWMP) and has good experience in implementing the Medical Waste Management Plan supported under the health component of the Emergency Support to Critical Education, Health and Nutrition Services Project (PAUSENS, P131945).

Operational activities have mainly included dissemination of tools, elaboration of medical waste management plans in the various health facilities, training of health staff and patients, provision of incinerators to hospitals and the provision of small equipment (waste storage room, medical waste containers/boxes, personal protective equipment (PPE), etc.) to collect and eliminate medical waste in the health facilities to meet the national standards. The Bank’s review on the implementation of the current NMWMP is noted as satisfactory in terms of application and adoption of action plans proposed under the Plan. The project will support the implementation of the NMWMP by financing:: (i) 22 Montfort incinerators; (ii) the training of 27% of the physicians, 21% of the allied health personnel; 10% of administrative staff and 11% of the support staff associated with the project health facilities and; (iii) the training in universal precautions and management of health waste in 8 regions. The expired pharmaceutical products are



collected at the district level and eliminated in incinerators following the guidelines for destroying medical waste. The medical waste at primary care level is collected and eliminated into concrete pits in secure sites at each health center. The Ministry of Health has demonstrated clear ownership of the issues related to the management of medical waste. It has been an integral player in the development of this policy as well as the IEC and training activities conducted at various levels. The project will work with the already operational coordinating unit in the Ministry of Health, the Service d'Appui aux Genies Sanitaires (SAGS), in charge of designing and implementing the elimination equipment for each health care center and for supervising and monitoring the implementation of the NMWMP. This unit is composed of six technical staff at the central level plus the coordinator with their representative staff at the regional level. The staff are reinforced by individual consultants who conduct capacity building and training sessions in the health care centers. Since SAGS has enough staff to ensure implementation of the NMWMP in project areas, additional staff will not be financially supported by this operation. Only one consultant will be financed by the operation to support the training of health staff at the CSB level.

The proposed project will contribute to the implementation of the NMWMP in the eight regions of the project. The Bank's team has received a coherent and clear work program to implement NMWMP in the project zones for a total amount of US\$ 300, 000. There will be a review of the implementation of NMWMP before the end of this proposed operation.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

During the preparation of original project, the current National Medical Waste Management Plan was prepared through a consultative process involving all stakeholders in the regional and national levels of the health sector. The Ministry of Health includes the status of implementation of the National Medical Waste Management Plan in its annual technical report of the sector. This NMWMP was published in country and released through the Infoshop on 27 December 2014; it has been re-disclosed in the country and re-released through the Infoshop on September 11, 2017.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
05-Sep-2017	08-Sep-2017	

"In country" Disclosure

Madagascar
11-Sep-2017

Comments



C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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Approved By

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Country Director:	Coralie Gevers	19-Oct-2017

