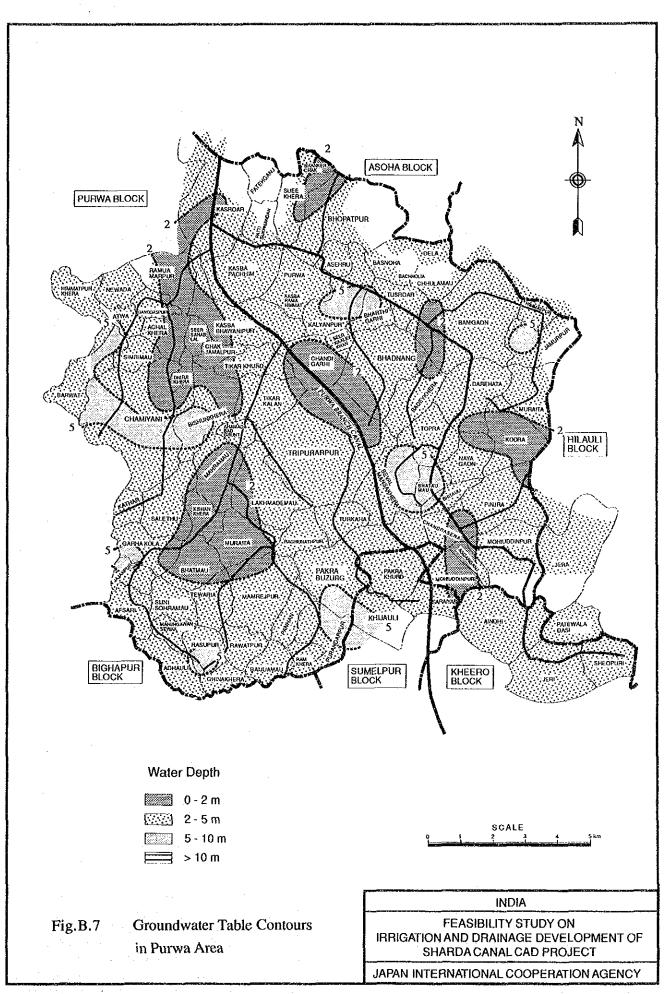
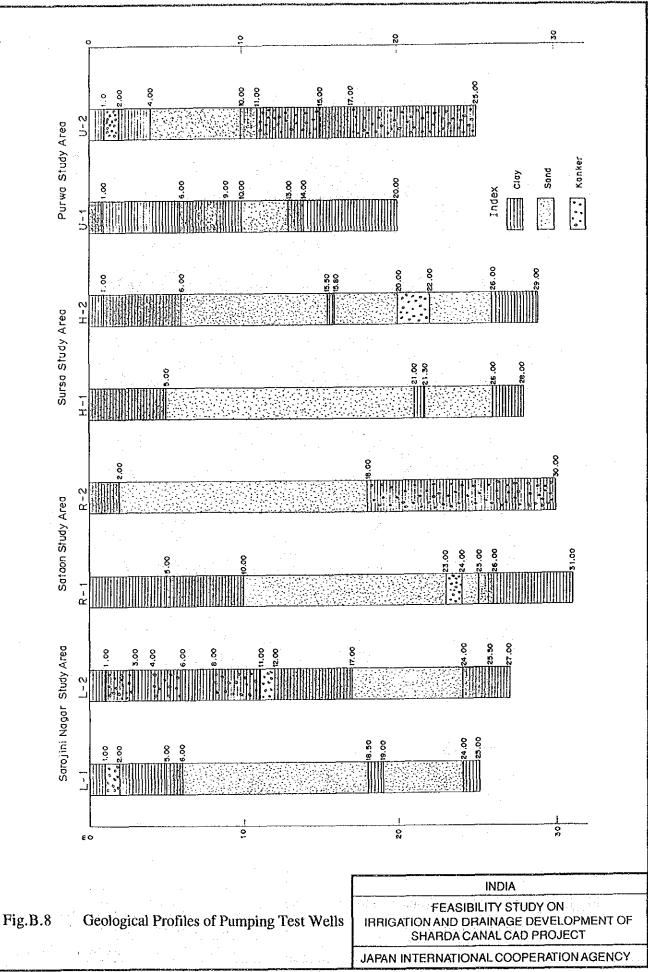


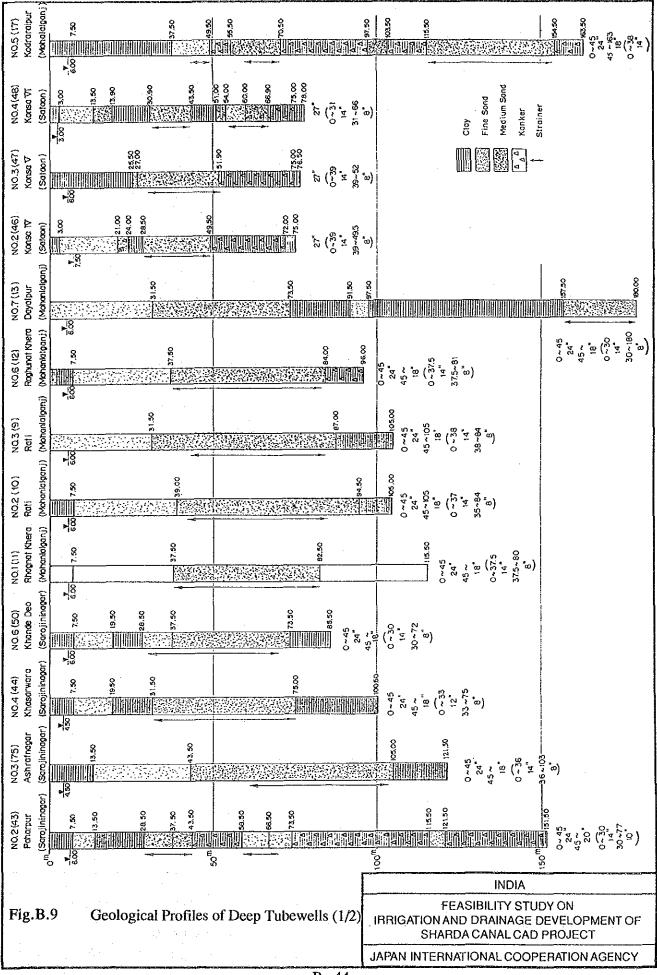
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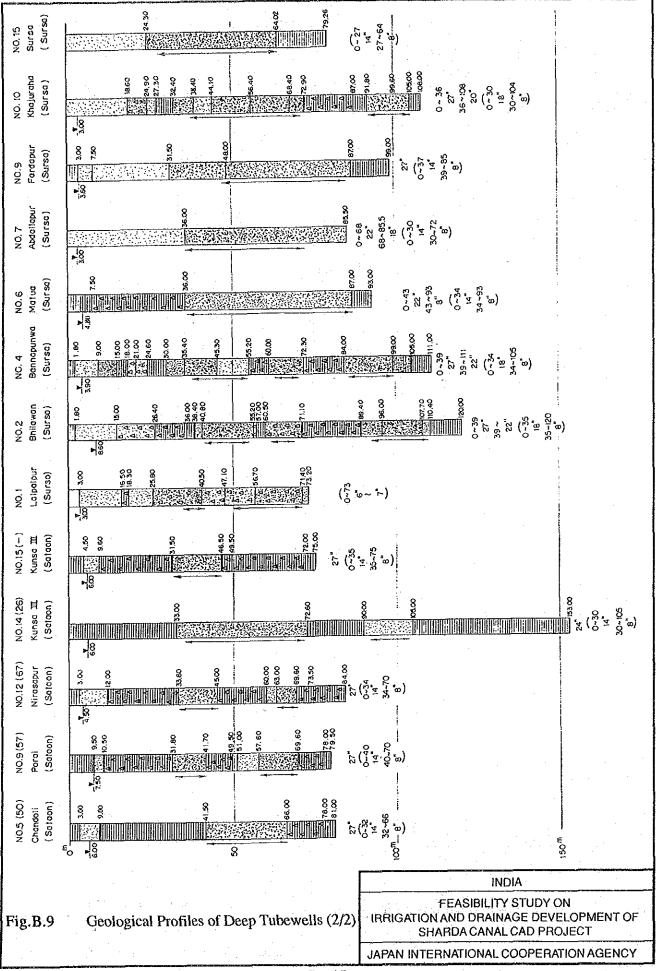
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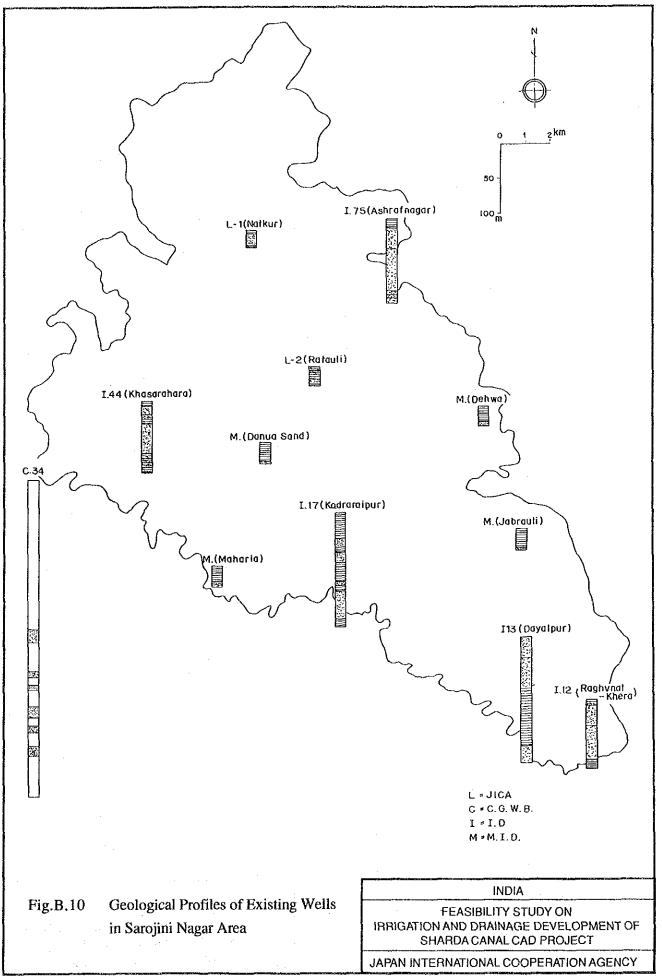
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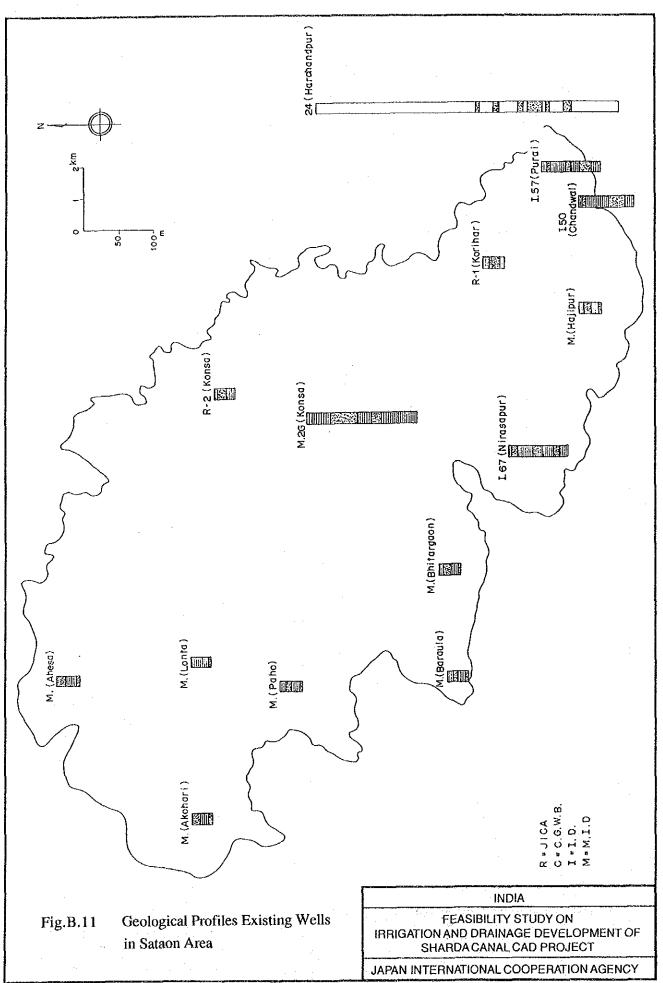


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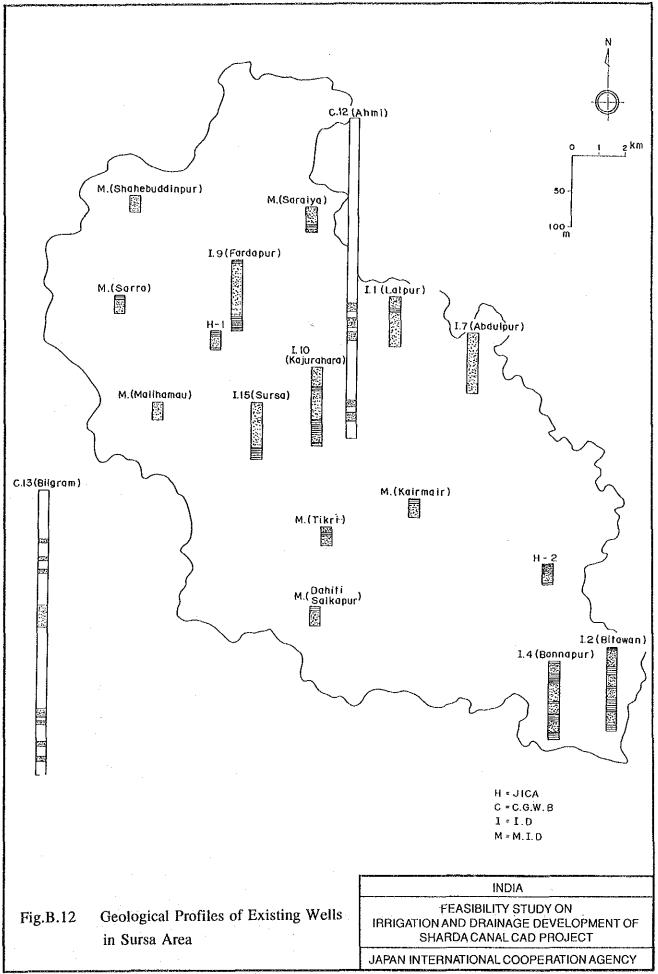


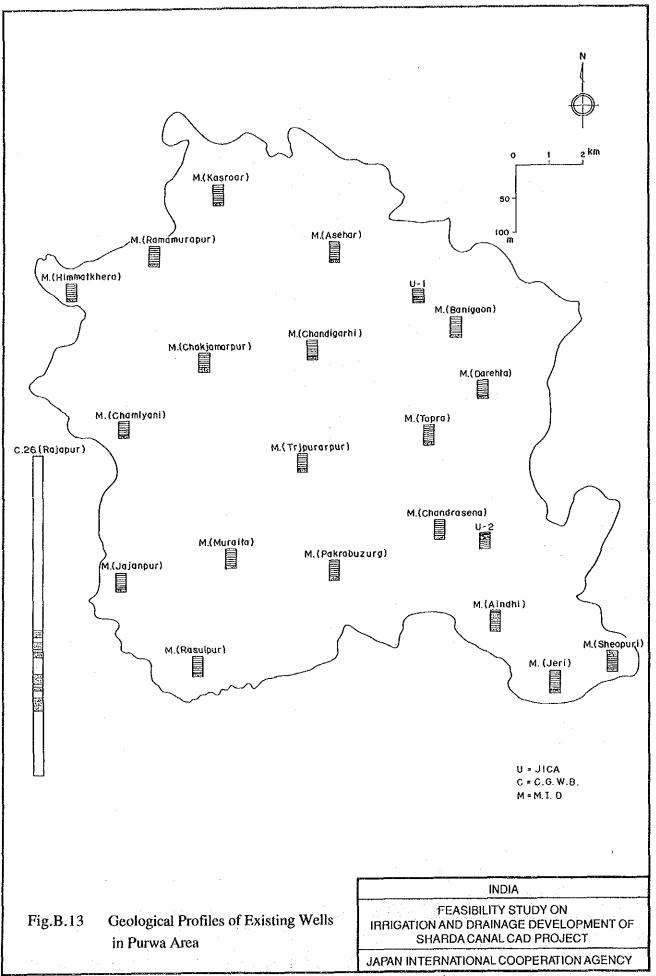
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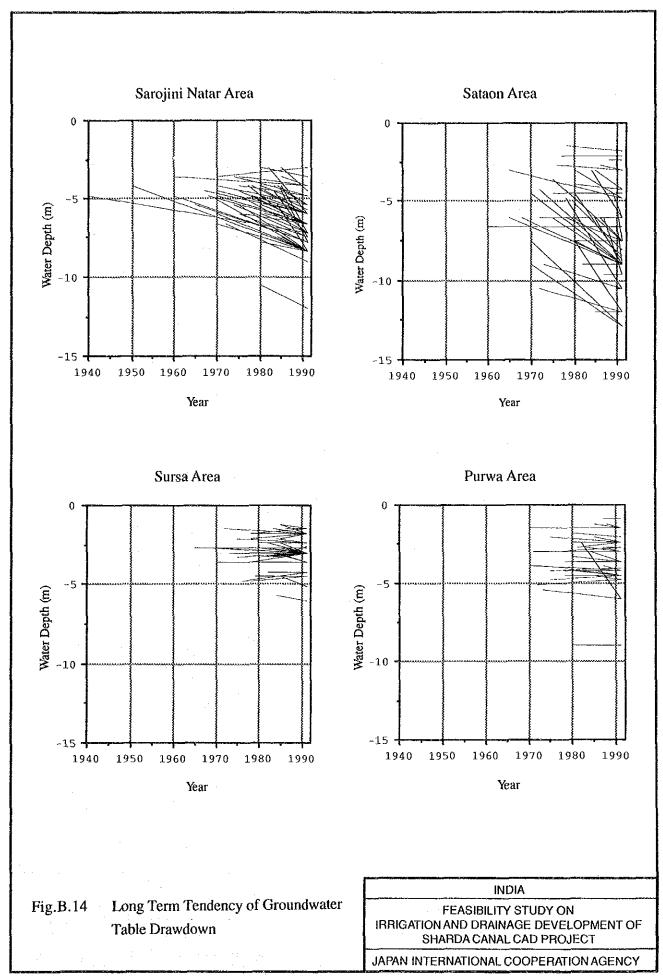


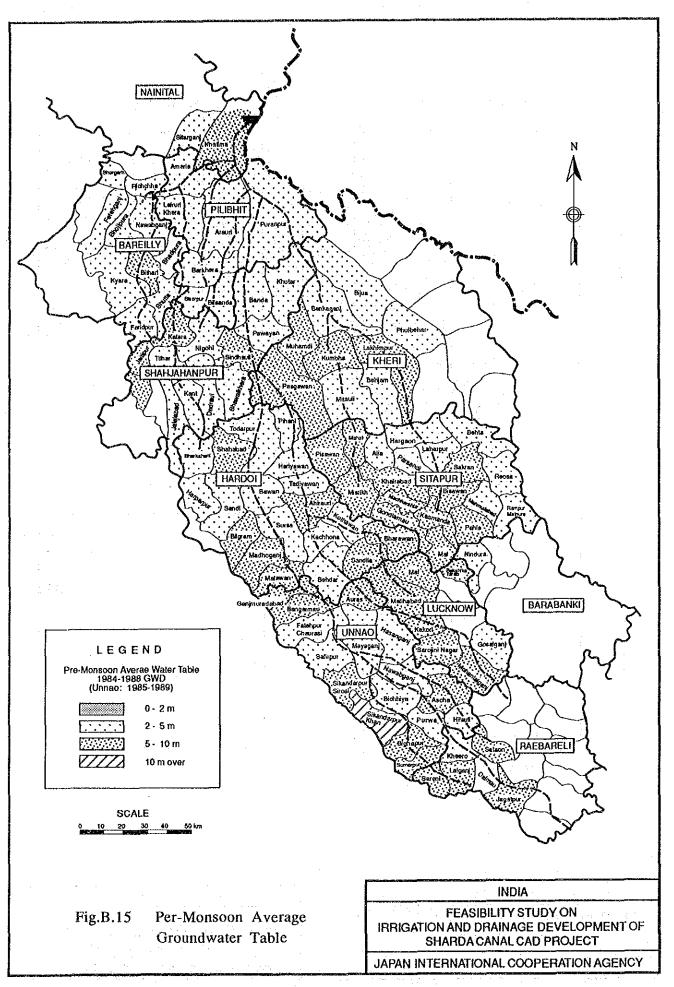


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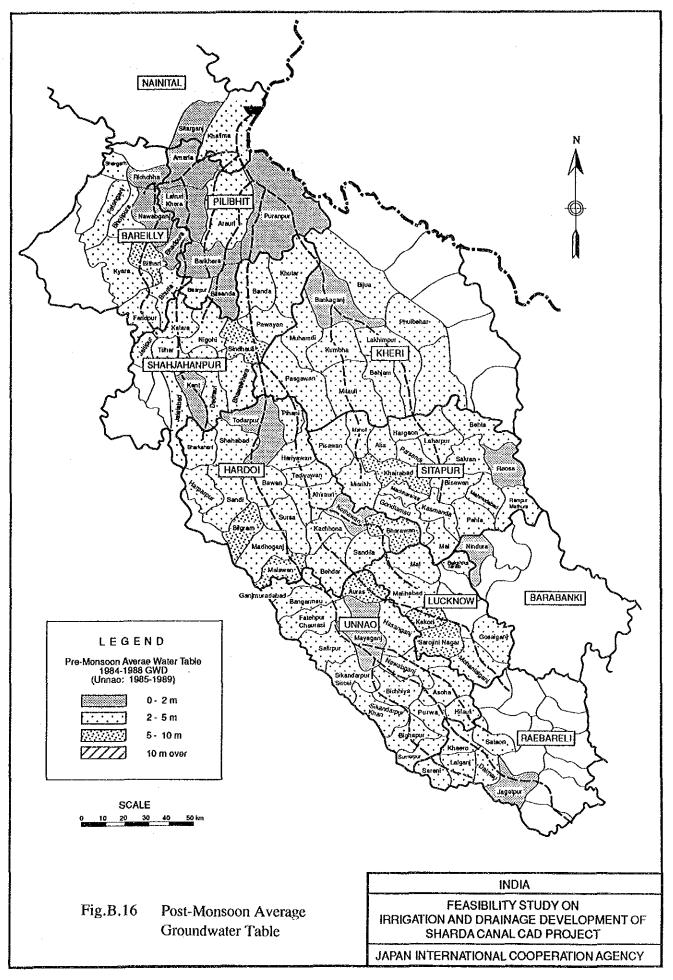








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ANNEX-C

SOIL AND LAND CAPABILITY CLASSIFICATION

FEASIBILITY STUDY ON IRRIGATION AND DRAINAGE IMPROVEMENT OF SHARDA CANAL CAD PROJECT

ANNEX C

SOIL AND LAND CAPABILITY CLASSIFICATION

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ANNEX C SOIL AND LAND CAPABILITY CLASSIFICATION

1. General

This report summarizes results of on-site soil surveys and land use surveys which were conducted during the period of September through October, 1990 and January through March, 1991.

The area surveyed is located in a vast flat plain of River Ganges. The soil consists of alluvial deposit, which varies delicately by slight sloping between dry land, moderate land and wet land. Concentration of "kankar" (concretion of calcium carbonate) in soil stratum makes the soil alkaline. Furthermore, salts are concentrated to the soil surface during Rabi season. During Kharif season, many areas were found moist due to high ground water table. Soil surveys were conducted on the basis of above mentioned knowledge. Assistance was provided by Agriculture Department of UP and CADA in conducting the soil surveys. Soil surveys in four (4) Representative Areas were accompanied by representatives of the Office of Assistant, Soil Survey Office.

Based on the results obtained by the surveys, it was possible to discuss with Agencies concerned on the soil amendment.

On the subject of present land use, strong interrelation was identified between soil and land use, and between soils and cultivated plants. Cooperation was offered by the Remote Sensing Application Center, Uttar Pradesh for mapping of land use.

2. Soil Surveys

2.1 Soil Characteristics in the Sharda Canal Command Area

Soil in the Sharda Canal Command Area are formed by alluvial deposits by the Sharda River, the Ganges River and their tributaries, which are composed of weathering materials originating sand stone, shale, lime stone in the Himalaya Range and gravel or stone are not seen in the soils. Topography is generally flat and land system is divided into three portions; a) Lowland which is located in lower portion adjacent to inland ponds and marshy area such as ox-bow lakes; b) Upland which is located on the natural levee formed along river course; and c) vast Midland which forms back plain of Upland and surround Lowland.

Coarse-textured and high permeability soils are predominant in Upland, where ground water table is deep. pH of these soils shows neutral to slight alkalinity and is utilized for cultivation most extensively because of its high fertility and productivity level. Upland crops are mainly planted on these soils and some vegetables or paddy rice are also cultivated. Drainability is very good and no major constraints are confirmed for these soils. This soil type is the most suitable for cultivation and sufficient water supply will enhance the production to the maximum level. Trees like mango(Mangifera indica), peepal(Ficus religiosa) and shisam(Dalbergisisso) grow very well on these soils. Four soil series are confirmed as Upland soil in the Sharda Command Area.

Midland has generally two typical soil characteristics as follows; i) medium texture and permeability with medium ground water level, and; ii)fine texture, low permeability with shallow ground water table.

The former soils show moderate alkalinity (pH < 8.5) to strong alkalinity (pH 8.5 - 9.0) with small concretion of calcium carbonation in its deep layers. Areas with these soils are mostly cultivated as paddy field, but the growth rate is low on the soils of strong alkalinity of about pH 9.0. However, proper drainage improvement or input of soil amendment will bring higher productivity to soils of this type. Soils located in depression has fine texture and high moisture due to poorly drained condition, which makes ploughing and/or other farming practice very difficult. Drainage improvement is indispensable particularly for these soils. Other than the above-mentioned trees, neem (Ajadirachta indica) is seen on the soil of moderate alkalinity (pH 8.5 - 9.0). There are seven soil series of this type in the Sharda Command Area.

The latter soils distributed in poor drainage areas where lack of proper drainage improvement brings about shallow ground water table and partial waterlogging. So called "usar" is predominantly formed in these soils whose alkalinity is extreme (pH>9.0). Hard concretion of calcium carbonate so-called "kankar" is accumulated in soil and some soils have extremely high content of magnesium. On the other hand, extent of soils with high content of sodium is not estimated very much. Paddy rice is the major crop cultivated on these soils because of its low permeable soil condition, but only half of the total area can be cultivated and productivity is low. Surface layer of these soils show high to extreme alkalinity and saline accumulation is also seen in Rabi season. Soil amendment and leaching for alkalinity should be applied properly for better production. There are three soil series of this type in the Sharda Command Area.

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Lowland soils are composed of alluvial deposits, of which texture is generally fine. Lowland is formed around ponds or ox-bow lakes surrounded by Midland and ground water table is shallow through the year. Thus these soils show low alkalinity of pH 7.0 to 7.5. Drainability and permeability of these soils are very low. Since these soils are distributed depressed portion, they are subject to frequent flood, which hampers high productivity of crops. Intensive drainage improvement is indispensable for these soils even for paddy cultivation and plowability should be improved for upland crop cultivation as well. Three Lowland soil series are confirmed in the Sharda Canal Command Area.

Extent of soils in the Sharda Canal Command Area is summarized below:

Land System	Area N	lame of Soil Se	eries
Upland	816,000 I	na (23.8%)	Lakhpera, Gangauli, Tanda, Amethi
Midland type i)	1,534,800	na (44.9%)	Kakari,Saidapur,Ghari,Meraura, Hasanpur,Utelwa,Kasturi
type ii)	465,700 l	na (13.6%)	Tamoria,Sitauli,Pokhara
Lowland	220,900 1	1a (6.5%)	Goshainganj,Uttargaon,Bajgahani
Others	382,300 l	na (11.2%)	

Soil capability of the Sharda Canal Command Area is shown in Table C.1.

