RICE PRODUCTION IN THE ASIA-PACIFIC REGION

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ABSTRACT

Global demand for food is rising because of population growth, increasing affluence and changing dietary habits. The UN/FAO conjectures that worldwide nourishment generation should increment by more than 40% by 2030 and 70% by 2050 (FAO, 2009). However all inclusive, water is foreseen to wind up rare and there is expanding rivalry for land, putting included weight rural creation. Moreover, environmental change will decrease the unwavering quality of nourishment supply through adjusted climate designs and expanded weight from irritations and maladies. Rice alongside wheat shapes the bedrock of Indian nourishment security and to meet the nation's expressed objective of guaranteeing sustenance for all, ranchers should create more rice from lesser land, utilizing less water, vitality and different sources of info and keeping in agreement with the delicate environment.

INTRODUCTION

Rice is the most generally devoured staple sustenance for both created and in addition creating world, all the more so for Asia-Pacific [1]. As indicated by the information of FAOSTAT (2012), rice has the third-most noteworthy overall generation after sugarcane and maize, among every single horticultural harvest. Creating nations represent 95% of the aggregate rice generation, with China and India contributing for almost 50% of the world yield [2].

China is the world's biggest maker of rice, and the harvest makes up somewhat less than half of the nation's aggregate grain yield. China represents 26% of all world rice creation. In a given year add up to
rice yield originated from four distinct products. The early rice trim develops principally in regions along the Yangtze River and in territories in the south; it is planted in February to April and gathered in June and July and contributes around 34 percent to aggregate rice yield. Halfway and single-product late rice develops in the southwest and along the Yangtze; it is planted in March to June and collected in October and November furthermore contributed around 34 percent to aggregate rice yield in the 1980s. Two fold yield late rice, planted after the early yield is procured, is reaped in October to November and adds around 25 percent to aggregate rice generation [3-15]. Rice developed in the north is planted from April to June and gathered from September to October; it contributes around 7 percent to aggregate creation.

All rice development is exceptionally work escalated. Rice is by and large developed as a wetland edit in fields overwhelmed to supply water amid the developing season. Transplanting seedlings requires numerous hours of work, as does gathering. Motorization of rice development is just insignificantly progressed. Rice development likewise requests a greater amount of different data sources, for example, compost, than most different products. Rice is profoundly prized by customers as a nourishment grain, particularly in south China, and per capita utilization has ascended as the years progressed. Additionally, as earnings have risen, customers have liked to eat more rice and less potatoes, corn, sorghum, and millet. Huge creation increments in the mid-1980s and poor neighborhood transportation frameworks consolidated to initiate ranchers to sustain extensive amounts of lower quality rice to domesticated animals [15-29] (Figure 1).

![Figure 1: Year wise rice production in china.](image)

Rice is the most imperative sustenance product of the creating scene and the staple nutrition for more than 60% of the Indian masses, who are likewise exceedingly powerless against inflationary weight because of high rice cost. In India, the yearly intensified development rate (ACGR) of rice creation has declined from 3.55 for every penny amid 1981-1990 to 1.74 for each penny amid 1991-2000. In spite of the fact that an unsurpassed high generation of 99.50 million tons of rice with an efficiency of 2.20 tons for every hectare was accomplished amid the year 2008-09, India needs to deliver 120 million tons by
2030 to bolster its one and a half billion or more populace by then. A continuous investigation of this situation gives adequate avocation to fortifying, escalating and presenting front line science and innovation for expanding rice efficiency in India. India is the second biggest maker of rice on the planet, devouring around 95% of what it produces. India is additionally the third biggest exporter of rice on the planet. Because of the high development of populace as of late, there has been more weight on arable land. This thusly has made a requirement for higher efficiency in sustenance crops. Simultaneously, expansive amounts of sustenance grain were accounted for to be lost because of wasteful processing forms in the nation. In that capacity, there have been calls for better preparing strategies with a specific end goal to diminish handling misfortunes. Utilizing 442 specimen processes crosswise over five noteworthy paddies delivering States, the transformation proportion from paddy to cleaned rice was evaluated and observed to be around 64% for cutting edge and 58.6% for customary (huller) factories. The variety of transformation proportions among the States was observed to be very immaterial, and partial variety watched was because of contrasts in nature of the crude paddy utilized and framework offices accessible.

