



ANCIENT INDIAN KRISHI, A BOON TO MODERN AGRICULTURE: A LITERARY

Dr. Sumita Mandal

Assistant Professor (Stage-Iii) & Hod, Sanskrit, Khandra College Under K.N.U., Asansol, Paschim Bardhaman, West Bengal, India.

Corresponding Author - Dr. Sumita Mandal

E-Mail- Drsumita.Mandal@gmail.com

Abstract

Agriculture is one of the most important inventions of human society. It is a system of life in which humans, plants and animals are interwoven. For thousands of years in india it has been considered as an honourable profession and man has been taking this as the principal means of livelihood. Our ancient sanskrit scriptures are replete with references of agriculture that was regarded as the means of human welfare. In the vedic era krishi or agriculture was considered to be the pious job that keeps human beings with happiness. Various suktas and hymns of the vedas describe the significance of agriculture. The ramayana, mahabharata, bhagavadgita, krishiparasara, brihatparasara, manusmriti, arthashastra, inscriptions and writings of so many scholars in the gupta era mention important aspects in agriculture that are highly relevant and followed till today. The ancient tools and techniques about agriculture as evidenced in ancient texts and inscriptions are beneficial to the modern agriculture. There is no iota of doubt that the agriculture sector in india is expected to generate better momentum very soon and will surely bring the golden days for indian agriculture and to the people of india as a whole.

Key Words: Agriculture, India, Sanskrit Scriptures, Inscriptions, Tools And Techniques.

Introduction

Agriculture is one of the most important inventions of human society. It is a system of life in which humans, plants and animals are interwoven. For thousands of years in india it has been considered as an honourable profession and man has been taking this as the principal means of livelihood. Like most of the developing countries agriculture plays a vital role in india's economy. Agriculture is the very basis of leading the life with happiness and prosperity in india from the ancient era. Our ancient sanskrit scriptures are replete with references of agriculture and its various aspects like advanced knowledge of crops, weather, rainfall, fertilizers, use of manure, and implementation of several rules and agricultural techniques that are relevant in our global village even today. New improved tools and techniques of agricultural production have been being developed since the vedic era to improve the method of *krishi* (the *sanskrit* equivalent for agriculture) like dragging, pulling, ploughing, tilling of the soil, threshing, planting crops in rows, cotton spinning and storing grains in granaries which were the divine performances to the vedic people and since then the agriculture depends on human toil. The *satapatha brahmana*

refers this as traditional ritual that continued in the later vedic age. It is said that asvins (the twin gods) ploughed the fields and sowed barley for the aryaans. Later asvins taught agriculture to manu and it was handed down to the aryaans. Indra, the principal god of the aryaans is invoked in a prayer to protect the tilled lands and home steeds as guard. Going by the ancient *sanskrit* literature, the agriculture was considered to be the best among all occupations. Main reason behind it was that agriculture was the very basis of leading the life with happiness and prosperity. Agricultural work was considered to be the pious job. The *rigveda* directs even the elite class of the society to perform the job of agriculture as it was considered to be equivalent of *yajna*, the principal form of worship in the rig vedic society. Indian sages with divine insight eulogize agricultural business as the basis of sacrifice and as life giver of living beings. They are of the opinion that farming activity should be planned and undertaken in every community, in every country, in every rural part and in every tableland. They have pursued agricultural activities even on open yards of cottages with a view to benefit all beings. human life is dependent on *anna* and production of *anna*

is dependent of agriculture. According to the *markandeyapurana*, *brahma* was regarded as the first inventor of agriculture as he brought the agriculture into practice. According to the *atharvaveda*, *visnupurana*, and *srimadbhagvadmahapurana*, agriculture keeps human beings with happiness. In the *rigveda* agriculture would be stated as wealth (*vitta*) and a proper home with cattle and wife. The *atharvaveda* also highlights the importance of agriculture that was a delighted occupation taken by all including poets and scholars for happiness. Success in agriculture leads to success in life. In the *yajurveda* and *taittiriya samhita* agriculture is regarded as the means of human welfare. It is the source of prosperity and sustenance. It gives grain, strength and lustre. The *yajurveda* says that one should make efforts for producing abundant grains through agriculture. In *taittiriya samhita* agriculture has been described as *chhandas* (metre), the music that fills human life with delight. The *brihatparasara* says that there is no other religion than agriculture and agriculture is more profitable than other business. The *krisiparasara* has discussed the importance of agriculture. By practicing agriculture alone one is bound to be *bhupati* (master of the earth). People even having surplus of gold, silver, jewels and garments have to suffer from hunger in absence of food. Food is life and strength too. The divines, the demons, and all human beings depend on food for surviving. But food cannot be available without agriculture.