2.2 Outline of the Study Areas

(1) Location and area

Soil surveys were conducted in four Representative Areas in following Districts.

-	Sarojini Nagar District :	Amausi distributary and its minors which are distributed by Lucknow Branch.
-	Sataon District :	Maurawan Distributary and its minors which are located on the downstream of Asiwan Branch.
~	Sursa District :	Badaicha Distributary and its minors which are located on the downstream of Hardoi Branch.
-	Purwa District :	Minors which are supplied by Purwa Branch.

Total area surveyed is 111,352 ha, out of which the command area of irrigation canals is 51,135 ha.

(2) Topography

In the Study Areas, the Loni Nadi and its tributaries in Purwa District, and the Sai River and its small tributaries in three other Districts flow into the Ganges.River.

The basin of these tributaries is classified into eight categories by topography as follows:

Nearly flat old alluvial plain

Nearly flat but temporarily waterlogged old alluvial plain

- Nearly flat and permanently waterlogged old alluvial plain

- Gently sloped (3 5°) old alluvial plain
- Moderately sloped (5 10°) old alluvial plain
- Strongly sloped (10 15°) old alluvial plain
- Dissected uplifting old alluvial plain
- Recent alluvial flood plain

During Kharif season, flooding water from the Ganges River and its tributaries erodes, adjacent plain and depressed areas.

(3) Climate

Climate in the Study Areas belongs to semi-arid tropical monsoon. Cold days begin on November 15th and end on March 15th. Hot summer months are May and June. Monsoon begins generally in late June and lasts until the first week of October.

1) Atmospheric temperature and precipitation

Climatic condition of the Sharda Canal Command Area is summarized in Table C.2. Yearly average atmospheric temperature in the Study Areas is 25.2°C in Lucknow and Kanpur, and 25.3°C in Hardoi, without significant difference between the two.

The highest monthly temperature in May is 39.2°C in Lucknow, 40.1°C in Kanpur, and 38.7°C in Hardoi. The lowest monthly temperature is respectively

8.0°C and 8.7°C in Lucknow and Hardoi in January, and 7.9°C in Kanpur in December.

Annual average precipitation is about 870mm in Unnao, and 790mm in Hardoi, out of which about 80% in the months of July through September.

2) Evaporation

Estimated annual evapotranspiration estimated by Penman Method is about 1,820 mm in Lucknow and Kanpur, and 1,500 mm in Hardoi, which are about twice as much as annual precipitation.

3) Soil temperature

According to the information available in Lucknow, annual average soil temperature is 25.3°C, while that of summer months is 31.2°C, and winter months is 17.4°C. Soil temperature as such is relatively high and is classified as hyperthermic within the family of soil classifications.

Water balance calculated from precipitation and evaporation is negative, and it is implied that soil is deficient of moisture for 90 days or more. Moisture deficiency is more evident in the soil of higher elevation than in the soil of lower elevation.

(4) Geology

The soils of the Study Areas are formed of deposits which were carried by the Ganges River from Himalaya and belong to the Pleistocene, the Quaternary Period. The deposits originates sandstone, shale, and lime stone, and composition of the deposits is silt and sand. Depth of deposits is estimated to be 400 - 2,000 m.

(5) Agriculture

Geographical area of the Study Areas is 112,349 ha out of which net cultivated area is about 67,000 ha, equivalent to 60% of total area. Primarily cultivated plants during Kharif season is paddy-rice, occupying nearly 70% of total cultivated area. Other cultivated plants are arhar, jowar, bajara, urd, sugarcane and so on.

During Rabi season, primarily cultivated plants is wheat occupying about 80% of total cultivated area. Other cultivated plants are grams, pea, barley, mustard and various vegetables.

2.3 Soil Series and Characteristics

(1) Procedure of soil survey

Soil surveys were conducted with assistance of Department of Agriculture, UP.and CADA. The surveys consisted of soil classification for confirming physical and chemical properties of soils. Also capability of soils for cultivation was evaluated. 2.5 km grids were marked on a map in a scale of 1 in 50,000, and pits for soil survey were dug. For each pit, survey was conducted with respect to every stratum for soil texture, soil structure, pH, oxidized iron mottles, soil color, concretion (ferro-manganese, calcium carbonate), stickiness and plasticity, pores and plant roots distribution, as well as total soil drainability, soil percolation, degree of moistness, and pattern of soil strata sedimentation. Those strata which are close enough to each other were classified into the same category of soil. Boundaries of those strata which are different from each other were marked on the map after having confirmed plant and arboreal vegetation by 0.5 to 1m deep test pits.

It was confirmed that, in India, elevation and sloping of land are closely interrelated with soil drainability, vegetation, and soil properties. Land system is classified into five categories, viz. Upland, Mid-Upland, Midland, Mid-lowland and Lowland to facilitate accurate survey of plain.

Soil samples were taken from representative profiles to the depth of 1.5 m. Samples of cultivated soil together with the samples of strata of approximately 25 cm depth underneath the cultivated soil were also taken from 0.5 - 1 m deep test pits. Number of pits and number of samples taken are summarized below.

			• .	· · · · · ·	(1	Jnit: nos.)
	Respective Profile		Test Pit Profile		Total	
District	Pits	Samples	Pits	Samples	Pits	Samples
Sarojini Nagar	4	16	20	41	24	56
Sataon	4	16	15	30	19	46
Sursa	4	16	39	80	43	96
Purwa	8	34	16	32	24	66
Total	20	82	90	183	110	264

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(2) Soil analysis

In collaboration with Agriculture Department of UP and CADA, soil analysis was conducted for soil samples taken from representative profiles on following items.

- 'Texture (sand, silt, clay)
- Water holding capacity
- Organic carbon
- pH
- Electrical conductivity (E.C.)
- Cation exchangeable capacity (C.E.C.)
- Exchangeable cation (Ca⁻⁺, Mg⁺⁺, K⁺, Na⁺)
- Available P₂O₅, K₂O
- Calcium carbonate content

Samples taken from test pits were analyzed on two items, pH and E.C., by Study Team of JICA of which results are shown in Tables C.5 and C.6.

(3) Description of soil series

Soil taxonomy adopted in India is based on the soil taxonomy adopted by USDA (United States Department of Agriculture), to which the survey conforms. The names of soil series confirmed and stated in the reports of soil analysis published by Agriculture Department of UP are in conformity with the said names of soil series. However, different names were given to the soil series which are apparently different from the said soil series. After consultation with Soil Survey Offices in Lucknow and Unnao, 15 names of soil series were definitely confirmed in four districts, viz., Lucknow, Hardoi, Unnao and Rae Bareli. Soil taxonomy adopted in the soil mapping is in compliance with the Indian system which utilizes numerical expressions.

Names of soil series and numbers of soil mapping unit. in the four Districts surveyed are summarized below.

Soil Map Unit No.	Names of Soil Series	Area (ha)	Percentage (%)
1	LAKHPERA	1,138	1.0
2	GANGAULI	13,473	12.0
3	TANDA	3,292	2.9
4	AMETHI	2,809	2.5
6	KAKARI	9,755	. 8.7
7	TAMORIA	888	0.8
8	SITHAULI	15,760	14.0
9	SAIDAPUR	15,655	13.9
10	GARHI	11,151	9,9
16	MERAURA	3,325	3.0
11	HASANPUR	5,226	4.7
12	UTELWA	3,936	3.5
13	POKHARA	6,683	6.0
14	GOSHAINGANJ	5,122	4.5
15	UTTARGON	2,021	1.8
Miscellaneous	12,115	10.8	
Total	112,349	100.0	

Fig. C.1 shows boring log of representative profiles. Soil map is also attached as Figs. C.2 to C.5. Areas of each soil series in four Districts are shown in Table C.3.

Characteristics of each soil series and representative profiles are mentioned in the following.

LAKHPERA Series

i) Location of representative profile

The pedon was studied in Khasra No.115 of village Lakhpera, Goshainganj Block, in Lucknow District. The village is situated about 33km away from Lucknow on Lucknow-Sultanpur Road.

ii) General features

The Lakhpera series is shown as No.1 in the soil map. The Lakhpera belongs to mixed, hyperthermic family of Typic Ustipsamments. These soils are very deep and well to excessively drained shown on Upland. The slope varies between 3 and 15%. The surface texture are loamy which merges into subsoils of fine sand. Both the surface color and subsurface color is brown (10YR4/4M). The ground water table fluctuates within 8 to 12 meter throughout the year. The water holding capacity is low and permeability is high.

GANGAULI Series

i) Location of representative profiles

The pedon was locally studied in village Madharmau Khurd situated on Lucknow-Sultanpur Road. Moreover, the pedon description and analytical data pertains to its original location of Gangauli, which was studied in cultivated field of village Gangauli, Tehsil Fatehpur, District Barabanki. Village is situated about 12km away from Bindaura town.

ii) General features

The Gangauli series shown as No.2 in soil map. The Gangauli series belongs to coarse, loamy mixed, hyperthermic family of Udic Ustochrepts. These soils are very deep, and well drained distributed on Upland. The slope is 1 to 10%. The surface texture is loamy to silty which merges into silty to loamy sub soils. The soil color is dull yellowish brown to brown. The ground water table fluctuates within 2 to 10 meters through out the year. The water holding capacity of the soil is medium and permeability is moderately high.

TANDA Series

i) Location of representative profile

The pedon was studied in Village Rahmat-Nagar, situated on Lucknow -Sultanpur Road. Moreover, the pedon description and analytical data pertains to its original location of Tanda, which was studied in plot no.2644 of village Tanda, Block Jagdishpur, District Sultanpur, situated on Jagdishpur -Sultanpur Road.

ii) General features

The Tanda series is shown as No.3 in soil map. Tanda series belongs to Loamy (Calcarious), mixed, hyperthermic family of Topic Ustochrepts. These soils are very deep and well drained distributed on rolling and undulating topography with mildly dissected landscape. The slope varies from 1 to 10%. The surface texture is loamy to silty which merges into gravelly silty to clayey subsoils. Both the surface and subsurface color are dull yellow orange to dull yellow brown. These soils are moderately eroded. Exposed lime Kankar are commonly found on the surface. These soils are calcarious throughout the depth. The ground water table fluctuates within 5 to 10 meters throughout the year. The water holding capacity of the soils is medium and permeability is moderate.

AMETHI Series

i) Location of representative soil profile

The pedon was studied in Khasra No.744 of village Amethi, Block Goshaingarj, District Lucknow. The Amethi Village is about 28 kms away from Lucknow on Lucknow-Sultanpur Road.

ii) General features

The Amethi series is shown as No.4 in soil map. Amethi series belongs to silty, mixed, hyperthermic family of Udic Ustochrepts. These soils are very deep and well drained distributed in Upland. The slope varies from 1 to 3%. The surface texture is loamy to silty which merges into silty to clayey sub soils. Both the surface color and sub surface color are dull yellowish brown. The ground water table fluctuates within 5 to 10 meters through out the year. The water holding capacity of soil is medium and permeability is moderate.

KAKARI Series

i) Location of representative profile

The pedon was studied in village Bahrauli, situated on Gangaganji-Nagram link road. Moreover, the pedon description and analytical data pertains to its original location of Kakari which was studied in Kakari village of Trivediganj block, district Barabanki, situated 7 km in the south of the Lucknow-Sultanpur Road and 48km away from Lucknow city.

ii) General features

The Kakari series is shown as No.6 in soil map. Kakari series belongs to silty, mixed, hyperthermic family of Udic Ustochrepts. These soils are very deep and moderately well drained shown in Mid-upland. The slope varies between 0.1 and 3%. The surface texture is loamy to silty which merges into clayey to loam sub soils. Both the surface color and sub surface color are dull yellow orange to dull yellowish brown. The ground water table fluctuates within 5 to 10 meters throughout the year. The water holding capacity of the soil is medium and permeability is moderate.

TAMORIA Series

i) Location of representative profile

The pedon was originally studied in uncultivated lands of village Tamoria, Block Mohanlalganj, District Lucknow, which is about 40 km away from Lucknow.

ii) General features

The Tamoria series is shown as NO.7 in soil map. Tamoria series belongs to clayey (calcarious) mixed hyperthermic family of Typic Halaquepts. These soils are very deep, and moderately to well drained distributed in Mid-upland. The slope varies between 0.1 and 3%. The surface texture is silty to clayey which merges into clayey sub soils. Both the surface color and subsurface color are dull yellow orange. Ground water table fluctuates from 2 to 5 meters throughout the year. The water holding capacity of the soil is medium and permeability is moderately low.

SITHAULI Series

i) Location of representative profile

The pedon was studied in Khasra number of village Sithauli Khurd, Block Goshainganj, Tehsil Mohanlalganj, District Lucknow.

ii) General features

The Sithauli series is shown as No.8 in soil map. Sithauli series belongs to clayey, (calcarious) mixed, hyperthermic family of Typic Halaquepts. These soils are very deep, and moderately to well drained distributed in Mid-upland. The slopes varies from 0.1 to 3% and nearly flat on the old alluvial plain. The surface texture is clayey to silty which merges into clayey to heavy clayey subsoils. Both the surface color and subsurface color is dull yellow orange to dull yellowish brown. These soils show strong alkaline and are calcarious throughout the profile. The ground water table fluctuates 3-5 meters throughout the year. They are none to slightly eroded. The water holding capacity of the soils is medium and permeability is low.

SAIDAPUR Series

i) Location of representative profile

The pedon was studied in Khasra No.356 of village Saudaoyr Daydoyr. The village is situated in the south of Lucknow-Sultanpur Road at a distance of 2km from the road.

ii) General features

The Saidapur series is shown as N0.9 in soil map. The Saidapur series belongs to silty, mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep and moderately to well drained distributed on the Mid-upland. The slope varies between 0 and 1%. The surface texture is silty clay loam to silty clay which merges into silty clay to silty clay loam subsoils. The surface texture is silty clay to silty clay which merges into silty clay to silty clay loam subsoils. The surface color is dull yellowish brown to dull yellowish or brown to dull yellow orange. These soils are calcarious throughout the

profile. The ground water table fluctuates within 0.75 to 1.80 meters throughout the year. The water holding capacity of the soil is medium and permeability is moderately low.

GARHI Series

i) Location of representative profile

The pedon was finally studied in Khasra No.1073 of village Garhi of Mohanlalganj, District Lucknow which is about 35km away from Lucknow.

ii) General features

The Garhi series is showed as No.10 in soil map. Garhi series belongs to fine clayey, mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep and moderately to well drained distributed on Mid-upland. The slope varies between 0.1 and 3%. The surface texture is silty which merges into silty clay to silty clay loam subsoils. The surface color and sub-surface color are dull yellowish brown to dull yellow orange. These soils are calcarious throughout the profile. The ground water table fluctuates within 2 to 5 meters throughout the years. The water holding capacity of the soils is medium and permeability is moderately low.

MERAURA Series

i) Location of representative profile

The pedon was locally studied in the cultivated field of village Badaicha, Block Sursa, District Hardoi. The village is situated about 7.5km away from Hardoi.

ii) General features

The Meraura series is showed as No.16 in soil map. The Meraura series belongs to coarse, loamy mixed hyperthermic family of Aerc Haplaquepts. These soils are very deep, and moderately to well drained distributed on Midupland. The slope varies from 0.1 to 3%. The surface texture is silty to clayey which merges into silty to loamy subsoils. The surface color is dull yellowish brown and sub-surface color varies from dull yellowish brown to yellowish brown. The ground water table fluctuates within 3 to 5 meters throughout the year. The water holding capacity of the soil is medium and permeability is moderately low.

HASANPUR Series

i) Location of representative profile

The pedon was locally studied in khasra No.3 of village Maghua. Moreover, the pedon description and analytical data pertains to its original location of Hasanpur, which was studied in Khasra No.644 of Hasanpur village, Block Ttibrfihsnj, District Barabanki. The village Hasanpur is situated about 8km.in the south of Lucknow-Sultanpur Road and about 53km away from Lucknow.

ii) General features

The Hasanpur, series is shown as No.11 in soil map. Hasanpur series belongs to fine, silty mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep and imperfectly drained distributed on Midland. The slope varies 0.1 to 1%. The surface texture is silty to clayey which merges to clay sub soils. The surface color is dull yellow orange and sub-surface color varies dull yellowish brown to grayish yellow brown. These soils are calcarious throughout the profile. The ground water table fluctuates from 1 to 3 meters during the year. The water holding capacity of the soil is medium and permeability is low.

UTELWA Series

i) Location of representative profile

The pedon was locally studied in village Sarai Majhawan which is located about 32km from Lucknow. Moreover, the pedon description and analytical data pertains to its original location of Utelwa which was studied in cultivated plot No.259 on the right side of the Sultanpur-Lucknow Road.

ii) General features

The Utelwa series is shown as No.12 in soil map. Utelwa series belongs to clayey mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep and imperfectly drained distributed on Midland and depression. The slope varies from 0.1 to 1%. Both the texture of surface soil and subsoils are clayey. Both the surface color and sub surface color are dull yellow orange to dull yellowish brown. These soils are calcarious throughout the profile. The ground water table fluctuates within 2 to 5 meters throughout the year. The water holding capacity of soil is medium and permeability is low.

POKHARA Series

i) Location of representative profiles

The pedon was studied in village Dand Nagar which is situated 30km away from Lucknow. Moreover, the pedon description and analytical data pertains to its original location of Pokhara which was studied at a distance of 8 km on right side of the Lucknow-Sult anpur Road.

ii) General features

The Pokhara series showed No.12 in soil map. Pokhara series belongs to clayey mixed hyperthermic family of Typic Haplaquepts. These soils are very deep and imperfectly drained distributed on Mid-lowland. The slope varies from 0.1 to 1%. The surface texture is clayey which merges to clayey to silty subsoils. The surface color is dull yellow orange and sub-surface color is dull yellow orange or dull yellowish brown to grayish yellow brown. These soils show very strong alkalinity. These soils are calcarious throughout the profile. The ground water fluctuates within 1 to 3 meters throughout the year. The water holding capacity of soil is moderate to high and permeability is moderate to low.

GOSHAINGANJ Series

i) Location of representative profile

The pedon was studied in Khasra No.272 of Goshainganj, Block Goshainganj, District Lucknow. The Goshainganj is about 23km away from Lucknow on Lucknow-Sultanpur Road.

ii) General features

The Goshainganj series is shown as No.14 in soil map. Goshainganj series belongs to clayey mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep and poorly drained distributed on lowland. The slope is 0.1 to 1%. Both the surface texture and sub-surface texture are clayey. The surface color is grayish yellow brown to dull yellow orange and sub-surface color is grayish yellow brown. These soils are calcarious throughout the profile. The ground water table fluctuates within a 3 to 5 meters through out the year. The water holding capacity of the soil is high and permeability is very low.

UTTARGAON Series

i) Location of representative profile

The pedon was locally studied in village Samarathpur. Moreover, the pedon description and analytical result belong to original pedon which was studied in village Uttargaon, Tehsil Amethi, District Sultanpur. Profile was studied in Khasra No.481 of Uttargaon village.

ii) General features

The Uttargaon series showed No.15 in soil map. Uttargaon series belongs to fine, clayey mixed hyperthermic family of Aeric Haplaquepts. These soils are very deep.and poorly drained distributed on Lowland. The slope is about 0.1%. Both the surface texture and sub- soils texture are clayey to heavy clayey. The surface color is grayish to yellowish brown and sub-surface color varies from grayish yellow brown to dull yellowish brown. These soils are calcarious throughout the profile. The ground water table fluctuates 1 to

3 meters throughout the year. The water holding capacity of soil is high and permeability is low.

2.4 Soil Taxonomy

Basic concept of classification of soils and mapping of soil series were as follows; viz.,

i) soils composed of similar base materials, ii) soils with similar pattern of deposits, and iii) soils with nearly the same profile, are considered to belong to the same soil series and mapping unit.

The Study Areas are characterized by; i) climate in semi-tropical monsoon belt where Kharif season and Rabi season are observed regularly, ii) extremely flat alluvial plain in the basin of the Ganges River where precipitation is concentrated during Kharif season, and habitual flood attacks Midland and Lowland due to flat topography, which shows sensitive variation of drainability by ground slope, iii) content of organic matter in the soil is less than 1% due to hyperthermic soil, which brings soil color of ochric, iv) dried-up soil condition with lower ground water table due to less rainfall and twice as much evapotranspiration as precipitation, iv) the soil turns into alkaline due to increased content of carbonates, v) concretion of calcium carbonate and ferro-manganese are observed to large extent, and vi) some soils show concentration of salts to the surface suggesting both alkaline and saline soil characteristics.

Taking above mentioned soil characteristics into account, following order was established in conformity to the USDA Soil Taxonomy and soils were classified into soil series shown in Table C.4.

Entisols

This soil series represents recent alluvial plains without strata divergence and without effects of ground water within the strata. Surface soil color is ochric, and soil texture is coarse. This series corresponds with Lakhpera soil series.

Inseptisols

Other soil series were classified into Inseptisols because;

i) they are formed in old alluvial plains, ii) they show ochric surface soil color and characteristics of alkaline soil with concretion of carbonates of lime and manganese, and iii) they are featured by existence of influence by ground water and existence of carbonates within the strata.

3. Land Capability Classification

3.1 Land Use Characteristics in the Sharda Canal Command Area

Land use in India is generally classified into eight (8) categories. Present land use in the Sharda Canal Command Area and the Hardoi Branch Command are shown in Table C.7 and summarized below.

			· ·		
		Sharda Area		Hardoi Area	
No.	Land Use	(1,000 ha)	(%)	(1,000 ha)	(%)
1	Net cultivated (1) Irrigated (2) Non-irrigated	2,392.3 (1,724.3) (668.0)	70.0 (50.4) (19.5)	1,022.9 (779.0) (243.5)	64.2 (49.9) (15.3)
2	Current fallow	250.4	7.3	145.9	.2
3	Other fallow	114.4	3.3	72.4	4.5
4	Barren but arable lands	93.9	2.7	61.6	3.9
5	Garden and trees	50.7	1.5	32.2	2.0
6	Pasture lands	16.4	0.5	12.9	0.8
7	Usar/uncultivable	93.6	2.7	57.3	3.6
8	Forest	105.3	3.1	59.7	3.8
9	Others	302.7	8.9	127.6	8.0
	Total	3,419.7	100.0	1,592.6	100.0

Source: 1/; Milan Khasra

70%, viz., 2,392,000 ha out of the total area of the Sharda Canal Command (3,420,000 ha) is net cultivated land, of which approximately 72% (1,724,000) is irrigated. Total fallow area occupies more than 10% (365 ha) of the total area. The main reason of being fallow is insufficient irrigation water. Not only fallow land but also great extent of "net cultivated area" can not harvest due to lack of water corresponding to sown area. Tree/garden land and pasture land occupies only 2% (67,000 ha) in total. Barren but arable land and

usar/uncultivable land occupies small area of about 3% (94,000 ha)respectively. Forest has reduced to no more than 3% (105,000 ha) due to pressure of increasing population.

Local characteristics of land use reflecting improvement level of irrigation facilities and soil characteristics are summarized as follows;

- a) "Net cultivated area" and "Irrigated area" in the southern area are lower
- b) "Fallow" and "Barren but arable land" occupy larger extent in the southern area
- c) "Usar/uncultivable land" occupies lower percentage of 1% to 3% of the total area in the northern districts, while it occupies higher percentage of 3% to 5% in the southern districts, Hardoi, Lucknow, Unnao, and Rae Bareli.

Each item of land use in the Hardoi Branch Command Area (1,593,000 ha) shows almost the same percentage as that of the Sharda Canal Command. "Net cultivated area" occupies 64% (1,023,000 ha), of which "Irrigated area" is 76% (779,000 ha). "Fallow land" is 14% (218,000 ha) of the Total area, "Garden and tree land" occupies 3% (45,000 ha) in total, while "Usar/uncultivable land" and "Barren but arable land" account for 3.9% and 3.6% respectively, which are a bit high percentage than those of the Sharda Canal Command.

Paddy rice is generally planted in the "cultivated land" where soil texture is medium to fine with high moisture holding capacity and expansion of paddy field is attempted even though soils show high pH. According to soil survey conducted in Stage 1 Study, effect of leaching by paddy cultivation was confirmed, of which pH is controlled from 8.6 to 9.0. However soils of this high pH are not suitable for paddy cultivation, which results in low growth rate and percentage of ripening in conjunction with poor farming management.

Cultivated area where upland crops planted in Kharif has medium textured soils and ground water table is low. Paddy field where upland crops are planted in Rabi has high productivity with desirable condition of soil with high porosity and low ground water table. However, unit yield becomes low in some part where pH is high due to increasing cations.

Mango which is tolerable against alkalinity is predominantly cultivated in "Garden and tree area" regardless of alkalinity. In the area where ground water table is high and pH of soil is generally high, soil dressing is carried out aiming at increasing depth of workable soil layer, but growth rate seemed to be affected by pH more or less.

3.2 Land Use Characteristics in the Representative Areas

(1) Land use characteristics by soil and land system

Cropping pattern or land use pattern largely depends on soil condition. Upland soil series is easy-to-plough and widely cultivated because of its high productivity. Major crops in Kharif in Upland are jowar, arhar, urd, bajara, groundnuts and maize. Paddy is not planted in Upland due to its high permeability. In Rabi season, wheat is major crop and pea, gram, barley, mustard and vegetables are cultivated.

In Mid-upland, major crops in Kharif are arhar, Maize and bajara, while in Rabi, wheat, mustard and vegetables are cultivated. Paddy rice or sugarcane are also planted on Tamoria and Sithauli soil series, which are regarded as usar.

In Midland, soils possess low productivity because of its high alkalinity and low permeability. Consequently, Paddy rice is planted in Kharif if irrigation water is supplied. Otherwise this area is remained as fallow land. In Rabi season, wheat is principal crops but growth rate is rather low.

In Mid-lowland and Lowland, paddy rice is planted in Kharif. Productivity is very low. Mid-Lowland soil series, Pokhara is almost remained uncultivated as usar or babul tree is afforested scatteringly. In Rabi season, wheat is planted predominantly.

(2) Trend in land use

In order to obtain last decade's trends in land use and water resources, and agricultural inputs and outputs, data for related blocks in respective Study Area were collected. They are shown in Tablse C.8 to C.11.

Some of the important trends in last 10 year data can be summarized as below:

- Decline in the net sown area, ranging from 0.9 to 1.0 percent per annum in 4 blocks, excluding Sarojini Nagar under an effect of urbanization, probably due to a combination of factors including waterlogging, usar and related problems;
- Significant decline in the net irrigated area in Sursa and Sataon blocks; suggesting that increase of water logging area and/or usar area in Sursa block and that

decreasing water supply volume in the light of deepening ground water table in Sataon block;

Rapid increase in the growth rates of private pump sets with boring and private tubewells; and

- Increasing trend of utilization for food grain production in irrigated land.

(3) Present land use by Study Area

According to land use classification which is generally adopted in India, present land use of the four Study Areas was classified based upon "Milan Khasra (cadaster)" by village (Tables C.12 to C.15). Land use of the four Study Areas in 1989/1990 and that of Hardoi Branch Command are summarized as follows:

	T 177	Sarojin	i Nagar	Sata	on	Sur	<u>sa</u>	Purw	a	All Hardoi	Branch
No.	Land Use	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)
1	Net cultivated	18,807	55.9	14,713	57.1	20,255	65.1	13,492	64.8	10,299	64.2
	Irrigated	(13,117)	(39.0)	(10,028)	(38.9)	(15,313)	(49.2)	10,958)	(52.6)	(7,790)	(48.9)
	Non-irrigated	(5,740)	(17.1)	(4,685)	(18.2)	(5,171)	(16.6)	(2,457)	(11.8)	(2,435)	(15.3)
2	Current fallow	4,532	13.5	4,166	16.2	3,482	11.2	2,295	11.0	1,459	9.2
3 -	Other fallow	760	2.3	498	1.9	273	0.9	741	3.6	724	4.5
•	Barren but arable land	1,286	3.8	1,329	5.2	2,140	6.9	923	4.4	616	3.9
5	Timber	773	2.3	636	2.5	227	0.7	327.	1.6	322	2.0
6	Permanent pasture	297	0.9	244	0.9	152	0.5	66	0.3	129	0.8
7	Usar/uncultivable	992	2.9	640	2.5	817	2.6	669	3.2	573	3.6
8	Forest	2,192	6.5	73	0.3	1,318	4.2	17	0.1	597	3.8
9	Miscellaneous	4,021	11.9	3,464	13.4	2,441	7.8	2,294	11.0	1,276	8.0
	Total	33,660	100.0	25,763	100.0	31,105	100.0	20,824	100.0	15,926	100.0

Source: Milan Khasra by published by Tehsil Office

In general, 60% of total land is cultivated area and 60% to 80% of cultivated land is irrigated. Rate of irrigated land is low in Sataon and Sarojini Nagar Study Area which were selected as "irrigation problem area". Comparing to other areas in the Hardoi Branch Command, rate of current fallow land is high. Particularly in Sarojini Nagar and Sataon Study Area, current fallow land occupies higher extent, which can be considered due to low availability of irrigation water. Also in Sarojini Nagar and Sataon Study Area, tree crops

which require less water is cultivated to larger extent comparing to other Areas. This is also caused by scarcity of irrigation water.

