

CHAPTER 10

AGRICULTURE & RURAL DEVELOPMENT

1. Rapid urbanization and the growth of trade and industry have significantly reduced the contribution of agriculture sector in Delhi's economy. The share of agriculture and allied activities in the Gross State Domestic Product at current prices in Delhi has declined sharply from 3.79% in 1993-94 to 1% in 2003-04.

LAND HOLDING PATTERN

2. As per latest Agricultural Census, 2000-01, the NCT of Delhi had a total of 27,594 agricultural holdings. This includes 13,981 individual holdings, 12,632 joint holdings and 981 institutional holdings.
3. The total area operated by all social groups in Delhi declined by 11.68% from 47,587 hectares during 1995-1996 to 42,027 hectares during 2000-01. During the same period, the area operated by marginal and small holding declined by 7.27% and area operated by semi-medium, medium and large holdings declined by 7.71%, 20.81% and 5.14% respectively. The number of holdings in all the categories has also indicated a decline. The comparative statistics on number and area of holding corroborate the trend of urbanization of Delhi and consequent conversion of agricultural land to non-agricultural uses (statement 10.1)

Statement - 10.1

NUMBER AND AREA OF OPERATIONAL HOLDINGS-ALL SOCIAL GROUPS

SL. No.	Size Groups	No. of operational Holdings				Area operated (in ha)			
		Individual	Joint	Institutional	Total	Individual	Joint	Institutional	Total
1.	Marginal Below 1.0 ha	9919 (63.90)	5225 (33.66)	378 (2.44)	15522 (100.00)	3697 (56.79)	2609 (40.08)	204 (3.13)	6510 (100.00)
2.	Small 1.0 - 2.0 ha	2446 (41.67)	2943 (50.14)	481 (8.19)	5870 (100.00)	3302 (40.76)	4216 (52.04)	583 (7.20)	8101 (100.00)
3.	Semi Medium 2.0 - 4.0 ha	1110 (29.54)	2559 (68.09)	89 (2.37)	3758 (100.00)	3074 (28.65)	7406 (69.01)	251 (2.34)	10731 (100.00)
4.	Medium 4.0 - 10.00 ha	483 (22.24)	1661 (76.47)	28 (1.29)	2172 (100.00)	2668 (21.29)	9700 (77.40)	164 (1.31)	12532 (100.00)
5.	Large 10.00 ha & above	23 (8.46)	244 (89.70)	5 (1.84)	272 (100.00)	275 (6.62)	3731 (89.84)	147 (3.54)	4153 (100.00)
6.	All sizes	13981 (5.67)	12632 (45.78)	981 (3.55)	27594 (100.00)	13016 (30.97)	27662 (65.82)	1349 (3.21)	42027 (100.00)

Note: Figures within brackets indicate percentage distribution.

Source: Agriculture Census 2000-01

LAND UTILIZATION

4. The total area of Delhi is 1,47,488 hectares. As per village records, the total cropped area was 41,508 hectares (28.14%) in 2003-2004 and 39,358 hectares (26.68%) in 2004-05. The remainder was being used either for non-agricultural purposes or remained as forest, fallow land, uncultivable land, etc. The land-use pattern in Delhi for the period from 1998-99 to 2004-05 (Table 10.1), reveals that the total cropped area has decreased from 60,231 hectares in 1998-99 to 39,358 hectares in 2004-05. In percentage terms, the total cropped area, which was 40.84% of the total available area in 1998-99, dropped to 26.68% in 2004-05 (Table 10.1). The pace of urbanization has increased significantly in the 1990s, resulting in rapid decline in agriculture's share both in GDP and employment.

CROP INTENSITY

5. Crop intensity is an index of agricultural development and is directly related to irrigation facilities. The following statement shows that crop intensity in Delhi ranged from a minimum of 148% in 2005-06 to a maximum of 166% during 2001-02 (statement 10.2).

