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*Shaping Lives...
Empowering Communities...*

Available Documents on agriculture during ancient and medieval period

- **1. Rigveda (c.3700 BC)**
- **2. Atharvaveda (c. 2000 BC)**
- **3. Ramayana (c.2000 BC)**
- **4. Mahabharata (c.1400 BC)**
- **5. Krishi-Parashara (c.400 BC)**
- **6. Kautilya's Artha-sastra (c.300 BC)**
- **7. Amarsimha's Amarkosha (c.200 BC)**



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Available Documents on agriculture during ancient and medieval period...

- 8. Patanjali's **Mahabhasya** (c.200 BC)
- 9. Sangam literature (Tamils) (200 BC-100 AD)
- 10. Agnipurana (c.400 AD)
- 11. Varahamihir's **Brihat Samhita** (c. 500 AD)
- 12. Kashyapiya's **Krishisukti** (c.800Ad)
- 13. Surapala's **Vriksh-Ayurveda** (c.1000 AD)
- 14. Chavun-daraya's **Lokopakaram** (1025 AD)



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Available Documents on agriculture during ancient and medieval period...

- 15. Someshwardeva's **Manasollasa** (1131 AD)
- 16. Saranghara's **Upavanavioda** (c.1300 AD)
- 17. Bhava Prakasha's **Nighantu** (c.1500 AD)
- 18. Chakrapani Mitra's **Viswavallbha** (c.1580 AD)
- 19. Dara Shikoh's **Nuskha Dar Fanni-Falahat** (c.1650 Ad)
- 20. Jati Jaichand's dairy (1658-1714 AD)
- 21. Anonymous Rajasthani Manuscript (1877 AD)
- 22. Watt's Dictionary of Economic Products of India (1889-1893 AD)



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GIAHS

- **Globally Important Agricultural Heritage Systems (GIAHS)**, as defined by the FAO are:

"Remarkable land use systems and landscapes which are rich in globally significant biological diversity evolving from the co-adaptation of a community with its environment and its needs and aspirations for sustainable development".



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Examples of GIAHS

1. Mountain rice terrace agro-ecosystems

- Mountain rice terrace systems with integrated forest use and/ or combined agro-forestry systems, such as:
- **agroforestry vanilla** system in **Pays Betsileo, Betafo and Mananara regions in Madagascar;**
- the **Ifugao rice** terraces in **the Philippines;**
- These systems also include **integrated rice-based systems** (e.g. rice-fish culture, ricefish-duck, rice-fish-taro) integrated forest, land and water use systems, especially found in **East Asia and the Himalayas.**



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Examples of GIAHS

- **2. Multiple cropping/polyculture farming systems**
- Combinations and/or plantings of numerous crop varieties with or without agroforestry.
- Eg. **maize and root crop-based agro-ecosystems** developed by the **Aztecs** (Chinampas in Mexico); **waru-waru** systems or **suka collos** in **Lake Titicaca** in **Peru and Bolivia**.



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Examples of GIAHS

3. Understory farming systems

- **Integrated forestry, orchard or other crop systems with both over story-canopy and understory environments.**
- **These are common in Papua New Guinea, Vanuatu, Solomon Islands and other Pacific small island developing countries.**



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Examples of GIAHS

- **4. Nomadic and semi-nomadic pastoral systems**
- Rangeland/pastoral systems
- Yak-based pastoral management in Ladakh and the high Tibetan plateau in India and China;
- Rangeland use in parts of Mongolia and Yemen;
- Cattle and mixed animal based nomadic pastoral systems of the Maasai in East Africa;
- reindeer-based management of tundra of the Saami and Nenets in the temperate forest areas of Scandinavia and Siberia.



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Examples of GIAHS

- **5. Ancient irrigation, soil and water management systems**
- Irrigation, soil and water management systems for drylands, with a high diversity of crops and animals
- The oasis of the **Maghreb** in the deserts (**North Africa & Sahara**).
- Traditional **valley bottom** and **wetland management** systems in **Lake Chad**, the **Niger River basin** and interior delta
- Indigeneous irrigation systems in **Bamileke region, Cameroon**; of **Dogon tribes in Mali** and **Diola tribes in Senegal**; as well as the **village tank system in Sri Lanka and India**.



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Examples of GIAHS

- **6. Complex multi-layered home gardens**
- **Complex multi-layered home gardens** with wild and domesticated trees, shrubs and plants for multiple foods, medicines, ornamentals and other materials.
- home garden systems in **China, India, the Caribbean, the Amazon (Kayapó) and Indonesia** (e.g. East Kalimantan and Butitingui).



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Examples of GIAHS

- **Below sea level systems**
- Soil and water management techniques for creating arable land through draining delta swamps.
- The systems function in a context of rising sea and river levels while continuously raising land levels, thereby providing a multifunctional use of land (for agriculture, recreation and tourism, nature conservation, culture conservation and urbanization)
- e.g. Polder or dyke systems in the Netherlands; Kuttanad wetlands in Kerala, India; floating gardens in Bangladesh and South Asia.



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Examples of GIAHS

- **8. Tribal agricultural heritage systems**
- These systems feature various agricultural practices and techniques of managing soil, water and crop cultivars in sloping lands from upper to lower valleys using mixed and/or a combination of cropping systems.
- **Integration of ITK**
- Seethampheta in Andhra Pradesh, the Apatani rice fish culture, the Zabo system, the Darjeeling system in the Himalayas, and many other systems in India.



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Examples of GIAHS

- **9. High-value crop and spice systems**
- These systems feature management practices of ancient fields and high value crops and spices, devoted uniquely to specific crops or with crop rotation techniques and harvesting techniques that require acquired handling skills and extraordinary fineness.
- E.g. Saffron systems in Iran, Afghanistan and Kashmir, India.



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- **10. Hunting-gathering systems**
- These systems feature unique agricultural practices such as harvesting of wild rice in Chad and honey gathering by forest dwelling peoples in Central and East Africa.