Agriculture in Pakistan

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Agriculture and land use in Pakistan. (*Only major crops*)

Mango Orchard in [Multan](https://en.wikipedia.org/wiki/Multan), Pakistan

[Indus River Delta](https://en.wikipedia.org/wiki/Indus_River_Delta)

Pakistan's principal natural resources are [arable land](https://en.wikipedia.org/wiki/Arable_land) and water. About 25% of Pakistan's agriculture accounts for about 21%[[1]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-1) of GDP and employs about 43% of the labour force.

In Pakistan, the most agricultural province is Punjab where wheat and cotton are the most grown. Mango orchards are mostly found in Sindh and Punjab provinces that make Pakistan the world's 4th largest producer of mangoes.[[2]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-2)[[3]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-3)

## **Early history[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=1)**]**

*Main article:*[*History of agriculture in the Indian subcontinent*](https://en.wikipedia.org/wiki/History_of_agriculture_in_the_Indian_subcontinent)

Barle y and wheat cultivation—along with the domestication of cattle, primarily sheep and goat—was visible in [Mehrgarh](https://en.wikipedia.org/wiki/Mehrgarh) by 8000–6000 BCE. They cultivated six-row [barley](https://en.wikipedia.org/wiki/Barley), [einkorn](https://en.wikipedia.org/wiki/Einkorn_wheat) and [emmer](https://en.wikipedia.org/wiki/Emmer) wheat, [jujubes](https://en.wikipedia.org/wiki/Jujube) and dates, and herded sheep, goats and cattle. Residents of the later period (5500 BC to 2600 BC) put much effort into crafts, including [flint knapping](https://en.wikipedia.org/wiki/Flint_knapping), [tanning](https://en.wikipedia.org/wiki/Tanning_(leather)), bead production, and [metal working](https://en.wikipedia.org/wiki/Metal_working). The site was occupied continuously until about 2655 BC.[[4]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-4)

[Irrigation](https://en.wikipedia.org/wiki/Irrigation) was developed in the [Indus Valley Civilization](https://en.wikipedia.org/wiki/Indus_Valley_Civilization) (see also [Mohenjo-daro](https://en.wikipedia.org/wiki/Mohenjo-daro)) by around 4500 BCE.[[5]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-R.26U-5) The size and prosperity of the Indus civilization grew as a result of this innovation, which eventually led to more planned settlements making use of [drainage](https://en.wikipedia.org/wiki/Drainage) and [sewers](https://en.wikipedia.org/wiki/Sanitary_sewer).[[5]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-R.26U-5)Sophisticated irrigation and water storage systems were developed by the Indus Valley Civilization, including artificial reservoirs at [Girnar](https://en.wikipedia.org/wiki/Girnar)dated to 3000 BCE, and an early [canal](https://en.wikipedia.org/wiki/Canal) irrigation system from circa 2600 BCE.[[6]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-6)

Archeological evidence of an animal-drawn [plough](https://en.wikipedia.org/wiki/Plough) dates back to 2500 BC in the Indus Valley Civilization.[[7]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-lal-7)

All agricultural affairs and activities in Pakistan are overseen and regulated by the [Ministry of Agricult ure](https://en.wikipedia.org/wiki/Ministry_of_Agriculture_(Pakistan)).

## **Ran kings[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=2)**]**

Pakistan is one of the world's largest producers and suppliers of the following according to the different sources i.e. [Food and Agriculture Organization](https://en.wikipedia.org/wiki/Food_and_Agriculture_Organization) of The United Nations and [FAOSTAT](https://en.wikipedia.org/wiki/FAOSTAT) given here with ranking:

* [Chickpea](https://en.wikipedia.org/wiki/Chickpea) (3rd)
* [Apricot](https://en.wikipedia.org/wiki/Apricot) (6th)
* Cotton (4th)
* Milk (5th)
* [Date Palm](https://en.wikipedia.org/wiki/Date_Palm) (5th)
* [Sugarcane](https://en.wikipedia.org/wiki/Sugarcane) (5th)
* Onion (7th)
* [Kinnow](https://en.wikipedia.org/wiki/Kinnow), [mandarin oranges](https://en.wikipedia.org/wiki/Mandarin_oranges), clementine (6th)
* [Mango](https://en.wikipedia.org/wiki/Mango) (4th)
* Wheat (7th)
* Rice (4th)

Pakistan ranks eighth worldwide in farm output, according to the [List of countries by GDP sector composition](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_sector_composition).

