Vietnam Rice: Ongoing Downward Trend Expected to Continue for MY 2020/21 Harvested Area

USDA forecasts Vietnam 2020/21 rice production at 27.0 million metric tons (milled basis), down 1 percent from last year and down 2 percent from the 5-year average. Harvested area is forecast at 7.4 million hectares, down 1 percent from last year and down 3 percent from the 5-year average. While Vietnam rice production has declined steadily since 2017/18, area has declined consistently at a rate of 1 percent on an annual basis since 2016/17 (Figure 1). Vietnam rice yield is forecast at a record 5.84 tons per hectare, up slightly from last year and up 1 percent from the 5-year average. Yield is contingent on factors such as seasonal weather and water availability.

Rice in Vietnam is the country’s main staple food; its total rice output ranks fifth in global production, behind China, India, Indonesia, and Bangladesh (Figure 2). Vietnam’s most productive rice regions are mainly concentrated in two areas, the Mekong River Delta and the Red River Delta, which combined cover approximately 70 percent of rice total area. Rice is also produced to a lesser extent in the central highlands and coastal areas (Figure 3). Rice is essentially cultivated year-round, however, seasonal weather drives planting cycles that are phased into three planting periods, Lua Mua (Winter), Winter-Spring and Summer-Autumn (Figure 4).

Since 2016/17, rice area in Vietnam has declined on an annual basis. Rice area is being converted to uses such as urban and commercial development or transitioning to more profitable crops. Other factors include lowered rice demand for exports and some rice area being susceptible to salinity intrusion. This downward trend in rice area is forecast to continue through the 2020/21 crop season.

In addition, aquaculture expansion is a more profitable crop in Vietnam and has played a pivotal role in decreasing rice area. Over the past 5 years, aquaculture growth is up about 9 percent as prices and demand have enticed farmers to convert arable rice lands, especially in the main areas of the Mekong River Delta and the Red River Delta (Figure 5).

The Mekong River Delta region’s average annual rice cultivated area is roughly 4.18 million hectares, according to Vietnam General Statistics Office (GSO), which represents about 54 percent of Vietnam’s total rice area. Since 2015, the Mekong River Delta has experienced a 5-percent decline in rice planted area. The main rice producing provinces in the Mekong Delta region are Kiên Giang, An Giang, and Dong Thap, representing 10
percent, 8 percent and 7 percent of Vietnam’s total rice area, respectively. Over the same span, these three provinces have experienced rice planted area reductions of 6 percent, 3 percent and 4 percent, respectively, due to increases in the aquaculture sector. The Kiên Giang and An Giang provinces have experienced an expansion in the aquaculture sector of 22 percent and 40 percent, respectively, since 2015.

The Red River Delta region’s average annual rice cultivated area is roughly 1.07 million hectares according to GSO, which represents about 14 percent of Vietnam’s total rice area. Although the provinces in this region make up smaller percentages of the rice area total, each province has seen steady area declines since 2015. Hanoi province is the main region where rice is grown in the Red River Delta and accounts for 18 percent of national area and it also has seen the largest area reduction since 2015, decreasing 14 percent. Aquaculture area in Hanoi has increased 14 percent over the same timespan, according to GSO.

Satellite imagery from both Landsat-8 and Sentinel-2 aides in the visual assessment of land use changes throughout a multi-year period. As previously mentioned, land use changes in Vietnam are due to expansions in aquaculture and urban development (both residential and commercial), resulting in rice area declines (Figures 6, 7, 8 and 9).

Figure 1. Vietnam rice historical production and area showcasing a downward trend.
Figure 2. Top-5 global rice producing countries.

Figure 3. Locations of rice cultivated areas in Vietnam; Mekong River Delta and Red River Delta regions are the largest.
Figure 4. Vietnam’s three main rice seasons and production percentages by season.

Figure 5. Mekong River Delta and Red River Delta rice and aquaculture area from 2015 to 2019.
Figure 6. Imagery comparison 2015 vs. 2019 of An Giang province (Mekong Delta), noting expansion in aquaculture leading to reductions in area dedicated to rice.

Figure 7. Imagery comparison 2015 vs. 2019 of Vinh Long province (Mekong Delta), noting expansion in urban and commercial development leading to reductions in area dedicated to rice.
Figure 8. Imagery comparison 2015 vs. 2019 of Hanoi province (Red River Delta), noting expansion in urban development leading to reductions in area dedicated to rice.

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