



World Food Programme

SAVING
LIVES
CHANGING
LIVES

Scaling Up of the Rapid Rural Transformation (RRT) Initiative in Madagascar

General Context

The **Rural Rapid Transformation (RRT) Initiative** is an integrated approach developed by the **World Food Programme** to strengthen the resilience of vulnerable rural communities, particularly in the arid regions of southern Madagascar.

At the heart of the initiative are **multifunctional solar platforms**, which power a range of community services built around the **Water-Energy-Food nexus**.

The objective is to **transform local communities** by improving access to essential services such as **clean water, irrigation, food processing, digital training**, and the **creation of local employment opportunities**.

Since January 2023,

- 11 RRT sites have been established in Madagascar:
- 4 sites have been fully operational since 2023
- 2 sites are completed and currently being operationalized
- 5 sites are in the final stages of installation

Each site has an energy capacity of 24.1 kWp and powers a variety of essential services, including:

- Potable water and agricultural irrigation systems
- Food processing units (cheese production, drying, milling)
- Cold storage facilities, fish farming, and repair workshops (welding, carpentry, etc.)
- Digital classrooms and community kiosks

Integrated and Multisectoral Services through the RRT Initiative



Digitalization and Internet Access



Access to Clean Water



Improved Food Storage and Processing



Climate-Resilient Agriculture



Renewable Energy for New Income-Generating Activities



Social Cohesion

Outlook 2025–2026

An ambitious expansion plan is underway to scale up the RRT initiative by 2026, with several new sites planned across southern Madagascar, supported by various development partners:

- 4 sites funded by BMZ/KfW, in Itampolo (Atsimo-Andrefana) and Tsivory (Anosy)
- 5 sites funded by the European Union under the PACTE VERT programme
- 3 sites in Betioky, financed by the Government of Japan
- 4 sites (2 in Anosy, 2 in Androy) funded by the National Nutrition Office (ONN) and the Ministry of health as part of the World Bank-funded PARN-2 programme
- Additional RRT sites (number to be confirmed) are being considered under the expansion of the Mionjo project, with discussions currently in progress with the World Bank and the Ministry of Economic Planning



These new sites will be integrated in a coherent manner with other government and partner initiatives, including:

- Water supply systems (UNICEF)
- School feeding and local procurement (HGSF)
- Resilience-building activities
- Community nutrition programmes and emergency projects

The goal is to establish RRT platforms as catalysts for local economic development, food security, and nutrition.

The new sites will have a reduced capacity compared to the initial ones (15 or 20 kWp) and will be installed by local suppliers based in Madagascar.



Contact

Tania Goossens, Representative and Country Director - WFP Madagascar, tania.goossens@wfp.org
Outman Badaoui, Head of Programme - WFP Madagascar, outman.badaoui@wfp.org
Federico Remonda, Head of section Resilience - WFP Madagascar, federico.remonda@wfp.org
Chiara Guccione, Head of Partnerships - WFP Madagascar, chiara.guccione@wfp.org

Photos: WFP/Tsiory Andriantsoarana, WFP/Gabriela Vivacqua, WFP Photo Library.

Follow us:  /@PamMadagascar

Cost-Benefit Analysis and Key Lessons Learned

A cost-benefit analysis was conducted by the United Nations Economic Commission for Africa (ECA) in 2024, one year after the pilot RRT sites became operational. The analysis concluded that access to clean drinking water was the most significant benefit for communities.

Other substantial benefits were also identified in the areas of health, environmental impact, access to education, and economic empowerment.

On the best-performing site, the analysis revealed a return of USD 8.64 for every USD 1 invested.

The study also highlighted the need to:

- Adapt the size of energy kits to the specific needs of each location
- Strengthen community capacities for management and long-term sustainability
- Promote viable business models based on the sale of services

Management Models and Sustainability

Several management models are being considered, tailored to local contexts:

- Community-based management, with or without a maintenance contract with a private company
- Management by local agricultural cooperatives
- Public-private partnerships involving local businesses
- Private sector management, under national supervision or with a potential transition to mini-grid operations

A **sustainable business model** is currently being developed, integrating the sale of services (such as water, energy, space rental, food processing, etc.) to ensure financial autonomy and infrastructure maintenance. In some cases, the model will seek to involve local water operators already working with UNICEF, ensuring alignment with existing projects in the targeted areas. The RRT initiative serves as a foundational pillar for rural development in southern Madagascar.

Through an integrated approach, the initiative **rapidly improves the living conditions of vulnerable populations** by facilitating access to energy, water, education, and sustainable income opportunities. Alignment with the priorities of World Bank programmes such as PARN-2 and Mionjo presents a strategic opportunity to accelerate the scale-up of this initiative in line with the development policies of the Government of Madagascar.