## **Crops[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=3)**]**

*See also:*[*Rice production in Pakistan*](https://en.wikipedia.org/wiki/Rice_production_in_Pakistan)

Wheat Fields in Punjab, Pakistan

The most important crops are wheat, [sugarcane](https://en.wikipedia.org/wiki/Sugarcane), cotton, and rice, which together account for more than 75% of the value of total crop output.

Pakistan's largest food crop is wheat. In 2005, Pakistan produced 21,591,400 metric tons of wheat, more than all of Africa (20,304,585 metric tons) and nearly as much as all of South America (24,557,784 metric tons), according to the [FAO](https://en.wikipedia.org/wiki/Food_and_Agriculture_Organization).[[8]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-8) The country is expected to harvest 25 to 23 million tons of wheat in 2012.

Pakistan has also cut the use of dangerous pesticides dramatically.[[9]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-9)

Pakistan is a net food exporter, except in occasional years when its harvest is adversely affected by droughts. Pakistan exports rice, cotton, fish, fruits (especially Oranges and Mangoes), and vegetables and imports vegetable oil, wheat, pulses and consumer foods. The country is Asia's largest [camel](https://en.wikipedia.org/wiki/Camel) market, second-largest [apricot](https://en.wikipedia.org/wiki/Apricot) and [ghee](https://en.wikipedia.org/wiki/Ghee) market and third-largest cotton, onion and milk market.

The economic importance of agriculture has declined since independence, when its share of GDP was around 53%. Following the poor harvest of 1993, the government introduced agriculture assistance policies, including increased support prices for many agricultural commodities and expanded availability of agricultural credit. From 1993 to 1997, real growth in the agricultural sector averaged 5.7% but has since declined to about 4%. Agricultural reforms, including increased wheat and oilseed production, play a central role in the government's economic reform package.

Outdated irrigation practices have led to inefficient water usage in Pakistan. 25 percent of the water withdrawn for use in the agricultural sector is lost through leakages and line losses in the canals. Only a limited amount of the remaining water is actually absorbed and used by the crops due to poor soil texture and unlevelled fields.[[10]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-10)

Much of the Pakistan's agriculture output is utilized by the country's growing processed-food industry. The value of processed retail food sales has grown 12 percent annually during the Nineties and was estimated at over $1 billion in 2000, although supermarkets accounted for just over 10% of the outlets.[[11]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-11)

The [Federal Bureau of Statistics](https://en.wikipedia.org/wiki/Federal_Bureau_of_Statistics) provisionally valued *major crop* yields at Rs.504,868 million in 2005 thus registering over 55% growth since 2000[[12]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-statpak-12) while *minor crop* yields were valued at Rs.184,707 million in 2005 thus registering over 41% growth since 2000. The exports related to the agriculture sector in 2009–10 are Rs 288.18 billion including food grains, vegetables, fruits, tobacco, fisheries products, spices and livestock.[[13]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-13)

## **Livestock[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=4)**]**

*Main article:*[*Animal husbandry in Pakistan*](https://en.wikipedia.org/wiki/Animal_husbandry_in_Pakistan)

According to the *Economic Survey of Pakistan,*[[14]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-14) the livestock sector contributes about half of the value added in the agriculture sector, amounting to nearly 11 per cent of Pakistan's GDP, which is more than the crop sector. The leading daily newspaper [*Jang*](https://en.wikipedia.org/wiki/Jang_Group_of_Newspapers) reports that the national herd consists of 24.2 million cattle, 26.3 million buffaloes, 24.9 million sheep, 56.7 million goats and 0.8 million camels. In addition to these there is a vibrant poultry sector in the country with more than 530 million birds produced annually. T hese animals produce 29.472 million tons of milk (making Pakistan the 4th largest producer of milk in the world), 1.115 million tons of beef, 0.740 million tons of mutton, 0.416 million tons of poultry meat, 8.528 billion eggs, 40.2 thousand tons of wool, 21.5 thousand tons of hair and 51.2 million skins and hides.[[15]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-15)

The [Food and Agriculture Organization](https://en.wikipedia.org/wiki/Food_and_Agriculture_Organization) reported in June 2006 that in Pakistan, government initiatives are being undertaken to modernize milk collection and to improve milk and milk product storage capacity.[[16]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-16)

The [Federal Bureau of Statistics](https://en.wikipedia.org/wiki/Federal_Bureau_of_Statistics) provisionally valued this sector at Rs.758,470 million in 2005 thus registering over 70% growth since 2000.[[12]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-statpak-12)[[*dead link*](https://en.wikipedia.org/wiki/Wikipedia:Link_rot)]