Usar itself does not occupy higher rate as a whole comparing with all the Hardoi Command Area. Parts of the Areas where usar is predominant are, middle reach of Amausi Distributary in Sarojini Nagar Study Area, northern of part of Sataon Study Area., southern part along Marsa Distributary in Sursa Study Area and eastern part of Purwa Study Area, that is; in/around Basha Depression. Rate of forest land is extremely low in Sataon and Purwa Study Area.

3.3 Land Capability Classification

(1) Criteria of land capability classification

On the basis of the results of soil survey, land capability was classified by kind and degree of intrinsic limiting factors, inhibition factors, and possibilities of soil capability deterioration and so on.

Criteria of soil capability classification are as follows:

- I: The land which is capable of yielding sufficient harvest, and has almost no limitations for proper soil management and no possibility of soil capability deteriorating, and is therefore considered a good arable land.
- II: The land which is capable of yielding sufficient harvest, and has almost no limiting and inhibition factors for proper soil management, but may have certain possibilities of deterioration of soil capability.
- III: The land which is capable of yielding sufficient harvest, but has considerable limiting or inhibition factors for proper soil management and considerable possibilities of soil capability deterioration. Further classification into III₁ and III₂ is made for the land which is classified into III showing certain differences in limiting factors and inhibition factors.
- IV: The land which has extremely strong limiting and inhibition factors for yielding sufficient harvest and for proper soil management, and is therefore considered to provide extreme difficulty for cultivation. Further classification

into IV_1 and IV_2 is made for the land which is classified into IV showing certain differences in limiting factors and inhibition factors.

Land capability was assessed synthetically based upon possibility of improvement by means of; i)proper input such as fertilizer, ii)soil amendment, iii)irrigation and drainage, and iv)present soil conditions. Land capability classes are shown in Table C.16.

Furthermore, existing constraints and proper management for each class is summarized in Table C.17.

TABLES

Table C.1 Soil Characteristics of the Sharda Canal Command Area (1/8)

Name of Soil Series Ann KAKARUCC) TAMORIA (Tm) SITAULI(Si) SAIDAPUR (%) Area(na) (Name of Soil Series Name of Soil Series (%) Amerita KakaRu(Kr) TaMORLA(Tm) STIAULI(S) SAIDAPUR(Sd) Gal (%) Amerita KakaRu(Kr) TaMORLA(Tm) STIAULI(S) SaiDAPUR(Sd) Gal (%) Amerita (%) Area(na) (%) <th>Name of Soil Series (%) AmETH(Am) Karkatu(x) TaMoRId(x) TaMORId(x)</th>	Name of Soil Series (%) AmETH(Am) Karkatu(x) TaMoRId(x)
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TAMORIA(Tm) SITAULI(SI) AIDAPUR Area(na) (%) Area(na) (%) Area(na) 0 (0.0) \$\$\$86 (11.0) 5.100 0 (0.0) \$\$\$\$56 (11.0) 5.100 0 (0.0) \$	TAMORIA(Tm) SITAULI(St) SAIDAPUR(Sd) GARI TAMORIA(Tm) SITAULI(St) SAIDAPUR(Sd) GARI Area(ma) (%) Area(ma) (%) Area(ma) (%) 0 (00) 4,982 (110) 3,07 (4) 10 0 (00) 7476 (61) 5,687 (55) 4 0 (00) 2,757 (68) 3,320 (81) 1 0 (00) 2,757 (68) 3,320 (81) 1 0 (00) 2,757 (68) 3,320 (81) 1 0 (00) 2,757 (68) 3,320 (81) 1 0 (00) 1,556 (10) 3,320 (81) 1 0 (00) 1,556 (6.0) 2,386 (110) 1 1 0 (00) 1,315 (5.0) 1,335 (5.0) 1 1 1 0 (00)<	TAMORIA(Tm) STITAULI(St) SAIDAPUR(Sd) GAR(Gr) TAMORIA(Tm) STITAULI(St) SAIDAPUR(Sd) GAR(Gr) Area(na) (%) Area(na) (%) Area(na) (%) 0 0.00 4.886 (12.9) 5.100 (7.4) 0 0.00 0 0.00 2.386 (10.0) 3.380 (11.4) 6.53 (4.9) 0 0.00 1.552 (6.5) 2.853 (4.0) 0 0.00 0 0.00 1.552 (6.5) 2.853 (4.5) 0 0.00 0 0.00 1.552 (6.5) 5.320 (8.1) 1.363 (4.45) 0 0.00 1.552 (6.5) 5.323 (1.50) 8.33 (1.50) 0 0.00 1.552 (6.5) 2.853 (4.45) (6.0) (7.5) 4.45 0 0.00 1.315 (6.7) 5.853 (6.4) (7.5) 4.45 (7.5) <t< td=""></t<>
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SAIDAPUR SAIDAPUR Area(ha) 1.5700 1.5705 3.300 3.2000 3.20000000000	SAIDAPUR(Sd) GARU Area(ha) (%) Area(ca) 5,100 (7.4) Area(ca) 3,100 (7.4) Area(ca) 1,1993 (6.0) 1.0 3,100 (1.4) 4 3,100 (1.4) 1 3,100 (1.4) 1 3,300 (1.1.4) 1 3,300 (1.1.4) 1 3,300 (1.1.4) 1 3,300 (1.1.4) 1 3,390 (1.1.4) 1 3,390 (1.1.4) 1 3,390 (1.1.2) 5 3,390 (1.1.2) 5 3,390 (1.1.2) 5 3,391 (1.1.2) 5 3,303 (1.1.1) 1 4,753 (1.1.1) 1 4,753 (1.4.1) 1 3,455 (1.1.2) 1 4,753 (1.5.0) 1 4,754 (1.2.2) 1	SAIDAPUR(Sd) GARI(Gr) Area(ha) (%) Area(ha) %) 5,100 (7.4) 0 (0.0) 1,995 (6.0) 0 (0.0) 1,995 (6.0) 0 (0.0) 1,995 (6.0) 0 (0.0) 1,995 (6.0) 10,380 (4.4) 5,395 (11.4) 652 (2.2) 3,398 (11.3) 573 (1.5) 3,398 (11.3) 573 (1.5) 3,398 (11.3) 573 (1.5) 3,398 (1.1,3) 573 (1.5) 3,398 (1.1,3) 573 (1.5) 3,398 (1.1,3) 573 (1.5) 3,398 (1.1,3) 573 (1.5) 3,398 (1.1,3) 573 (1.5) 3,398 (1.1,4) 539 (2.6) 3,304 (1.4,5) 5391 (1.5) 3,339 (1.1,5) 544 (3.6)
	L L L L E GAR 000000000000000000000000000000000000	GARI(Gr) Area(ha) (%) Area(ha) 0 (0.0) 0 10.380 0 (0.0) 0 1.333 (4.4) (4.4) 11 1.803 (4.4) (1.5) 0 1.034 (4.4) (4.4) 0 1.034 (4.5) (4.6) 0 573 (1.5) (4.4) 0 1.034 (4.5) (4.6) 0 533 (1.5) (4.6) 0 533 (1.5) (4.6) 0 533 (1.5) (4.6) 0 533 (1.5) (4.6) 0 533 (1.5) (4.6) 0 533 (1.5) (4.6) 0 1.1267 (4.0) (4.6) 0 1.1267 (4.0) (4.6) 0 1.1267 (4.6) (4.6) 0 1.1367 (4.1) (4.6) 1.1449 (4.1)

Table C.1 Soil Characteristics of the Sharda Canal Command Area (2/8)

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 | | 6 |
| Miscellane | Area(ha) | 3,152 | 1,528

 | 1,589

 | 28,384 | 160'01 | 3,202 | 4,303 | 2,779

 | 2.548 | 2,768

 | 2,693 | 28,082
 | 3,397 | 2,868 | 3,248 | 2,487 | 1,730 | 2,559 | 3,054 | 3,223
 | 2,759 | 2,757

 | 474 |
 |
 | | | | 2,845 | 2,969 | 3,062 | 2,259 | 1,868
 | . 2,123 | 3,033 |
| ai | (%) | (9.1) | (0:0)

 | (3.2)

 | (3.6) | (5.2) | (0.0) | (0.0) | (0.0)

 | (0:0) | (0.0)

 | (0.0) | (0.0)
 | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0:0) | (0.0)
 | (0:0) | (0.0)

 | (1.3) | (0.0)
 | (0:0)
 | (0.0) | (0.0) | (0.0) | (0,0) | (0.0) | (0:0) | (0.0) | (0 0)
 | (6.5) | (8.2) |
| dixd Alluvi | Area(ha) | 1,130 | 0

 | I,130

 | 11.185 | 11,185 | 0 | 0 2 | ö

 | Ö. | 0

 | 0 | 0.
 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
 | 0 | 0

 | 5,147 | 0
 | 0
 | 0 . | 0 | 0 | 0 | 0 | 0 | 0 | 0
 | 1.917 | 3,230 |
| ([Bg)]) | (0 | (2.9) | (0.6)

 | (2.8)

 | (1.2) | (3.0) | (0.0) | (0.0) | (0.0)

 | (0.0) | (0.0)

 | (0.0) | (0:0)
 | (0:0) | (0.0) | (0.0) | (0.0) | (0.0) | (0:0) | (0.0) | (0.0)
 | (0.0) | (0.0)

 | (6.0) | (2.8)
 | (0.0)
 | (0.0) | (0:0) | (0.0) | (0.0) | (0.0) | (0:0) | (0.0) | (0 0)
 | (0.0) | (0.0) |
| AJGAHAN | rea(ha) | 1,985 | 966

 | - 686

 | 3.647 | 3,647 | 0 | 0 | 0

 | 0 | 0

 | 0 | 0
 | 0 | 0 | ò. | 0 | 0 | 0 | 0 | 0
 | 0 | 0

 | 1,303 | 1.303
 | 0
 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
 | 0 | 0 |
| a nu | (%) A | (2.5) | (2.0)

 | (2.9)

 | (2.6) | (2.0) | (1.9) | (2.8) | (3.7)

 | (0 +) | (3.1)

 | (2.5) | (2.3)
 | (1.2) | (0.0) | (1.2) | (0.0) | (2.8) | ((1 ') | (3.3) | (2.5)
 | (4.2) | (3.8)

 | (0.2) | (3.1)
 | (2.0)
 | (1-1) | (2.0) | (2.5) | (1 0) | (1.3) | (2.2) | (3.6) | (0 0)
 | (1.3) | (2.2) |
| TTARGAC | rea(ha) | 1,688 | 664

 | 1,024

 | 8,041 | 2,431 | - 263 | 1, 148 | 850

 | 1.274 | 1,115

 | 660 | 5,986
 | 396 | 0. | 328 | 0 | 551 | 853 | 833 | 806
 | 1,016 | 1,204

 | 961.1 | 1,443
 | 826
 | 337 | 283 | 636 | 520 | 415 | 765 | 1,179 | 0
 | 383 | 198 |
| ANUGU | (%) A | (6.6) | (4.0)

 | (3.8)

 | (3.6) | (3.0) | (4.6) | (0.6) | (2.6)

 | (0.5) | (4.6)

 | (3.6) | (3.5)
 | (3.6) | (tre) | (3:0) | (3.2) | (4.0) | (0.6) | (0.2) | (0.9)
 | (0.6) | (2:0)

 |)(E:E) | (4.0)
 | (6.2)
 | (2.7) | (3.0) | (0.1) | (1 8) | (5.4) | (3.6) | (5-4) | (2.2)
 | (0.6) | (43) |
| OSHAING. | rea(ha) | 2,670 | 1,328

 | 1,342

 | 11,034 | 3,647 | 1,364 | 1,230 | 597

 | 1,592 (| 1,654

 | 056 | 9,020
 | 858 | 816 | 545 | 642 | 486 | 624 | 505 | 1,934
 | 726 | 1.584

 | 13,098 | 1.862
 | 2,907
 | 826 | 875 | 254 | 449 | 766 | 1,252 | 786 | 15
 | 885 | 1,694 |
| | (%) A | (2.1) | (5.5)

 | (4.8)

 | (1.6) | (0.4) | (0.0) | (0.0) | (0.0)

 | (0.0) | (0.0)

 | (0.0) | (0.0)
 | (0 0) | (0.0) | (0.0) | (0.0) | (0.0) | (0 0) | (0.0) | (0 0)
 | (0.0) | (0.0)

 | (6.0) | (2.5)
 | (0.0)
 | (0.0) | (0.0) | (0:0) | (0:0) | (0:0) | (0.0) | (0 0) | (0.0)
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| ASTURI(K | | | 1,827

 | 1,695

 | 4,863 | 4,863 | 0 | 0 | ò

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 | 1,164 | 1 164
 | 0
 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
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| N. | | (0.0) | (0.0)

 | (0.0)

 | (2.3) | (0.0) | (0.5) | (8 E) | (5.2)

 | (0.4) | (0.2)

 | (0.6) | (4.2)
 | (0°.2) | (8.1) | (0°E) | (1.6) | (3.6) | (8.0) | ((2,0)) | (6.2)
 | (4.2) | (0.6)

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 | 1.0) | 2.3) | 4.6) | 33) | 1.7) | 2.8) | (6.4 | 3.0)
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| Arca (ha) | | 68,522 | 33,210

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 | 309,372 | 121.574 | 29,645 | 40,984 | 22,969

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 | 26,401 | 260,465
 | 32,985 | 26,309 | 27,295 | 20,056 | 199'61 | 20,805 | 25,238 | 32,234
 | 24,198 | 31,684

 | 396,539 | 46,545
 | 46,891
 | 30,601 | 29,168 | 25,449 | 24,955 | 31,928 | 34.790 | 32,745 | 24,580
 | 29,493 | 39,394 |
| | | | Sitarganj

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 | Barkhera | Bilsanda

 | Bisarpur |
 | Nawabganj | Richchha | Shergarh | Fatehgan | Phojipura | Kyara | Bithan | Fandpur
 | Bhadpura | Bhutte

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 | Pawayan | Sindhaul | Nigohi | Katara | Bhawalkher | Dadraul | Kant | Tilhar
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COSHAINGAN(UTTARGAON(U) BAGAHAN((Eg) Miscellaneo 1 Area (ha) HASANPUR(Hn) (TELWA(U) POKHRA(P) (%) Area(ha) (%) Area(ha) | Area (ha) HASANPUR(Hn) UTELWA(U) POKIFIA(Rr) KASTUR(Ks) COSHAINGANU(IUTTARGAONU[BA/GAHAN(B2) kirka Aliuvial Miscalianeo Miscalianeo 1 Area (ha) (%) Area (| Area (ha) HASANPUR(Hn) UTELWA(U) POKHRA(Fr) KASTUR(Ks) COSHAINGEANM(B2)AGHAIN(B2)Mix Alluvial Miscellane 1 Area (ha) (%) Area(ha) (%) Area(ha) | Area (ha) HASANPUR(Hn) UTELWA(U) POKHRA(P) KASTUR(Ks) COSHAINGANU(UTTARCAONU) BAGAHAN(B) Mixd Alluvial Miscellane I Area (ha) (%) Area (ha) < | Area (ta) HASANPUR(Hn) UTELWA(D) POKHRA(Fr) KASTUR(KS) COSHAINGAN((UTTARCAON(UB2)/Mixd Alluvial Miscellane 1 Area (ta) Area (ta) (%) (Are | Area (ta) HASANPUR(Fm) UTELWA(U) POKHRA(P) KASTUR(KS) COSHAINGANN(UTTARGAON(U) RAGANN(UTTARGAON(U) RAGANN(U) Miscellana Miscellana 101 Narea(ta) (%) Area(ta) (%) | Area (ha) HASANPUR(Ha) UTEL WA(U) POKHRA(F) KASTUR(KS) COSHAINGANU (UTTARGAON(JBAJGAHAN(BB)/Mixt Alluvia) Miscellana 1 Area (ha) (%) Area (ha) | Area (ta) HASANPER(th) UTELWA(U) POKHRA(F) KASTUR(K) COSHAINGANI(UTTARGAON(UBAGAHAN(R))/KaSTUR(K)) Miseelhaar 1010 Misteelhaar 53312 2008 (4.5) Miseelhaar (7.5) 1.103 (7.5) 1.103 (7.5) 1.1135 (7.5) 1.1135 (7.5) | Atea (ta) HASANPUR(HII) UTELWA(U) POKHRA(F) KASTURUK(A) COSHAINGANIGANI(BANGAHANI(BS)Mixe Alturial
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 Macadian</td><td>Avar (ua) HASANPUR(Ha) UTL VA(U) DOXHRA(U) CASTUGAN(U) CASTUGAN(U) Machina Mach</td><td>Area (a) RAANPURCHA(h) UTE.WA(U) POCHTRA(P) KASTUR(KA) COSTAINGAVIC (CT) RAGANIC (ST) Masedian Masedian Area (a) Xreation (%) Area(io) (%) (%) Area(io) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) <</td><td>Area (a) HASANPUR(FIN UTELWA(D) PONTRA(PUR(FIN) PONTRA(PUR(FIN</td><td>Aute (a) HASANPUR(Fin) UPELWA(D) PONETRA(F) KASTUR(K) COSMMCAVIA/USEA/AVIR(B) Size Altura Misediance Aute (a) SASANPUR(Fin) UPELWA(D) (b) Aute(b) (c) Aute(b) (c) Aute(b) (c) (c)</td><td>Area (ta) BASANPURCHA IFELWA (ty) POKHRA(e) KASTUR(KS) COSIAINOVI (UTTARCAONC) BASANPURCHA IFELWA (ty) POKHRA Kissentian Kissentian Stategari SAAANPURCHA (FELWA (ty) (FELW</td><td>Avar (m) PARANPURCHIM IFEL WA (N) POKHRA(N) KASTUR(KC) COSIMINAVA (UTT ARCAONC) BALANU (BAT ALUNI (B) (FL WA (N)) POKHRA(N) Mandalia (%) Amadalia <t< td=""><td>Aver (a) RASANPURCIAN Description Solution State (a) RASANPURCIAN Description Solution Soluti</td><td>Area (ta) RANAURA (trip) DOG HARA (tri) DOG HARA (tri) DOG HARA (tri) Macadime Macadime Area (ta) Area (ta) (ta)<</td></t<></td></t<> | Area (tai) HAASANPUR(Hin) UTELWA(U) POKHRA(P) KASTUR(KA) CCSHAINGANU (UTTARGAONU (BAAGAINI(B2)/Mixd Alluria) Miscellaneacu Area (tai) Area (tai) (%) Area (tai) | Area (ta) HASANPURC(Fa) UTELWA(D) POKHRA(PC) KASTURU(KS) CASTURU(KS) CASTURU(KS) CASTURU(KS) Macellanease Macellanease | Avar (a) HASANPUR(Ha) UTL VA(U) POXHTA(U) KASTUR(KA) COSHANCAN(I) UTL ARGAON(I) MACAANVIER/MAN(IEE) Macadian Macadian | Avar (ua) HASANPUR(Ha) UTL VA(U) DOXHRA(U) CASTUGAN(U) CASTUGAN(U) Machina Mach | Area (a) RAANPURCHA(h) UTE.WA(U) POCHTRA(P) KASTUR(KA) COSTAINGAVIC (CT) RAGANIC (ST) Masedian Masedian Area (a) Xreation (%) Area(io) (%) (%) Area(io) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) < | Area (a) HASANPUR(FIN UTELWA(D) PONTRA(PUR(FIN) PONTRA(PUR(FIN | Aute (a) HASANPUR(Fin) UPELWA(D) PONETRA(F) KASTUR(K) COSMMCAVIA/USEA/AVIR(B) Size Altura Misediance Aute (a) SASANPUR(Fin) UPELWA(D) (b) Aute(b) (c) Aute(b) (c) Aute(b) (c) (c) | Area (ta) BASANPURCHA IFELWA (ty) POKHRA(e) KASTUR(KS) COSIAINOVI (UTTARCAONC) BASANPURCHA IFELWA (ty) POKHRA Kissentian Kissentian Stategari SAAANPURCHA (FELWA (ty) (FELW | Avar (m) PARANPURCHIM IFEL WA (N) POKHRA(N) KASTUR(KC) COSIMINAVA (UTT ARCAONC) BALANU (BAT ALUNI (B) (FL WA (N)) POKHRA(N) Mandalia (%) Amadalia (%) Amadalia <t< td=""><td>Aver (a) RASANPURCIAN Description Solution State (a) RASANPURCIAN Description Solution Soluti</td><td>Area (ta) RANAURA (trip) DOG HARA (tri) DOG HARA (tri) DOG HARA (tri) Macadime Macadime Area (ta) Area (ta) (ta)<</td></t<> | Aver (a) RASANPURCIAN Description Solution State (a) RASANPURCIAN Description Solution Soluti | Area (ta) RANAURA (trip) DOG HARA (tri) DOG HARA (tri) DOG HARA (tri) Macadime Macadime Area (ta) Area (ta) (ta)< |

Table C.1 Soil Characteristics of the Sharda Canal Command Area (3/8.)

No. District	ct .	Block	Geographical						;	.	Vame	Name of Soil Series	enes										
			Arca (ha)	LAKHPER	A(LP)	LAKHPERA(LP) GANGAULI(G	â	TANDA(Tn)		AMETHI(Am)		KAKARI(Kr)		TAMORIA(Tm)		SITAULI(St)		SAIDAPUR(Sd)		GARI(Gr)	ž	MERAURA(Mr)	(Mr)
				Area(ha)	(%)	Area(ha)	(%)	Area(ha)	▼ (%)	Area(ha)	√ (%)	Area(ha)	(%) A	Area(ha)	(%)	Area(ha)	√ (%)	Area(ha)	(%)	Area(ha)	(%)	Area(ha)	(%)
5 Kheri			364,632	15,786	(4.3)	48,915	(13.4)	616'6	(2.7)	12,083	(3.3)	32,727	(0.6)	0	(0 0) 0	25,541	(0 L)	36,431	(10.0)	11,566	(3.2)	57,305	(15.7)
	501	Sol Buua	590'65	3,250	(5.5)	7,267	(12.3)	0	(0:0)	1,536	(2.6)	2,954	(50)	0	(0:0)	2,245	(3.8)	3,131	(53)	168'1	(3.2)	10,635	(18.0)
	502	502 Phulbehar	40,504	2.592	(6.4)	4,698	(11.6)	810	(3.0)	1,539	(3.8)	2,876	(1.7)	0	(0.0)	2,025	(5.0)	3,888	(9.6)	446	(1.1)	6.926	(17.1)
	503	503 Bankaganj	33,852	1,185	(G.S)	5,484	(16.2)	1,760	(2.2)	112	(2.1)	2,979	(8.8)	0	(0.0)	2,099	(6.2)	3.825	(11.3)	88	(2.6)	6.770	(20.0)
	2S S	504 Lakhimpur	38,535	2,196	(5.7)	5,087	(13.2)	1,195	(3.1)	1,156	(0 E)	3,931	(10.2)	0	(0.0)	3,198	(8.3)	3.507	(1.6)	1.811	<u>(</u>	5.588	(14.5)
	505	505 Behjam	28,999	1,450	(5.0)	3,248	(11.2)	285	(2.0)	1,450	(5.0)	2,842	(8.6)	0	(0:0)	2,088	(7.2)	2,900	(10.0)	1.015	(3.5)	5.423	(18.7)
	506	506 Muhamdi	42,653	338	(2.2)	4,862	(11.4)	1,408	(3.3)	1,706	(4 0)	3,753	(8.8)	0	(0 O)	3,156	(1 (4)	5.758	(13.5)	1.706	(0.4)	7,805	(18.3)
	507	507 Kumbha	36,488	1,642	(4.5)	6,750	(18.5)	1,824	(5.0)	730	(2.0)	4,379	(12.0)	0	(0.0)	2.372	(6.5)	3.576	(8 6)	0	(0.0)	5.108	(14.0)
	208	508 Mitauli	37,148	08/	(2.1)	5,312 (14	(14.3)	1,300	3.5)	1,597	(43)	3,566	(9 6)	0	(0:0)	3.715	(10.0)	4,161	(11.2)	1,449	(6.5)	4.644	(12.5)
L-	505	509 Paragawan	47,370	1,758	6.9	6,205	(13.1)	1,042	(2.2)	1,658	(3.5)	5,448	(11.5)	0	(0 [.] 0)	4,642	(8.6)	5,684	(12.0)	2,369	(0.5)	4,405	(6.3)
6 Hardoi	5		598,817	18,928	(3.2)		(14.2)	24,502	(4.1)	9,864	(1.6)	41,280	(6:9)	0	(0 [.] 0)	70.330	(11.7)	69,755	(11.6)	40,431	(6.8)	167.65	(8.3)
	601	601 Pihani	33,685	505	(1.5)	÷	(15.8)	1,213	(3.6)	842	(2.5)	х Х	(2.8)	0	(0.0)	3,301	(8.6)	2,931	(8.7)	4,278	(12.7)	4,110	. (12.2)
	602	602 Todarpur	30,621	1,286	(4.2)		(9.81)	1,868	((0.1))	337	(1.1)	£ 3	(2.1)	0	(0.0)	3,552	(11.6)	3.215	(10.5)	2,848	(6.3)	4,073	(13.3)
	83	603 Shahabad	34,673	728	(2.1)		(14.0)	116	(2.8)	763	(2.2)	2,670	(17)	0	(0:0)	3.571	(10.3)	3.225	(6.3)	4,126	(6.11)	5.201	(15.0)
	Å	604 Bharkahani	42,427	2,333	(5.5)		(0.11)	1,103	(3.6)	0	(0.0)	3,521	(83)	0	6 0	4,073	(9.6)	3,564	(18,4)	3.734	(8.8)	5.049	(6.11)
	605	605 Hariyawan	29,035	290	(0.1)		(9.5)	1.074	(3.7)	0	(0:0)	2,787	(9:6)	0	(6 0	4,500	(15.5)	2.207	(0:0)	1.713	(6.5)	4,268	6.1
	606	606 Tadiyawan	31,235	i,874	(0.0)	4,873 (15.6)	(15.6)	656	(2.1)	0	(0:0)	2,686	(8.6)	0	(0.0)	4,467	(14.3)	2.030	(6.5)	2,561	(8.2)	3.186	(10.2)
	603	607 Bawan	32,827	2,967	(1.6)	-	(22.0)	1,904	(5.8)	0	(0.0)	985	(0.6)	0	(0.0)	3,775	(11.5)	3.348	(10.2)	1,412	(4.3)	3.086	(6.4)
	608	608 Sandi	31,575	3,252	(10.3)		(21.7)	821	(2.6)	0	(0.0)	1,768	(2.6)	0	(0.0)	2.905	(9.2)	1,737	(5.5)	2 88	(2.8)	2,116	(6.7)
	605	609 Harparpur	30,891	1,699	(5.5)		(12.1)	1,297	(4.2)	1,019	(3.3)	680	(2.2)	0	(0.0)	2,162	(0 L)	2,749	(6.8)	2.131	(6.9)	3.769	(12.2)
	610	610 Ahirauri	37,703	829	(2.2)	7,352	(19.5)	2,413	(6.4)	0	(0.0)	1,810	(4.8)	0	(0.0)	6,334	(16.8)	3,469	(9.2)	2.262	(0.9)	3.657	(7.6)
	611	611 Sursa	33,628	0	(0.0)		(4.8)	0	(0.0)	1,749	(5.2)	3,329	(6.9)	0	(0.0)	3,228	(9.6)		(16.1)	1,143	(3.4)	3.934	<u>5</u>
	612	612 Bilgram	33,839	1,049	(3.1)	3,688	(10.9)	846	(2.5)	1,421	(4.2)	2,369	(0.7)	0	(0.0)	3,012	(8.9)		(12.2)	744	(2.2)	3,147	(6.3)
	613	613 Kothawan	29,485	0	(0.0)	4,924	(16.7)	1,150	(3.9)	2.241	(7.6)	1,769	((0.9)	0	(0.0)	3,184	(10.8)	3,509	(11.9)	1.209	(4, 1)	2,182	f C
	614	614 Kachhona	24,864	0	(0.0)	1,790	(7.2)	1,019	(4.1)	1,492	(6.0)	2,486	(10.0)	0	(0.0)	3,456	(13.9)	3.730	(15.0)	1,492	(6.0)	2.014	(8.1)
	615	615 Madhoganj	28,916	1,214	(4.2)	4,337	(15.0)	607	(2.1)	0	(0.0)	2,487	(8.6)	0	(0.0)	4,048	(14.0)	4.916	(17.0)	1.504	(5.2)	0	(0.0)
	616	616 Bharawan	31,069	0	(0'0)	3,076.	(6.6)	2,019	(6.5)	0	(0.0)	2,579	(8.3)	0	(0.0)	4,971	(16.0)	6,183	(19.9)	2.051	(6.6)	0	(0.0)
	612	617 Sandila	31,362	0	(0.0)	3 199	(10.2)	2,760	(8.8)	0	(0:0)	2,039	(6.5)	0	(0.0)	3.575	(11.4)	5,175	(16.5)	3,136	(10.0)	0	() 0
	618	618 Behdar	27,842	0	(0.0)	2,367	(8.5)	1,392	(5.0)	0	(0.0)	3,369	(12.1)	0	(0.0)	4,594	(16.5)	4,733	(17.0)	1.977	G.D	0	(0.0)
<u> </u>	615	619 Malawan	23,140	618	(3.8)	4,258	(18.4)	1,388	(0.9)	0	(0.0)	2,360	(10.2)	0	(0,0)	1.620	(0.0)	3,494	(1.5.1)	1.226	(5.3)	0	(0.0)
7 Barabanki	anki		30,074	0	(0:0)	2,015	(6.7)	0	(0.0)	0	(0.0)	5,955	(19.8)	0	(0.0)	2.526	(19.4)	0	(0.0)	0	(0.0)	0	(0.0)
	i cit	TOT Made	30.074	<	000	210 0	5.7	<.	000	6	200	2202	1001	<				<		•			000

