The long-term trend-lines given in the penultimate section of this chapter, & figures 1.5 & 1.6, illustrate the rapid growth of the last about 10 years. But the objective is not merely to present the extraordinary achievements of this latest period of growth; it is to document the transformation of agriculture that has happened in the last about 3 decades. The Atlas presents hundreds of Maps showing several significant parameters disaggregated up to the district level for the 1970s and the early 21st century. The two first sections present maps of the basic Geography and Demography of Madhya Pradesh. In the section on Geography, the maps of rivers, water-bodies and canals are especially noteworthy. The rivers and their tributaries flow through every part of the state, and they not only sustain life in a human body. The state encompasses basins of six major rivers, including Ganga, Yamuna, Narmada and Godavari. Several canals have been drawn from these rivers, which have facilitated intense cultivation in many districts. In the Soil Maps here, about a third of the geographical area of 30.8 million hectares is seen to fall in the two top classes of Land Capability. Such a large proportion of high quality land is unusual outside the Ganga-Yamuna plains. Maps concerning Demography are based on the decadal Census from 1911 to 2001. Studying these maps along with the maps of land-use and cropping pattern, etc., given in the later sections, offers several insights into the sociology of agriculture. Land, irrigation and livestock form the foundation of agriculture. Sections 2, 3, 4 and 5, give maps of district-wise area under different crops, for different periods and years. These maps are based on quinquennial averages of 1976-81 to 2004-09. In these about three decades, gross cropped area has risen; the summer crop has expanded by 2.1 mn ha and the winter crop by 2.3 mn ha. But the area under Cereals has declined by about a million ha. Area under Pulses has risen by about 0.8 and that under Oilseeds by 4.7 million ha. (See, Section 6). Among Cereals, Wheat has expanded by 0.8 mn hectares and Paddy by 0.55 mn ha, but Coarse Cereals have declined by 1.79 mn ha. Among the latter, Maize has expanded by 0.55 mn ha and area under Bajra has remained stable; all other Coarse Cereals have declined. Cultivation of Jowar alone has contracted by 1.5 mn ha; Kodon-Keotu has lost 1.05 mn ha, and Jowar, Sunflower, etc., have declined by about 0.6 mn ha. Among Pulses, Gram has expanded by 0.9, Masur by 0.25 and Pea by 0.10 mn ha. Summer Pulses have contracted by 0.45 mn ha. Tiset, Moong-Moath, Lakh, Kufri, etc., have declined by about 0.45 mn ha. Among Oilseeds, Sesame has also improved; but per capita production has not changed much; it includes 73 kg of Soybean. Mustard- Rapeseed has increased from 2.11 to 3.26 kg per capita. Soybean has also improved, but per capita production of Groundnut and other oilseeds has declined.

Crop Maps up to this point depict district-wise area and production. Trends of growth and change have not been simple everywhere. There is great variation in the agriculture and cropping patterns of different districts and regions; the Maps in Section 6 to Section 11 are intended to highlight this regional difference and specificities.

In the next section (Section 12), we give long-term-state trends of growth. Agriculture in the state began to grow slowly from the early 1970s. The rates of growth started to rise from the early 1980s and this process continued uninterrupted up to the last years of the 20th century. Towards the turn of the century there was a sudden decline in the agriculture of the state; for a few years from around 1998-99 onwards, all parameters of agriculture kept declining. The situation began to improve from this point, where it reached its top in the last 3 or 4 years of extremely rapid growth, look distinctly different from the earlier trends.

In the later part of this section, we give long-term trends of growth in net irrigated, net sown and gross cropped area separately for all districts of the state. These trendlines indicate that all districts of the state have participated in the growth of the last five decades. The growth has set in somewhat earlier in some districts and later in others; but the trendlines have generally been quite similar for all districts. Among Pulses, the district has increased quite significantly. There is no much cultivation of fruits in Madhya Pradesh; but, there has been some increase in Banana cultivation in Burhanpur. (See, Section 10).

The next section (Section 11) describes per capita production of different crops. Between 1976-81 and 2004-09, per capita production of foodgrains has not changed much; the average in 2004-09 is 206 kg. In the 3 years following 2008-09, however, per capita production of foodgrains has risen to 256 kg. The average of 260 kg in 2004-09 comprises 138 kg of Cereals and 48 kg of Pulses. Between 1976-81 and 2004-09, Wheat has increased from 76 to 105 kg per capita, while Coarse Cereals have contracted from 0.41 to 0.12 mn ha. Among Pulses, Gram has increased from 26 to 36 kg per capita; Masur has also improved; but Moong-Moath, Tiset, etc., have declined drastically. Production of Oilseeds has increased from 13 to 89 kg per capita; it includes 73 kg of Soybean. Mustard-Rapeseed has increased from 2.11 to 3.26 kg per capita. Soybean has also improved, but per capita production of Groundnut and other oilseeds has declined.

AGRICULTURE ATLAS OF MADHYA PRADESH

Alexander Walker, a British officer of the early 19th century, surveyed agriculture in different parts of India. He observed that people everywhere took keen interest in agriculture. They carefully and diligently tended to their fields to make them look like well-kept gardens; and, they revelled in talking about agriculture. In the context of Malhat, he writes, “In Malhat the knowledge of Husbandry (agriculture) seems as ancient as their History. It is the favourite employment of the inhabitants. It is endeared to them by their mode of life; … it is a subject of their themes; it is a subject in which they delight to converse, and with which all ranks profess to be acquainted.”

Agriculture indeed had that kind of prominence in the lives of the people of India. For them, the measure of the education and wisdom of a person was in the depth and extent of his knowledge of agriculture. In the rural areas of India even today people are proud of acquiring knowledge about the soil, the animals, the weeding, manuring and watering practices, the crops and cropping patterns, the seeds and agronomical practices, etc. Those who have such knowledge of their localities and of far-off places are respected in the rural areas of India.

In our education today, we hardly talk about these things. In this Atlas, we have tried to take agriculture seriously, and present a detailed picture of the land, soil, rivers and streams, animals and crops of the districts of Madhya Pradesh. For us, this effort shall be fully rewarded, if it leads to a renewed interest in agriculture amongst the educated people of the state. I am thankful to the Madhya Pradesh Council of Science and Technology for giving me the opportunity to create this Atlas. My young colleagues Ashwani Chauban and Nitin Gupta have contributed immensely in this work. I affectionately acknowledge the several contributions of Ami Jaitly, Jeevika, Archan and Kausum.