## **Fishery[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=5)**]**

*Main article:*[*Fishing in Pakistan*](https://en.wikipedia.org/wiki/Fishing_in_Pakistan)

[Fishery](https://en.wikipedia.org/wiki/Fishery) and [fishing industry](https://en.wikipedia.org/wiki/Fishing_industry) plays an important role in the national economy of [Pakistan](https://en.wikipedia.org/wiki/Pakistan). With a coastline of about 1046 km, Pakistan has enough fishery resources that remain to be fully developed. It is also a major source of export earning. Aquaculture is also a rapidly developing industry in Pakistan. Especially the Punjab Province has demonstrated rapid growth in fish farming. GIFT Tilapia culture has al so been introduced quite recently in Pakistan especially Punjab province.

## **Forestry[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=6)**]**

*Main article:*[*Forestry in Pakistan*](https://en.wikipedia.org/wiki/Forestry_in_Pakistan)

About only 4% of land in Pakistan is covered with forest. The forest of Pakistan are a main source of food, [lumber](https://en.wikipedia.org/wiki/Lumber), paper, [fuelwood](https://en.wikipedia.org/wiki/Fuelwood), [latex](https://en.wikipedia.org/wiki/Latex), [medicine](https://en.wikipedia.org/wiki/Medicinal_plant) as well as used for purposes of [wildlife](https://en.wikipedia.org/wiki/Wildlife) conservation and [ecotourism](https://en.wikipedia.org/wiki/Ecotourism).

## **Land distribution and land reform[**[**edit**](https://en.wikipedia.org/w/index.php?title=Agriculture_in_Pakistan&action=edit&section=7)**]**

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| --- | --- | --- | --- | --- |
| **Distribution of Land Ownership in Pakistan** | | | | |
|  | **1972** | **1980** | **1990** | **2000** |
| **Gini Coefficient** | 0.66 | 0.65 | 0.66 | 0.66 |
| **% of landless households** |  |  | 62.0 | 63.3 |
| **% Share of Holdings <5 acres** |  |  |  |  |
| a. Households | 47.3 | n.a. | 54.4 | 61.2 |
| b. Land | 5.4 | n.a. | 11.4 | 14.8 |
| **% Share of Holdings 50+ acres** |  |  |  |  |
| a. Households | 3.3 | n.a. | 2.8 | 2.0 |
| b. Land | 22.4 | n.a. | 34.0 | 29.7 |
| SOURCE: [Report No. 39303-PK Pakistan, Promoting Rural Growth and Poverty Reduction](http://siteresources.worldbank.org/PAKISTANEXTN/Resources/293051-1177200597243/ruralgrowthandpovertyreduction.pdf), March 30, 2007, Sustainable and Development Unit. South Asia Region. Document of the World Bank.[[17]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-17) | | | | |

Some reformers have blamed imbalance in land ownership in Pakistan for playing a part in "maintaining poverty and food insecurity".[[18]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-Ghosh-18) According to the Pakistan-based NGO, Society For Conservation and Protection of The Environment (SCOPE), about one-half (50.8%) of rural households in Pakistan are landless, while 5% of the country’s population owns almost two-thirds (64 percent) of its farmland.[[18]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-Ghosh-18) (The World Bank found that according to 2000 agricultural census 63.3% of rural households were landless. Of the remaining 37% of rural households, 61% of these owned fewer than 5 acres, totaling 15% of total land. Two percent of households owned 50 acres or more, accounting for 30 percent of total land area.[[19]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-WB2007-19)) Concentration of ownership is also thought to be less productive than owner farmed land. According to the [World Bank](https://en.wikipedia.org/wiki/World_Bank), "most empirical evidence indicates that land productivity on large farms in Pakistan is lower than that of small farms, holding other factors constant."[[19]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-WB2007-19) Small farmers have "higher net returns per hectare" than large farms, according to farm household income data.[[19]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-WB2007-19) Sharecropper productivity is also lower (about 20%) than landowner productivity, holding other factors constant, because there is less incentive for sharecroppers’ own-labour inputs.[[19]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-WB2007-19)

The major effort to redistribute land to peasants and landless—Laws in 1972 and 1977 by [Zulfikar Ali Bhutto](https://en.wikipedia.org/wiki/Zulfikar_Ali_Bhutto)—were struck down as un-Islamic by Pakistan courts in a number of decisions from 1979 to 1989.[[20]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-lrip-20)[[21]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-kennedy-120-21)