Table C.1 Soil Characteristics of the Sharda Canal Command Area (4/8)

				j.			. •	:						÷	<u>.</u>	1.	2	Ľ.	÷		i p	· ·					. :	. /	_					
	sa	(%) (%)	(10.0)	(14.4)	(5.01)	(6.4)	(6.21)	(10.6)	(0.0)	(8.6)	(8.3)	(6.7)	(7.5)	(8.2)	(0.7)	(1.4)	(6.4)	(1.7)	(1.6)	(8.1)	(6.9)	(8.2)	(7.6)	(7.8)	(6.1)	(7.6)	(8.6)	(6.7)	(1.4)	(8.1)	(8.6)	(6.6)	(9.4)	(9.4)
	Miscellaneous	Arca(ha)	36,463	8,508	4,253	3,182	4,971	3,074	2,559	3,138	3,083	3.742	44,981	2,762	2,327	2,566	2,715	2,236	2,374	2,659	2,179	2,533	2,865	2,623	2,064	2,241	2,138	1,537	2,299	2,540	2,394	1,527	2,827	2,827
		(%)	(3.6)	(5.51)	(12.9)	(0:0)	600	(0.0)	(0.0)	(0.0)	(0:0)	(0.0)	(2.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0:0)	(0.0)	(0 0)	(13.4)	(8.2)	(0.0)	(0.0)	(10.2)	(0.0)	(0.0)	(5.5)	(0.0)	(0.0)	(0.0)	(4.0)	(0.0)	(0:0)
	GOSHAINGANJ((UTTARGAON(U)BAJGAHANI(Bg) Mixd Alluvia	1		í	5.225 (0	ō.	0	0	0	0	0	13,310	0	0	0	0.	0	0	<u> </u>		2,533	0	÷	3,452	0	0	2,169	0	0	0	926	0	0
	I(Bg)	(%) A	(0.1)	(6 0)	(3.6)	(0.0)	60.00	(0 0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.6)	(5.6)
	AJGAHAN		3,821	2,363	1,458	0	0	0	Ö	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0.	0	0.	0	0	1.684	1.684
	N(UJB,	(%) A	(3.1)	(3.2)	(2.2)	(3.5)	(2.2)	(1.5)	(3.5)	(5.0)	(3.1)	(2.2)	(4.7)	(6.4)	(2:0)	(0.1)	(0.8)	(3.5)	((0.9)	(5.4)	(3.4)	((0'9)	(4.3)	(6.9)	(2.1)	(4.5)	(3.1)	(0.0)	(1 5)	(4.4)	(0.0)	(2.1)	(0.0)	(0.0)
	TARGAO	Area(ha)	11,224	168'1	168	1,185	858	668	1,493	1,824	1.152	1,042	28,313	2,156	1.531	2,427	3,394	1,016	1,874	1.773	1,074	1,853	1,621	2,320	1,726	1.327	114	10	1,585	1,380	ö	486	0	
nes	NIGUN	(%) AI	(2.8)	(5.0)	(1.2)	(2.2)	(0.5)	(5.4)	(1.3)	(3.4)	(4,6)	(0.5)	(3.4)	(4.3)	(6.9)	(2.2)	(2.8)	(0.5)	(4 4)	(3.4)	(2.6)	(2.2)	(2.7)	(2.0)	(3.7)	(4.1)	(1.7)	(3.2)	(2.4)	(0:5)	(2.2)	(0.6)	(0.0)	(0.0)
Name of Soll Series	SHAING	Area(ha)	<u> </u>	I	486	745	1,156	L	Ŀ	<u> </u>	1,709	2.369	20,205		i	763	L_	1,452	1,374	1,116	821	1,606	1,018	673	1,252	1,209	423	526	746	1.568	613	694	0.	ô
allie o		(%) AI	(1 0)	(0.4)	(3.3)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0:0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0:0)	. (0:0)	(0.0)	(0.0)	(28.1)	(28.1)
ζ,	KASTURI(Ks)	Area(ha)	3,700	2,363	1,337	0	0	0	0	•. 0	0 :	0	0	0	0	0, 7	0	0	0	0	0	0	t o	0	· 0 [·	0	0	0	0	0	0	0.		8,451
			h~	(0.0)	(0.0)	(0.6)	(4.0)	(3.6)	(4.0)	(4.1)	(3.6)	(4.0)	(2:0)	(5.0)	(3.0)	(0.0)	(1.5)	(2.3)	(2.7)	((2,0))	(3.3)	(0.4)	(1.3)	10.5)	(4.8)	(2:0)	(10.5)	(2:0)	(4.9)	(11.5)	(10.8)	(8.8)	(0.0)	(0.0)
	POKHRA(PY)	Area(ha)	10,035	0	0	1,016	141	1,044	1,706	1,498	1,337	1,895	30,017	1,684	616	669	969	928	EFS	657	1.042	I		3,531 (1.624			1,446	1.522	3,607	3,007	2.036	0	0
			(2.4)	(1.4)	(0.1)	(0.2)	(1.1)	(2.5)	(2.8)	(0.5)	(5.0)		Ľ.,	(2.1)	(1.3)	(2.8)	(4.2)	(2:0)	(8.1)	(1.6)	(0.1)	(3.1)	(4.0)	((0.1)	(2:0)	(3.4)	(2.6)	(6'7)	(4.4)	(2.8)	(2.8)	(3.6)	(22.0)	(22.0)
	UTELWA(UI)		8,720 ([١.	677	424 (725		1,095				<u> </u>	398		1		}	525	{ `	1	1,508			1,002		1.417	1,367			ļi	6,616 (6,616 (
	-		(4.7)	(2.0)	(1.6)	4.0)	(5.0)	(5.4)	9.5)	3.6)	4.0)			(4,4)	(3,0)	3.3)	(2:0)	8.0)	(0.0)	(4.2)	(5.0)	3.0)	(5.5)	(0')	(4.8)	(0.7)	(2.2)	(9.6)	(8.6)	(4.8)	(6.4)	(6.1)	(0.0)	(0.0)
	HASANPUR(Hn			1.182 (<u></u>	1,354 (1.927 (1,566	1	1.314 (_	· · ·		612 (<u> </u>			1,379	1 i		2,074		1,624	_			2,672	1,505	1,782	1,412	0	0
Geographical	Area (ha) HA		364,632		40,504	33,852	38,535	28,999	42,653	36,488	37,148			33,685	30,621	34,673	42,427	29,035	31,235	32,827	31,575	30,891	37,703	33,628	33,839	29,485	24,864	28,916	31,069	31,362	27,842	23,140	30,074	30,074
Block				501 Buua	Phulbehar	503 Bankaganj	Lakhimpur	505 Behjam	506 Muhamdi	507 Kumbha	508 Mitauli	509 Paragawan		601 Pihani	602 Todarpur	603 Shahabad	604 Bharkahani	605 Hariyawan	606 Tadiyawan	607 Bawan	608 Sandi	609 Harparpur	610 Ahiraun	611 Sursa	612 Bilgram	613 Kothawan	614 Kachhona	615 Madhoganj	616 Bharawan	617 Sandila	618 Bendar	619 Malawan		701 Nindura
- -				501	502	203	505	505	505	507	508	505		109	602	603	604	605	909	609	809	609	919	611	612	613	-614	615	616	617	618	Ľ.		101
No. District			5 Khen	.	:						. 		6 Hardoi								e.									ŀ			7 Barabankı	
ŝ													Ĺ						_	è.		, .										:		

Table C.1 Soil Characteristics of the Sharda Canal Command Area (5/8)

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ñ 2	District	Block	Geographical								Name	Name of Soil Series			ſ				1		ĺ		
			Area (ha)	LAKHPER	A(LP)	LAKHPERA(LP) GANGAULI(GI)		TANDA(Ta)	į	AMETHI(Am)		KAKARI(Kr	į	TAMORIA(Tm)		SITAULI(St)	į	SAIDAPUR(Sd)		GARI(Gr)	· · ·	MERAURA(Mr)	ACME
-				<.	(95) (95)		_	Area(ha)	(q.	Area(na)	(9%)	Ę,	(9%)	Arca(ha)		Area(ha)	/ (%)	Area(ha).	4 (%)	Area(ha)	(%) (%)	Area(ha)	(%) (%)
8	8 Sitzpur		567,164	12,338	(2.2)	71,566	Ξ	29,156	(5.1)	16,184	(2.9)	64,727	(11.4)	0	(0.0)	54,421	(9.6)	96,941	(17.1)	15,222	(2.7)	38,413	(6.8)
	80	801 Behta	36,742	2,866	(2.8)	5,805	Ξ	735	(2.0)	1,249	(3.4)	4,152	(11.3)	0	(0.0)	2,278	(6.2)	3, 233	(8.8)	0	(0.0)	2,498	(68)
L	807	802 Hargaon	27,603	0	(0.0)	2,401	(8.7)	1,159	(4.2)	1,380	(5.0)	2,816	(10.2)	0	(0.0)	2,236	(8.1)	5,852	(21.2)	0	(0.0)	4,803	(17.4)
	800	803 Alia	26,713	0	(0.0)	1,816	(6.8)	935	(3.5)	886	(3.7)	3,393	(12.7)	0	(0 O)	1,843	(6:9)	5,743	(21.5)	0	(0 0) (0 0)	2.778	(10.4)
L	ŝ	804 Maholi	23,277	0	(0:0)	2,118	(1.6)	-	(0.1)	582	(2.5)	3,212	(13.8)	0	(0:0)	2,444	(5.01)	3,003	(12.9)	978	(4.2)	1,699	(5.7)
l	Ś	805 Pisawan	39,780	0	(0:0)	7.797	(19.6)	2,228	_	0	(0.0)	5 132	(12.9)	0	(0.0)	5,808	(14.6)	6,683	(16.8)	2,347	(5.9)	0	
L	80 80	806 Reosa	43,868	3,685	(8.4)	8 949	(20.4)	3,904		0	(0.0)	1,799	(4.1)	0	(0.0)	2,851	(6.5)	5.791	(13.2)	0	(0.0)	3,904	(8.9)
<u> </u>	.80	807 Sakran	30,764	0	(0.0)	3,015	(8.6)	1.907		1,384	(4.5)		(11.6)	0	6 9	2,461	(8.0)	6,430	(20.9)	0	(0:0) 0	3,261	(10.6)
L	808	808 Laharpur	22,546	0	(0.0)	1,826	(8.1)	2,029	(0:6)	721	(3.2)	2,277	(101)	0	(0 [.] 0)	2,300	(10.2)	3,540	(15.7)	0	(ô.0)	1,623	(7: 2)
	80	809 Parsendi	27,907	0	(0.0)	1,842	(6.6)	1,144	(4.1)	558	(2.0)	3,405	(12.2)	0	(0.0)	2,679	(9.6)	4,940		2,009	(7:7)	3,265	615
<u> </u>	· · 81(810 Khairabad	23,526	0	(0 [.] 0)	2,823	(12.0)	1,200	(5,1)	706	(0°E)	3,999	(07.0)	0	(0 [.] 0)	2.164	(5.2)	5,246	(22.3)	800	(3.4)	776	(3.3)
L	18	811 Misrikh	30,430	0	(0:0)	3.013 (9.9)	(6.6)	1.308	(4.3)	1,674	(5.5)	4,717	(15.5)	0	(0.0)	3:956	(13.0)	5.082	(16.7)	1,461	(4.8)	2,800	(6.2)
L	3I 2 18	812 Rampur Math	35,116	2,528	(7.2)	6,356	(18.1)	1 756	(0.2)	386	(1.1)	1,405	(4.0)	0	(0.0)	1,721	(4.9)	4.249	(121)	0	(0 0)	3,828	(6.01)
L	315 815	813 Mahmudabad	23,431	0	(0.0)	1,804	1.7	1,172	(0.5)	890	(3.8)		(101)	0	(0.0) (0.0)	2,624	(11.2)	4,335	(18.5)	0	(0:0)	2,273	ڻ
_	8l<	814 Bisawan	35,421	3,259	(5.2)	6,730	(0.61)	2,054	(5.8)	1,913	(5.4)	2,373	(6.7)	0	(0.0)	3,082	(8.7)	5,207	(14.7)	0	(0.0)	2,338	(6.6)
L	315	815 Machharehta	26,739	0	(0:0)	5,562	(20.8)	(,845	(6.9)	615	(2.3)	4,145	(15.5)	0	(0.0)	2,032	(0.6)	4,760	(17.8)	856	(3.2)	668	(2.5)
Ł	816	816 Pahla	27,532		(0.0)	1,790	(6.5)	881	(3.2)	1.211	(4,4)	4,570	(16.6)	0	(0.0)	2,808	(10.2)	6, 195	(22.5)	1,900	(6:9)	0	(0.0)
<u> </u>	81.	817 Kasmanda	27,468	0	(0.0)	2,774	(10.1)	1,318	(4.8)	824	(3.0)	3,846	(14.0)	0	(0.0)	3,626	(13.2)	4,697	(1.7.1)	1,373	(5.0)	0	0)
	318	818 Gondlamau	32,718	0	(0.0)	2,356	(7.2)	1,341	(4.1)	585	(8'1)	3,664	(11.2)	0	(0:0)	3,926	(12.0)	7,787	(23.8)	2,552	(2.8)	868'1	(5.8)
L	815	819 Sidhauli	25,583	0	(0:0)	2,789	(6.01)	819			(2.0)	3,889	(15.2)	0	(0.0)	3,582	(14.0)	4,170	(16.3)	947	(J. 7)	0	9
2	9 Lucknow		215,840	0	(0.0)	39,388	(18.2)	10,203	(4.7)	1,462	(0.7)	11.536	(5.3)	4,584	(2.1)	31,139	(14.4)	32,186	(14.9)	18,436	(8.5)	1,490	
L	8	901 Bakshika	37,782	0	(0.0)	3,703	(8.6)	831	(2.2)	0	(0.0)	5,705	(1.51)	0	(0.0)	2'99'5	(15.0)	4,534	(12.0)	3,060	(8.1)	0	(0.0)
I	8	902 Mai	25,382	0	(0.0)	3,401	(13.4)	1,574	(6.2)	0	(0:0)	1,066	(4.2)	0	(0.0)	5,838	(53.0)	5,330	(0.12)	1,828	(2:2)	0	(0 [.] 0)
L	96	903 Malihabad	21,092	0	(0:0)	3,375	(16.0)	1,708	(8.1)	0	(0.0)	654	(3.1)	0	(0.0)	3,923	(18.6)	4,640	(22.0)	801	(3.8)	0	(0.0)
L	ģ	904 Kakon	22,594	0	(0.0)	3,276	(14.5)	1,446	(6.4)	0	(0:0)	1'604	(1-7)	0	(0.0)	3,163	(14.0)	4, 745	(21.0)	1,243	(2.5)	0	(0.0)
Ļ	8	905 Sarojini Nagar	38,435	0	(0,0)	5,035	Ξ		(3.2)	769	(2.0)	2,229	(5.8)	1,115	(2.9)	5,266	(13.7)	3,844	(10.0)	6,765	(17.6)	0	(0.0)
<u> </u>	Ъ.	906 Mohalalagani	35,903	0	(0.0)	14,361	(40.0)	1,508	(4.2)	0	(0:0)	0	(0:0)	2,118	(6:5)	3, 124	(8.7)	2,406	(6.7)	4,739	(13.2)	0	(0.0)
I	8	907 Gosaiganji	34,652	0	(0.0)	6,237	(0.81)	1,906	(5.5)	669	(2:0)	277	(0.8)	1351	(6.5)	4,158	(12.0)	6,688	(£61)	0	(0:0)	1,490	(5.43)

Table C.1 Soil Characteristics of the Sharda Canal Command Area (6/8)

			, inc.	2	-		2							-		~				:				-	حما	: 	<u> </u>			-
	STIC	(%)	(10.1)	(13.9)	(10.0)	(8.3)	(8.9)	(1.1)	(10.6)	(9.1)	(10.9)	0.6)	(2.8)	(7.8)	(18.6)	(12.0)	(11,4)	(7.2)	(11.0)	(10.2)	(6:9)	(6:6)	(8.1	(9.2)	(0.6)	(7.8	(9.8)	(1.7)	(7.3	(7.4)
	Miscellaneous	Area(ha)	57,284	5,107	2,760	2,217	2,072	2,824	4,650	2,800	2,458	2.512	1,835	2,374	6,532	2,812	4,038	1.925	3,029	2,802	2,258	2,533	17 409	3.476	1,929	1.645	2,214	2,959	2,621	2.564
		(%)	(1.8)	(8.8)	(0.0)	(0.0)	(0.0)	(0.0)	(1.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	((0.1)	(0.0)	(3.0)	(2.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(4-2)
	Aixd Alluvî	Area(ha)	10,351	5,233	0	0	0	0	3,378	0	0	0	0	0	2,142	0	1,063	335	0	0	0	0	1.455	0	0	0	0	0	0	1,455-{
	VI(Bg)]	(%)	(8.1)	(3.1)	(3.2)	(5.0)	(4.8)	(0 0)	(2.1)	(3.3)	(5.5)	(0.0)	(0.0)	(0.0)	(4.0)	(3.3)	(0.0)	(0.0)	(0.0)	(0:0)	(0:0)	(3.2)	(0.4)	(2.1)	(0.0)	(0:0)	(0.0)	(0.0)	(0.0)	(0.0)
	AJGAHAI	Area(ha)	10,281	112	883	1,336	1117 F	0	921	1,015	1,240) O	0	0	1 405	773	0	0.	0.	0	0	818	564	793	0	0	0	0	0	0
	DNC	d (0%)	(0.1)	(0.0)	(0.0)	(0.0)	(3.3)	(2.4)	(0.0)	(0.0)	(0.0)	(0.0)	(1 8)	(1.7)	(1.1)	(1.0)	(2:0)	(0.0)	(0.0)	(3.1)	(2.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0:0)
	GOSHAINGANI(UTTARGAON(UBAJGAHANI(Bg) Mixd Alluvia	Area(ha)	5.531	0	0	0	768	955	0	0	0	0	423	517	386	234	204	0	0	852	(89)	}0	0	0	0	0	0	0	0	0
eries	ANJ(((%)	(5.9)	(2.2)	(1.9)	(3.6)	(1.8)	(1,5)	(1.1)	(2.1)	(3.7)	(4.2)	(2.2)	(3.5)	(3:0)	(3.0)	(1.7)	(4.0)	(3.6)	(4.2)	(5.0)	(4.1)	(3.5)	(3.6)	(2.7)	(4.3)	(4.0)	(1.5)	(1.7)	(3.1)
Name of Soil Series	JOSHAIN	Area(ha)	16.571	808	524	. %2	419	1.233	483	646	834	1 172	518	1.065	702	203	602	1,070	166	131.1	1,636	1 049	10512	1,360	685	106	84	1.960	610-	1 074
Vame		(%)	(2.4)	(4.2)	(6.2)	(1.7)	(0:0)	(0:0)	(2.8)	(6.5)	(0.0)	- (0.0)	(0.0)	(0;0)	6.2)	(0.0)	(3.0)	(0.0)	(0,0)	(0 0)	(0 0)	(2.7)	(0.1)	(5.9)	(0:0)	(0.0)	(0.0)	(0:0)	(0.0)	(0.0)
	KASTURI(Ks)	Arca(ha)	13,815	- E	11711	2.057	0	0	1.228	1.815	1,353	0	0	0	8 7	1.406	1,063	0	0	0	0	691	2,229	2.229	0	0	0 .	0	0	0
		(%)	(6.1)	(0:0)	(0.0)	(0.0)	(5.5)	(8.3)	(0.0)	(0'0)	(0.0)	(9.6)	(5.0)	(1.5)	(0.0)	(0.0)	(0,0)	(5.0)	(4:0)	(2.8)	(3.8)	(0.0)	(7.7)	(0.0)	(0.5)	(2.8)	(3.3)	(6.1)	(3.2)	(6.7)
	POKHRA(P)	Arca(ha)	106301	0	0	0	1,280	1.313	0	0	0	1.284	1.176	1.126	0	ō	0	1,337	1.101	769	1,243	+0 • •	7,913	0	761	291	746	2,345	1,149	2 322
		(%)	(3.8)	(2.5)	(1:7)	(6.5)	(4.9)	(1.8)	(1.6)	(2.6)	(4.2)	(2.1)	(3.2)	(1.2)	(0:0)	(3.2)	(0.0)	(3.1)	(3.1)	(4.8)	(0.6)	(8.8)	(5.0)	(12.1)	(2:2)	· (3.7)	(4.2)	(4.5)	(3.S)	(0;0)
	UTELWA(UI)	Area(ha)	15,939	616	469	1 149	1,141	716	702	800	247	1,423	753	365	0	750	0	101	853	1318	982	2 251	10715	4,572	1,320	180	949	1,730	1,364	0
		(%) (%)	(6'7)	(4.2)	(2.2)	(5.6)	(4.4)	(6.9)	(3.7)	(5.4)	(6:2)	(0.9)	(4.7)	(3.2)	(2.2)	(5.5)	(2.8)	(3.7)	(8.0)	(1.7)	(5.5)	(6.0)	(8.1)	(4,9)	(6.5)	(8.6)	(10.2)	(8.3)	(5.3)	(12.8)
	HASANPUR(Hn)	Area(na)	27,546	1,543	607	1,496		2,745	1,623	1 661	1:398	1 674	1 106	974	773	1 289	565		2.203	2.115	664.1	1,535	17.401	1851	1,650			3 190		}
Geographical	Area (ha)		267,164	36,742	27,603	26,713	23,277	39,780	43,868	30,764	22,546	27,907	23,526	30,430	35,116	23,431	35,421	26,739	27,532	27,468	32,718	25,583	215,840	37,782	285,382	21,092	22,594	38,435	35,903	34,652
Block				801 Behta	802 Hargaon	803 Alia	804 Maholi	805 Pisawan	806 Reosa	807 Sakran	808 Laharpur	809 Parsendi	810 Khairabad	811 Misrikh	812 Rampur Math	813 Mahmudabad	814 Bisawan	815 Machharehta	816 Pahla	817 Kasmanda	818 Gondlamau	819 Sidhauli		901 Bakshika	902[Mal	Malthabad	904 Kakori	905 Sarojini Nagar	906 Mohalalagani	907 Gosaiganji
District			8 Sitapur	108	803	803	804	805	808	807	808	608	810	811	812	813	814	815	816	817	818	819	9 Lucknow	106	902	503	904	905	906	106
No.			8 Si	l	LJ	L.							L	L.	Ļ		L	Ш	Ľ		لبا	Ļ	116 9	L	L		L		Ĺ	L.
- 5 -			L			1.0mm				-	÷	-			ning and		_	-					-				1		-	

Table C.1 Soil Characteristics of the Sharda Canal Command Area (7/8)