India's market year 2015-16 rice finishing stocks are assessed to be 18.5 million tons (16.2 million government rice and 2.3 million tons private) on higher government rice stocks because of higher obtainment and generally feeble off take, as per the FAS. Showcase year 2016-17 finishing stocks are likewise gauge higher at 16.4 million tons on ordinary obtainment and government off take.

Indian government-held rice stocks starting July 1 are evaluated at 24.7 million tons, around 3 million tons higher than a year ago level, the report said. Government rice stocks for October are anticipated at 16.2 million tons on expected typical acquisition and generally more grounded month to month off take (3 million tons for each month) because of tight government wheat stocks in the last quarter (July-September). Generally powerless fare request at the onset of the showcasing year debilitated private exchange from buying rice to cover future request, the report said. Thus, advertise year 2015-16 finishing stocks with private exchange is evaluated bring down at 2.3 million tons contrasted with 3.6 million tons in a similar time of a year ago.
Figure 2: Year wise rice production in India.

Indian rice sends out have steadied since the start of date-book year 2016 on recuperation in fare interest for Basmati rice and non-Basmati rice. As indicated by the temporary authority insights, rice sends out for the initial five months of timetable year 2016 were 4.4 million tons, down 15% contrasted with a similar time a year ago. There has been recuperation in fare interest for Basmati rice to a great extent because of focused costs and recovery of interest for non-Basmati rice in African nations, the report noted. Accepting no critical changes in the fare request and value equality for Indian rice, showcase year 2015-16 fares will come to the assessed 9.2 million tons at the present rate of fares, the report said [7681].

Rice generation in Japan is essential to the nourishment supply in Japan, with rice being a staple part of the Japanese eating routine. The vast majority in Japan see this nourishment as an ensuing piece of their day by day eat less carbs. The most striking element of Japanese agribusiness, be that as it may, is the deficiency of farmland. The 4.63×106 hectares (1.14×107 sections of land) under development in 2008 has contracted, with most agriculturists more than 65. In any case, the land is seriously developed. Paddy fields involve a great part of the wide open, whether on the alluvial fields, the terraced inclines, or the swampland and waterfront coves. Nonrice farmland share the porches and lower inclines and are planted with wheat and grain in the harvest time and with sweet potatoes, vegetables, and dry rice in the mid-year. Intercropping is regular: such products are substituted with beans and peas. Japan is the ninth biggest maker of rice on the planet. The rice seasons in Northern Japan last from May–June to September–October. In focal Japan, it is from April–May to August–October. In southern Japan the rice season is from April - May to August–September. Around 85% of the 2.3 million homesteads in Japan plant rice yearly. Enhanced assortments of japonica rice are developed in all prefectures in the nation. The most generally planted assortment is Koshihikari [82-96].
Rice production in Indonesia is an important part of the national economy. Indonesia is the third-largest producer of rice in the world. Rice was the staple food in the Indonesian diet, accounting for more than half of the calories in the average diet, and the source of livelihood for about 20 million households, or about 100 million people, in the late 1980s. Rice cultivation covered a total of around 10 million hectares throughout the archipelago, primarily on sawah. The supply and control of water is crucial to the productivity of rice land, especially when planted with high-yield seed varieties. In 1987 irrigated sawah covered 58 percent of the total cultivated area, rain fed sawah accounted for 20 percent, and lading, or dry land cultivation, together with swamp or tidal cultivation covered the remaining 22 percent of rice cropland.

Rice generation in Bangladesh is a significant part of the national economy. The predominant sustenance product of Bangladesh is rice, representing around 75 percent of horticultural land utilize (and 28 percent of GDP). Rice creation expanded each year in the 1980s (through 1987) aside from FY 1981, yet the yearly increments have by and large been unassuming, scarcely keeping pace with the populace. Rice generation surpassed 15 million tons without precedent for FY 1986. In the mid-1980s, Bangladesh was the fourth biggest rice maker on the planet, however its efficiency was low contrasted and other Asia-Pacific nations, for example, Malaysia and Indonesia. It is right now the world's 6th biggest maker. High yield assortments of seed, use of manure, and water system have expanded yields, despite the fact that these sources of info likewise raise the cost of creation and essentially advantage the wealthier cultivators.

