CHAPTER I

Historical Background and Organisation of Agriculture Census

Growth of Land Records System

1.1.1 From the earliest times, India’s self-sufficient villages constituted the hub of rural economy based on agriculture. Land Revenue was one of the main sources of State Income. Collection of land revenue necessitated maintenance of some records relating to cultivation. In the 16th century, Sher Shah Suri initiated land settlement operations for assessment and collection of land revenue. This was later systematized during the reign of Akbar, when Todar Mal reorganized the entire land revenue system.

1.1.2 The British Empire inherited a well laid out land records system from Mughals. They made drastic changes with a view to further improve land revenue system and augment the State revenue, as this constituted the main source of State income. These changes resulted in the development of two major types of land revenue systems. In Bengal and the adjacent areas, permanent settlement was introduced where private landlords were created to whom Government granted some but not all rights of private property in land. The new landlords acted as intermediaries between the Government and the actual cultivators. This land revenue system came to be known as Zamindari system. In large parts of Bombay and Madras, an entirely different land revenue system was developed wherein only temporary settlements were made. In this system, the Government directly dealt with the cultivators or ryots. This system came to be known as Ryotwari system. Many changes were made in these systems during the course of nineteenth century.

1.1.3 After the attainment of Independence, land laws were aimed at bringing the peasant and State into direct contact. In areas where the Zamindari system prevailed, new laws provided for abolition of intermediaries. In areas where Ryotwari system prevailed, the laws aimed at providing protection to the tenants, actual tillers of the land. These tenant laws had two main objectives. The first was to protect tenants against eviction by granting to them permanent occupancy rights
on the Agriculture land they had been tilling. The second was to reduce rents by fixing upper limits.

**Land Records and Agricultural Statistics**

1.1.4 The gradual evolution of the land record system in the country necessitated maintenance of village forms and registers giving details of land held, various conditions under which these were held. A regular system of revenue administration was established for the purpose. The main objective of these forms and registers has been to furnish basic material for periodic revision of land revenue assessment, settlement of newly occupied lands, suspension and remission of land revenue in the event of calamities affecting crop production, preparation of annual statement of demand of land revenue from holders and other aspects of land revenue administration. These forms and registers of various States agree to a large extent in essential details. Yet, with variations in the systems of land revenue assessment and administration, they show variations from State to State in the form and manner of their preparation and inclusion or exclusion of certain more detailed information. These forms and registers, in vogue for the maintenance of land records in different States, constitute the basis for the land utilisation, crops and irrigation statistics. These land record forms and registers are prepared on complete enumeration basis in all the States except for Kerala, Orissa, West Bengal, Nagaland, Meghalaya, Manipur, Tripura and some of the Union Territories. Detailed procedures for preparing and maintaining them are available in Land Record Manuals of respective States.

1.1.5 Changes in the content and coverage of forms have been made from time to time, to meet increasing requirements of data for planning and implementation of Agriculture development programmes. Agricultural Statistics in India have thus grown with the evolution of land records system in the country.

**Improvement in Agricultural Statistics**

1.1.6 With the ushering in of the planning era since 1951-52, number of schemes have been undertaken to improve the reporting of Agricultural statistics for use of policies and programmes relating to procurement of foodgrains, imports, exports and pricing of Agricultural commodities etc. Efforts have been made to
introduce a complete field to field enumeration system in the three permanently settled states of Kerala, Orissa and West Bengal as per the recommendation made by the National Commission on Agriculture. The National Commission on Agriculture after examining various alternatives for collection of Agricultural statistics, had come to the conclusion that the collection of data based on land records is the best option, provided the basic records are maintained properly. Since the basic land records are maintained by the Patwari, he is the best person to do the crop inspection. He is the most knowledgeable man in the field and, as such, the most suitable person for collecting the reliable information. The basic structure for collection of Agricultural statistics can be improved by enabling the Patwaris to do their job better and also to ensure that Patwaris and Revenue Inspectors at higher level devote adequate attention to the collection of Agricultural statistics and assign top priority to the work especially during the period of crop inspection. For this purpose, the jurisdiction of Patwari should be reduced to manageable proportion in the States where it is widely spread. Secondly, intensive supervision both by normal revenue agencies and statistical staff should be organized to ensure quality of data at the primary level. The primary and supervisory agencies, therefore, need to be suitably strengthened.

Need for data by operational holdings

1.1.7 In context of the strategy for Agricultural development, knowledge of detailed structure and characteristics of Agricultural holding is imperative for effective and efficient planning and implementation of programmes. For this purpose, it is essential to have information by operational holdings as distinct from ownership holdings which are no doubt useful to have an idea of the distribution of wealth but information by operational holdings is more important for implementation of Agricultural development programmes as such. An operational holding is defined as “all land which is used wholly or partly for Agricultural production and is operated as one Technical Unit by one person alone or with others without regard to title, legal form, size or location”. It is the operational holding which is the fundamental unit of decision making in agriculture and consequently for development programmes aimed at improving the condition of individual cultivators and also the production. Thus, a Census of operational holdings or what is otherwise known as the Agriculture Census for providing basic
data on number, size, tenancy, land utilization, cropping pattern and irrigation particulars, etc., assumes importance.