No. District		Block	Geographical								Name	Name of Soil Series	Series									
. <u> </u>			Area (ha)	LAKHPER	(JT) V	AKHPERA(LP) GANGAULI(GI)	T(GI)	TANDA(Tn)		AMETHI(Am)		KAKARI(Kr)		TAMORIA(Tm)		SITAULI(St)		SAIDAPUR(Sd)		GARI(Gr)	Đ	MERAURA(Mr)
				Area(ha)	(%)	Area(ha)	(%)	Area(ha)	(%) A	Area(ha)	(%)	Area(ha)	(%) A	Area(ha)	(%) A	Area(ha)	(%) A	Area(ha)	(%) Are	Area(na) ('	(%) Area(ha)	(ha)
101	10 Unnao		458,519	9,204		70,283		27,068	(5.9)	0	(0'0)	15,791	(3.4)	0	(0.0)	56,312	(12.3)	69,601 ((15.2)	57,223 (1	(12.5)	0
ل ــــا	1001	1001 Auras	25,701	0	(0.0)	3,084	(12.0)	1,696	(9'9)	0	(0'0)	540	(2.1)	0	(0.0)	4,241	(16.5)	5,140	(20.0)	1,696	(6.6)	0
	1002	1002 Ganjmuradap	23,428	656	(2.8)	4,920	(0.12)	2,109	(0.0)	0	(0.0)	2 8	(4.2)	0	(0.0)	2,343	(10.0)	3,631	(15.5)	1,781	(7.6)	0
!	1003	1003 Bangarmau	27,990	644	(23)	7, 137	(2.5.5)	1,679	((0.9)	0	(0.0)	156	(2.7)	¢	(0,0)	2,295	(8.2)	4478	(16.0)	3,499 ()	(12.5)	0
	1004	1004 Patchapur	27,996	1,064	(3.8)	5,739.	(20.5)	1,988	(1.1)	0	(0.0)	88	(17)	0	(0:0)	3,527	(12.6)	4.227	(15.1)	3.779 0	(3.5)	0
لـــا	1005	1005 Hasanganji	32,177	0	(0:0)	3,153	(8.6)	1,866	(5.8)	0	(0.0)	1,448	(4.5)	0	(0.0)	5.052	(15.7)	5,824	(18.1)	6,114 ()	(0.61)	0
	1006	1006 Mayaganji	27,331	0	(0:0)	3,690	(13.5)	1,804	(6.6)	0	(0:0)	629	(23)	0	(0.0)	3.526	(12.9)	4,537	(16.6)	3,608 ()	(13.2)	0
	1007	1007 Safipur	25,683	1,567	((0.1)	5,419	(21.1)	848	(3.3)	0	(0 0)	1,156	(4.5)	0	00)	1 669	(6.5)	3,159	(123)	I,618	(6.3)	0
ليبيا	1008	1008 Nawabganji	27,803	0	(0.0)	3,809 (13	(13.7)	2,141	(7.7)	0	(0.0)	13	(j.	0	(0.0)	4,866	(17.5)	3.114	(112)	1.501	(5.4)	0
احمما	1009	1009 Bichhiya	33,483	0	(0.0)	3.784	(11.3)	2,344	(0:0)	0	(0.0)	1,607	(4.8)	0	(0:0)	5.022	(15.0)	4.755	(14.2)	7,232 (0	(31.6)	0
	1010	1010 Sikandarpur Sir	33,242	1,496	(4.5)	6,449	(19.4)	1,429	(4.3)	0	(0.0)	1.03.1	(3.1)	0	(0.0)	3,690	(11.1)	3,258	(8.6)	2,393	(1.2)	0
لسحما	1011	1011 Sikandarpurkha	34,889	1,779	(1:5)	7,048	(202)	733	(2.1)	0	(0.0)	558	(1.6)	Ģ	· (0'0)	2.861	(8.2)	5,233	(15.0)	3,070-	(8.8)	0
	1012	1012 Asoha	28,893	0	(0'0)	1,907		1.734	(0.9)	0	(0:0)	1,474	(2.1)	0	(0.0)	4.623	(16.0)	4,247	(14.7)	5,836 (3	(20.2)	0
	1013	1013 Purwa	23,527	0.	(0.0)	2,423	(10.3)	1,270	(5.4)	0	(0:0)	329	(1.4)	0	(0.0)	3.082	(13.1)	3,647	(15.5)	5,388 (2	(22.9)	0
	1014	1014 Hilauli	33,881	0	(0.0)	2,473	(5.7)	1,050	(1.6)	0	(0:0)	1,016	(3.0)	0	(0.0)	4,743	(14.0)	5,523	(16.3)	6 239 (1	(19.3)	0
I	1015	1015 Bighapur	25,556	894	(G.S)	4,345	Ċ	2,249	(8.8)	0	(0:0)	1,687	(6.6)	0	(0.0)	2,428	(5.6)	5 137	(20.1)	1,687	(6.6)	0
	1016	1016 Sumerpur	26,939	1,104	(4,1)	4,903	(18.2)	2,128	(6:1)	0	(0.0)	1,266	(4.7)	0	(0.0)	2,344	(8.7)	3,691	(13.7)	1,482	(5.5)	0
111	I l Raebareli		149,762	4,025	(2.7)	29,350	(9:61)	12,873	(8.6)	0	(0:0)	8,200	(2:2)	0	(0:0)	24,952	(16.7)	15,972	(10.7)	880'6	(0.1)	0
L	1011	1101 Sataon	25,550	767	(3.0)	5,493	(21.5)	1,840	(7.2)	0	(0:0)	1,686	(9:9)	0	(0.0)	4.727	(18.5)	3,219	(12.6)	1,661	(6.5)	0
E	1102	1102 Kheero	23,204	0	(0.0)	3,388	(14.6)	2,390	(10,3)	0	(0:0)	1,810	(1.8)	0	(0.0)	4.873	(0.12)	2,668	(11.5)	1.415	((2.1)	0
لسب	1103	1103 Lalganj	22,276	468	(2.1)	4,388	(19.7)	2,049	(9.2)	0	(0.0)	1,381	(6.2)	0	(0.0)	3.676	(16.5)	3,074	(13.8)	1.671	(7.5)	0
L	1104	1104 Sareni	25,511	1,276	(5.0)	5,357	(0.12)	1,862	(1.3)	0	(0:0) (0)	5 8	(5.6)	0	(0.0)	2,628	(10.3)	2,092	(8.2)	1.556	((0.1)	0
	1105	1 105 Dalmau	26,476	874	(3.3)	5,428	(20.5)	2,806	(10.6)	0	(0.0)	1,536	(5.8)	0	(0.0)	4,316	(16.3)	2,939	(111)	2,250	(8.5)	0
	1106	1106 Jagatpur	26,745	642	(2.4)	5,296	(19.8)	1,926	(7.2)	0	(0.0)	1,123	(4.2)	0	(0.0)	4,734	(17.7)	1,979	(7.4)	535	(2.0)	0
ſ	Total		1,568,982	34,361	(2.2)	226,610 [14	(14.4)	84,744	(5.4)	19,243	(1.2)	109,478	(0'L)	6,448	(0.4)	173,443	(1.1.1)	220,596	(14.1)	112,487	(7.2) 4	46,662

Table C.1 Soil Characteristics of the Sharda Canal Command Area (8/8)

													;							:		ہ : نسجا					
	s	æ	(8.4)	(1	(9.9)	(8.0)	(7.5)	(8.3)	(0.6)	(8.3)	(0.6)	(14)	(12.2)	(23)	(8.2)	(8.7)	(7.6)	(1.7)	(11.4)	(6.8)	(8.4)	(8.5)	(6.6)	(8.4)	(5.3)	(113)	(5.3)
	Miscellaneous	Area(ha)	38,662	1,902	1.546	2,239	2,100	2,671	2,460	2,132	2.502	2,478	4,056	2.547	2,369	2,047	2,575	1,968	3,07/1	13,288	2,146	1,972	2,072	2,143	1,933	3.022	273,466
		(%)	(4.1)	(0.0)	(2.7)	(8.1)	(8.6)	00	(0.0)	(13.2)	(0.0)	(0.0)	(8.5)	(10.1)	(0.0)	(0.0)	(0.0)	(4.2)	(5.7)	(3.6)	(0.0)	(0.0)	(5.5)	(6.2)	(5.0)	(48)	(12.2)
	fixd Alluvia	Area(ha)	18,710	0	1,687	2,267	2,408	0	0	3,390	: 0	0	2,826	3,524	0	0	0	1.073	1.536	5,414	0	0	1.225	1,582	1.324	1.284	627,497
	I(Bg) V	(%) A	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0 0)	(0.0)	: (0:0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0	(0.0)	(8.6)
	GOSHAINGANJ(UTTARGAON(U BAJGAHANI (Bg) Mixd Alluvial	Area(ha)	0	ő ,	0	0	0	0	0	0	ō	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	439,808
	ak ONC	(%) A	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0	(0 0)	(0.0)	(0.0)	(0 0)	(0:0)	(0.0)	(0.0)	(0.0)	(C C)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	(0:0)	(1 0)
	TARGAG	Area(ha)	0	0	0	0	0	0	0	0	0	Ó.	0	0	0	0	0.	0	0	256	256	0	0	0	0	0	4,840
ries	10 DIN	(%) Are	(0.7)	(0.6)	(44)	(2.7)	(3.5)	(5.1)	(0.01)	3.7)	(8.6)	(8.2)	(3.0)	(7.5)	(6.1)	(11.6)	(10.1)	(4 0)	(6.8)	(6.5)	(3.5)	(2.0)	(4.8)	(6.1)	(3.2)	(5.9)	(83)
of Soil Series	SHAINGA	Arca(ha) (31.895	2,313	1:031		086		2,733 ((2,725	2,746	166	2,617	<u>ــــــــــــــــــــــــــــــــــــ</u>	2,729	3,422 (1.022	1,832	6409	588 888	1 24-	1,069	1 556	1.448	1.578	425,668
Name o		(%) Ar	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0.0)	(0.0)	(0:0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0 0)	(0:0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.2)
Z	KASTURI(Ks)	Area(ha) (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.1	Ó	0	0	0	0	114,606
		(%) A1	(9.6)	(6.3)	(2.2)	(3.5)	(1.6)	(1.6)	(2.8)	(6.4)	(2.5)	(4.4)	(1.5)	(5.9)	(0.4)	(6.5)	(6.2)	(2.2)	(3.3)	(3.5)	(3.8)	(5.5)	(2.4)	(0.6)	(4.1)	(6.1)	(q (†
	POKHRA(P1)	Area(ha) (16,557	1,619	515	986 1	844 8		765	1,644	695	1,473	1.031	1,012	1.156	1.153	2,101	562	- 688	8,276	971	1.276	535	2 296	1 086	2.113	207,523
		(%) Ar		(5.1)	(0 E)	(5.1)	(0.1)	(3.8)	(8.8)	(3.3)	(† †)	(3.2)	(2.6)	(5.1)	(6.8)	(0.2)	(5.4)	(4.2)	(0.5)	(3 4)	((2.3)	(6 4)	(0:0)	(4.5)	(2.3)	(4.7)	(12.9)
	UTELWA(Ut)		_	1,928			280	_	2,405	-	1,223	1.071		2,617		471	1,830	1,073		5,087	<u>588</u>	1,485	0	1 148	609	1,257	661,480 (
		Ł	(2.8)	((0))	(6.5)	(3.0)	(3.1)	(6.5)	(4.3)	(5.0)	(16.2)	(2.9)	(8.2)	3.7)	(3.3)	(4.2)	(7.7)	(5.6)	(0.7)	(4.4)	(5.1)	(63)	(0.6)	(53)	(0.2)	(4.7)	(3.4) 6
	HASANPUR(Hn)	1		Ĭ.		_	L		1,175 (4,504 (1		2,726 (÷		3886	2,609 (1.431 (e <i>'572</i> (1 303 (1,462 (668	L	230 (Į	175,109 (
Geographical	Area (ha) HA	۷		25,701	23,428	27,990	27,996	32,177	27,331	25,683	27,803	33,483	33,242	34,889	28,893	23,527	33,881	25,556	26,939	149,762	25,550	23,204	22,276	25,511	26,476	<u> </u>	5,127,352 1
Block	<			1001 Auras	1002 Ganjmuradap	1003 Bangarmau	1004 Patchapur	1005 Hasanganji	1006 Mayaganji	1007 Satipur	Integration 1008	1009 Bichhya	1010 Sikandarpur Sir	1011 Sikandarpurkha	1012 Asoha	1013 Purwa	1014 Hilauli	1015 Bighapur	1016 Sumerpur		1101 Sataon	1102 Kheero	1103 Laiganj	1104 Sareni	1105 Dalmau	1106 Jagatpur	
				1001	1002	1003	1004	1005	1006	1007	1008	1005	1010	101	1012	1013	1014	1015	1016	Raebareli	1101	1102	1103	1104	1105	1106	٦ ٦
No. District			10 Unnao									Ŀ	н. Н			Ļ				l l Rael			L				Tota
ő			Ĺ						<u>ب</u> خب							~			-		_	••	_		_	_	Ц

a na a si	Temperat	ure (C)		Relati	ve Humi	dity (%)				innaland senative indi	
Month	max	min	mean	8:30 1/	17:30 2/	mean	W.S. 3/	ETpan 4/	ET0 5/	S.Hrs 6/	Rainfall 7
Jan	22.6	7.8	15.2	85.2	59.2	72,2	1.4	1.6	2.5	7.7	16.2
Feb	26.1	10.7	18,4	70.2	45.2	57.7	2,0	2,8	3.9	8.7	18.
Mar	32,0	11.7	21.9	59.6	32.9	46,3	2.7	5.0	5.6	8.7	8.4
Apr	38.2	20.4	29.3	38.3	21.8	30.1	3.5	5.0	7.8	8.9	7.*
May	39.4	24.8	32.1	47.6	28.4	38.0	3.9	7.4	8.6	8.6	13.9
Jun	38.4	26.9	32.7	60.1	42.8	51.5	3,3	7.4	7.7	7.4	86.8
Jul	33.7	26.3	30.0	83.9	73.3	78.6	2.5	3.7	4.8	4.3	295.4
Aug	33.8	25.9	29.9	82.4	71.8	77.1	2.9	3.7	5.2	5.7	271.8
Sep	33.6	24.6	29.1	82.6	71.8	77.2	2.1	3.5	4.6	5.7	194.5
Oct	32.6	19.1	25.9	75.8	66.6	71.2	1.0	2.7	4.2	8.4	34.6
Nov	29.4	12.7	21.1	73.8	63.0	68.4	0.6	1.9	3.0	8.2	5.2
Dec	24.1	9.0	16.6	86.8	68.4	77.6	0.9	1.5	2.0	6.2	6.3
Annual	32.0	18.3	25.2	70.5	53.8	62.1	2.2	3.9	5.0	7.4	959.3

Table C.2 (1/4) Climate in the Sharda Canal Command Area -Lucknow

Remarks: 1/ Measured at 8:30

2/ Measured at 17:30

3/ Wind speed in meter/sec

4/ Pan Evaporation in mm5/ Evapotranspiration estimated by Modified Penman Method

6/ Sunshine hours in hours

7/ Normal Rainfall in mm Aquired from India Meteorological Department, UP

Source :

Table C.2 (2/4)

Climate in the Sharda Canal Command Area -Shahjahanpur

	Tempera	lure (C)		Relati	ve Humi	idity (%)				
Month	max	min	mean	8:30 1/	17:30 2/	mean	W.S. 3/	Oktas 4/	ET0 5/	Rainfall 6/
Jan	21.9	7.6	14.8	84.4	63.8	74.1	1.6	5.3	1.8	16.5
Feb	25.4	9.3	17.4	75.7	50.2	63.0	2.6	4.1	2.8	22.2
Маг	30.6	14.3	22.5	64.3	39.4	51.9	3.7	5.6	3.7	11.9
Apr	36.8	19.8	28.3	47.7	29.2	38.5	5.7	4.5	5.7	8.1
May	38.5	23.7	31.1	51.4	33.6	42.5	5.5	6.2	5.5	17.2
Jun	27.3	26.3	26.8	63.7	46.9	55.3	4.5	6.2	5.3	119.7
Jul	33.3	25.4	29.4	83.0	71.7	77.4	3.2	6.0	4.5	300.0
Aug	33.1	25.5	29.3	83.1	73.6	78.4	3.0	5.7	4.4	284.0
Sep	32.6	24.0	28.3	83.3	72.7	78.0	2.5	6.3	3.6	127.0
Oct	31.6	18.3	25.0	77.8	64.2	71.0	1.1	4.3	3.4	41.0
Nov	28.5	11.7	20.1	75.1	62.9	69.0	0.6	3.1	2.5	3.6
Dec	23,5	8.9	16.2	84.1	71.2	77.7	1.5	5.6	1.7	8.2
Annual	30.3	17.9	24.1	72.8	56.6	64.7	3.0	5.2	3.7	959.4

Remarks: 1/ Measured at 8:30

2/ Measured at 17:30

3/ Wind speed in meter/sec

4/ Oktas (Cloud cover expressed by 8 degrees. cx. full cover -> 8)

5/ Evapotranspiration estimated by Modified Penman Method

6/ Normal rainfall in mm

Source :

Aquired from India Meteorological Department, UP

and the second second second second	Temperati	ire (C)		Relati	ve Humi	dity (%)			:	
Month	max	min	mean	8:30 1/	17:30 2/	mean	W.S. 3/	Oktas 4/	ET0 5/	Rainfall 6
Jan	21.4	8.6	15.0	86.0	63.3	74.7	0.2	3.6	1.9	16.0
Feb	25.1	11.5	18.3	79.9	54.9	67.4	0.3	4.3	2.8	16.
Mar	31.0	15.4	23.2	67.1	39.8	53.5	0.4	2.3	4.2	9.
Apr	37.3	21.8	29.6	44.1	30.2	37.2	0.5	3.2	5.7	6.
May	38.8	25.2	32.0	51.4	32.6	42.0	0.4	4.0	6.1	13.
Jun	37.9	27.4	32.7	60.0	44.7	52.4	0.4	.4.0	6,4	83.
วันโ	33.6	26.0	29.8	81.9	71.2	76.6	0.4	4.8	5.1	271.
Aug	33.5	26.2	29.9	82.7	72.5	77.6	0.4	4.4	4.9	249.
Sep	33.2	25.2	29.2	80.9	68.8	74.9	0.3	4.6	4.3	167.
Oct	32.3	20.3	26.3	75.0	59.9	67.5	0.1	3.0	3.6	35.
Nov	28.7	13.8	21.3	74.7	54.3	64.5	0.1	3.7	2.9	2.
Dec	22.9	9.8	16.4	86.3	63.5	74.9	0.1	3.2	1.8	7.
Annual	31.3	19.3	25.3	72.5	54.6	63.6	0.3	3.8	4.1	878.

Table C.2 (3/4) Climate in the Sharda Canal Command Area -Hardoi

Remarks: 1/ Measured at 8:30

2/ Measured at 17:30

3/ Wind speed in meter/sec

4/ Oktas (Cloud cover expressed by 8 degrees. ex. full cover -> 8)

5/ Evapotranspiration estimated by Modified Penman Method

6/ Normal rainfall in mm

Source :

Aquired from India Meteorological Department, UP

Т	abl	еC	1.2 ((4/	4
	uor	~ ~			

1/4) Climate in the Sharda Canal Command Area - Kanpur

	Tempera	ture (C)		Relati	ve Humi	dity (%)				
Month	max	min	mean	8:30 1/	17:30 2/	mean	W.S. 3/	Oktas 4/	ETO F 5/	Rainfall <u>6</u>
Jan	22.1	7.9	15.0	83.8	62.0	72.9	1.1	2.2	2.4	13.8
Feb	26.2	10.6	18.4	74.3	51.1	62.7	1.1	2.2	3.4	16.*
Mar	31.4	15.4	23.4	61.1	39.0	50.1	1.2	2.0	5.0	7.1
Apr	37.9	20.9	29.4	39.9	25.9	32.9	1.2	2.1	6.5	6.6
May	40.4	25.8	33.1	48.5	33.6	41.1	1.3	2.1	7.4	9.7
Jun	39.1	27.8	33.5	59.2	44.3	51.8	1.2	2.3	7.4	67.8
Jul	34.1	27.7	30.9	80.7	71.4	76.1	1.1	2.6	6.5	262.1
Aug	33.7	26.4	30.1	81.7	71.8	76.8	1.1	2.6	6.1	247.3
Sep	32.6	23.7	28.2	81.6	72.5	77.1	1.3	2.5	5.3	165.1
Oct	32.4	17.4	24.9	69.9	59.2	64.6	1.1	2.2	4.4	30.3
Nov	29.1	11.1	20.1	67.8	59.2	63.5	1.0	1.7	3.1	4.8
Dec	23.3	- 7.8	15.6	81.3	65.1	73.2	1.1	2.3	2.2	5.9
Annual	31.9	18.5	25.2	69.2	54.6	61.9	1.2	2.2	5,0	837.8

Remarks: 1/ Measured at 8:30

2/ Measured at 17:30

3/ Wind speed in meter/sec

4/ Oktas (Cloud cover expressed by 8 degrees. ex. full cover -> 8)

5/ Evapotranspiration estimated by Modified Penman Method

6/ Normal rainfall in mm

Source :

Aquired from India Meteorological Department, UP

 Table C.3
 Geographical Area and CCA by Soil Series in the Representative Areas

Soil		0	Sarojini Nagar	Nagar			Purwa				Sataon	ç			Sursa		
Mappi	Mapping Name of																
Unit		Total Area	Area	C.C.A		Total Area	rea	C.C.A		Total Area	rea	C.C.A		Total Area	vrea	C.C.A	J.
No.	Soil Series	:													÷		
		(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	(%)	(ha)	$(\frac{3}{2})$	(ha)	(%) (%)
1	LAKHPERA	855	2.6	286	1.9					283	1.1	266	2.1				
6	GANGAULI	4,400	13.1	2,092	14.1	2,101	10.1	1,435	11.7	5,725	22.2	3,975	30.9	1,247	3.9	359	2.1
m	TANDA	687	0.0 1	577	3.9	1,279	6.1	1,193	9.7	1,326	5.1	574	4.4				
4	AMETHI	458	4	219	1.5									2,351	7.3	1,375	7.9
9	KAKARI	2,536	7.6	2,247	15.1	288	1.4	227	1.8	3,534	13.7	2,184	17.0	3,397	10.5	2,674	15.4
7	TAMORIA	888	2.6	376	2.5							·					
80	SITAULI	4,071	12.2	1,978	13.3	2,654	12.7	1,385	11.3	6,347	24.6	2,958	23.0	2,688	8.3	581	3.4
σ	SAIDAPUR	3,354	10.0	2,957	19.9	3,149	15.1	2,935	24.0	2,891	11.2	2,031	15.8	6,261	19.4	3,709	21.4
10	GARHI	4,762	14.2	1,138	7.7	4,617	22.2	2,503	20.4	615	2.4	79	0.6	1,157	3.6	1,015	5.9
16	MERAURA													3,325	10.3	2,679	15.5
11	HASANPUR	2,380	7.1	538	3.6	876	4 2	636	5.2					1,970	6.1	1,264	7.3
5	UTELWA	1,978	5.9	1,666	11.2	471	2.3	462	3.8					1,487	4.6	481	2.8
13	POKARA	1,702	5.1	460	3.1	1,029	4.9	524	4.3	478	1.9	269	2.1	3,474	10.8	1,542	8.9
4	GOSHAINGANT	1,396	4	328	2.2	2,156	10.4	952	7.8	972	3.8	311	すれ	598	1.8	308	1.8
15	UTTARGAON									148	0.6	227	1.7	1,873	5.8	1,326	7.6
M	Miscellaneous	4,021	12.0			2,207	10.6			3,446	13.4			2,441	7.6		
	Total	33 488 100 0 14 862	100.0	14 862	100.0	20,827	100.0	1000 12250	100.0	25 765	1000	12 874	100.0	32,769	100.0	17313	0001
-	E Utat	201.00	2.22T	100111	2-22T	1 -0,07	2222	ユンシンテ	7.751	10,00	7-77	10,01	7.221	いいかいい	2.221), , ,	2.224

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Order	Sub-Order	Great Group	Sub-group	Family	Series	Mapping Unit	Mapping symbols Unit
1	64	e	4	л у	9	Number 7	00
Entisols	Psamments	Ustipsamments	Typic Ustipsamments	Coarse, Loamy, mixed, hyperthermic	LAKHPERA	1	. Lp
Inceptisols	Ochrepts	Ustochrepts	Udic Ustochrepts	Loamy, Silty, mixed, hyperthermic	GANGAULI	7	Б
qo	qo	op	Typic Ustochrepts	Loamy, Silty, (Calcarious), mixed, hyperthermic TANDA	ic TANDA	ŝ	$\mathbf{T}_{\mathbf{n}}$
do	qo	do	Udic Ustochrepts	Loamy, Clayey, mixed, hyperthermic	AMETHI	4	Am
op	qo	do	do	do	KAKARI	9	Kr
op	Aquepts	Halaquepts	Typic Halaquepts	Clayey,(Calcarious),mixed,hyperthermic	TAMORIA	٢	Tm
op	qo	qo	qo	do	SITAULI	00	St
op	do	Haplaquepts	Aeric Haplaquepts	Silty, Clayey, (Calcarious), mixed, hyperthermic SAIDAPUR	ic SAIDAPUR	9	Sd
op	do	op	qo	do	GARHI	10	5
do	do	do	đo	Silty, mixed, hyperthermic	MERAURA	.16	Mr
op	op	do	do	Silty, Clayey, mixed, hyperthermic	HASANPUR	11	Hn
qo	qo	do	do	Clayey, mixed, (Calcarious), hyperthermic	UTELWA	15	Ut
qo	đ	Halaquepts	Typic Halaquepts	Clayey, silty(Calcarious), mixed, hyperthermic	c POKARA	13	Pr
op	qo	Haplaquepts	Aeric Haplaquepts	Clayey, mixed, (Calcarious), hyperthermic	GOSHAINGANJ	41	Gn
	ŗ			Ţ			1

Analytical Results of Soil Series Profiles in a part of Sharda Canal Command Area (1/6) Table C.5

Soil	Name of	Name of	μ μ μ	Depth		Particle		Textural	Organic	CaCO3	Water	Available		Ηd	ы	Щ	Exchangeable	ble
Mapping	soil	stady	ÖZ,	ni .		size of					holding			Value	mmho	Satur-	Cation	
Unit	series	arca		(uc)		classes		classes	Carbon	(<i>a</i> %)	capacity	P205	K20	1:2.5		ztion în	1.eq/100g	ម្ព
ю Х					Sand	Silt	clay					(kg/ha)			1:2.5	extract	r Z	Х
(I)	(2)	©	Ð	(2)	(9)	Э	(8)	(6)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
-	LANTHPERA. 1	1		0- 7	81	10	6	SL	0.10		2.6.2			7.7	60.0	0.36		
				-4-7-	87	12	•••	LS LS	0.06		24.2			7.8	0.07	0.28		
				40-79	8	0		LS	0.04		23.8			7.7	0.07	0.28		
				79-100	91	80	1	LS	0.04		20.3			7.8	0.08	0.32		
6	GANGAULI 1	/		0- 12	68	18	4	SL	0.47		38.6			7.5	0.17	0.68		
				12-40	4 8	36	16	b	0.20		38.4			7.4	0.14	0.56		
				8-9 9	ጽ	32	18	ಕ	0.12		39.6			7.5	0.15	0.60		
				90-145	66	16	18	SQL	0.07		40.2			7.5	0.14	0.56		
		1	1	145-180	72	18	9	SL	0.05		38.9			7.7	0.15	0.60		
		Sarojini	P1	4/ 0-10	¥	38	ø	SiL	0.14		32.7		50.4		0.28	1.12	0.07	0.15
		Nagar		10-20	22	33	16	ರ	0.07		36.6		50.4		0.06	0.24	0.09	0.15
				20-128	52	33	16	ಕ	0.15		36.1		33.6		0.05	0.20	0.13	0.15
				128-175	52	30	18	ರ	0.08		43.1		S0.4		0.05	0.20	0.15	0.18
		Purwa	Е 4	V 0-010	41	4 3	17	ರ	0.14		30.6		67.2		0.12	0.48	0.08	0.16
				10-62	4	38	17	ರ	0.14		25.7	17.9	67.2.	7.0	0.08	0.32	0.05	0.13
				62-84	4	33	22	ർ	0.14		30.5		61.6		0.08	0.32	0.08	0.10
				84-150	46		6	ឋ	0.08		30.7		39.2		0.08	0.32	0.27	0.13
		Sataon	5	5/ 0-18	76		23	scL	0.11		33.0		100.8		0.30	0.12	0.74	0.10
				18-55	76	19	ŝ	SL	0.08		35.3		<u>8</u> 1		9 8	0.16	0. 1 5	0.08 0.08
				55-95	70	17	13	SL	0.10		39.4		98.6		0.50	0.20	0.5	0.08
				95-130	70	17	<u>1</u> 3	SL	0.08		14		98.6		0.40	0.16	0.52	0.08
-																		

From Detailed Soil Survey, Block Goshainganj, Jisuric Lucknow, UP, Sharda Sahayak CAD Project Report No. ACRU 201, Nay 1989
 From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRU 92, May 1989
 From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No. AGRU 92, May 1989-1990
 Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991
 Analytical results of different soil profiles by Laboratory of Department of Agriculture, UP, February 1991