Statement 10.2

(in hectares)

Year	Net Area Sown	Gross Cropped Area	Cropping Intensity (%)
1994-95	47,409	68,613	143
1995-96	45,356	62,966	139
1996-67	40,575	48,917	121
1997-98	41,701	57,079	136
1998-99	41,495	60,231	145
1999-2000	41,385	60,885	147
2000-01	34,034	52,817	155
2001-02	29,116	48,445	166
2002-03	29,477	43,391	147
2003-04	26,971	41,508	154
2004-05	27,551	36,958	134
2005-06	24,057	38,657	148

Source : Delhi Statistical Hand Book/Development Deptt.

CROPPING PATTERN

6. The main crops grown in Delhi are wheat, jawar, bajra and paddy. The cropping pattern in terms of production and yield per hectare for the period 1999-2000 to 2004-05 is given in Table 10.2 which shows that both in terms of production and average yield, wheat was the predominant crop in Delhi throughout the period of six years, followed by paddy, bajra and Jawar. Wheat production constituted 97.47% of total grain production in Delhi in 2004-05. The yield of different crops has fluctuated significantly during this six year period. Food-grain production decreased from 1,94,206 tonnes in 1999-2000 to 1,50,367 tonnes in 2004-05.
7. The farmers of Delhi are being encouraged to shift from traditional agriculture to high value commercial agriculture. The Agriculture /Horticulture Unit of Development Department is encouraging farmers to take up vegetables, floriculture production, Mushroom cultivation etc. About 5479 hectares of area has been brought under Floriculture during 2004-05 and 5518 hectares of area during 2005-06..

IRRIGATED AREA

8. The three main sources of irrigation in Delhi are canals, wells, and tubewells including sewage treatment water. The area irrigated by each source for the period from 1998-99 to 2004-05 is shown in Table 10.3. In 2004-05 89.4% of the net irrigated area was irrigated by wells/tubewells.
9. During 2004-05, of the total cropped area of 39,358 hectares, the net area irrigated was 22,493 hectares, area irrigated more than once was 5,660 hectares and the gross area irrigated was 28,153 hectares, which constitutes 71.53% of the total cropped area. The details are given in the statement 10.3

Statement 10.3

IRRIGATED AREA

(In hectares)

Item	1998-99	1999-2000	2000-01	2000-02	2002-03	2003-04	2004-05
Total cropped area	60,232	60,885	52,817	48,445	43,391	41,508	36,958
Net area irrigated	39,070	39,747	33,630	28,912	25,409	22,670	22,493
Area irrigated more than once	8,968	9,321	8,064	10,495	6,323	7,438	5,660
Gross area irrigated	48,038	49,068	41,694	39,407	31,732	30,108	28,153

Source : Delhi Statistical Handbook

10. Although canals and tubewells are the two main sources of irrigation in Delhi, rainfall is the original source of water for canals and tubewells. In Delhi, rainfall is concentrated in the months from July to September. Details are given in the following statement: -

Statement 10.4

RAINFALL

(in mm)

Month	Normal Rainfall	1999	2000	2001	2002	2003	2004
July	192.3	114.1	295.8	129.7	7.2	632.2	13.8
August	192.4	64.6	151.4	233.1	115.2	156.2	274.7
September	139.6	75.7	272.0	47.4	202.6	100.2	03.0

(Note : Normal rainfall refers to norms of the Metrological Deptt.)

Source : Delhi Statistical Handbook.

ANIMAL HUSBANDRY

11. Animal husbandry is an important component of the agriculture sector. According to the Livestock Census of 2003, the total livestock population (excluding poultry) in Delhi was 3.42 lakh. The growth rate of selected categories of animals between 1997 and 2003 is indicated in the following statement:

Statement 10.5

LIVESTOCK CENSUS DATA

Livestock	Number (Census 1997)	Number (Census 2003)	Percentage Growth
Cows/buffaloes	2,98,714	3,22,141	+ 7.84
Sheep/goats	36,032	20,156	- 44.06
Others	33,375	32,481	-2.68
Total	3,68,121	3,74,778	+ 1.81

Source: Development Deptt.