1.1.8 While the system of Agricultural statistics that was in vogue in the country provided for aggregates at various geographical levels, data on structure of holdings had not been tabulated. As early as 1830, the Famine Inquiry Committee stressed the need for adequate statistics of land holdings. Again the Famine Inquiry Commission of 1945 tried to gauge the relationships between the land tenure systems and the efficiency of Agricultural production but the Commission was handicapped in this regard due to non-availability of data and the Commission made a number of recommendations for improvement of Agricultural Statistics. Due to various reasons, these recommendations were not given effect to.

**International effort for Agriculture Census**

1.1.9 The decennial World Census of Agriculture sponsored by Food and Agriculture Organisation (FAO) of the United Nations essentially constitutes a series of National Agriculture Census taken all over the world in or around the same year within the framework of uniform concepts and definitions and a common programme of items coverage and tabulation. The first step towards the World Census of Agriculture was initiated in 1924 by the International Institute of Agriculture, Rome which persuaded member-countries to carry out a general programme of Agriculture Census on a comparable and uniform pattern. The object was to obtain from these various countries internationally comparable information on the structure of agriculture through holding-wise enumeration of crop areas and livestock in one operation. Sixty-three countries and territories participated in the first Census in 1930 and of these only 46 countries took it by holdings and the rest obtained aggregates on various levels of geographical areas. The next census was planned for 1940 but could not be carried out due to Second World War. Hence the second World Agriculture Census was carried out around the year 1950 under the guidance of FAO which had since replaced the former International Institute of Agriculture. One hundred and six countries and territories participated in the second census.

1.1.10 The Government of India wanted to take the opportunity of the 1950 round of the World Census of Agriculture to overhaul the country’s machinery for
collection of Agricultural Statistics. A Technical Committee on Coordination of Agricultural Statistics was set up by the Ministry of Agriculture for the purpose. The Committee worked out detailed forms for collecting comprehensive data relating to the Agricultural economy of the country. The Committee’s recommendations for carrying out a census with 1950-51 as the reference year could not, however, be implemented due to constraints on resources. The Third World Agriculture Census was carried out in 1960. Here also India could not go in for a comprehensive Agriculture Census in the country.

**Initial efforts in India for data on operational holdings by NSSO**

1.1.11 As the Government of India were, however, keen to obtain information on operational holdings, hence both for 1950 and 1960 rounds of Agriculture Census, data required by the World Agriculture Census were collected through sample surveys carried out by National Sample Survey Organization (NSSO). In connection with the 1950 round of World Agriculture Census, data were collected in India for the major crop season of the Agriculture year 1953-54 during the 8th round of NSS (1954-55). For the 1960 round of World Agriculture Census, data were collected during the 16th round (1960-61) and 17th round (1961-62) of NSS. These gave estimates for the country as a whole and for States. These estimates were of limited value for micro level planning, say, for district or lower regional levels. NSSO also carried out a sample survey of land holdings in its 26th and 37th rounds.

**First Comprehensive Agriculture Census in India**

1.1.12 When the proposal for 1970 World Census of Agriculture was received from the FAO, the Government of India decided to participate in the Census and conveyed their decision to the FAO. According to the proposal of FAO, the 1970 World Census of Agriculture envisaged in principle the collection of data for all individual holdings by direct enumeration. FAO, however, suggested that sampling may be resorted to for areas where complete enumeration may not be possible. As mentioned earlier, in most parts of India the system of land records containing plot-to-plot details in every village exist. Only in a few States and territories of India such a system was not in vogue. Hence the Government of India decided to obtain the necessary information for the Census by a system of retabulation of the
data available in the land records for those states and territories where such comprehensive records exist. In other areas where land records did not exist or gave insufficient census information, sample surveys were thought of and the size of the sample was such as to provide reliable estimates at the district level and for major characteristics even at levels lower than district such as Tehsil/block.

1.1.13 Thus, the first comprehensive Agriculture Census in India was carried out with the Agriculture year 1970-71 as the reference period.

Second Agriculture Census- Reference period and coverage

1.1.14 The experience gained in conducting the Agriculture Census 1970-71 had been rewarding. The use of the data from that census was encouraging and hence it was agreed that similar Agriculture Census should be undertaken at more frequent intervals of time, say, quinquennially. The National Commission on Agriculture also emphasized the need for repeating the Agriculture Census every five years coinciding with the plan periods. The question of carrying out the next Agriculture Census was, therefore, examined in consultation with the States and concerned Central Ministries. It was originally decided in August, 1974 that the next census should be carried out on sample survey basis with the Agriculture year 1975-76 as the reference period. However, a number of changes were likely to take place in the existing land records during 1975-76 and since land records constituted the base for the Agriculture Census in most parts of the country, it was decided to postpone the reference year from 1975-76 to 1976-77. In the 1976-77 Agriculture Census, Sikkim and Mizoram were also covered for the first time to make the coverage complete. But the 1976-77 Census could not be carried out in Punjab for some reasons.

