

**REVERSE LINKAGE**

DEVELOPMENT THROUGH SOUTH-SOUTH COOPERATION

# RICE PRODUCTION

**IsDB**   
البنك الإسلامي للتنمية  
Islamic Development Bank



 **SURINAME** (RECIPIENT)  
 **MALAYSIA** (PROVIDER)

ENABLING SURINAME TO  
ACHIEVE SELF-SUFFICIENCY  
IN RICE PRODUCTION AND  
INCREASE HIGH-QUALITY  
RICE EXPORTS

## THE CHALLENGE

Suriname has the potential to achieve self-sufficiency in rice production and develop better rice-based products that can be marketed domestically and internationally. To that end, the Anne van Dijk Rijst Onderzoekscentrum Nickerie (ADRON), a research center under the purview of the Ministry of Agriculture, Animal Husbandry and Fisheries, was established for Research & Development (R&D) in rice and to support farmers on the ground. However, the farmers in Suriname are faced with limited, area-specific rice varieties for different soil types within the country. This problem is compounded by an acute lack of qualified rice breeders.

Suriname's rice breeders need to improve their knowledge in four essential areas: monitoring soil fertility and degradation, integrated water management for rice cultivation, documentation of the rates and requirements of fertilizer usage, and systematic land-levelling management in rice growing areas.

## THE SUPPLY

The Malaysian Agricultural Research and Development Institute (MARDI) is a leader in agro-technology with an international reputation for R&D supporting agricultural and bio-based industries, and has helped Malaysia to become self-sufficient in several commodities.

With more than 35 years of expertise in rice production, MARDI has been able to release a number of rice varieties that are resistant to the rice blast fungus, and the brown planthopper pest. The Institute has produced a manual for rice cultivation and has developed a technology package for planting rice on problem soils and evaluating rice quality. Thus, MARDI's rice technology has helped Malaysia increase its rice yield to an average of 7 tons per hectare, with a maximum yield of 10 tons per hectare.

MARDI, through its subsidiary MARDI Holdings, established partnerships outside Malaysia and has in-depth international experience in implementing agricultural projects in other many countries.



**10**

TONS PER HECTARE MAXIMUM  
RICE YIELD ACHIEVED  
THROUGH USING MARDI  
RICE TECHNOLOGY

**8**

AREA-SPECIFIC RICE VARIETIES  
ARE BEING INTRODUCED,  
TOGETHER WITH FACILITIES  
FOR A BREEDING  
PROGRAMME

## THE MATCHMAKING

The Islamic Development Bank (IsDB) included capacity-building as one of its areas of engagement in Suriname's Interim Member Country Partnership Strategy, and then identified capacity gaps in rice production through its continuous dialogue with the Government of Suriname.

Meanwhile, as Malaysia has a comparative advantage in rice-growing technologies, sharing its expertise in rice was included in its Member Country Partnership Strategy. Moreover, MARDI, the 2011 winner of the IsDB Prize for Science and Technology, was identified as a source of expertise in this subject area. Thus, the IsDB was able to match the needs of Suriname's Ministry of Agriculture, Animal Husbandry and Fisheries with Malaysia's expertise.

To close the loop, the IsDB coordinated and funded a peer-to-peer consultation process to design customized solutions for Suriname's needs. To ensure joint ownership, the Government of Suriname and MARDI contributed to the project's financing together with the IsDB. Additionally, MARDI Holdings has committed to share intellectual property for eight area-specific rice varieties.

## THE PROJECT

### GOAL

The project aims to help Suriname achieve and maintain self-sufficiency in rice production and increase the export of high-quality rice.

### MAIN ACTIVITIES

- Introducing and sharing the intellectual properties of eight new area-specific rice varieties to enable the country to produce specialized rice varieties for export.
- Developing institutional capacity in certified seed production, breeding methodology, and protocol, as well as setting up a certified seed production facility.
- Strengthening soil fertility through the improvement of soil and nutrient management, introduction of bio fertilizers, and development of good fertilizer practices and management systems.
- Establishing an integrated water management system for rice areas in Suriname and piloting land-levelling work to improve water coverage.



- Developing a pilot rice-production farm of 500 hectares with a yield of 7 tons per hectare.
- Formulating a rice policy framework using the value chain approach adapted to Suriname.
- Organizing a specialized training series for ADRON staff and various local stakeholders, including farmers.

## DURATION

Three years, from 2016 to 2019.

## MONITORING AND EVALUATION

Project activities will be coordinated by an implementation unit in ADRON. A joint coordination committee, composed of representatives of several stakeholders from Suriname, MARDI, and the IsDB will meet periodically to review progress.

## THE WINS FOR ALL

The project will enable necessary improvements in varieties, breeding and production methodologies, infrastructure, and human resource development to achieve and maintain Suriname's long-term self-sufficiency in rice production (even with an expected increase in per capita rice consumption).

The project will help Suriname's Ministry of Agriculture, Animal Husbandry and Fisheries maintain a sustainable and competitive industry, directly benefiting at least 1,500 farmers and indirectly benefiting 5,000 people.

The Government of Malaysia benefits by showcasing its country's technologies and expertise. In addition, participating in the project enables the sharing of knowledge and expertise with other IsDB countries—a key part of its Member Country Partnership Strategy. MARDI will be able to adapt and deploy its technologies overseas in diversified conditions and increased dialogue with various experts will facilitate new perspectives and ideas.