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<u>6 - 1</u>										the second se		and the second se						
ooi Mapping	Name ol soil	Name of stady	ig S	Depth in		Particle size of		Textural	Organic	CaCO3	Water holding	Available		PH Value	EC mmho	Ex Satur-	Exchangeable Cation	0
,	series	arca		(cm)	-	classes		classes	Carbon	(q_{20}^{*})	capacity	P2O5	K20	1:2.5			(m.eq/100gm)	
	3	6	Ŧ	(2)	Sand (6)	Э sit	clay (8)	6)	(10)	([])	(12)	(kg/ha) (13)	(14)	(15)	1:2 <i>5</i> (16)	extract (17)	ي 18. (8	Я (1
TAN	TANDA 1/			-9 54	38		10.	SiL		1.0	38.6		,	8,4	0.11	0 4		
				40-60	30		12	SiL	0.20	11.0	43.6			00 4	0.13	0.52		
				60-115	22		24	Sict	0.17	1.5	48.2			8.6	0.21	0.84		
				115-158	22		28	SiC	0.14	14.0	45.6			8.6	0.19	0.76		
				158-180	36	50	14	SiL	0.03	11.5	42.6			8.8	0.15	0.60		l
		Purwa	14 14		15	63	23	sict	0.20	1.5	44.9	. 12.5	89.6	8.1	1.85	7.40	1.86	0.22
				11-57	12	ß	25	SiC	0.16	1.5	48,2	8.1	840	83	1.50	6.00	1.79	0.19
• .				57-90	10	70	20	sicL	0.07	3.0	52.3	5.4	84.0	82	1.50	6.00	2.23	0.16
				90-140	1	73	50	SICL	0.07	40	58.8	3.5	56.0	8 18	1.46	28.5 28	2.07	0.19
		Sataon	P7 SI	0-22	81	65	41.	sict	0.35	1.0	45.4	12.8	257.6	7.2	0.70	2.80	0. 45	0.33
:				22-66	4	50	27	SiC	0.14	1.0	37.7	4. 4.	284.5	73	0.70	2.80	0.86	0.43
				66-120	14	49	37	SiC	0.1.1	0.1	42.2	11.1	320.3	7.8	0.80	3.20	3.32	0.43
				120-150	14	53	33	sic	0.07	0.2	58.8	12.8	280.0	8.1	0.90	3.60	22.00	0.33
AMC	AMETH 2/			0-15	33	52	15	SiL	0.40		49.2			7.8	0.13	0.52		
				15-35	31	89	11	SiL	0.36		46.1			81	0.07	0.28		23
				35-58	27	S	23	sig	0.13		47.4			8.4	0.16	2 2		•
				58-121	25	8 4	27	SiC	0.10		46.2			83	0.18	0.72	•	
				121-148	25	22	33	sict	0.10		40.6			7.9	0.11	40		
				148-180	19	62	19	sict	0.08		52.0			. 8.0	0.12	0.48		
KAI	KAKARI 2/			0- 13	20		- 15	SiL	0.43		44.7			7.7	0.15	0.60		
				13-55	20		20	sicu	0.20		42.0			7.9	60.0	0.36		
				55-80	15		30	sic	0.20		44.7			7.6	0.12	0.48		
				80-110	12	55	33	sic	0.14		44.0			27	0.11	0.44 24		
				110-150	17	55	23	SICL	0.11		48.5			8.1	0.01	0.28		
				150-180	38		01	SiL	0.07		37.0			8.1	0.08	0.32		
		Sarojini	В 4	¥ 0-12	37		18	ರ	0,16		38.0	33.2	84.0	2.0	0,14	0.56		0.08
		Nagar		12-30	29		26	о П	0.20		48.4		67.2	7.5	0.0	0.16	0.07	0.18
		• .		30-55	30		35	LiC L	0.18		44.9		72.8	7.5	0.0 40	0.16	0.07	0.21

Remarks: <u>11</u> From Detailed Soil Survey, Block Mohanlalgauj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1989
 <u>24</u> From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 92, May 1989
 <u>24</u> From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990
 <u>24</u> Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991
 <u>24</u> Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991

Soil	Name of	Name of	ž		Depth	С,	Particle		Textural	Organic	CaCO3	Water	Available		Hd	Э Ш	щ	Exchangeable	the
Mapping	soil	stady	°Z		.u	<i>и</i>	size of					holding			Value	oquu	Satur-	atur- Cation	
Unit	series	area		Ĩ	: (cm)	ö	asses		classes	Carbon	(%)	capacity	P205	K20	1:2.5		ation (r	1.eq/100g	Ê
ю Х						Sand	Silt	clay					(kg/ha)			1:2.5	extract	Ra	м
(1)	(2)	(C)	((5)	(9)	ë	(8)	(6)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17) (17)	(18)	(19
7	TAMORIA 1/				0-16	σ	6	21	sict	0 4		38.5			6.6		4 4		
					16-48	4	57	39	siC	0.05		32.3			10.6		12.50		
				v	48-78	4	ß	4	sic	0.07	2.5	35.0			10.4	1.60	8.8		
				•	78-98	4	ŝ	4	CH CH	0.08		36.3			10.2		6.00		
				U1	98-118	ষ	ŝ	4	5H	0.54		37.6			9.9		3.37		
ø	SITHAULI 1/				0- 6	20	2	26	siC	0.20		44.9			10.0		18.50		
					6-25	16	4	38	SiC	0.16		48,8			10.2		ы 2		
					25-65	12	4	4	sic	0.14		47.8			10.3		15.50		
				Ŭ	65-99	12	4	4	SiC	0.07		65.6			9,4		3.64		•
				Ŭ,	99-140	12	8 4	4	SiC	0.05					9.6		1.68		
			:	4	140-180	16	Ľ	30	sic	0.05					9.6		1.28		
		Sarojini	Ъ.	4	0-12	13	63	25	SiL	0.12							11.20	10.65	
		Nagar			12-32	01	ଝ	4	SiC	0.07							3.60	7.61	
				.,	32-58	15	ŝ	35	SiC	0.07							2.04	2.00	
				•,	58-125	13	4	45	LiC	0.11	8.5		1.8	100.8			1.12	0.72	
		Purwa	ជ	ন	0-12	22	53	25	SiC	0.19							4,40	8.42	
					12-33	17	8	35	sic	0.05							8	8.70	
					33-129	17	ß	30	SiC	0.05							1.32	5.16	
				H	129-167	15	58	58	sic	0.05							0.92	1.47	
		Sataon	L	51	0-20	54	61	15	SiL	0.40							1.60	1.58	
					20-30	14	65	21	sict	0.06							3.60	30.80	
					30-70	16	ß	31	SiC	0.06							4,80	36.80	0.46
					00,00	ì	{	č	6.2		(•••••		

Analytical Results of Soil Series Profiles in a part of Sharda Canal Command Area (3/6) Table C.5

Remarks: <u>1</u>. From Detailed Soil Survey, Block Mohanialganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1389
 <u>2</u>. From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 92, May 1989
 <u>2</u>. From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No.AGRIC 92, May 1989
 <u>2</u>. Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991
 <u>2</u>. Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991

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Test Test <th< td=""><td>Optimize mat (m) (m</td><td>entre and entre and and<!--</td--><td>ing B</td><td>soil</td><td>stady</td><td>No.</td><td></td><td></td><td>size of</td><td></td><td></td><td></td><td>į</td><td>holding</td><td></td><td>(</td><td>Value</td><td>mmho</td><td></td><td>Cation</td><td></td></td></th<>	Optimize mat (m) (m	entre and and </td <td>ing B</td> <td>soil</td> <td>stady</td> <td>No.</td> <td></td> <td></td> <td>size of</td> <td></td> <td></td> <td></td> <td>į</td> <td>holding</td> <td></td> <td>(</td> <td>Value</td> <td>mmho</td> <td></td> <td>Cation</td> <td></td>	ing B	soil	stady	No.			size of				į	holding		(Value	mmho		Cation	
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SAIDAPUR I/ ALIANURIX	Skillbart(R. 1/ 0.13 1/7 Solid 0.44 4.33 8.3 0.10 0.03	Skillbaffilt 1 6 1 5 <t< td=""><td></td><td>(3)</td><td>3</td><td>Ð</td><td></td><td>(9)</td><td>ε</td><td>8)</td><td>(6)</td><td>(10)</td><td>(1)</td><td>(12)</td><td>(13)</td><td>(1</td><td>(15)</td><td>(10)</td><td><u>(1</u></td><td></td><td>6])</td></t<>		(3)	3	Ð		(9)	ε	8)	(6)	(10)	(1)	(12)	(13)	(1	(15)	(10)	<u>(1</u>		6])
15-80 12 67.0 10 64.1 64	Final Fit V </td <td>File 21 62 21 62 17 SIG DDD 66 DD Cold Cold</td> <td></td> <td></td> <td></td> <td></td> <td>0-15</td> <td>17</td> <td>99</td> <td>17</td> <td>sict</td> <td>0.41</td> <td></td> <td>44.3</td> <td></td> <td></td> <td>8.3</td> <td>0,13</td> <td>0.52</td> <td></td> <td></td>	File 21 62 21 62 17 SIG DDD 66 DD Cold					0-15	17	9 9	17	sict	0.41		44.3			8.3	0,13	0.52		
Revent 13 65 27 SIC 0.16 4-66 77 6 0.03 0.03 RP14 4 -6.15 11 66 23 SIC 0.13 SIS 0.11 0.04 0.33 RP14 4 -6.15 11 66 23 SIC 0.34 SIS SI 0.11 0.45 SI 0.11 0.45 SIS 0.12 SIS 0.11 0.45 SIS 0.12 SIS 0.11 0.45 SIS 0.12 SIS 0.12 SIS 0.11 0.45 SIS 0.12 SIS 0.11 0.15 SIS 0.12 SIS 0.12 SIS SIS	Revise 13 60 27 SIC 0.16 7.6 0.00 0.03 Fluwa FL 1 5.5 11 5.6 27 SIC 0.15 7.7 0.10 0.43 Fluwa FL 1 5.5 11 5.5 SIC 0.13 5.5 0.11 0.14 0.11 0.14 0.15 0.16 0.35 Fluwa FL 5.55 11 5.5 SIC 0.03 5.5 0.10 0.46 7.7 0.11 0.45 0.66 0.35 0.66 <td< td=""><td>Revise 13 60 27 SIC 0.16 7.4 7.5 0.06 0.35 Thuns F4 4 15,53 11 56 23 SIC 0.13 57 10 0.44 0.35 Thuns F4 4 15,53 11 55 24 SIC 0.13 343 134 73 0.10 0.46 Station F1,53 11 55 24 SIC 0.13 343 135 50 0.50 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66<!--</td--><td></td><td></td><td></td><td></td><td>15-60</td><td>21</td><td>6</td><td>17</td><td>sict</td><td>0.20</td><td></td><td>47.3</td><td></td><td></td><td>8.0</td><td>0.11</td><td>0 4</td><td></td><td></td></td></td<>	Revise 13 60 27 SIC 0.16 7.4 7.5 0.06 0.35 Thuns F4 4 15,53 11 56 23 SIC 0.13 57 10 0.44 0.35 Thuns F4 4 15,53 11 55 24 SIC 0.13 343 134 73 0.10 0.46 Station F1,53 11 55 24 SIC 0.13 343 135 50 0.50 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.66 0.35 0.66 0.35 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.35 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 0.66 </td <td></td> <td></td> <td></td> <td></td> <td>15-60</td> <td>21</td> <td>6</td> <td>17</td> <td>sict</td> <td>0.20</td> <td></td> <td>47.3</td> <td></td> <td></td> <td>8.0</td> <td>0.11</td> <td>0 4</td> <td></td> <td></td>					15-60	21	6	17	sict	0.20		47.3			8.0	0.11	0 4		
From FI 4 50-130 11 55 51 011 55 51 011 040 Torus FI 4 0-13 11 55 35 51 013 555 015 060 033 From FI 5 11 55 34 51 011 044 053 Samo FI-4 7 011 55 51 015 056 053 055 056	Theore H 4 0.13 11 56 33 SIC 0.13 57.3 11.0 0.49 Theore H 4 (12) 11 56 33 SIC 0.13 57.3 SI 10.0 0.49 Funne H 4 (12) 15 35 SIC 0.03 54.3 SI 10.0 0.49 Stanan Pl4 5 0.11 56 35 SIC 0.03 42.0 57.0 0.03 26.0 0.05 ARRH V 0.11 58 31 13 13 14 31 13 15 0.0 26.0 0.05 <td>Revise Filt Sec Old Sec Old Sec Old Old</td> <td></td> <td></td> <td></td> <td></td> <td>60-80</td> <td>61</td> <td>60</td> <td>27</td> <td>SiC</td> <td>0.16</td> <td></td> <td>46.6</td> <td></td> <td></td> <td>7.6</td> <td>0.08</td> <td>0.32</td> <td></td> <td></td>	Revise Filt Sec Old Sec Old Sec Old					60-80	61	60	27	SiC	0.16		46.6			7.6	0.08	0.32		
Izolo 11 60 23 Sic 0.03 343 11 1344 70 101 0.46 Phuwa<	Thread Titoristic Titorist Titorist	Towns Filt 4 -0.15 11 66 29 SIC 0.13 946 77 0.11 0.44 0.55 0.11 0.44 0.15 0.16 0.44 0.15 0.16 0.46 0.15 0.16 0.45 0.15 0.16 0.45 0.15 0.16 0.46 0.15 0.16 0.46 0.15 0.46 0.15 0.46 0.35 0.01 0.45 0.45 0.15 0.46 0.35 0.01 0.41<					80-120	11	56	33	SiC	0.15		47.4			7.8	0.10	0.40		
Parmar H U US-164 U GS 23 SIGL 0.03 341 11.3 344 70 011 046 0.37 060 0.33 Station F1-35 11 55 35 11 55 35 0.3 36 0.31 0.66 0.33 Station F1-5 11 55 34 31 15 S1 0.31 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.35 0.66 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.33 0.66 0.66 0.33 0.66 0.33 0.66 0.66 0.33 0.66 0.56 0.56 0.56 0.56 0.66 0.56 <	Funa H J JS-160 II SG ZG ODS AC AC <t< td=""><td>Fund F4 1 100 17 66 13 10 10 1</td><td></td><td></td><td></td><td></td><td>120-150</td><td>11</td><td>9</td><td>29</td><td>SiC</td><td>0.13</td><td></td><td>55.5</td><td></td><td></td><td>00 i</td><td>0.11</td><td>0 4</td><td></td><td></td></t<>	Fund F4 1 100 17 66 13 10 10 1					120-150	11	9	29	SiC	0.13		55.5			00 i	0.11	0 4		
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Turner Frage Frage <t< td=""><td>Future File <</td><td></td><td></td><td></td><td></td><td></td><td>5</td><td>9</td><td>53</td><td>SIG.</td><td>0.09</td><td></td><td>212</td><td></td><td>1 1 1</td><td>יין כ 00 נ</td><td>0.15</td><td>80</td><td>0000</td><td>1.00</td></t<>	Future File <						5	9	53	SIG.	0.09		212		1 1 1	יין כ 00 נ	0.15	80	0000	1.00
35.90 11 35 35 11 35	35.90 11 83 29 81C 0.03 0.11 365 17 0.51 0.56 0.50 <td>Attach Field <t< td=""><td>•</td><td></td><td>Purva</td><td></td><td></td><td>= =</td><td>9 X</td><td>t t N M</td><td>d Ci</td><td>0.24</td><td></td><td>1 4 1 6 1 6</td><td>-</td><td>134,4 146,6</td><td>07</td><td>51.0 11.0</td><td>9 0 7</td><td>0.37</td><td>0.45</td></t<></td>	Attach Field Field <t< td=""><td>•</td><td></td><td>Purva</td><td></td><td></td><td>= =</td><td>9 X</td><td>t t N M</td><td>d Ci</td><td>0.24</td><td></td><td>1 4 1 6 1 6</td><td>-</td><td>134,4 146,6</td><td>07</td><td>51.0 11.0</td><td>9 0 7</td><td>0.37</td><td>0.45</td></t<>	•		Purva			= =	9 X	t t N M	d Ci	0.24		1 4 1 6 1 6	-	134,4 146,6	07	51.0 11.0	9 0 7	0.37	0.45
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Nation Pi4 5 0.10 34 51 15 51L 0.31 0.11 385 4.27 4.256 7.2 0.60 2.40 0.80 Sel-150 18 40 33 LLC 0.11 0.1 946 6.8 4.26 7.27 0.60 2.40 0.80 Sel-150 12 65 23 SICL 0.23 SICL 0.23 0.80 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.15 0.86 0.15 0.8	Station P14 5 0.1 0.1 0.1 0.1 9.1 5.5 0.0 0.00 <td>Station Pi4 5 0.1 34 51 15 SL 0.31 0.11 318 427 4256 572 0.06 240 0.82 GARH I/ 15 12 5 25 33 315 LIC 0.11 0.11 566 572 0.05 240 0.89 GARH I/ 15 35 51 0.13 516 573 0.05 240 0.89 0.80 0.89 0.80 0.89 0.80 0.89 0.80 0.89 0.85 0.00 0.80 0.86 0.90 0.80 0.89 0.85 0.85 0.00 0.80 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35</td> <td></td> <td></td> <td></td> <td></td> <td>90-105</td> <td>ប</td> <td>8</td> <td>39</td> <td>sic</td> <td>0.05</td> <td>0.5</td> <td>40.6</td> <td></td> <td>168.0</td> <td>8,0</td> <td>0.21</td> <td>0.84</td> <td>0.68</td> <td>0.51</td>	Station Pi4 5 0.1 34 51 15 SL 0.31 0.11 318 427 4256 572 0.06 240 0.82 GARH I/ 15 12 5 25 33 315 LIC 0.11 0.11 566 572 0.05 240 0.89 GARH I/ 15 35 51 0.13 516 573 0.05 240 0.89 0.80 0.89 0.80 0.89 0.80 0.89 0.80 0.89 0.85 0.00 0.80 0.86 0.90 0.80 0.89 0.85 0.85 0.00 0.80 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35 0.86 0.35					90-105	ប	8	39	sic	0.05	0.5	40.6		168.0	8,0	0.21	0.84	0.68	0.51
	IO-85 34 35 31 LIC 0.14 0.1 418 240 425 65 0.50 200 030 GARH U 0.15 12 65 23 SIC 0.11 0.11 56 68 426 65 0.50 200 030 GARH U 0.15 17 55 35 SIC 0.11 410 73 0.12 0.89 0.00 033 MARAURA Sursa P1 4 0.15 63 37.5 0.22 0.03 0.03 0.03 0.03 0.04 0.05 4.17 75 0.22 0.03 0.06 0.05 0.01 0.06 0.05 0.01 0.06 0.05 0.01 0.06 0.05 0.01 0.05 0.01 0.06 0.05 0.01 0.05 0.01 0.06 0.05 0.01 0.05 0.01 0.05 0.01 0.05 0.01 0.05 0.01	Interfact Interfact <t< td=""><td></td><td></td><td>Sataon</td><td></td><td></td><td>34</td><td>51</td><td>15</td><td>SiL</td><td>0.31</td><td>0.1</td><td>38.9</td><td>ļ</td><td>425.6</td><td>7,2</td><td>0.60</td><td>2.40</td><td>0.80</td><td>0.95</td></t<>			Sataon			34	51	15	SiL	0.31	0.1	38.9	ļ	425.6	7,2	0.60	2.40	0.80	0.95
GARH 1/ 65-150 18 49 33 SIC 0.11 0.11 56. 425.6 6.8 425.6 6.9 0.50 200 0.82 GARH 1 5.8 7 2.3 SICL 0.28 41.0 7.7 0.10 0.66 S-88 7 5.3 SICL 0.12 4.10 7.7 0.20 0.80 S-88 7 5.3 SICL 0.12 4.7 7.8 0.80 0.80 S-88 7 2.3 SICL 0.04 10.5 47.1 7.8 0.12 0.68 S-72 5.0 7 0.13 37.2 14.8 0.15 0.77 0.03 0.05 AAAURA Sursa 11 4.5 7.7 0.12 0.08 0.35 0.15 0.41 0.55 0.15 0.15 0.15 0.15 0.15 0.15 0.16 0.15 0.15 0.15 0.15 0.15	GARHT V 0:15 12 65 25 51C 0:11 0.11 956 6.8 42.56 6.9 0.50 2.00 0.82 GARHT V 15-53 9 55 51C 0.12 41.0 75 0.12 0.48 S115 17 52 41 55 51 0.01 0.45 7.7 0.12 0.48 S115 17 52 41 55 0.15 47.1 7.6 0.12 0.48 S115 17 52 41 55 0.15 0.45 7.7 0.12 0.48 S115 17 52 CL 0.13 47.1 35.1 14.3 35.2 0.17 0.06 0.15 0.17 0.05 0.15 0.06 0.15 0.17 0.05 0.15 0.06 0.15 0.15 0.15 0.05 0.15 0.05 0.15 0.05 0.15 0.06 0.15 0.1	GARHT U BS-150 18 49 33 SIC 011 011 956 68 4256 69 0.59 200 082 GARHT U 15 57 32 85 SICL 0028 441 77 0.29 0.69 0.59 0.50 0.68 S5-85 7 52 41 SIC 0.028 441 77 0.21 0.68 S5-85 7 52 41 SIC 0.04 115 447 75 0.15 0.60 MARAURA Sursa P1 4 0.12 355 0.17 0.32 0.06 0.11 0.46 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60 0.15 0.60					10-85	Э. Ч	35	31	с Г	0.14	0.1	41.8		425.6	6,9	0.50	2.00	0.80	0.90
GARH I 0.15 12 65 23 51CL 0.28 41.0 7.8 0.15 0.60 S-15.5 7 2 4 57 0.2 0.83 0.12 0.87 0.77 0.22 0.88 S-15.5 7 5 2 8 51 6 0.12 0.47 7.7 0.12 0.88 S-15.5 17 5.5 2.8 51 0.01 0.55 0.15 0.15 0.16 0.16 0.26 0.16 0.15 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.26 0.16 0.24 0.15 0.24 0.16 0.24 0.16 0.24 0.16 0.24 0.16 0.24 0.16 0.24 0.25 0.25 0.25 0.25 0.26 0.16 0.16 0.16 0.24 0.16 0.16 0.16 0.16 0.25 0.17 0.1	GREH V 0-15 12 65 23 8/CL 0.28 4/10 75 0.15 0.66 S-85 7 52 8/CL 0.04 11.5 4.71 7.5 0.23 0.86 S-85 7 52 8/CL 0.04 11.5 4.7 8.5 0.17 0.68 S-85 7 55 2 8/CL 0.04 11.5 4.7 8.5 0.15 0.68 S-85 7 55 35 40 25 CL 0.03 351 4.75 0.53 0.66 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.64 0.15 0.64 0.15 0.64 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.15 0.68 0.15 0.16 0.15	GARH I/ 0.15 12 65 25 8/CL 0.28 4/L0 77 0.12 0.66 S-115 17 52 41 86 7.7 0.12 0.68 S-115 17 52 41 86 0.15 7.7 0.12 0.68 S-115 17 52 41 85 0.15 0.69 0.15 0.15 0.68 S-115 17 52 51 87 21 86 0.15 0.68 0.25 0.68 0.15 0.68 0.25 0.68 0.55 0.68 0.55 0.68 0.15 0.68 0.55 0.15 0.68 0.55 0.15 0.68 0.15 0.68 0.55 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.68 0.15 0.16 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15					85-150	18	4	33	sic	0.11	0.1	59.6		425.6	6,9	0.50	5.8	0.82	0.95
IS-SS 9 55 56 51C 0.12 427 75 0.22 0.08 SS-115 17 55 2 55 56 51C 0.04 115 77.2 115 17 0.08 0.08 0.03 0.08 0.05 0.08 0.03 0.08 0.05 0.03 0.03 0.06 0.05 0.03 0.03 0.06 0.03 0.08 0.05 0.03 0.08 0.05 0.03 0.06 0.05 0.03 0.05 0.03 0.05 0.04 0.05 0.05 0.05	Issa 9 55 56 51 0.12 427 75 0.22 0.88 Ss-15 7 5 22 0.35 0.41 6.5 0.15 4.77 0.12 0.68 MARAURA Sursa P1 4' 0.12 0.55 0.04 10.5 4.77 85 0.15 0.50 0.66 0.65 0.65 0.66 0.65 0.65 0.66 0.65<	NARAURA Surs 7 5 0.22 0.88 S-15 7 5 0.27 0.88 0.17 0.80 0.02 0.88 S-15 17 55 23 58 57 0.17 0.85 0.17 0.68 B-115 17 55 23 58 57 0.17 0.68 0.15 0.65 0.16 0.65 0.16 0.68 0.15 0.68	-				0-15	12	65	23	sict	0.28		41.0			7.8	0.15	0.60		
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10-43 27 55 18 SiCL 0.31 42.5 7.9 0.16 43-70 4 58 38 SiC 0.23 44.2 8.0 0.13 70-90 17 47 36 SiC 0.18 47.1 8.0 0.13 70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 90-135 17 47 36 SiC 0.18 47.1 8.0 0.11 90-135 17 47 36 SiC 0.18 47.1 8.0 0.11 78 0.11 18 44 38 LiC 0.42 43.0 8.6 0.10 32-61 12 46 42 SiC 0.11 51.0 8.9 0.17 99-126 20 44 36 LiC 0.03 10.5 61.4 9.2 0.1 126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.3	10-43 27 55 18 SiCL 0.31 42.5 79 0.16 43-70 4 58 38 SiC 0.23 44.2 80 0.13 70-90 17 47 36 SiC 0.18 47.1 80 0.11 90-135 17 47 36 SiC 0.18 47.1 80 0.13 90-135 17 47 36 SiC 0.18 47.1 80 0.13 90-135 17 47 36 SiC 0.18 47.1 80 0.13 90-135 17 47 36 SiC 0.18 47.1 80 0.13 91 0.11 18 44 38 LiC 0.42 43.0 86 0.13 92 32-61 12 46 42 8iC 0.10 0.5 51.0 92 0.22 92 92-126 20 42 8iC 0.03 10.5 61.4 92 0.22 92 126-180<	10-43 27 55 18 SiCL 0.31 42.5 7.9 0.16 70-90 17 47 36 SiC 0.23 44.2 80 0.13 70-90 17 47 36 SiC 0.18 47.1 80 0.13 70-90 17 47 36 SiC 0.18 47.1 80 0.1 90-135 17 47 36 SiC 0.18 47.1 80 0.1 90-111 18 44 38 LiC 0.42 43.6 7.8 0.13 91 22 12 56 32 LiC 0.11 51.0 86 0.18 750 51.1 12 56 32 LiC 0.10 0.5 54.3 91 0.20 750 51.0 56 32 LiC 0.10 0.5 54.3 92 0.20 750 55 57.6 0.10 0.5 54.3 92 0.20 750 56 20		HASANPUR 1.	/		0- 10	27	57	16	sict	0.63		58.0		İ	· L'L	0.37	1.48		
43-70 4 58 51 0.23 44.2 8.0 0.13 70-90 17 47 36 51 0.18 47.1 8.0 0.11 90-135 17 47 36 51 0.18 47.1 8.0 0.11 90-135 17 47 36 51 0.18 47.1 8.0 0.11 90-135 17 47 36 51 0.12 47.1 8.0 0.11 90-135 17 47 36 51 0.12 47.1 8.0 0.11 32-61 12 56 32 51 0.45 43.0 8.6 0.18 51.0 32-61 12 46 42 51 51.0 8.9 0.17 99-126 20 44 36 LiC 0.08 10.5 61.4 9.2 0.2 126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.2	43-70 4 58 SiC 0.23 44.2 8.0 0.13 70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 90-135 17 47 36 SiC 0.18 47.1 8.0 0.11 90-135 17 47 36 SiC 0.18 49.9 7.9 0.10 90-135 17 47 36 SiC 0.18 49.9 7.8 0.13 90-135 11-32 12 56 32 SiC 0.18 49.9 7.8 0.13 0-11 18 44 38 LiC 0.42 43.0 8.6 0.13 51.0 92-126 20 44 38 LiC 0.10 0.5 54.3 9.1 0.20 750 92-126 20 43 38 LiC 0.03 25.5 57.6 9.4 0.12 0.20 750 92 15 1.5 42 35 1.5 0.12 0.20	43-70 4 58 38 SiC 0.23 44.2 8.0 0.13 70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 70-90 17 47 36 SiC 0.18 49.9 7.9 0.10 00-135 11-32 12 44 38 LiC 0.42 43.0 86 0.13 011 32-61 12 46 42 81.0 0.10 0.5 54.3 0.17 92-126 20 44 38 LiC 0.01 0.5 54.3 9.1 0.20 61-99 22 40 38 LiC 0.03 10.5 61.4 9.2 0.20 61-99 22 42 36 LiC 0.03 25.5 57.6 9.2 0.24 700 Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1989 9.2 0.22	•				10-43	27	55	18	Sig	0.31		42.5			7.9	0.16	0.64		
70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 90-135 17 47 36 SiC 0.18 499 7.9 0.10 90-135 17 47 36 SiC 0.18 499 7.9 0.10 90-135 17 47 36 SiC 0.18 499 7.9 0.10 11-32 12 56 32 SiC 0.15 43.0 8.6 0.18 32-61 12 46 42 SiC 0.11 51.0 8.9 0.17 99-126 20 44 36 LiC 0.08 10.5 61.4 9.2 0.20 126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.34	70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 UTELWA 1/ 0-115 17 47 36 SiC 0.18 49.9 7.9 0.10 UTELWA 1/ 0-11 18 44 38 LiC 0.42 43.6 7.9 0.13 UTELWA 1/ 0-11 18 44 38 LiC 0.42 43.0 8.6 0.13 32-61 12 56 32 SiC 0.11 51.0 8.9 0.17 99-126 20 44 36 LiC 0.03 10.5 51.0 8.9 0.17 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.1 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34	70-90 17 47 36 SiC 0.18 47.1 8.0 0.11 UTELWA V 90-135 17 47 36 SiC 0.18 49.9 7.9 0.10 UTELWA V 0-11 18 44 38 LiC 0.15 43.0 86 0.13 UTELWA V 11-32 12 56 32 SiC 0.15 43.0 86 0.13 State 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 State 51.0 0.5 51.0 0.5 51.4 9.2 0.2 State 51.0 0.5 51.4 36 1.5 0.0 0.2 0.25 57.6 9.2 0.2 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.2 0.25 57.6 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow		•			43-70	ব	89	38	SiC	0.23		4.2			8.0	0.13	0.52		
UTELWA I/ 90-135 17 47 36 SiC 0.18 49.9 7.9 0.10 UTELWA I/ 0-11 18 44 38 LiC 0.42 43.8 7.8 0.13 32-61 12 56 32 SiC 0.15 43.0 8.6 0.13 61-99 22 40 38 LiC 0.01 0.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.03 10.5 61.4 9.2 0.20 126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.34	WTELWA V 90-135 17 47 36 SiC 0.18 49.9 7.9 0.10 UTELWA V 0-11 18 44 38 LiC 0.42 43.8 7.8 0.13 11-32 12 56 32 SiC 0.15 43.0 8.6 0.18 32-61 12 46 42 SiC 0.11 51.0 8.9 0.17 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.03 10.5 51.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.2 0.24 0.34 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 0.34 From Detailed Soil Survey, Block Dhanpatganj, District Sultanput, UP, Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989 0.34	UTELWA V 90-135 17 47 36 SiC 0.18 49.9 7.9 0.10 UTELWA V 0-11 18 44 38 LiC 0.42 43.8 7.8 0.13 11-32 12 56 32 SiC 0.15 43.0 86 0.18 32-61 12 46 42 SiC 0.11 51.0 85 0.17 99-126 22 40 38 LiC 0.08 10.5 54.3 9.1 0.20 99-126 28 42 36 LiC 0.08 10.5 51.4 9.2 0.17 99-126 28 42 36 LiC 0.08 10.5 51.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.1 0.22 57.6 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 <td></td> <td></td> <td></td> <td></td> <td>70- 90</td> <td>17</td> <td>4</td> <td>36</td> <td>SiC</td> <td>0.18</td> <td></td> <td>47.1</td> <td></td> <td></td> <td>80</td> <td>0.11</td> <td>0. 4</td> <td></td> <td></td>					70- 90	17	4	36	SiC	0.18		47.1			80	0.11	0. 4		
UTELWA I/ 0-11 18 44 38 LIC 0.42 43.8 7.8 0.13 11-32 12 56 32 SIC 0.15 43.0 86 0.18 32-61 12 46 42 SIC 0.11 51.0 89 0.17 61-99 22 40 38 LIC 0.10 0.5 54.3 9.1 0.20 99-126 20 44 36 LIC 0.08 10.5 61.4 9.2 0.22 126-180 28 42 30 LIC 0.03 255 57.6 9.4 0.34	UTELWA 1/ 0-11 18 44 38 LiC 0.42 43.8 7.8 0.13 0.TELWA 1/ 11-32 12 56 32 8iC 0.15 43.0 8.6 0.18 32-61 12 56 32 8iC 0.11 51.0 8.6 0.18 99-126 20 44 36 LiC 0.10 0.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.08 10.5 54.3 9.1 0.20 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 102, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanpatganj, District Sultanput, UP, Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989	UTELWA 1/ 0-11 18 44 38 LiC 0.42 43.8 7.8 0.13 0.11 11-32 12 56 32 SiC 0.15 43.0 86 0.18 32-61 12 46 42 SiC 0.11 51.0 85 0.17 99-126 20 44 36 LiC 0.08 10.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.08 10.5 54.4 9.1 0.20 99-126 20 43 38 LiC 0.03 25.5 57.6 9.2 0.25 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1989 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990 9.4 0.34 From Detailed Soil Survey, Block Mohanlaganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990 9.4 <td></td> <td></td> <td></td> <td></td> <td>90-135</td> <td>17</td> <td>4</td> <td>36</td> <td>SIC</td> <td>0.18</td> <td></td> <td>49.9</td> <td></td> <td></td> <td>61</td> <td>0.10</td> <td>9</td> <td></td> <td></td>					90-135	17	4	36	SIC	0.18		49.9			61	0.10	9		
5 0.18 9.1 0.20 9.2 0.22 9.4 0.34	I1-32 12 56 52 510 450 550 0.18 32-61 12 46 42 810 0.11 51.0 89 0.17 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.03 10.5 54.3 9.1 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Dhanpatganj, District Sultanput, UP, Sharda Sahayak CAD Project Report No. AGRIC 102, May 1989-1990 9.4 0.34	II-32 12 56 52 510 450 550 0.18 32-61 12 46 42 810 0.11 51.0 89 0.17 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 95-126 20 47 36 LiC 0.08 10.5 54.3 9.1 0.20 97-126 28 42 36 LiC 0.08 10.5 51.4 9.2 0.25 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Dianpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Dianpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990 9.4 0.34 Analytical results of Inferent soil profiles by Laboratory of Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990 9.4 0.34 Analytical results of Inferent soil profiles by Laboratory of Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990 9.4 0.34		UTELWA 1/			- 11	20	4	8	2 8	0.42		2 <u>1</u> 20				0.15	75.0		
8.9 0.17 9.1 0.20 9.2 0.22 9.4 0.34	32-61 12 46 42 SiC 0.11 51.0 8.9 0.17 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 92-126 20 44 36 LiC 0.08 10.5 61.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlal ganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Dhanpatganj, District Sultanput, UP, Sharda Sahayak CAD Project Report No. AGRIC 102, May 1989 9.4 0.34	32-61 12 45 42 SiC 0.11 51.0 8.9 0.17 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 99-126 20 44 36 LiC 0.03 10.5 61.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1589 9.4 0.34 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1589 9.4 0.34 From Detailed Soil Survey, Block Dhanpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990 9.4 0.34 Analytical results of inferent soil profiles by Laboratory of Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990 9.4 0.34					75-11	17	R	25	010			0,04			0	0.10	71'0		
5 9.4 0.20 9.2 0.22 9.4 0.34	 61-99 22 40 38 LiC 0.10 0.5 54.3 9.1 0.20 92-0.20 92-0.20 92-0.20 126-180 28 42 36 LiC 0.03 10.5 61.4 9.2 0.23 92-0.22 From Detailed Soil Survey, Block Mohanlal ganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Dhanpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989 From Detailed Soil Survey, Block Dhanpatganj, District Sultanput, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 	61-99 22 40 38 LIC 0.10 0.5 54.3 91. 0.20 99-126 20 44 36 LIC 0.08 10.5 61.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlal ganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Dhainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989-1990 Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990					32-61	21	8	6 8	Si Ci	0.11			-		5 5 7	0.17			
4 9.2 0.22 5 9.4 0.34	92 0.22 99-126 20 44 36 LiC 0.08 10.5 61.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Dhanpaganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989	99-126 20 44 36 LiC 0.08 10.5 61.4 9.2 0.22 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Starda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 From Detailed Soil Survey, Block Dhanpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989 9.4 0.34 Analytical results of liferent soil profiles by Laboratory of Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990 9.4 0.34					61-99	22	8	20 En	C F	0.10	2.0				7.7	020	1 28 10		
5 9.4 0.34 1	126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.34 1 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1589 9.4 0.34 1 From Detailed Soil Survey, Block Diampatiganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92. May 1989 9.4 0.34 1 From Detailed Soil Survey, Block Diampatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No. AGRIC 92. May 1989 9.8 9.4 0.34	126-180 28 42 30 LiC 0.03 25.5 57.6 9.4 0.34 1 From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 1 From Detailed Soil Survey, Block Dhanpatganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 9.4 0.34 1 From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989-1990 Analytical results of liferent soil profiles by Laboratory of Sharda Sahayak CAD Project Report No. AGRIC 125, May 1989-1990 9.4 0.34 1					99-126	20	4	36	с <u>і</u>	0.08	10.5				9.2	0.22	0.88		
	· · · •	· · · · ·					126-180	28	42	30	LiC	0.03	25.5	<i>51.</i> 6			94	0.34	1.36		

