

**Improved management practices**

- Good agricultural practices (GAP) increased yield: rainfed lowland: 1.2 t/ha; irrigated lowland : 0.7 t/ha; rainfed upland: 1 t/ha
- RiceAdvice application that can increase rice yield by 20% and profit margin by \$200 per hectare is being disseminated and validated in Ghana.
- Mechanical weeders have been shared with farmers in Ghana.

**Postharvest technologies**

- The following technologies were developed: (i) Protein and mineral-fortified biscuits and cookies from low-grade broken rice fractions; (ii) Edible mushrooms from rice husks; (iii) Gasifier stoves that convert rice husks into energy for household cooking; (iv) Parboiling complexes for enhanced rice post-harvest practices; (v) A biochar processor; (vi) Production of biochar from rice husks for soil fertility enhancement; (vii) Construction of the ASI thresher and mini-combine harvester.
- The average income level of women rice parboilers increased from US\$ 272 to US\$400.9 (147% increase).

**Rice statistics**

- An accurate and reliable rice statistics database has been established with support from AfricaRice. Ghana staff were trained in nationally representative rice statistics survey methodologies.

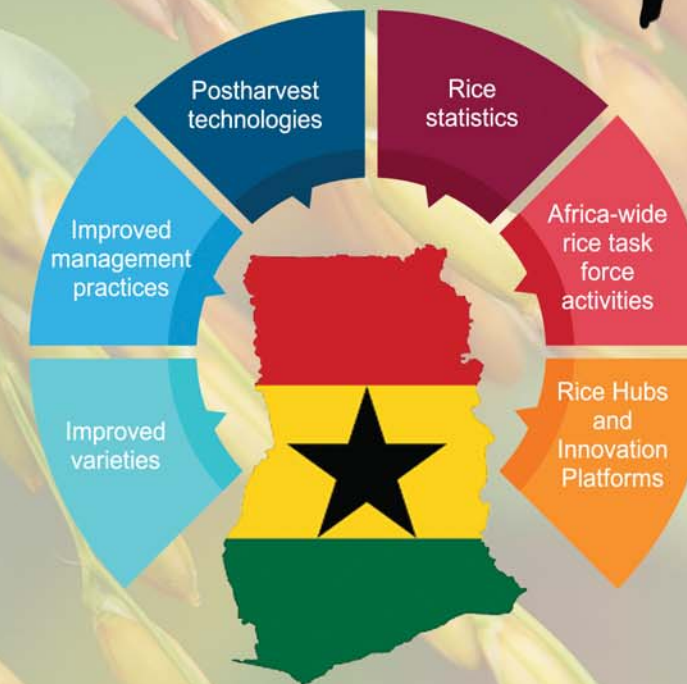
**Africa-wide rice task force activities**

- Ghana has been an active member and benefited from the activities and funding of the six Africa-wide Task Forces coordinated by AfricaRice – Breeding, Agronomy, Gender, Mechanization, Policy, and Processing & Value Addition. The Task Forces provided a unique opportunity for Ghanaian scientists to interact with their counterparts from other AfricaRice member countries.
- Funds contributed to Ghana through the Task Forces have complemented government allocations significantly and ensured the continuation of research and the training of scientists and other members of the rice value chain.

**Rice Hubs and Innovation Platforms**

- With technical backstopping by AfricaRice, Ghana has established three Rice Sector Development Hubs: Navrongo and Savelugu in the Northern Region (Irrigated/Rainfed Lowland); Kumasi (Rainfed Inland Valley/Lowland; and Afife/Volta (Irrigated lowland). The innovation platform approach is used within the rice hub.
- The IPs in the Rice Hubs have enhanced the quality of interaction, relationships, confidence and trust, and entrepreneurship among rice value chain stakeholders. This is shaping business opportunities and influencing local decision making processes, including policy and institutional change.
- The Navrongo IP, which was set up through the USAID-funded Africa Rising project in 2012 had 1611 members by February 2016. The Navrongo IP has become a major source of quality seed in Northern Ghana.
- Since inception, it has achieved the following: (i) Reached 2500 farmers with quality seed; (ii) Supplied 25 t of seed to MOFA, the Millennium Village project and the Millennium Feeds Project; (iii) Produced on contract 5,600 t of CSIR-AGRA (IR 841) rice seed for the WAAPP Quality rice seed distribution Project; and (iv) Coordinated the production of 142 t of certified seed with the support of SARI.