Pilot studies and the procedure

1.1.15 It was envisaged that the 1976-77 Agriculture Census would in general cover a sample of about 20 per cent of the villages and the data on principal characteristics would be obtained from the resident cultivators in the selected villages. The experimental pilot studies carried out to find out the problems under this approach indicated large scale under-estimation, both in area and the number of operational holdings. The under-estimation was mainly due to omissions of resident cultivators and the land operated by them. This was then considered by
the Technical Committee on Agriculture Census who recommended that the primary data on number and area of operational holdings (Table 1) should be prepared in respect of all the villages in the States where comprehensive land records exist. For the rest of the items, namely, tenancy, land use, irrigation, crops etc. necessary data might be collected from a sample of 20 per cent of the villages and the entire resident cultivators therein. The advantage of this procedure was that all the survey number operated within the village was completely covered and as such the entire cropped area of the village were accounted for. In the case of non-land record States; however, the entire census was carried out on sample survey basis.

**Input Survey**

1.1.16 The scope of the 1976-77 Agriculture Census was also widened to include a separate Input Survey to obtain information on the use of various inputs such as fertiliser, manures, pesticides, Agriculture implements and machinery, livestock for five broad size groups of operational holdings, viz. marginal, small, semi-medium, medium and large.

1.2 **Agriculture Census as part of Agricultural Statistics**

1.2.1 Agriculture Census in India forms part of broader system of collection of Agricultural Statistics. It is a large scale, periodic, Government sponsored operation for collection and derivation of quantitative information about the structural aspect of agriculture in the country. The basic unit of collecting data in Agriculture Census is the ‘Agriculture Operational Holding’ as distinct from ‘Ownership Holding’. This is so as the operational holding is the fundamental unit of decision making in agricultural planning. Agriculture Census is conducted in most parts of the country, where detailed village land records exist, on complete enumeration basis by retabulating the data available in these records into the prescribed schedules for Agriculture Census by consolidating the information of all parcels of each of the operational holding, in the village of residence of the operational holder. In the States where detailed land records do not exist, the Agriculture Census is carried out through sample surveys by household inquiry approach.
1.2.2 Agriculture Census in India coordinated by the Agriculture Census Division of the Ministry of Agriculture requires a high degree of coordination, technical expertise, statistical control and supervision over the States. The data collected through Agriculture Census is in the nature of supplement to the current Agricultural Statistics. Under the current Agricultural Statistics, coordinated by the Directorate of Economics & Statistics of the Ministry of Agriculture, data on area, yield and production estimates are generated every year, for different seasons and details are also available for a variety of crops. The current statistics, however, provide for broad aggregates for various administrative units but not by size classes, social groups, types of holdings and gender. In planning for Agricultural development in the country, the data pertaining to various categories of farmers such as marginal, small, semi-medium, medium and large are important and it is this specific aspect that is attempted through Agriculture Census to provide data by various size classes, social groups, types of holding and gender and thus, compliments the current Agricultural Statistics in the country.

1.2.3 The Agriculture Census is, however, restricted to information on number of operational holdings and the area operated thereof with attendant details on tenure, land use, irrigation, cropping pattern and scatterdness of holdings. The census does not go into yield and production aspects which are of immediate interest for Agriculture policies and are thus covered under current Agriculture Statistics. On the other hand, the Agriculture Census is designed mainly to get an idea of the structure of the Agriculture economy as such which can be had from a study of the changing pattern of the operational holdings. As the changes in the pattern are not so rapid, the Agriculture Census is conducted at longer intervals. In India, agriculture is the most important activity and a periodical assessment of the changing pattern once in five years to review and formulate programmes in each Five Year Plan is considered adequate and imperative. On the recommendation of the National Commission on Agriculture, the Agriculture Census in India is carried out at an interval of five years during each plan period although World Census of Agriculture (WCA) of FAO are in favour of conducting Agriculture Census once in ten years. Thus, there is complete complementarity between the two collections viz. Current Agriculture Statistics and quinquennial Agriculture Census.
1.2.4 The Agriculture Census is conducted in three phases. In Phase I, all the operational holdings in the country are enumerated and results giving number and area of operational holdings at various administrative levels like Block/Tehsil, District and State are generated according to various social groups, size classes, types of holdings and gender. In Phase II, only 20 percent of the villages in each Tehsil or Block are selected and detailed information on aspects such as tenancy, land use, irrigation, cropping pattern of all the operational holdings of these selected villages is collected. In Phase III of the Agriculture Census which is known as Input Survey, the data is collected on use of different inputs as mentioned above.

1.2.5 So far eight Agriculture Censuses, at five yearly intervals, starting from 1970-71 have been completed. The Ninth Census with Agriculture year 2010-11 (July, 2010 to June, 2011) is already in operation. In addition to Agriculture Census, an Input Survey is also conducted in the following year of the Agriculture Census at the interval of five years to collect information on use of various inputs like fertilizers, manures, Agriculture credit, implements and machinery, seeds, livestock etc. So far seven Input Surveys since 1976-77 have been completed and the eighth one with reference year 2011-12 (July, 2011 to June, 2012) would be conducted from July, 2012.

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