### Study #3216

**Contributing Projects:**
- P1569 - AfricaRice Contribution to RICE Flagship Project 1

**Part I: Public communications**

**Type:** OICR: Outcome Impact Case Report  
**Status:** Ready to be reported on  
**Year:** 2019

**Title:** Impact of drought-tolerant rice varieties (DTRV) on the livelihood of smallholder farmers

**Short outcome/impact statement:**
Adoption of DTRV increased the rice yield by 570 kg/ha (24% increase) leading to an increase in income of US$ 126 per ha in Benin, Madagascar and Nigeria. Adoption also improved household food security.

**Outcome story for communications use:**
To adapt to climate change and continue to improve the productivity of staple food crops such as rice, drought-tolerant rice varieties (DTRV) were developed and released in sub-Saharan African (SSA) countries. We assessed the contribution of DTRV adoption on the productivity, income and food security status of smallholder farmers in three countries (Benin, Madagascar and Nigeria). We found that adoption of DTRV helped smallholder farmers to increase the rice yield by 570 kg/ha (corresponding to an increase of 24%) and lead to an increase in income of US$ 126 per ha. Adoption also improved household food security status. Large-scale dissemination of drought-tolerant rice varieties will help smallholder rice farmers in SSA not only to adapt to climate change but also to improve their food security and livelihoods.

**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

**Level of maturity of change reported:** Level 3

**Links to the Strategic Results Framework:**
Sub-IDOs: <Not Defined>

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

SRF 2022/2030 targets: <Not Defined>

Comment: <Not Defined>

**Geographic scope:** <Not Defined>

Comments: <Not Defined>

**Key Contributors:**
Contributing CRPs/Platforms: <Not Defined>
Contributing Flagships: <Not Defined>
Contributing Regional programs: <Not Defined>
Contributing external partners: <Not Defined>

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**
ARICA 16

**Innovations:** <Not Defined>

**Elaboration of Outcome/Impact Statement:**
Adoption of drought-tolerant rice varieties (DTRV) increased the rice yield by 570 kg/ha (24% increase) leading to an increase in income of US$ 126 per ha. Adoption also improved household food security. We recommend large-scale dissemination of drought-tolerant rice varieties to help smallholder rice farmers in SSA not only to adapt to climate change but also to improve their food security and livelihoods.

**References cited:**

**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:** 2 - Principal

Describe main achievements with specific **Climate Change** relevance: ARICA 16 is a drought tolerant variety to help smallholder farmers to adapt to climate change

**Other cross-cutting dimensions:** No

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

**Outcome Impact Case Report link:** Study #3216

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