The first attempts at land reform in Pakistan occurred under [Ayub Khan](https://en.wikipedia.org/wiki/Ayub_Khan_(Field_Marshal))'s government, the West Pakistan Land Reforms Regulation 1959 (Regulation 64 of 1959). The law put a ceiling on individual holdings: no one individual could own more than 500 acres of irrigated and 1,000 acres of unirrigated land or a maximum of 36,000 Produce Index Units (PIU), whichever was greater.[[20]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-lrip-20) On result of this attempt at redistribution was that land was divided up among members of the landowning family to keep the land owned by individuals below the "ceiling".[[22]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-baxter-6-22)

The People's Party government (1971-1977) intended to transform Pakistan with land reform among other policies. Its rationale was that

1. land redistribution to the landless in the rural areas would alleviate poverty in the state and diminish inequality;
2. would weaken the power and dominance of the [*zamindars*](https://en.wikipedia.org/wiki/Zamindar), Pakistan's 'feudal class';
3. and would be crafted so as to make Pakistan's agricultural production more efficient; transforming `traditional, inefficient absentee landlordism` into `modern, efficient agricultural entrepreneurship.`[[23]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_110-23)

It issued two major land reform laws, Land Reform Regulation 1972 (Martial Law Regulation - MLR 115) promulgated by Prime Minister [Zulfikar Ali Bhutto](https://en.wikipedia.org/wiki/Zulfikar_Ali_Bhutto), was designed to place ceilings on the agricultural holding of Pakistan's large landlords. Land in excess of a ceiling of 150 acres was to be seized by the state without compensation and distributed to the landless.[[24]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_109-24) The ceiling was raised to 300 acres if the land was unirrigated; exceptions were also granted for tractors or installed tubewells.[[25]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_122-25)

Another provision of MLR 115, Section 25, gave first right of re-emption (right of first refusal to buy) to the existing tenants. In 1977, another bill the Land Reform Act, 1977, reduced the ceiling to 100 acres, although this act provided for compensation to landlords.[[24]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_109-24)

"Analysts agree" that the implementation of land reforms under Ali Bhutto "left much to be desired."[[23]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_110-23) The amount of land seized and redistributed to the peasants was modest, and the reforms were not administered equitably, with implementation much more robust in the [NWFP](https://en.wikipedia.org/wiki/Khyber_Pakhtunkhwa) and [Balochistan](https://en.wikipedia.org/wiki/Balochistan,_Pakistan), where opposition to Bhutto was centered, than in provinces where his power base resided, ([Sindh](https://en.wikipedia.org/wiki/Sindh) and [Punjab](https://en.wikipedia.org/wiki/Punjab,_Pakistan)).[[23]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_110-23) Many of Pakistan's large landlords mobilized against the reforms which they saw as "a direct challenged to their long-standing interest in maintaining political control in Pakistan's rural areas". The land reforms were attacked as "unjustly administered; and as inherently un-Islamic."[[23]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-CKILE1996:_110-23)

After Ali Bhutto was overthrown, landlord victims of land reform appealed to "Islamic Courts" established by Bhutto's successor General [Zia-ul-Haq](https://en.wikipedia.org/wiki/Zia-ul-Haq) (i.e. the [Shariah Appellate Bench](https://en.wikipedia.org/wiki/Supreme_Court_of_Pakistan#Shariat_Appellate_Bench) and [Federal Shariat Court](https://en.wikipedia.org/wiki/Federal_Shariat_Court)), and these, rather than the executive or legislature of Pakistan, undid much of Ali Bhutto's redistribution. According to scholar Charles H. Kennedy, the courts effectively "suspended implementation" of the land reforms, "repealed the reforms, drafted new legislation, and then interpreted the new laws' meanings".[[26]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-kennedy-121-26)A 3-2 decision in 1989 by the [Shariat Appellate Bench](https://en.wikipedia.org/wiki/Supreme_Court_of_Pakistan#Shariat_Appellate_Bench) ruled against setting a ceiling on size of landholdings (as the Bhutto land reform had done) on the grounds that "Islam does not countenance compulsory redistribution of wealth or land for the purpose of alleviating poverty, however laudable the goal of poverty relief may be."[[21]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-kennedy-120-21)[[27]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-27)[[28]](https://en.wikipedia.org/wiki/Agriculture_in_Pakistan#cite_note-khanSS-SP-28) According to barrister writing in dawn.com, "The net result of the Qazalbash Waqf v Chief Land Commissioner (The 1989 Shariat Appellate Bench decision) is that land reforms in Pakistan are now at the same level as they were in 1947, as the 1972 regulations and the 1977 act have seen their main provisions being struck down and the 1959 regulations have been repealed."