

## Evidences

### Study #2227

**Contributing Projects:** <Not Defined>

#### Part I: Public communications

**Type:** OICR: Outcome Impact Case Report

**Status:** On-going

**Year:** 2017

**Title:** impact of improved rice varieties in sub-Saharan Africa

#### Short outcome/impact statement:

The adoption of improved rice varieties by farmers in 16 countries in Sub-Saharan Africa, was estimated at 3.5 million ha, including 1.4 million ha for NERICA varieties. Yields increased with 431 kg per hectare with adoption of improved varieties, and with 320 kg per hectare with adoption of NERICA varieties. About 8 million people were lifted out of poverty and 7.2 million people out of food insecurity. Average income also increased from US\$ 25 capita<sup>-1</sup> to US\$ 58 capita<sup>-1</sup> for NERICA adopters.

#### Outcome story for communications use:

<Not Defined>

**Links to any communications materials relating to this outcome:** <Not Defined>

#### Part II: CGIAR system level reporting

**Link to Common Results Reporting Indicator of Policies :** No

**Stage of maturity of change reported:** Stage 3

#### Links to the Strategic Results Framework:

Sub-IDOs:

- Adoption of CGIAR materials with enhanced genetic gains

Is this OICR linked to some SRF 2022/2030 target?: Yes

SRF 2022/2030 targets:

- # of more farm households have adopted improved varieties, breeds or trees
- # of people, of which 50% are women, assisted to exit poverty

Description of activity / study: <Not Defined>

#### Geographic scope:

- Multi-national

Country(ies):

- Côte d'Ivoire
- Mali
- Burkina Faso
- Rwanda
- Ethiopia
- Cameroon
- Madagascar
- Nigeria
- Tanzania, United Republic
- Gambia
- Benin
- Niger
- Togo
- Senegal
- Sierra Leone
- Ghana

Comments: <Not Defined>

**Key Contributors:**

Contributing CRPs/Platforms:

- Rice - Rice

Contributing Flagships:

- F1: Accelerating impact and equity
- F5: New rice varieties

Contributing Regional programs: <Not Defined>

Contributing external partners: <Not Defined>

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**

<Not Defined>

**Innovations:**

- 2381 - Expansion of the national agriculture research and extension systems (NARES) breeding network in line with the market segmentation (<https://tinyurl.com/2mh54tyx>)
- 2421 - A new high-yield red rice variety for rainfed ecology (FOFIFA 191) in Madagascar (<https://tinyurl.com/2onxhod9>)
- 2424 - A new high-yield rice with cold tolerance for rainfed ecology (FOFIFA 194) in Madagascar (<https://tinyurl.com/2fsuo292>)
- 1924 - Native trait deployment lines for rice (<https://tinyurl.com/2o7adath>)
- 1925 - Improved mid-density genotyping platforms for breeding and mapping (<https://tinyurl.com/2hj2wh4j>)
- 2380 - Breeding program organization by maturity groups as early, medium, and late maturity (<https://tinyurl.com/2kfs2a6t>)

**Elaboration of Outcome/Impact Statement:**

The potential of improved rice varieties to increase food security and to reduce poverty is widely documented in the literature. The review of existing literature and update of empirical evidence based on data collected in 2014 in 16 sub-Saharan African (SSA) countries, revealed that the adoption of improved rice varieties has a positive impact on different development outcomes including productivity, production, income, expenditure, poverty reduction, and food security. Both metadata and primary data analyses showed an increase in adoption rate, especially after the 2008 food crisis. Thus, during the period from 2000 to 2014, more rice farmers were adopting improved rice varieties every year. By 2014, the adoption of improved rice varieties by farmers in the studied countries was estimated at 3.5 million ha, including 1.4 million ha NERICA varieties. Yields increased with 431 kg per hectare with adoption of improved varieties, and with 320 kg per hectare with adoption of NERICA varieties. The increase in adoption rate has had an impact on income corresponding to US\$ 3.9 per capita per year for NERICA adopters. In addition, about 1 million households totaling 8 million individuals, and 0.9 million households totaling 7.2 million individuals in SSA have been lifted out of poverty and food insecurity, respectively, in 2014. Findings suggest that improved rice varieties and NERICA varieties in particular, brought hope to millions of poor, small-scale farmers, in sub-Saharan Africa by reducing poverty and income inequality. This could be enhanced not only with a wider dissemination of improved rice varieties, but also by addressing production constraints and certified seed bottlenecks (Arouna et al., 2017).

**References cited:**

1. Arouna A, Lokossou JC, Wopereis MCS, Bruce-Oliver S and Roy-Macauley H. 2017. Contribution of improved rice varieties to poverty reduction and food security in sub-Saharan Africa. *Global Food Security*. 14: 54-60. <https://doi.org/10.1016/j.gfs.2017.03.001>

**Quantification:** <Not Defined>

**Gender, Youth, Capacity Development and Climate Change:**

**Gender relevance:** 0 - Not Targeted

**Youth relevance:** 0 - Not Targeted

**CapDev relevance:** 0 - Not Targeted

**Climate Change relevance:** <Not Defined>

**Other cross-cutting dimensions:** <Not Defined>

**Other cross-cutting dimensions description:** <Not Defined>

**Outcome Impact Case Report link:** [Study #2227](#)

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