12. The main livestock products are milk, eggs and meat. Production estimates of these three products for the period between 1998-99 to 2004-2005 are presented in Table 10.4. Milk production has increased from 289.36 thousand tonnes in 1998-99 to 303.44 thousand tonnes in 2004-05 registering a growth of 4.8% during the period of six years. The total production of eggs has fallen by 42.9% from 46.29 million in 1998-99 to 26.43 million in 2004-05. Meat production has decreased by 13.27% from 33609 tonnes in 1998-99 to 29148 tonnes in 2001-02 and increased to 31082 tonnes in 2004-05. i.e. a growth of 6.6% during the period of four years.
13. The number of veterinary hospitals and dispensaries in Delhi are 48 and 27 respectively. The number of animals that received treatment from the hospitals/ dispensaries increased from 3,68,656 in 1999-2000 to 5,06,017 in 2005-06 (Table 10.5).

FORESTS

14. The total forest & tree cover of Delhi, which was 151 sq. km in 2001, has increased to 268 sq. km as per report of Forest Survey of India for the year 2003. The Green cover has increased from 10.2% to 18.07% of the total Geographical area of NCT of Delhi in 2003. The forest and tree cover of Delhi since 1993 is given in statement 10.6:-

Statement 10.6

FOREST & TREE COVER OF DELHI

Assessment Year	Forest & Tree Cover (sq. km)	Percentage of Geographical Area
1993	22	1.48
1995	26	1.75
1997	26	1.75
1999	88	5.93
2001	151	10.2
2003	268	18.1

(A) ASOLA-BHATTI WILDLIFE SANCTUARY

Asola-Bhatti Wildlife Sanctuary is in South Delhi district all along Delhi-Haryana boundary of District Faridabad & Gurgaon. The sanctuary is spread over an area of 6872.28 acres of land comprising of 4707 acres of Asola notified during 1986 and 2167 acres of Bhatti notified during 1991. The entire Sanctuary is a part of the northern terminal of Aravali hills and biogeographically represent oldest mountain system of the world.

In order to increase Forest cover, 2100 acres of degraded area of Asola Bhati Mines Wild Life Sanctuary is being rehabilitated through Eco-Task Force. So far 1700 acres of land has been covered by the task force by planting over 1,27,000 indigenous trees during 2004-05. During 2005-06, above 1900 acres of land at Bhatti Sanctuary is likely to be covered by planting one lac plants. By 2006-07, it is expected that the entire degraded Bhatti Sanctuary will be totally rehabilitated by the Eco Task Force.

For further improvement in Greening Delhi, Action Plan has been prepared under which annual targets for various greening agencies viz Forest Department, MCD, NDMC, CPWD, DDA, PWD and army etc. are fixed. The table showing the achievement during last 7 years is given in statement 10.7 below:-

Statement 10.8

Year	Plantation done in Lakhs	Free distribution of seedling in Lakhs
1998-99	3.31	3.00
1999-00	3.20	3.61
2000-01	3.35	3.90
2001-02	3.39	1.85
2002-03	2.69	2.46
2003-04	3.27	3.00
2004-05	3.01	4.28

(B) DEVELOPMENT AND MANAGEMENT OF THE RIDGE AREA

The Delhi Ridge, an extension of the Aravali mountains acts as the green lung of the city. About 7784 ha. of the Ridge area have been notified as a Reserve Forest. The Ridge is divided in five portions as per details given below:

1.	Northern Ridge	87 ha
2.	Central Ridge	864 ha
3.	South Central Ridge (near Mehrauli)	626 ha
4.	Nanakpura South Central	7 ha
5.	Southern Ridge	6200 ha
	Total	7784 ha