	·	Table C.5	C.5	Analyt	ical Resu	lts of (Soil Ser	ies Profiles	Analytical Results of Soil Series Profiles in a part of Sharda Canal Command Area (5/6)	Sharda	Canal C	ommand	Area	(2/6)				
Soil	Name of	Name of	ž	Depth		Particle		Textural	Organic	CaCO3	Water	Available		Η	Б	щ	Exchangeable	ole
Mapping	soil	stady	No	.s		size of					holding			Value	mmho	Satur-	Cation	
Unit	series	area		(cm)		classes		classes	Carbon	(%)	capacity	P205	K20	1:2.5		atron T	(m.eq/100gm)	й
Ŋ,	-				Sand	Silt	clay					(kg/ha)				extract	Ra	к
Ĵ	(2)	6	((5)	9	е	8	(6)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	6 <u>1</u>	(18)	(19)
13	POKHARA 1	*		9 4	33	51	16	Sict	0.17	3.5	43.4			10.6	8.70	43.50		
				4 13	28	52	30	SiC	0.11	1.0	33.4			10.1	1.30	6.50		
				13-34	20	50	30	SiC	60.0		34.2			9.8	0.70	2,80		
				34 60	22	20	. 28	SiC	0.08		2 6			9.3	0.38	1.52		
				60- 92	28	52	20	sict	0.05		4			9.1	0.23	0.92		
				92-115	30	52	18	sict	0.04		50.4			9.0	0.23	0.92		
		Purwa	PS 4		15	55	30	sic	0.05	3.5	41.1		156.8	10.1	0.93	3.72	10.87	0.51
				14-25	12	89 89	30	Sic	0.08	2.5	50.8		140.0	9.8	0.71	282	16.85	0.58
				25-66	12	ß	35	sic	60.0	3.5	53.6		128.8	<u>9</u> .4	0.47	1.88	8.70	0.48
				86-99	(1	65	33	SiC	0.08	29.5	45.5		39.2	9.3	0.22	0.88	1.55	0.13
	-	Sursa	목 4		18	65	18	Sict	0.30	40	34.3		184.8	10.6	542 042	21.60	17.39	0.67
				3-26	18	ß	30	sic	0.12	18.0	52.9		280.0	9.6	1.80	7.20	10.87	1.09
				26-66	30	38	33	L.C.	0.11	36.5	45.1	14.3	229.6	9.7	0.83	3.32	6.52	0.90
				66-110	30	35	35	LiC	0.14	41.5	43.6		84.0	8.5	0.12	0.48	0.73	0.38
;				110-150	30	8 3	23	sict	0.05	29.0	36.1		39.2	8.5	0.12	0.48	0.43	0.26
4	GOSHAIN			0-10	24	8 7	28	sic	40		43.7			1.7	0.08	0.32		
	GANJ 1/			10-38	19	4	. 35	sic	0.10		41.3			7.7	0.11	0. 4		
				. 38-68	23	9	37	LiC	0.0	1.5	39.6			8,4	0.15	0,60		
				68-89	23	4	33	LiC	0.07	2.0	49.2			8.5	0.25	۲. 8		
				89-121	23	8	29	sic	0.06	1.5	46.9 1			10.5	0.47	23.50		
				121-180	5	2	29	sic	0.05	4,0	45.6			9.4 4	0.51	2.04		
		Sarojini	5 7	0-10	4	S	8	멅	0.46		£.84		140.0	6.6	0.05	0.20	0.30	0.33
		Nagar		10-45	4	4	56	멅	0.23	1.0	47.2		229.6	8 8 8	0.16	0.64	1.00	0.41
				45-82	4	4	ស្ត	Ц	0.11	1.5	57.2		252.0	9.1	0.22	0.88	1.9	0. <u>Y</u>
				82-150	4	ନ୍ତ	4	HC	0.07	2.5	55.6	21.5	201.6	9.1	0.21	0.84	0.48	0.31
		Ригиа	5 7		2	4	57	НС	0.56		40.7		280.0	8.0	0.25	1.00	0.76	0.83
				10-27	7	41	57	HC HC	0.18		41.5		280.0	9.2	0.52	2.08	1.79	0.0
				27-130	9	30	2	Ц Ц	0.67	1.5	45.0		280.0	9.5	0.73	2.92	2.55	0.83
				130-150	11	30	59	HC	0.12	11.5	48.0		190.4	9.2	0.49	1.8	1.50	0.61
To and the second secon	Demoder 11 Ecom Detailed Soil Surriev Blook Mehanlelrani District Linkows ID Sharde Seleavely CAD Project Report No. 4(381C 101 May 1980	Soil Sumon	Block Mr	shanlalgani Dis	triot Tarolene	2 El 1	harda Sah	avsk CAD Proi	iect Renort No 4	101 0140	May 1989							

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Remarks: <u>U.</u> From Detailed Soil Survey, Block Mohanlalganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 101, May 1989
 <u>21</u> From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No.AGRIC 92, May 1989
 <u>21</u> From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No.AGRIC 92, May 1989
 <u>21</u> From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No.AGRIC 125, May 1989-1990
 <u>41</u> Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991
 <u>52</u> Analytical results of different soil profiles by Laboratory of Department of Agriculture, UP, February 1991

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		Table C.5	C.5	Analytic	al Resu	ts of S	oil Seri	es Profiles	Analytical Results of Soil Series Profiles in a part of Sharda Canal Command Area (6/6)	f Sharda	Canal Co	mmand	Area (6/6)	•			
Soil Mapping	Name of soil	Name of stadv	ξ. δ	Depth in	<u>а</u> ~	Particie size of		Textural	Organic	CaCO3	Water holding	Available		PH Value	EC mmho	E3 Satur-	Exchangeable Cation	Ð
Cait	series	arca		(cm)	0	classes		classes	Carbon	(0 <u>%</u>)	capacity	P205	K20				(m.eq/100gm)	Ġ
°N N					Sand	Silt	clay					(kg/ha)			1:2.5		· Z	×
(1)	(2)	(E)	(1)	(5)	(9)	Э	(8)	(6)	(01)	(11)	(12)	(13)	(14)	(15)		(17)	(18)	(19)
14	GOSHAIN		¥ 4	0- 13	61	ទ	35	sic	0.67		52.7	8.1 8.1	179.0	8.0	3.40	13.60	10.87	0.45
	GANU IV			13-18	3	85	4	SiC	0.72	0.5	49.5	6.3	201.6	9.5	2.80	11.20	12.50	0.45
				18-50	6	8	ŝ	HC HC	0.07	0.5	58.5	5.4	201.6	9.6	1.60	6,40	11.96	0.48
				50-126	ŝ	8		HC	0.11	1.5	55.3	4. V	179.2	9.4	1.25	5.00	10.87	0.45
15	UTTAR			0- 10	21	\$	36	LiC	0:30		43 .3			7.2	0.91	3.60		
	GAON 3/	•		10-45	13	29	58	HC	0.29		49.2			72	0.11	9.0 4		
				45-85	80	4	8	HC	0.15		48.6			7.3	0.20	0.80		
				85-120	18	4	38	LiC	0.15	2.0	51.4			7.8	0.19	0.75		
				120-160	18	4	38	LIC	0.14	2.0	51.2	·		8.1	0.20	0,80		
				160-180	31	4	27	LiC L	0.11	2.0	53.2		·	8.2	0.21	0,84 18		
		Sursa	85 4	0-30	13	55	33	sic	0.45	I.0	49.9	3.5	145.6	8.5	0.42	1,68	1.49	0.45
				20-46	13	ß	35	sic	0.25		4.6 5 4	13.4	134,4	8.5	0.18	0.72	0.27	0.13
			-	4 6-73	4	45 2	4	SiC	0.15		36.4	12.5	145.6	8.0	0.15	0.60	0.65	0.19
				72-93	14	8	39	sic	0.18	1.0	39.4	16.1	X	7.8	0.12	0.48	0.27	61:0
				93-126	16	55	29	sic	0.12	5.5	38.2	9.9	67.2	8.0	0.14	0.56	0.46 84	0.32
	-			126-170	26	8	26	sic	0.05		36.0	4.5	61.6	7.7	0.16	0.64	0.22	0.10
Remarks: L 2. 22 22 22 22 22 22 22 22 22 22 22 22 2	 From Detailed Soil Survey, Block Moharialganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 101, May 1989 From Detailed Soil Survey, Block Goshainganj, District Lucknow, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989 From Detailed Soil Survey, Block Dhanpatganj, District Sultanpur, UP, Sharda Sahayak CAD Project Report No. AGRIC 92, May 1989 Analytical results of different soil profiles by Laboratory of Sharda Sahayak CAD Project, February 1991 Analytical results of different soil profiles by Laboratory of Chantak Sahayak CAD Project, February 1991 	ioil Survey, ioil Survey, ioil Survey, ts of differe ts of differe	Block Moh Block Gosl Block Dha nt soil profi nt soil profi	larılalganj, Distr hainganj, Distri npatganj, Distri nes by Laborato les by Laborato	rict Luckno ct Lucknow ct Sultanpu ory of Sharc ory of Depi	w, UP, Sha /, UP, Sha r, UP, Sha r, UP, Sha la Sahayal la Sahayal	uarda Sahay urda Sahay arda Sahay k CAD Pro Agricultu	yak CAD Proj ak CAD Proje ak CAD Proje ak CAD Proje sject, February re, UP, February	ect Report No./ ct Report No.A. set Report No.A / 1991 ary 1991	AGRIC 101 GRIC 92, M GRIC 125,	, May 1989 fay 1989 May 1989-1	06						

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Soil	Name of			and a second descent for second		
Mapping Unit No.	Soil Series	Study Area	Pit No.	Depth(cm)		EC (mmho) (1:2.5)
1	LAKHPERA				ند ماند بر بند بن القرار بد بن بالا ابالا م	an an ann an
2	GANGAULI	Sarojini Nagar	. 17	0-10	6.8	0.23
				10-40	7.0	0.03
		do	18	0-16	6.7	0.04
				16-45	6.4	0.02
		do	19	0-10	7.3	0.09
				10-40	7.3	0.06
		do	20	0-12	8.2	0.14
				12-37	8.5	0.09
		do	21	0-16	8.0	0.11
				16-40	8.3	0.09
		do	22	0-15	7.3	0.05
				15-40	7.5	0.03
		do	23	0-20	7.7	0.13
				20-40	8.2	0.11
		do	24	0-14	7.9	0.08
				14-40	8.4	0.11
				40-50	7.7	0.34
		Purwa	13	0-12	6.8	0.29
				12-40	7.2	0.14
		do	15	0-12	7,4	0.21
				12-30	7,6	0.19
		do	16	0-13	7.1	0.14
		-	-	13-35	7.6	0.15
		Sataon	2	0-15	7.4	0.09
		· ·		15-45	7.4	0.07
		do	3	0-10	6.9	0.09
				10-45	7.4	0.06
		do	4	0-15	7.1	0.07
		0	0	15-45	7.3	0.04
		Sursa	8	0-15	8.6	0.46
2	TO A NIENA	D	10	15-40	7.8	0.37
3	TANDA	Purwa	12	0-15	9.5	1.96 0.90
		do	17	15-40 0-12	9.3 8.2	1.85
		do	17	12-45	8.2 9.5	1.85
		Sataon	6	0-15	9.5 8.5	0.09
		SalaOn	0	15-45	8.5	0.09
Remarks:	pH Ranges			<u>E.C.</u>	0.5	0.07
comarks,	1. 6.6-7.3(Net	etral)		1. 0-2 (No	n saline)	
	2. 7.4-7.8(Mil	e de la construcción de la constru			ghtly saline)	
	-	derately alkaline)		-	derately salir	ie)
	•	ongly alkaline)			rongly saline)	

Table C.6	Analytical Results of PH and E.C. for Soils
	in the Representative Areas (1/5)

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5. 16- (Very strongly saline)

5. 9.1- (Very strongly alkaline)

Soil Mapping	Name of	Study Arca	Pit No.	Depth(cm)	and the second	nmho)
Unit No.	Soil Series				(1:2.5) (1:2.5	<u>)</u>
4	AMETHI	Sarojini Nagar	3	0-15	7.5	0.05
				15-40	7.2	0.04
		do	4	0-15	6.7	0.03
				15-40	6.5	0.03
		Sursa	4	0-14	8.3	0.34
				14-34	8.1	0.28
:		do	7	0-8	8.9	0.25
				8-30	8.7	0.22
		do	16	0-12	7.5	0.12
		на. П.		12-45	7.7	0.12
6	KAKARI	Sarojini Nagar	10	0-15	7.8	0.08
				15-40	7.6	0.09
		do	12	0-15	8.3	0.09
				15-40	8.3	0.06
		Purwa	9	0-13	8.1	0.12
				13-24	8.4	0.10
		Sataon	8	0-10	7.6	0.09
				10-55	7.7	0.08
		Sursa	14	0-15	8.1	0.30
				15-45	7.7	0.21
		do	34	0-12	7.4	0.42
				12-45	7.6	0.38
8	SITHAULI	Sarojini Nagar	1	0-15	9.8	0.61
				15-45	10.2	1.10
		do	2	0-15	7.9	0.08
				15-45	9.7	0.39
		do	8	0-16	9.7	0.66
				16-35	10.0	1.03
		do	13	0-10	8.7	0.65
				10-37	10.0	1.63
		do	15	0-9	9.5	0.42
				9-35	10.1	0.90
		Purwa	8	0-12	9.4	0.99
				12-35	9.2	1.96
		do	18	0-11	8.9	1.14
والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع				11-45	9.2	1.23
Remarks:	pH Ranges	· · ·		E.C.		
	1. 6.6-7.3(No	et a superior de la companya de la c		1. 0-2 (No		
		ildly alkaline)			ghtly saline)	
	3. 7.9-8.4(M	oderately alkaline)			derately saline)	

Analytical Results of PH and E.C. for Soils Table C.6 in the Representative Areas (2/5)

4. 8.5-9.0(Strongly alkaline)

5. 9.1- (Very strongly alkaline)

4. 8-16(Strongly saline)

5. 16- (Very strongly saline)

Unit No. Soil Series (1:2.5) (1:2.5) 8 SITHAULI Sataon 12 0.19 10.3 3.20 8 SITHAULI Sataon 12 0.19 10.3 3.20 9 Sursa 2 0.10 9.9 0.33 10.45 9.7 0.25 0.25 0.12 8.4 0.21 10.45 9.7 0.83 10.45 9.7 0.83 10.45 9.7 0.83 0.12 8.4 0.21 10.45 9.7 0.83 0.14 9.30 0.33 11 0.9 15.47 10.5 2.30 0.97 9 SAIDAPUR Sarojini Nagar 5 0.15 7.8 0.10 12 0.0 11 0.18 8.6 0.13 18 10 04 11 0.18 8.6 0.13 12 40 22 0.12 8.1 0.22	Soil	Name of					
8 SITHAULI Sataon 12 0.19 10.3 3.20 do 13 0.10 9.9 0.33 10.45 9.7 0.25 Sursa 2 0.12 8.4 0.21 12.45 9.7 0.83 do P.5 0.15 10.1 0.99 0.33 0.43 9.7 0.83 do P.5 0.15 10.1 0.99 0.33 0.44 9.3 0.33 do 9 0.14 9.3 0.35 14.45 10.0 0.97 9 SAIDAPUR Sarojini Nagar 5 0.15 7.8 0.10 do 11 0.18 8.6 0.13 1.1445 10.0 0.97 9 SAIDAPUR Sarojini Nagar 5 0.15 7.8 0.10 do 11 0.18 8.6 0.13 1.1 0.22 9.30 8.3 0.41 0.12 8.1 0.22	Mapping	•	Study Area	Pit No.	Depth(cm)	PH value	EC (mmho)
do 13 0.40 9.9 0.33 10-45 9.7 0.25 Sursa 2 0.12 8.4 0.21 10-45 9.7 0.85 Sursa 2 0.12 8.4 0.21 12-45 9.7 0.85 do P.5 0.15 10.1 0.91 15-47 10.5 2.33 do 9 0.14 9.3 0.35 9 SAIDAPUR Sarojini Nagar 5 0.15 7.8 0.10 9 SAIDAPUR Sarojini Nagar 5 0.15 7.8 0.16 10 0.14 0.13 7.1 0.04 15.45 7.1 0.04 11 0.18 8.6 0.13 18.45 8.7 0.13 20 0.21 0.13 8.1 0.22 0.12 8.1 0.22 10 0.14 Sarojini Nagar 6 0.15 6.7 0.06 <th>Unit No.</th> <th>Soil Series</th> <th></th> <th></th> <th></th> <th>(1:2.5)</th> <th>(1:2.5)</th>	Unit No.	Soil Series				(1:2.5)	(1:2.5)
do 13 0-10 9.9 0.33 10-45 9.7 0.25 Sursa 2 0-12 8.4 0.21 12-45 9.7 0.85 do P.5 0-15 10.1 0.91 15-47 10.5 2.30 do 9 0-14 9.3 0.33 14-45 10.0 0.97 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 15-45 7.1 0.00 do 11 0-18 8.6 0.13 Purva 22 0-12 8.2 0.23 12-40 8.4 0.22 do 23 0-9 8.0 0.36 9-30 8.3 0.41 Sursa 10 0-12 8.1 0.25 12-45 8.0 0.23 do 21 0-13 8.1 0.23 13-45 7.9 0.12 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.53 20 do 10 0-13 7.3 0.22 13-24 8.7 0.53 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.62 do 10 0-13 7.3 0.22 13-24 8.7 0.62 do 10 0-13 7.3 0.22 13-24 8.7 0.62 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.62 21-230 8.7 0.33 do 19 0.9 8.0 2.20 9-35 8.7 0.35 Sataon 9 0.10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0.15 8.1 0.25 Sursa 5 0.15 8.1 0	8	SITHAULI	Sataon	12	0-19	10.3	3.20
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					19-45	10.4	3.50
Sursa 2 0-12 8.4 0.21 do P.5 0-15 10.1 0.91 do P.5 0-15 10.1 0.91 do 9 0-14 9.3 0.35 do 9 0-14 9.3 0.35 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 10 Go 11 0-18 8.6 0.13 9 Sursa 10 0-12 8.1 0.22 12 40 21 0-13 8.1 0.23 10 GARHI Sarojini Nagar 6 0-15 8.7 0.00 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 13-24 8.7 0.66 0 </td <td></td> <td></td> <td>do</td> <td>13</td> <td>0-10</td> <td>9.9</td> <td>0.33</td>			do	13	0-10	9.9	0.33
do P.5 0-15 10.1 0.91 do 9 0-14 93 0.39 do 9 0-14 93 0.39 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 15-45 7.1 0.04 10 0.18 8.6 0.13 9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 10 0 11 0-18 8.6 0.13 9 0 22 0-12 8.1 0.22 10 GARHI Sarojini Nagar 6 0-12 8.1 0.22 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-15 6.7 <td></td> <td></td> <td></td> <td></td> <td>10-45</td> <td>9.7</td> <td>0.29</td>					10-45	9.7	0.29
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			Sursa	2	0-12	8.4	0.21
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					12-45	9.7	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			do	P.5	0-15	10.1	0.91
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					15-47	10.5	5 2.30
9 SAIDAPUR Sarojini Nagar 5 0-15 7.8 0.10 do 11 0-18 8.6 0.13 Heads 8.7 0.13 Purwa 22 0-12 8.2 0.23 do 23 0-9 8.0 0.36 9-30 8.3 0.44 Sursa 10 0-12 8.1 0.25 do 21 0-13 8.1 0.25 do 27 0-15 8.2 0.44 Sursa 10 0-12 8.1 0.25 do 21 0-13 8.1 0.23 10 GARHI Sarojini Nagar 6 0-15 8.7 0.05 do 27 0-15 8.2 0.44 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 d			do	9			
do 11 0-18 8.6 0.13 18-45 8.7 0.13 Purwa 22 0-12 8.2 0.23 12-40 8.4 0.20 do 23 0.9 8.0 0.36 9-30 8.3 0.44 Sursa 10 0-12 8.1 0.25 12-45 8.0 0.23 do 21 0-13 8.1 0.29 13-45 7.9 0.12 do 27 0-15 8.2 0.40 15-45 8.2 0.14 10 GARHI Sarojini Nagar 6 0-15 6.7 0.08 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 13-24 8.7 0.66 do 14 0-12 7.5 0.24 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 Sursa 5 0-15 8.1 0.25 Sursa 5 0-15 8.1 0.25 Sursa 5 0-15 8.1 0.25 15-45 8.0 0.22							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	9	SAIDAPUR	Sarojini Nagar	5	0-15		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Purwa 22 0-12 8.2 0.23 do 23 0-9 8.0 0.36 9-30 8.3 0.41 Sursa 10 0-12 8.1 0.29 do 21 0-13 8.1 0.29 do 27 0-15 8.2 0.44 10 GARHI Sarojini Nagar 6 0-15 6.7 0.08 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-15 6.7 0.02 do 10 0-13 7.3 0.22 9.35 8.7 0.57 Sataon 9 <t< td=""><td>· · · ·</td><td></td><td>do</td><td>11</td><td></td><td></td><td></td></t<>	· · · ·		do	11			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			Purwa	22	0-12		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$:			12-40		
Sursa 10 0-12 8.1 0.29 do 21 0-13 8.1 0.23 13-45 7.9 0.12 0.13 8.1 0.23 do 27 0-15 8.2 0.40 10 GARHI Sarojini Nagar 6 0-15 6.7 0.06 10 GARHI Sarojini Nagar 6 0-13 7.3 0.22 do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 8.1 0.29 15-45 8.0 0.26 Remarks: <td></td> <td></td> <td>do</td> <td>23</td> <td>0-9</td> <td></td> <td></td>			do	23	0-9		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			Sursa	10	0-12		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$							
do 27 0-15 8.2 0.40 15-45 8.2 0.14 10 GARHI Sarojini Nagar 6 0-15 6.7 0.08 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26 Remarks: pH Ranges E.C.			do	21	0-13		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	÷						
10 GARHI Sarojini Nagar 6 0-15 6.7 0.08 15-45 7.1 0.04 do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 do 14 0-12 7.5 0.24 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 Sursa 5 0-15 8.1 0.29 Remarks: pH Ranges E.C. 5 0.26			do	27			
do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26 Remarks: pH Ranges E.C.							
do 10 0-13 7.3 0.22 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 Sursa 5 0-15 8.1 0.29 Remarks: pH Ranges E.C. 5	10	GARHI	Sarojini Nagar	6			
do 13-24 8.7 0.66 do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 Remarks: pH Ranges E.C. 5							
do 14 0-12 7.5 0.24 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 Remarks: pH Ranges E.C. 5			do	10			
do 12-30 8.7 0.30 do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 Sursa 5 0-15 8.1 0.29 Sursa 5 0-15 8.1 0.29 Remarks: pH Ranges E.C. 5							
do 19 0-9 8.0 2.20 9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 I5-45 8.0 0.26			do -	14			
9-35 8.7 0.57 Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26							
Sataon 9 0-10 7.9 0.15 10-40 8.3 0.67 Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26 Remarks: pH Ranges E.C.			do	19			
Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26 Remarks: pH Ranges E.C.							
Sursa 5 0-15 8.1 0.29 15-45 8.0 0.26 Remarks: pH Ranges E.C.			Sataon	9			
15-45 8.0 0.26 Remarks: pH Ranges E.C.							
Remarks: <u>pH Ranges E.C.</u>			Sursa	5			
					15-45	8.() 0.26
	Remarks:	pH Ranges			<u>E.C.</u>		
			utral)		1. 0-2 (No	on saline)	

