Study #3887

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

**Part I: Public communications**

**Type:** OICR: Outcome Impact Case Report  
**Status:** On-going  
**Year:** 2020

**Title:** Use of ASI thresher helps 45,600 rice farmers to access more credit to expand and intensify rice production in Senegal

**Short outcome/impact statement:**
We examine whether the adoption of the ASI thresher technology by rice farmers in the Senegal River Valley increases their access to credit and their creditworthiness through various pathways. The results show that ASI rice thresher adopters borrowed more money (between USD 388 and 864) per season in comparison to their neighbours who had not adopted the ASI thresher.

**Outcome story for communications use:**
The ASI cleanly separates 99% of the grains, resulting in a better-quality product. Increased grain quality is an important factor in terms of input-output and contractual credit arrangements. This productivity attribute of the ASI encourages loan acquisition. The ASI has been further modified to process other grains, such as sorghum, millet, soybeans and maize. The ASI is capable of processing 6 tons of rice per day using the equivalent of 6 manual labourers, while the traditional methods would require 36 manual labourers to thresh an equivalent output level. With such high efficiency, offering credit to users of the ASI becomes more attractive to lenders. A study was conducted to assess whether the adoption of the ASI thresher technology by rice farmers in the Senegal River Valley increases their access to credit and their creditworthiness through various pathways. The results show that ASI rice thresher adopters borrowed more money (between USD 388 and 864) per season in comparison to their neighbours who had not adopted the ASI thresher. ASI increases factor productivity and production capacity and leads to the ability (and desire) of adopters to borrow more due to enhanced operations (expand and intensify rice production) and confidence in their ability to repay loans.

**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:**
- Reduce pre- and post-harvest losses, including those caused by climate change

Is this OICR linked to some SRF 2022/2030 target? Yes
SRF 2022/2030 targets:
- Increased rate of yield for major food staples from current 1%/year
- # of people, of which 50% are women, assisted to exit poverty

Comment: <Not Defined>

**Geographic scope:**
- Regional

Region(s):
- Sub-Saharan Africa

Comments: Senegal, Nigeria, Benin, Uganda

**Key Contributors:**

Contributing CRPs/Platforms:
- Rice - Rice

Contributing Flagships:
- F1: Accelerating impact and equity
- F2: Upgrading rice value chains

Contributing Regional programs: <Not Defined>

Contributing external partners:
- NCRI - National Cereals Research Institute
- INRAB - Institut National de Recherche Agricole du Benin
- SAED - Société d’Aménagement et d’Exploitation du Delta du Fleuve Sénégal
- ISRA - Institut Senegalais de Recherche Agricole

**CGIAR innovation(s) or findings that have resulted in this outcome or impact:**
The ASI was developed by AfricaRice in partnership with ISRA and SAED in Senegal. The word ASI is an acronym for AfricaRice, SAED (the Senegal Extension Authority for the Senegalese River), and ISRA (the Senegalese National Agricultural Research Institute).

**Innovations:**
- 1807 - ASI thresher for reducing postharvest loss in rice production in Sub-Saharan Africa

**Elaboration of Outcome/Impact Statement:**
The ASI cleanly separates 99% of the grains, resulting in a better-quality product. Increased grain quality is an important factor in terms of input-output and contractual credit arrangements. This productivity attribute of the ASI encourages loan acquisition. The ASI has been further modified to process other grains, such as sorghum, millet, soybeans and maize. The ASI is capable of processing 6 tons of rice per day using the equivalent of 6 manual labourers, while the traditional methods would require 36 manual labourers to thresh an equivalent output level. With such high efficiency, offering credit to users of the ASI becomes more attractive to lenders. A study was conducted to assess whether the adoption of the ASI thresher technology by rice farmers in the Senegal River Valley increases their access to credit and their creditworthiness through various pathways. The results show that ASI rice thresher adopters borrowed more money (between USD 388 and 864) per season in comparison to their neighbours who had not adopted the ASI thresher.
References cited:
https://doi.org/10.1080/20421338.2020.1855746

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: 0 - Not Targeted

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

Outcome Impact Case Report link: Study #3887

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