

Evidences

Study #3198

Contributing Projects:

- P1569 - AfricaRice Contribution to RICE Flagship Project 1

Part I: Public communications

Type: OICR: Outcome Impact Case Report

Status: On-going

Year: 2019

Title: Improved rice variety (WITA 9) was adopted by 24% of rice farmers and increase income by US\$ 91 per ha in Cote d'Ivoire

Short outcome/impact statement:

A household survey showed that the adoption rate was 24% among rice farmers. However, closer analysis showed adoption rates of 60% among those who had heard about WITA 9, and 71% among those who had access to it. The adoption of WITA 9 variety paddy yield advantage was 0.7 t ha⁻¹, and its adoption increased farmer's income by US\$ 91 ha⁻¹ per season.

Outcome story for communications use:

WITA9 was selected and released for lowland agro-ecosystems primarily because of its resistance to Rice yellow mottle virus (RYMV), a devastating yet common disease in Côte d'Ivoire. WITA 9 was released in Côte d'Ivoire in 1998 just before the civil war in the country. As far as AfricaRice was concerned, it then 'remained in the shadows' for almost two decades. In 2016 and 2017, upon AfricaRice's return to its main research center in Cote d'Ivoire, WITA 9 was adopted in many place in the country. Therefore, the decision was taken to conduct a multidisciplinary assessment of WITA9. WITA 9 had a higher amylose content (26–28%) than others tested. This study confirmed its resistance to bacterial leaf blight, Rice yellow mottle virus (RYMV), and rice blast. The adoption rate was estimated 24% among rice farmer population. However, closer analysis showed adoption rates of 60% among those who had heard about WITA 9, and 71% among those who had access to it. Paddy yield advantage of WITA 9 was 0.7 t ha⁻¹, and its adoption increased farmer's income by US\$ 91 ha⁻¹ per season. A market study showed that consumers' willingness to pay was higher for WITA 9 than any other locally produced rice variety, and comparable to imported rice in one of two markets. We conclude that WITA 9 is an ideal innovation for enhancing productivity and rice import substitution in Côte d'Ivoire. An effective seed delivery system and enhancing farmers' and consumers' awareness of this variety are vital for accelerating impact.

Links to any communications materials relating to this outcome:

- <https://doi.org/10.1080/1343943X.2019.1667834>

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-IDs:

- Adoption of CGIAR materials with enhanced genetic gains
- Increased livelihood opportunities

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 more farm households have adopted improved varieties, breeds or trees

Description of activity / study: <Not Defined>

Geographic scope:

- National

Country(ies):

- Côte d'Ivoire

Comments: <Not Defined>

Key Contributors:

Contributing CRPs/Platforms:

- Rice - Rice

Contributing Flagships:

- F3: Sustainable farming systems
- F2: Upgrading rice value chains
- 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:

WITA 9 (lowland AfricaRice variety)

Innovations:

- 1665 - Improved Rice Variety WITA 9

Elaboration of Outcome/Impact Statement:

Adoption rate of WITA 9 in 2014 was 24% among rice farmers. However, the adoption rate among household having knowledge of WITA 9 was 60% and the adoption rate among household having access to WITA 9 seed much higher (71%). This implies that increasing access to WITA 9 seed would significantly increase its adoption rate. The determinants of adoption model revealed that younger heads of households were more likely to adopt WITA 9. The household heads who had received agricultural training or were members of an association also tended to adopt this variety. WITA 9 paddy yield advantage was 0.7 t ha⁻¹, and its adoption increased farmer's income by US\$ 91 ha⁻¹ per season. In addition a separate census of rice farmers in 2018 shows that 2,674 out of 8,032 rice farmers (equivalent to 33% adoption rate) have cultivated WITA 9 in Cote d'Ivoire.

References cited:

1. Saito K, Toure A., Arouna A., Fiamohe R., Silue D., Manful J., Beye A., Efiue A. A. (2019). Multidisciplinary assessment of agricultural innovation and its impact: a case study of lowland rice variety WITA 9 in Côte d'Ivoire. Plant Production Science
<https://doi.org/10.1080/1343943X.2019.1667834>
2. Arouna, A., Aboudou, R., 2020. Dataset of the survey on e-registration and geo-referenced of rice value chain actors for the diffusion of technologies: Case of Benin and Côte d'Ivoire. Data in Brief, 105642. <https://doi.org/10.1016/j.dib.2020.105642>

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 #3198](#)

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