Since the vedic period all castes and communities of indian society, rich and poor, male and female have been engaging themselves in agricultural activities as cultivators or farmers who are an integral part of the agricultural system. Then the cultivator was highly honoured and attributed as divine dignity. Describing the significance of farmer, a seer of the *rigveda* says, “we will be victorious and happy with the association of our friend and owner of the field-*ksetrapati*.” The *atharvaveda* says that those actually working in the fields are the real owner of the lands. The *brihatparasara* says that a farmer favours all living beings by supplying food grains to them through his noble service in the field. According to *panini* there are three kinds of farmers- 1) *ahali*- farmers who do not have their own ploughs; 2) *suhali*- farmers who are in possession of good land or ploughs; 3) *durhali*- farmers who have old ploughs. The *atharvaveda* gives importance to the education of farmers for the country to attain strong economy. The *brihatparasara* says that an educated and well behaved farmer will never be

poor and unhappy. According to the *manusmriti* the farmers should have sufficient knowledge about seeds, proper season for cultivation, the good and bad qualities of the soil, the measurement of the field, rainfall and the effects of other natural forces. There are all about thirty six references of agricultural fields and 12 types of lands in the *rigveda*. It is supposed that the ownership of agricultural lands were divided into three categories such as communal theory, king theory and peasant theory in ancient india. Various *suktas* of the *rigveda* and *atharvaveda* describe the significance of agriculture. So many hymns related to agriculture were composed in the *rigveda* and were recited at the beginning of the ploughing. Agricultural taxes are referred in the *dharmastra*, the collection of ancient sanskrit texts including *manusmriti*. The *ramayana* represents a society where agriculture was more important and was regarded not only as an occupation of farmers but also of kings. King janaka himself was engaged in ploughing when sita was found. Rama mentions a ceremony of the autumnal namely *navagryayanapuja*, probably connected with agriculture because pitras and gods were offered to the new harvest on the occasion of this festival. Cultivators depended on rain-water for successful crops. Due to the whims of weather agriculture in the age of *ramayana* has to depend on irrigation which was prevalent then and cultivation depended on river-water and rainfall. We find terms like *nadimatrika* (land watered by river-water) and *devamatrika* (land watered by rainfall) etc.. Then the tools used for agricultural activities were *langala* and *hala* drawn by bulls, *kuddala* (hoe), *kuthara* (axe), *tanka* (hatchet), *sula* (crowbar) and *datr* (sickle). There were six calamities such as draught, floods, locusts, rats, birds and invasions referred in the *ramayana*. The kings were also beware of these calamities and used to try to dissolve this menace.

We do not have any elaborative description of agriculture in the *mahabharata*. But we find the terms *annadana* and *jaladana* that stand for the giving of food and bestowal of water respectively. The *mahabharata* instructs *bhoomidana* and *vrikshadana* as *bhoomi* (earth) and *vriksha* (trees) cannot be separated from *anna* and *jala*. According to the *mahabharata*, king kuru, the legendary ancestor of the kauravas and the pandavas decided to extend an area of five yajanas square on the bank of sarasvati river for the purpose of cultivation and to strengthen their economic position. The *mahabharata* also refers that the state would perform an important role for the wellbeing of agriculture. The state

had the entire responsibility for any damage to crops due to its inadvertence or negligence. The state had to supply seeds and other materials related to agricultural operation free of cost. The cultivators had to pay a sixth part of the product as revenue. Kalidasa too expresses the same view in his drama. The *mahabharata* prescribes that king should give loans in the form of cash, seeds *etc.* To the farmers and thus encourage them to get more yield from the field. Help to agriculture has been said to be religious as well as conducive to success and health. Each and every member of the society including kings and wealthy people should help those involved in agricultural activities in the measure of their capacity which would be yielding great fruit. Different agricultural crops, grown in the age of the *mahabharata* were *vrhi* (rice), barley, barley sesames, various types of medicinal herbs *etc.* The *taittiriya samhita* refers to two harvests in a year. Barley was harvested in the summer and medicinal herbs were collected in the rainy season. *Vrhi* (rice) was harvested in the rainy season and matured beans and sesames were gathered in the dew season and winter. It was clear that there was a rotation of crops. Barley was followed rice, bean and sesame. The *bhagavadgita*, the timeless vedic wisdom revered throughout india delineates the concepts of vedic agriculture. Here lord krishna teaches yudhisthira the greatness of *annadana* (food sharing).

The *krishi parashara* authored by maharshi parashara is the only available scientific text on agriculture in ancient india. The text includes all aspects of agriculture such as meteorological observations relating to agriculture, management of agriculture and cattle, agricultural tools, seed collection and preservation, ploughing and all the agricultural processes involved right from preparing fields to harvesting and storage of crops. The theory of agriculture in this text is explained in such a simple way that the farmers can understand it very easily and gain benefit by applying to their profession. Undoubtedly, this text can be called the farmer's almanac that contains the basic data of geographical and climatic conditions which can help in planning and managing the activity of farming spread over several months.

In the *arthashastra* kautilya mentions that suitable agricultural operations can be performed with the supply of good seeds and other inputs. A fruitful agriculture requires optimum rainfall and arrangement of proper irrigation. The *arthashastra* emphasizes on marketing and safe storage. According to the *arthashastra* soil test is

necessary for particular crops. It is also clearly mentioned in the *arthashastra* that squash, pumpkin, some gourds, watermelon, cucumber *etc.* Are to be sown in the bank of rivers. Grapes, sugarcane and long-peeper require the soil charged with water. Frequent irrigations are required for vegetables. All these important aspects in agriculture are highly relevant and followed till today.