# africarice & Ghana



## Ghana-AfricaRice Partnership

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- ▶ Ghana is a founding member of AfricaRice (ex-WARDA).
- ▶ The Council for Scientific and Industrial Research (CSIR) is one of the most important national partners of AfricaRice.
- ▶ As a member country, Ghana takes part in statutory meetings of the AfricaRice Council of Ministers (CoM), which is the highest governing body of the Center.
- ▶ Ghana is also a member of the AfricaRice National Experts Committee (NEC).

“Rice is global and it is big business. Rice is life in Africa.”  
 -- Dr Harold Roy-Macauley,  
 AfricaRice Director General



**IMPORTANCE OF RICE IN GHANA**

Rice is the second most important food staple after maize in Ghana and its consumption is increasing due to population growth, urbanization and changes in consumer habits.

The development of the national rice sector development strategy (NRDS) is part of the country's overall endeavors to reach the goal of self-sufficiency in rice. It has the following objectives:

1. Increase domestic production by 10% annually over a 10-year period through the promotion of gender sensitive and productivity-enhancing innovations of small and commercial local rice producers and entrepreneurs along the value chain.
2. Promote consumption of local rice through quality improvement, value addition and both domestic and regional marketing.
3. Promote stakeholder innovation capacity for the utilization of rice by-products while ensuring sound environmental management practices.

Based on FAOSTAT (accessed 18 April 2017), Ghana ranks 6th in terms of the volume of paddy produced in West Africa. Rice is cultivated in Ghana in three main production systems: rainfed upland (6%), rainfed lowland (78%), and irrigated (16%).

The country produced 385,000 t of milled rice (642,000 t paddy rice equivalent) with an average of 325,167 t (542,000 t paddy rice equivalent) and an annual growth rate of 6.7% during 2011-2016.

This performance was driven by annual growth rates of 4.77% in area harvested and 1.90% in yield. Nevertheless, domestic production has been unable to keep pace with consumption; the latter was estimated at 995,000 t in 2016 and annual growth rate of 4.27% during 2011-2016.

This underscores the necessity for further efforts to achieve the targets of the NRDS. Ghana has undertaken a series of research for development activities in partnership with AfricaRice.

**Rice Statistics for Selected Indicators**

Source: <https://apps.fas.usa.gov/psdonline/app/index.html#/app/advQuery>  
 (accessed 29 May 2017)

Basic rice statistics	2015	2016	2017	Average 2011 -2016	Annual Growth Rate (%)
Area harvested (ha)	224,000	225,000	230,000	205,333	4.77
Production (milled rice) (t)	362,000	385,000	396,000	325,167	6.77
Paddy production (t)	603,000	642,000	660,000	542,000	6.76
Imports (t)	585,000	610,000	650,000	595,833	-0.22
Domestic consumption (t)	965,000	995,000	1,020,000	923,333	4.27
Yield (t/ha)	2.69	2.85	2.87	2.63	1.90

**Contributions by AfricaRice to Ghana**

- ▶ Between 2009 and 2016, Ghana has benefited from 24 donor-funded projects coordinated by AfricaRice.
- ▶ AfricaRice, in partnership with CSIR, has contributed to boosting the rice sector of Ghana in terms of policy advice, improved seed and cropping practices, technical information and knowledge, capacity development and support to the development of rice value chains.

**Capacity strengthening**

- ▶ Between 2009 and 2016, AfricaRice has trained 21 PhD and 11 MSc scholars from Ghana. About 14,310 Ghanaians have participated in group training workshops organized by AfricaRice during this period. These included 14,018 farmers (5,694 women) on seed production, 20 technicians on seed production (breeder, foundation and certified) and 16 seed inspectors.

**Ghana-AfricaRice Partnership: Achievements and Impacts**

**Improved varieties**

- Twenty rice varieties have been officially released in Ghana since the 1970s. Many of them have been developed by AfricaRice and its partners.
- Upland New Rice for Africa (NERICA): In 2013/2014, the total cultivated area under NERICA varieties in Ghana was estimated at 34,761 ha producing 83,891 t of paddy. An impact study of a NERICA project (2005-2011) showed that at least 71,304 people were lifted out of poverty annually as a result of NERICA adoption.
- New stress-tolerant and high-yielding varieties: One iron toxicity-tolerant lowland variety were released in Ghana in 2013. Three high-yielding lowland and two upland varieties were also released between 2009 and 2015.
- Advanced Rice for Africa (ARICA): The new generation of high-performing rice varieties branded as ARICA, which was launched by AfricaRice and its partners in 2013, is being evaluated in Ghana.