Rice creation in Thailand speaks to a noteworthy segment of the Thai economy and work drive. 40% of Thais work in agribusiness, the vast majority of them as rice ranchers. Thailand has a solid custom of rice creation. It has the fifth-biggest measure of land under rice development on the planet and is the world's second biggest exporter of rice. Thailand has arrangements to further expand the land accessible for rice generation, with an objective of adding 500,000 hectares to its officially 9.2 million hectares of rice-developing territories. The Thai Ministry of Agriculture anticipates that rice generation will yield around 25 million tons of paddy rice in the 2016-2017 product years, down from 27.06 million tons in 2015-2016. Jasmine rice (Thai: ข้าวหอมมล; rtgs: Khao hom mali, a higher quality sort of rice, is the rice strain most created in Thailand despite the fact that in Thailand is imagined that lone Surin, Buriram, and Sisaket Provinces can deliver superb hom mali. Jasmine has a fundamentally bring down yield rate than different sorts of rice, however it ordinarily gets more than twofold the cost of different strains on the worldwide market.

Rice generation in Vietnam in the Mekong and Red River deltas is vital to the nourishment supply in the nation and national economy. Vietnam is one of world's wealthiest rural locales and is the second-biggest (after Thailand) exporter worldwide and the world's seventh-biggest customer of rice. The Mekong Delta is the heart of the rice creating district of the nation where water, pontoons, houses and markets exist together to deliver a liberal collect of rice. Vietnam's territory region of 33 million ha has three
environments that manage rice culture. These are the southern delta (with its Mekong Delta commanding rice scope), the northern delta (the tropical storm range with frosty winters) and the good countries of the north (with upland rice assortments). The most conspicuous flooded rice framework is the Mekong Delta. Rice is a staple of the national eating regimen and is viewed as a "blessing from God". The Mekong River and its tributaries are vital to rice generation in Vietnam. A sum of 12 regions constitute the Mekong Delta, famously known as the "Rice Bowl" of Vietnam, which contain somewhere in the range of 17 million individuals and 80% of them are occupied with rice development. The delta created abundant reaps of around 20 million tons in 2008, about a half of the nation's aggregate generation. The rice bowl has guaranteed sustenance security to its populace whose 75% of every day calories are met by rice, which is additionally the staple eating routine of almost half of total populace of 7.4-billion individuals.

The Philippines is the eighth biggest rice maker on the planet, representing 2.8% of worldwide rice creation. The Philippines was additionally the world's biggest rice merchant in 2010. In 2010, about 15.7 million metric huge amounts of palay (pre-husked rice) were produced. In 2010, palay represented 21.86% percent of gross esteem included horticulture and 2.37% of GNP. Independence in rice achieved 88.93% in 2015. Rice generation in the Philippines has developed essentially since the 1950s. Enhanced assortments of rice created amid the Green Revolution, including at the International Rice Research Institute situated in the Philippines have enhanced product yields. Trim yields have additionally enhanced because of expanded utilization of manures. Normal efficiency expanded from 1.23 metric tons for each hectare in 1961 to 3.59 metric tons for each hectare in 2009.

CONCLUSIONS

Rice is the life-blood of the Asia-Pacific Region wherever 56% of humanity lives, manufacturing and overwhelming over 90% of the world’s rice. The demand for rice is predicted to grow quicker than the assembly in most countries. However this level of annual production of 524 million tones may well be accumulated to 700 million tones by the year 2025 victimization less land, less water, fewer men and fewer agro-chemicals may be a massive question. Other ways to satisfy the challenge by horizontal and vertical growth have their own prospects and limitations. Supported this situation, the bridging of the yield gap for manufacturing a lot of rice seems to be promising.

Development of a lot of location specific technology for crop management likewise as technology transfer and adoption, let alone force development in applicable areas, must be handled by the countries themselves. The sharing, testing and utilization of technology and data across the national boundaries need to be expedited by Regional and International bodies through numerous networks supported by them.

The trade globalization provided by GATT, WTO and COMESA, and geographic comparative advantages of producing a crop, can provide major incentive for farmers to strive hard and bridge the revenue gap. The Region may also focus on other continents to answer questions. Africa can be a
promising “Future-Food-Basket” for Asia, but concrete policy framework and support background under the South-South Co-operation and NAM must be added. The combined strength and synergistic links between Asia and Africa can work wonders. This can be a boost and provide a solid platform for a shared prosperity for both continents.

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