So many scholars such as kalidasa, aryabhatta, varahmihir, vatsyayana, amarasimha, shanku, betalbhatta, dhanvantri, khapanaka and harisena has made great advancements in many academic fields including agriculture in the gupta era that reached the zenith of glory in the sphere of arts and culture, science, economy *etc.* From their writings we can have the knowledge of various agricultural activities performed with a scientific way during that period. A well-developed irrigation system was set up then. The great rivers like ganga, brahmaputra, narmada, krishna and kaveri that surrounded the gupta empire provided the source of irrigation. The gupta administration constructed numerous aqueducts, dams, and canals. Large areas of the empire became very fertile for farmers to till due to excellent infrastructure of irrigation system. The canals which were meant to prevent inundation are mentioned by amarasimha as *jalanirgamah*. Amarasimha refers the names of different types of tanks according to their sizes as *vapi*, *tadaga* and *dirghula*. Another method for irrigation was the use of *ghati-yantra* or *araghatta*. Proper manuals to know the type and quality of soil for each plant and various plant diseases, sowing techniques processing for grain, vegetables and fruits are scientifically described in the manuals. The use of iron for making various agricultural implements became widespread. Ploughshares were forged in a scientific way and the designs and weights of these were fixed for different types of soil. Varahamihira refers to the proper method of preparation of soil and tree plantation, grafting of a tree branch on another tree, treatment of diseased trees and watering of the plants.

Inscription is an authentic document of the most important archeological evidences of the bygone days. The *hatigumpha* inscription of kharavela mentions the digging of an irrigational canal by a nanda king in the past. According to the various gupta inscriptions the agricultural lands are classified in five categories such as *khetra* (a land under cultivation), *khila* (a cultivable land), *aprahata* (jungle or forest land), *gapta sarah* (a pasture land) and *vasti* (a land where human habitation).

In the gupta period we find the appearance of certain new land revenue terms in several inscriptions. These references are mentioned in the contemporary records usually followed by the word *adi, etyadi*. In this connection we may mention some pallava charters in which we see *donees* are granted land pieces with eighteen *pariharas* without mentioning their names. Some copper-plate inscriptions of fifth century found in the various places of bengal entirely differentiated the fertile lands from the ancestral homesteads and jungles. The inscriptions refer to the various measurements of lands such as *arvap, dronvap, kulyavap etc..*

There is no denial of the fact that though much about the agriculture system of ancient india is known from our ancient scriptures a complete view about early agriculture is unknown to us. But still the ancient tools and techniques about agriculture as evidenced in ancient texts and inscriptions are beneficial to the modern agriculture. The inevitable proof of the success of good agriculture in india is that it enables a significant population to survive. Following the path of our ancestors investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage have been increased today. There is no iota of doubt that the agriculture sector in india is expected to generate better momentum very soon and will surely bring the golden days for indian agriculture and to the people of india as a whole.

References

Primary sources:

1. History of encyclopedia britannica. (2008). Agriculture.
2. Keay, john. (2000). India: a history. Atlantic monthly press.
3. Sadhale nalini. (tr.) (1996 & 1999). *Agri-history* bulletin no. 1 & 2. Asian agri-history foundation, secunderabad 500009, india.
4. Winternitz, m.a. (1985). History of indian literature, vol. Iii, reprint.

Secondary sources:

1. Ayer, a.k.y.n. (1949). Agriculture and allied arts in vedic india, bangalore.
2. Basham a.l. (1997). The wonder that was india. New delhi: rupa & co.
3. Dutt, m.n. (2008). The mahābhārata, sanskrit text with english translation, 9 vols. Parimal publications, delhi, new revised edition.
4. Gopaldaswamy aiyangar, t.k. (1967). Agriculture in the vedas. In: *vedasamīkṣā* (proceedings of the vedic seminar) tirupati.
5. Kane, p.v. (1954). History of dharmasastra (hereafter hod), vol. I, part 1, second edition, poona.

6. Nair shantha n. (2008). Echoes of ancient indian wisdom. Hindology books. New delhi: an imprint of pustak mahal.
7. Randhawa, m.s. (1980). A history of agriculture in india. Volume i. New delhi.
8. Thapar, romila. (2003). The penguin history of early india. From the origins to ad 1300. London.

Websites: [accessed 21.11.2002 - 12.05.2022]

1. <<http://www.academia.edu>>
2. <<http://www.academicjournals.org>>
3. <<http://www.anantaajournal.com>>
4. <<http://www.books.google.co.in>>
5. <<http://www.goodreads.com>>
6. <<http://www.google.com>>
7. <<http://www.iosrjournals.org>>
8. <<http://www.openlibrary.org>>
9. <<<http://www.researchgate.net>>>
10. <<http://www.sciencedirect.com>>
11. <<http://www.shodhganga.inflibnet.ac.in>>
12. <<http://www.vikalpsangam.org>>