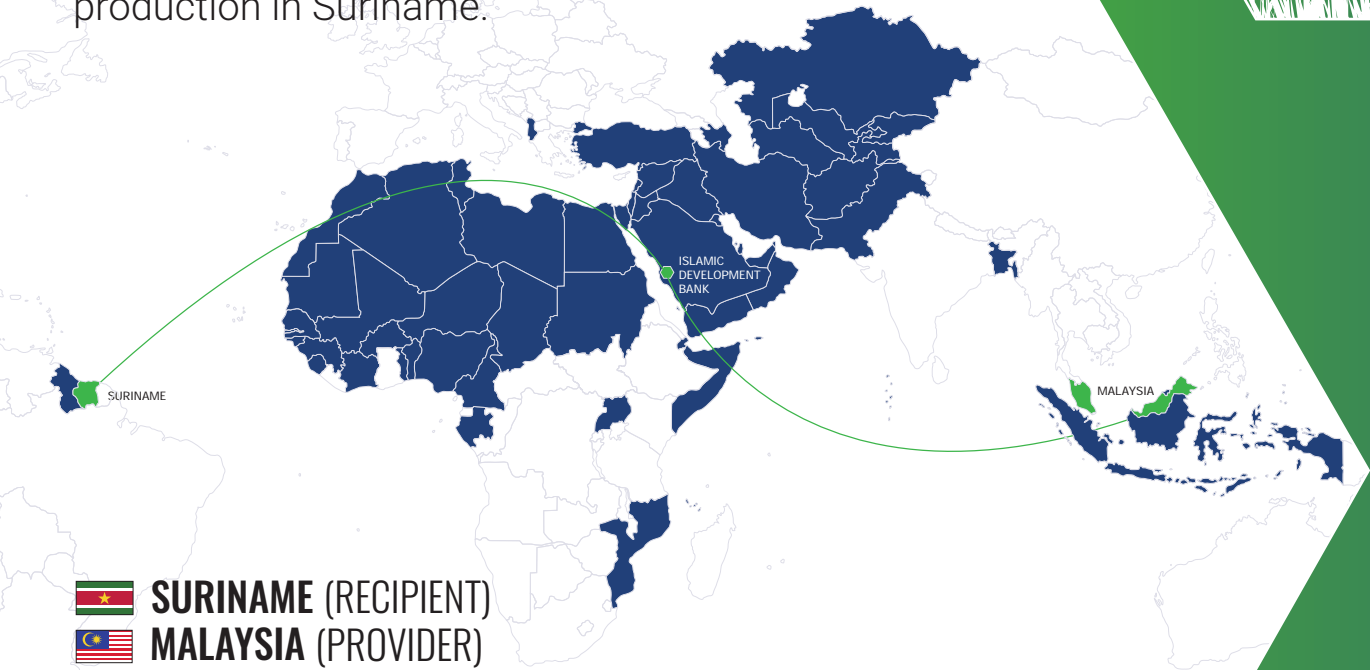
From the IsDB's perspective, the project is an efficient and effective way of improving South-South Cooperation among member countries, helping the Bank to realize its vision and 10-year Strategic Framework.



**1,500**

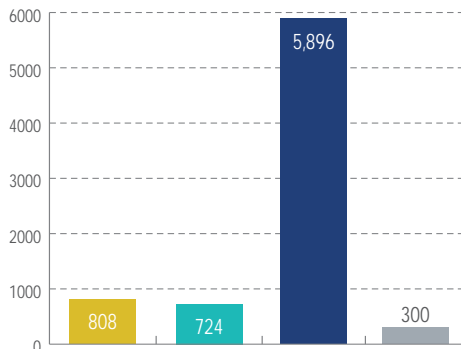
THE NUMBER OF FARMERS  
DIRECTLY BENEFITING  
FROM A SUSTAINABLE AND  
COMPETITIVE INDUSTRY

The IsDB is matching the Suriname's challenge with Malaysia's experience so that the two countries will cooperate to maintain self-sufficiency in rice production in Suriname.

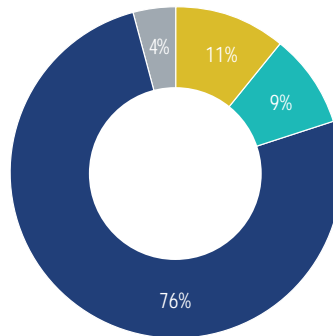


 **SURINAME (RECIPIENT)**  
 **MALAYSIA (PROVIDER)**

**CONTRIBUTION (US\$ THOUSANDS)**



**PERCENTAGE (%)**



 THE GOVERNMENT OF SURINAME  MALAYSIAN AGRICULTURAL RESEARCH AND DEVELOPMENT INSTITUTE (MARDI)  ISDB LOAN  ISDB GRANT

THE PROJECT  
 COMMENCED IN  
**2016**  
 AND RUNS UNTIL  
**2019**

It is at the center of the IsDB's mandate to promote cooperation among its member countries.

In 1981, the Makkah Declaration of the Third Islamic Conference Summit called the OIC member countries to strengthen collaboration, to utilize and foster their talents, skills and technological capacities. The Bank responded and launched its Technical Cooperation Program in 1983. This has then been scaled up via what we call Reverse Linkage.

The structured skills swap under Reverse Linkage helps the recipient country diagnose and analyze a problem while the provider country shares its proven knowledge and expertise to find a solution.

The idea that all partners have something to gain from cooperation lies at the heart of Reverse Linkage.

The learning process is reciprocal, knowledge transfer is in both directions, and benefits are mutual.

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