



Rice Exchange Sustainability & Social Impact Primer

The Rice Exchange digital platform brings transparency, efficiency and security to the global rice trade. Sustainability is at the heart of what we do. The functionality of the Rice Exchange platform allows buyers to search for rice producers that have been awarded verifiable sustainable certifications. This gives rice buyers the certainty that they are purchasing sustainably produced rice. In turn this allows sustainable producers to charge a premium for their product.

Rice Exchange is a member of the [Sustainable Rice Platform](#) (SRP) and works with it to raise the profile of sustainably produced rice. The SRP was convened in 2011 by the UN Environment Programme and the International Rice Research Institute, together with partners from public and private sectors and civil society groups to create a standard for sustainably-produced rice.

There are many other ways that Rice Exchange helps its users to meet their sustainability and development objectives.

- 1. Provenance and traceability.** Rice Exchange guarantees the validity of sustainable and organic certifications awarded to farmers. This allows consumers to support sustainably produced rice by paying a premium. Distributors and consumers in developed markets are increasingly demanding that the rice they purchase and consume meets sustainable standards and they are prepared to pay premiums for this guarantee. [Vietnamese consumers](#) are willing to pay premiums ranging from 9% to 33% for sustainably produced rice.
- 2. Higher income for smallholders.** SRP has demonstrated that farmers that use the SRP Standard can boost their income by between 10% and 20% through higher yields and lower input costs. Verifiable certification of sustainable best practice allows farmers to command premiums for their rice further boosting smallholder income. As over 1 billion people depend on rice farming for their livelihoods the impact of higher prices is significant.
- 3. Sustainably produced rice reduces greenhouse gas emissions.** Within the agricultural sector rice cultivation is the second largest contributor of greenhouse gas emissions after cattle farming. Rice farming emits 10% of all global man-made methane emissions [\[Olam\]](#). Methane is 28 times more potent than carbon dioxide. Methane is emitted from flooded rice fields as organic matter decays. The burning of rice straw also results in harmful emissions. Farmers that use the SRP Standard can reduce emissions by between 25% and 50%.

4. **Reduced water consumption.** Rice cultivation uses large amounts of water. Indian rice farmers use an average of 15,000 liters to produce a kilo of paddy rice. The [Indian Agricultural Research Institute in New Delhi](#) has demonstrated that using the right water management techniques in rice paddies can reduce water consumption to 600 liters per kilo. Rice farmers that use the SRP Standard can reduce water consumption by up to 25%.
5. **Microfinance and access to credit.** Rice Exchange is working with its partner [Yapu Solutions](#) to develop mechanisms to quickly and cost-efficiently analyze the credit needs of smallholder rice farmers. Access to credit is a key factor in improving agricultural production. [A study conducted in Lesotho](#) with a sample of 100 farmers showed that access to credit increases net farm revenues by US\$116.61 to US\$136.89. The study concludes that adequate access to credit is necessary to promote sustainable agricultural development and the livelihoods of rural farmers in Africa.
6. **Fair rice prices for consumers.** Inefficiencies in the supply chain and losses are mostly paid for by consumers. Half the world's population depends on rice as a primary source of calories. Rice represents the largest food import item in many African countries and is a major component of food aid. Rice Exchange tackles supply chain inefficiencies and reduces the cost of trading rice.
7. **Reduced food waste.** Poor procedures during the processing, transportation and storage of rice can result in large quantities being spilled or spoiled. Rice makes up over half of wasted cereals in Japan, China and South Korea, and 72% of lost or discarded cereals in South and Southeast Asia - a total of [149.7 million tonnes](#), according to the UN. That wasted rice emits greenhouse gas emissions equivalent to 610.5 million tonnes of carbon dioxide a year. Rice Exchange is developing a traceability function that uses sensor technology to monitor real time humidity levels of bulk quantities of rice in storage and in transit. This dramatically reduces wastage from rice stored or transported in poor conditions. Our traceability function cuts losses by more than half and reduces insurance premiums.
8. **Food security.** Rice Exchange makes it easier to manage rice procurement and quickly increase purchases in times of poor harvest or natural disasters. When a typhoon struck the Philippines in September 2018 more than [250,000 tonnes](#) of paddy rice was destroyed and the shortfall had to be imported.
9. **Improved transparency and efficiency in the global rice market.** Egypt now imports half of its annual rice requirements equivalent to 2 million tons of rice in order to reduce water consumption which is saving around 20 billion liters of water.