(C) DEVELOPMENT OF CITY FOREST

There are 14 City Forest all over Delhi

S.No.	Name of City Forests	Area in ha.	District
1	Nasirpur City Forest	28	South-West
2	Alipur City Forest	16.80	North-West
3	Hauzrani City Forest	28.80	South
4	Mitraon City Forest	40.00	South-West
5	Sultanpur City Forest	48	North-West
6	Ghumenhera City Forest	32	South-West
7	Ghoga City Forest	10.40	North-West
8	Shahapur Garhi City Forest	8.00	North-West
9	Mamurpur City Forest	56	North-West
10	Jindpur City Forest	47.60	North-West
11	Mukhmelpur City Forest	53	North-West
12	Bawana City Forest	32	North-West
13	Garhi Mandu City Forest	300	North-West
14	Anand Vihar City Forest	32	West

FISHERIES

15. The objective of the Fisheries Unit is to regulate fishing under the Punjab Fisheries Act, 1914 and the Indian Fisheries Act, 1857, and prevent destructive practices and unscrupulous fishing. The Fisheries Unit performs the dual function of producing fish-seed as well as providing fish for consumption. Information about the production of fish-seed and fish in the last six years is presented in statement 10.6. Due to various reasons the fishing activity is getting diminished.

Statement 10.6

PRODUCTION OF FISH AND FISH SEED

Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05
Fish-seed production (in lakhs)	32	35	32	23.3	20.0	17.2
Fish production (thousand tones)	4.3	4.0	3.2	2.3	2.1	1.4

Source : Development Deptt.

RURAL DEVELOPMENT

16. In 2001, the rural area in Delhi was 37.50% (556.17 sq. kms.) of the total geographical area of 1,483 sq.kms. Of the total population of 138.51 lakhs, 6.82% (9.45 lakh people) were living in the rural areas according to the 2001 Census. Over a period of time, the extension of the urban area has converted rural villages to urbanized villages. The number of rural villages has decreased from 304 in 1951 to 165 in 2001 Census. Details of the total population of Delhi, rural population and number of villages over the period of 50 years from 1951 to 2001 are given in Table 10.7. The share of rural population declined from 18% in 1951 to 10% in 1991 and further decreased in 2001 Census to 6.82%.
17. The distribution of the rural population by industry for the period 1971-91 is presented in Table 10.8. Out of the total rural population of 9,44,727 in 2001, the total workforce in rural areas was 3,01,064 (31.87%). There was a steep increase in the rural workforce between 1981 and 2001, from 1,28,853 in 1981 to 3,01,064 in 2001.

INTEGRATED DEVELOPMENT OF RURAL VILLAGES (IDRV)

18. An amount of Rs.2,405.41 lakhs was sanctioned for implementing 94 Schemes during the year 2005-06 under IDRV Scheme. Accordingly, 55 roads/drains, 16 cremation grounds, 15 water bodies/Ponds, 3 protection of Gram Sabha Land and 5 Parks were taken up for construction/development. The Government of Delhi has given priority for construction of links roads, approach roads and drainage and development of ponds mainly to protect rural area from flooding.

MINI MASTER PLAN (MMP)

19. During 2005-06, 41 schemes for repair and maintenance of MPCCs amounting to Rs.270.33 lakhs was sanctioned. At present no new MPCC is being constructed. During 2005-06 Rs.234.10 lakh was incurred on repair and maintenance on MPCC.

So far 78 Multi Purpose Community Centres (MPCCs) have been constructed and out of them 30 Community Centres have been allotted to NGO's for some community activity alongwith Government Departments of NCT of Delhi from office accommodation and field promotion activity.

DELHI RURAL DEVELOPMENT BOARD

20. In October 2004, DRDB was constituted with 17 MLAs and other concerned persons/officers. Function of the Board is to advise the Govt. on issues connected with the infrastructural Dev. of Rural villages and for securing the planned growth of Rural areas of Delhi and to recommend and prioritize the schemes included in the Annual Plan.

During the Annual Plan 2005-06, an amount of Rs.34.32 crore was incurred for the works under IDRV, Rural Road, Rural Villages schemes by Dev. Department & MCD on the recommendation of Delhi Rural Dev. Board.