Table C.6	Analytical Results of PH and E.C. for Soils
	in the Representative Areas (3/5)

2. 7.4-7.8(Mildly alkaline) 3. 7.9-8.4(Moderately alkaline)

4. 8.5-9.0(Strongly alkaline)

5. 9.1- (Very strongly alkaline)

2. 2-4 (Slightly saline)

3. 4-8 (Moderately saline)

4. 8-16(Strongly saline)

5. 16- (Very strongly saline)

Name of	Study Area	Pit No.	Depth(cm)	PH value	EC (mmho)
Soil Series				(1:2.5)	(1:2.5)
MARAURA	Sursa	 1	0-13	8.3	0.21
			13-43	7.8	0.10
	do	6	0-14	8.2	0.30
4 ¹			14-36	8.3	0.22
	Sursa	11	0-12	8.1	0.39
			12-45	7.8	0.19
	do	26	0-18	8.3	0.31
			18-45	8.2	0.27
HASANPUR	Sarojini Nagar	16	0-13	7.3	0.05
			13-45	7.2	0.04
	Purwa	21	0-10	7.9	0.26
			10-32	8.2	0.19
	Sursa	12	0-12	7.7	0.24
	 4 		12-45	8.3	0.24
	do	28	0-15	7.9	0.32
			15-45	7.8	0.16
	do	33	0-13	7.4	0.13
			13-45	7.7	0.08
UTELWA	Sarojini Nagar	7	0-15	9.4	0.38
			15-45	10.1	0,79
	do	14	0-11	7.4	0.10
			11-42	7.2	0.05
	Purwa	11	0-15	8.4	0.55
			15-41	9.6	1.46
	do	17	0-12	. 8.2	1.85
			12-21	9.5	1.90
	do	20	0-12	9.0	0.73
			12-30	9.5	1.15
	Sursa	24	0-10	8.8	0.58
			10-45	. 8.4	0.42
pH Ranges			E.C.		
	tral)			n saline)	
				•	
	•				ne)
	•			-	
	•••				
	Soil Series MARAURA HASANPUR UTELWA UTELWA <u>pH Ranges</u> 1. 6.6-7.3(Neu 2. 7.4-7.8(Mild 3. 7.9-8.4(Mod 4. 8.5-9.0(Stro	Study Area Soil Series Suisa MARAURA Suisa do Suisa do HASANPUR Sarojini Nagar Purwa do UTELWA Go turteLWA Go do do UTELWA Go Suisa do do Suisa Suisa	Study Area Pit No. Soil Series I MARAURA Sursa 1 do 6 Sursa 11 do 26 HASANPUR Sarojini Nagar 16 Purwa 21 Sursa 12 do 28 do 28 do 33 UTELWA Sarojini Nagar 7 do 14 Purwa 11 do 14 Purwa 11 do 14 Purwa 11 do 14 Purwa 11 do 17 do 20 Sursa 24	Study Area Pit No. Depth(cm) Soil Series I 0-13 13-43 MARAURA Suisa 1 0-13 13-43 do 6 0-14 14-36 Suisa 11 0-12 12-45 do 26 0-18 18-45 HASANPUR Sarojini Nagar 16 0-13 HASANPUR Sarojini Nagar 16 0-13 Purwa 21 0-10 10-32 Sursa 12 0-12 12-45 do 28 0-13 13-45 Purwa 11 0-13 12-45 do 28 0-15 15-45 do 28 0-15 15-45 do 13 -45 13-45 UTELWA Sarojini Nagar 7 0-15 15-45 do 14 0-11 1-42 Purwa 11 0-15 15-45 15-45 do	Study Area Pit No. Depth(cm) PH value Soil Series (1:2.5) MARAURA Sursa 1 0-13 8.3 MARAURA Sursa 1 0-13 8.3 do 6 0-14 8.2 Ja-43 7.8 14-36 8.3 Ja-43 7.8 10 12 8.1 Ja-43 7.8 10 12 8.1 Ja-45 7.8 12-45 7.8 18-45 8.2 HASANPUR Sarojini Nagar 16 0-13 7.3 13-45 7.2 Purwa 21 0-10 7.9 10-32 8.2 Sursa 12 0-12 7.7 12-45 8.3 do 28 0-15 7.9 15-45 7.8 do 28 0-15 7.9 15-45 10.1 do 14 0-11 7.4 14.42 7.2 Purwa 11

Analytical Results of PH and E.C. for Soils in the Representative Areas (4/5) Table C.6

Soil	Name of					
Mapping	· .	Study Area	Pit No.	Depth(cm)	PH value	EC (mmho)
Unit No.	Soil Series				(1:2.5)	(1:2.5)
13	POKHARA	Sursa	P.6	0-11	9.0	0.4
				11-45	9.8	0.8
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	do	3	0-13	8.4	0.1
				13-30	8.3	0.3
		do	7	0-15	8.9	0.2
				15-35	8.7	0.2
		do	13	0-10	8.6	1.3
				10-35	8.2	0.4
		do	18	0-15	10.6	
				15-35	10.1	1.2
		do	19	0-15	8.9	
				15-41	9.3	
		do	20	0-16	10.4	
				16-41	10.2	
		Sursa	25	0-10	9.1	
				10-45	8.7	
		do	29	0-14	9.6	
		do	27	14-45	9.2	
		do	32	0-15	8.8	
		uo	52	15-45	9.6	
14	COSHVINGA	AN Sarojini Nagar	9	0-10	9.8	
14	OOSIAINOA		/	10-38	10.3	
15	UTTARGAO	N. Sotoon	15	0-15	7.8	
15	UTIAKOAO	N Sataon	15	15-48	8.1	
		Sursa	8	0-15	8.6	
		Suisa	0	15-40	7.8	
		4	15	0-14	8.0	
		do	15		8.0	
		1_	1.47	14-50		
		do	17	0-12	8.2	
			00	12-35	8.0	
		do	22	0-15	8.1	
				15-20	8.0	
		do	23	0-15	8.1	0.4
				15-45	8.1	
		do	31	0-15	7.4	
				15-43	7.7	
· .		do	35	0-12	7.7	
				12-45	7.2	0.3
Remarks:	pH Ranges			E.C.		•
	1. 6.6-7.3(Ne			1. 0-2 (No		
		ildly alkaline)			ghtly saline)	
		oderately alkaline)			derately sali	
		rongly alkaline)			rongly saline	
· .	5. 9.1- (Ver	y strongly alkaline)		5. 16- (Ve	ry strongly s	aline)

Table C.6Analytical Results of PH and E.C. for Soils
in the Representative Areas (5/5)

(K) (K/A) Other Lands ha &	3.128 4.6 1.525 4.6 1.603 4.5	28.389 9.2 10.116 8.3 3.196 10.8 7.70 12.1 2.567 17.7 2.564 10.2 2.564 10.2	28,070 10.8 3.389 10.3 2.386 10.9 2.463 11.9 2.463 11.9 2.463 11.9 2.463 11.9 2.263 11.9 3.263 12.1 3.263 12.1 3.275 12.1	31.801 8.0 3.1.86 6.8 3.1.34 6.7 2.405 9.0 2.500 9.0 2.500 9.0 2.505 1.1.4 2.505 8.9 3.047 8.8 3.047 8.8 3.044 7.7 3.044 7.7 3.044 7.7	36,565 10.0 8,557 14,4 4,256 10.5 3,180 29,4 4,580 12.9 3,082 10.6 3,082 10.6 3,170 6.0 3,175 8,6 3,175 8,5 3,755 7,8 3,755 7,9 3,755 7,9 5,755 7,955
(J) (J/A) Forest Lands ha %	6,059 8.8 3.327 10.0 2,732 7.7	38,617 12.5 28,557 12.5 149 0.3 137 0.3 0 0.0 5.035 15.8 4.757 13.2 2 0.0	222 222 22 22 22 22 22 22 22 20 20 20 20	25 25 25 25 25 25 25 25 25 25	IS 479 4.2 8.509 14.4 8.509 14.4 1.523 4.5 25 0.1 1.574 5.2 1.374 5.2 1.374 5.2 758 220 557 1.2
(J/A) Unculturable Lands	60 60		4011445 19144 1914 1914 1918 1918 1918 1918 191	2000 2000 2000 2000 2000 2000 2000 200	2222822282
u) User & Uncult Lands ha	643 311 332	8.08 8.45 8.45 8.45 8.45 8.45 8.45 8.45 8.4	7,08 309 309 309 202 203 203 203 203 203 203 203 203 203	8 40 27 27 27 28 23 25 25 25 25 25 25 25 25 25 25 25 25 25	6,222 1,292 366 366 366 553 553 553 553 553 753 753 753 753 753
ands	110	270 0.1 35 0.0 13 0.0 6 0.0 87 0.0 87 0.0 87 0.0 9.0 9.0 9.0 9.0	278 0.1 58 0.2 6 0.0 7 0.0 7 0.0 27 0.0 27 0.0 27 0.0 6 0.0 6 0.0	120 88 120 120 120 120 120 120 120 120 120 120	1.101 1.101 1.101 1.12 2.03 2.03 2.03 2.05 2.03 2.05 2.05 2.05 2.05 2.05 2.05 2.05 2.05
ri A) Lands Pa %	200 224	000000000 NV 0 4 4 4 4 4	00000000000000000000000000000000000000	12220000000000000000000000000000000000	8000000000
(LI) (CFA) (H) Tree-garden Lands Pasture ha % ha	316 180 136	260 260 82 91 91 91 12 7 12 12 12	ខ្លើ ច្មី % ៥ ៥ ៥ ៥ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩ ៩	4,4 6,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7	3014 803 803 803 803 803 803 803 803 803 803
Waste Tr	93 7.5 7.5	404400-10 404400-10	00001000001 74600000001	J12190825191834	0 H 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Culturable V Lands ha	6.379 3.735 2.644	4 7419 4 387 5 10 5 10 5 24 8 68 8 39 5 24 8 30 8 30 8 30 8 30 8 30 8 30 8 30 8 30	1.878 1.878 1.29 1.29 1.25 1.09 1.05 1.09 1.55 1.55 1.55 1.55 1.55 1.55 1.55 1.5	2122 2225 2225 2225 2225 2225 2225 2225	2329 751 149 1148 1148 1198 1198 1153 1153
र भाषा भ	2.3 1.8	U000000004	246091111612	8011319648844 81113648844	1010001111
Cther Fallow Lands ha &	1 <i>511</i> 955 622	891 881 881 882 883 883 883 883 883 883 883 883 883	3,786 145 145 145 187 187 187 141 1,141 243 352 352 352 352 352 352 352 352 780	9.178 794 813 813 813 811 811 811 1178 1178 1178	8888897559888 888897555888
C NO B	1.1 7 4.0	28.11.1444.0	4 - 0 - w - w 4 4 4 w 4 0 4 4 0 0 0 0 0 0 0 4 4	2 2 2 2 4 4 4 6 7 7 9 9 1 9 2 7 8 4 4 4 6 7 7 9 9 1 9 2 7 8 6 7 9 9 1 9 2 7 9 1 9 7 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9	NNN 4 0 NNN 0 N 0 - 0 - 0 - 0 - 4
Current Fal	727 578 149	7.799 2.138 2.138 2.138 2.33 2.33 2.33 2.33 2.35 2.33 2.35 2.35	6324 341 376 376 376 578 578 578 578 578 578 578 578 1,000 1	17.943 1.742 1.742 1.742 1.742 1.757 1.767 1.841 1.841 1.841 1.841 1.841 1.857 2.542 1.465 1.465 2.543	20.057 3.020 2.480 1.580 1.492 1.492 1.150 1.150 1.150
Area Bark	82.0 82.4 81.6	67.8 7.45 7.65 7.05 1.07 7.05 1.05 7.05 1.05 7.05 7.05 7.05 7.05 7.05 7.05 7.05 7	8.000000000000000000000000000000000000	¥ # 88888888888888888888888888888888888	8857288544 19872978854 198721885844
(C) (CD) Imgated Arca ha %	40,735 18,625 22,110	146.474 245.474 165313 165313 25,261 12,397 10,4730 16,873 10,673	28,521 28,521 28,552 28,552 15,478 16,990 16,990 16,990 20,495 20,495 20,495 20,418 20	293.216 15,642 15,642 26,653 28,653 28,653 21,668 21,668 22,532 20,018 22,532 20,531 22,532 22,532 22,532 22,532 22,532 22,533 2	188,232 21,311 16,960 16,960 18,749 13,701 29,854 21,334 21,334 21,334
(EVA) Arca Sown &	2.47 0.88 7.87	68.8 8.22 8.22 8.22 8.22 8.22 8.22 8.22	88878788878887888878888788887888878888788878887888788878888	88888888888888888888888888888888888888	2007 8 1 6 8 8 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8
(D) ands of Net / ha	49,692 22,598 27,094	216.020 73.065 24.539 24.539 33.656 77.77 23.511 25.511 25.511 25.511	211.960 28.521 28.521 28.521 28.521 15.575 16.590 16.590 16.590 16.590 29.507 20.118 20.218 20.218	30.84 31.276 31.276 31.276 21.266 21.266 21.266 21.265 21.	2,6282 2,6282 2,0292 2,0272 2,0272 2,
 (A) (D) /ul>	68.522 33.210 35.312	509.372 121.574 29.645 40.984 31.845 31.845 31.845 26.401	260,465 32,985 26,309 27,298 20,205 20,205 20,205 20,205 20,205 21,198 21,198 21,198 21,198	385,539 46,585 46,585 46,585 14,925 25,449 24,730 33,745 33,745 33,745 39,453 31,453 31,553 31,5553 31,55553 31,55553 31,55553 31,55553 31,55553 31,55553 31,55553 31,55553 31,55553 31,55553 31,555553 31,5555555555	34.63 59,68 28,59 28,59 28,59 28,56 36,48 36,48 36,48 36,48 37,14
Name of District No. Name of Block	NAINITAL 1.01 SITARGANI 1.02 KHATIMA	PILIBHIT 201 FURANFUR 202 ARAURU 202 MARIA 202 LALRURI KHER 205 BARKHERA 206 BILSANDA 207 BISARFUR	BARFILY 301 NAWABGANJ 3.02 MCHCHHA 3.03 SHERCARH 3.04 FATEHGAN 3.05 BHOJTPURA 3.05 BHOJTPURA 3.05 EAMDPUR 3.05 EAMDPUR 3.05 EAMDPUR 3.05 EAMDPUR 3.05 EAMDPUR	SHAFIAHANPUR 401 KEHUTAR 403 KEHUTAR 403 EANDA 403 ENDEAUL 405 KNOCHI 405 KNATAR 403 EHAWALKHER 405 BADRAUL 405 KLANT 410 IAUTHAR 411 IAUTHAR 412 IALALABAD	KHERI 501 BJUA 502 BJUA 502 BJJKCAGAN 503 BJJKCAGAN 503 BJHYAM 503 MUHAMDI 503 MUHAMDI 503 MUTAULI

Table C.7 Blockwise Present Land Use in the Sharda Command Area (1/3)

	9 4 4	101 960 97 97 98 90 90 90 90 90 90 90 90 90 90 90 90 90	1.8 1.2 1.2 1.8
4 8 8 7 8 8 7 7 7 7 8 7 8 7 8 7 8 7 8 7	2.826 2.826	2212 2212 2212 2212 2212 2212 2212 221	17.425 3.488 2.221 2.221 2.221
2882282113826207188828	ៗៗ	8999111699998 <u>8</u> 8991159	0 % % 0 1 1 0 -
201 241 252 252 252 252 252 252 252 252 252 25	381 381	224 245 275 275 275 275 275 275 275 275 275 27	219 219 219
81112891118998989889188 11128991189988988918898	บบ	288222828292688233223	4471 7871
19,887 1728 1729 1729 1729 1729 1.086 1.086 1.086 1.086 1.086 1.077 1.177 1.177 1.172 1.613 1.61	55	77788 1778 1778 1778 1778 1771 1771 177	10,181 1,050 379
888888949 8888888 888888888888888888888	0.7 0.7	00000000000000000000000000000000000000	<u> ว</u> าบ
8195 210 210 210 210 210 210 212 223 223 225 255 255 255 255 255 255 25	<u>8</u> 2 2 2	¹⁰ 4 8 10 8 10 10 8 4 1 8 4 10 4 10 8 10 8	3313 414 329
2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ម្ព ភូមិ ភូមិ	188733333323228832333	222
23 57 57 57 57 57 57 57 57 57 57	1,002	er 22 22 22 22 22 22 22 22 22 22 22 22 22	4.899 1.003 1.89
	44	77682789877437955646	464
12 12 12 12 12 12 12 12 12 12	<u></u>	<u>ឌ្លី ន ជ ព </u>	9.128 1.087
	67 67	&&Y5514445444848481186431	5.2 3.7 5.2
888 812 812 812 812 812 812 812 812 812	2.018 2.018	711 801 102 102 102 102 102 102 102 102 102 1	1.288 1.414 1.324
	82	% # % % 4 % % % % % % % % % % % % % % %	202
			21.966 1 768 717
			6.68 8.88 8.88 8.88 8.88 8.88 8.88 8.88
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385.742 24.089 29.089 30.585 30.585 30.585 30.567 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.577 31.5777 31.5777 31.5777 31.5777 31.57777 31.577777 31.5777777777777777777777777777777777777	19_226	411.925 24.707 21.653 21.653 23.853 23.958 23.853 17.947 17.856 17.947 17.856 17.945 17.856 19.0666 19.0666 19.0666 19.0666 19.0666 19.0666 19.0666 19.0666 19.0666 19.0666 17.862 17.862 17.862 17.862 17.866 17.766 17.86	271.161 27.202 27.201
598.817 33.685 33.685 33.685 37.757 31.253 31.253 31.253 31.552 3	30.074 30.074	561.164 267.26 27.060 27.060 27.060 27.060 27.061 27.061 26.050 27.061 26.050 27.06100000000000000000000000000000000000	215.840 37.782 37.782
N ALEAUR ALEAUR ALEAUR ALEAUR TAWALN TAWALN TAWALN ALRAN ALRAN TAWALN TA	CTRA CTRA	TAON TAON TAON TAON TAON TAON TIGG TAON TAON TAON TAON TAON TAON TAON TAON	IHKA
KRDOI 600 FHM 600 FHM	ARABANA 7.01 NIND	TTAUR 800 EEHT 800 EEHT 800 EEHT 800 EARS 800 FISAU 800 FISAU 800 FISAU 800 FISAU 811 MAN 811 MAN 812 MAG 813 MAH 813 MAH 813 MAG 813 FISAU 813 COND	LUCKNOW 9.01 BAKSHKA 8.07 MAI
	38881 38573 64 735.73 64 735.73 64 735.13 7451 12 7451 751	398817 387.73 64 39.13 62.0 71,47 11.3 54.87 34 24.77 61.1 23.96 7451 11.3 57.61 <td></td>	

Name of District	(A) Geographical	13		(C) Irrigated Arr	12 (CB)	Current F	(D/A) Fallow	(E) (E/A) Other Fallow Lands	(E/A)) (F) (ds Culturable V	F(A)	(G) (G/A) Tree-garden Lands	(G/A) n Lands F	(H) Pasture La	(H/A) Lands Us	Uncu	(J/A) Iturable Fe	(J) (J/A) Forest Lands	1 1	(K) (K/A Other Lands	S
No. Name of Block	Arca ha	Tocal ha	54 7 7	ولا	ર્જ	tands tra	\$P	. g		र हम्	ઈ	臣	ĸ		र १ १	Lands ha	88	er.	£	<u>ل</u> ة	ß
* 9.04 KAKORI	22 594	14.460	64.0	14,380		1.00.1		1.710	7.6	819	3.6	261	12	23.5	9	1431	Eg		20	2.224	9,8
* 9.05 SAROJINI NAGA	38,435		47.8	18.382	_	1,080	18.4	3.542	9.2	ទ្រីរ	ц 4	202	00	4	4.0	385	ې ۳	717	6.1	2,975	L.F.
* 9.06 MOHANLALGA	35,903	•	59.0	21.187	-	101	_	ឆ្	3,4	2,417	6.7	5	4 Ú	1302 1	10 10	1,692	47		8.1	2,610	73
* 9.07 GOSAIGANI	34,652		50.7	17,263	100.0	8,66		8	29	1,445	4.2	g	57	617	1.3	1,469	4		51	2.552	44
175140	012 027	1010	2.5	203 017		101 04		1000	0 V	10 000		7 010	. r	÷	0	20,647	v t		, t		. 0
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			Ŕ			10.1	1		i v n r	20		0.90	1:	1 1 1	1:		h t D e				1 4
			88	104/60	85		1 4	500 6) 4) 7		h v h c	5	4 4	ç î		1 511	t d v	3 E	9 V 9 F		
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= 10.05 HASANGANH	32.177		65.0	17,083		180		ZUL 1	2	35		852	56	642	60	33	50		61		100
IO.06 MAYAGANU	27331		65.0	13.990		1.68	• `	1383	2	6121		462	12	906		8	5		3.9		0.6
* 10.07 SAFIFUR	25,683		58.7	12,285		3.18		280 1	4	1306		8	0.8	34	0.6	945	6.1		0.8	÷.,	ເ <u>ຮີ</u>
- 10.08 NAWABGANJI	27,803		6.49	12,702		2,46		1.647	5.9	£		295	1-1	5	<u>ញ</u>	738	27		3.9.	1	00
 10.09 BICHHIYA 	33,483		55.9	18,125		64. C		2,647	5.5	ទ		Ë	50	88	71	PET 1	5.2		5.9		7.4
 IO.10 SIKANDARPUR 	33,242		<u>8</u> .5	10,644		2.99		1405	4.2	% 2		155	S.	<u>8</u>	0.6	1.158	3.5	÷.,	3.7	. 1	22
* 10.11 SIKANDARPURU	34,889		60.8	12,651		8. 8		2,917	8.4.	1,262		605	5	5	0 4	1,490	4 Ú		4,8	· .	EL.
* 10.12 ASOHA	28,853		61.9	12251		2.91		1,695	<u>و</u> .2	1,450		82	4	2	01	1,292	4 V		2		3
* 10.13 PURWA	22.52		803	13.918		1.74		1.156	6. 4	<u>ខ្</u> ម		5 8	52	8	4	1,282	5 4		44		C 10
= 10.14 HILAULI	33,881		58.7	11.105		2,78		3.159	33	2,043	•	3	4	8	0.7	2376	2.0		00	<u>.</u>	91
* 10.15 BIGHAPUR	25,256		84	11,465		2,44	ż	1308	2°1.5	1.79		ğ	ы С	ង	0.1.0	(26		g		7.7
 10.16 SUMERPUR 	26,939	16,991	69.1	12.455		ង្ក		1.163	4 W	1.453		757	27	101	4.0	1.127	4.2		0.1	3,081	4
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KAEBAKELL	101.441		ក្ក ខ	101.14	. 1	971	÷	2222	31	8,024	2	0,4,0	4,	8	5 C	570.1	1	8	ġ,		200
NOVI SALAON	22			190.81				618		£		81.1	ė.	3	2,0	8 8 8	01	<u></u>	000		4 4 4 9
			י ק ל			3		170'1	3;			1	J _. ;	3		8	- 1	ž	n i S i	1	28
	0/777		28	272	Ξ.	Z.18		1240	0 2	1321	5	1.028	4 0	3		819	20	3 , 9	7.0		2 °
II.04 SARENI	25.511		233	1351		80 4		856	3.8	88.1	4	8	5	8	5	1,827	7.7	6	10		4 (9 (
* 11.05 DALMAU	26,476	17,592	66.4	16,718		15.		1.873	1.7	1,769	6.7	1.188	4 V	120	0.5	1834	6.9	16	1.0		2
11.06 JAGATPUR	26,745		5.5	14,349	100.0	1.67	_	1.774	6.6	2,490	9 6	1,219	46	\$	0.2	1.896	7.1	266	1.0		
Shama Command Area	7 41 9 70K	215.055 0	20.0	505 FCL 1				114 382	2.2	104 00	Į	04L UF		16.403	0.5	895 US	27			02.706	88
Hardoi Command Area	1.592.625		64.2	779.362	2 76.2	145,933	6 25	72.435	4.5	61.615	3.9	32.201	201	12.919	0.8	57314	3.6	59.727	3.8	127.620	8.0
	Note	- Rinche in	■ . Blocks in Handu Command Area	and Area		I	ľ			÷										·	
	Source	: Reporting	Reporting Area According to the Ca	ng to the C	adastral Survey	Survey														•	
				•																	

Table C.7 Blockwise Present Land Use in the Sharda Command Area (3/3)

Table C.8 Pa	ast Trend of La	nd Use in Sarojini	Nagar Study Area	(1/2)
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Sarojini Nagar Block

Sr. No).	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
ι	Total Area of Land in Hectares	21,200	21,200	21,200	21,200	21,200	21,200	21,200	21,200	21,20
2	Net Sown Area in Hectares	18,382	19,769	20,219	20,242	20,082	20,240	23,080	22,632	21,06
3	Net Irrigated Area in Hectares	13,571	13,226	13,669	13,130	12,391	12,534	13,260	12,812	11,99
4	Total Irrigated Land for Main Crop by Development Block A - Rice									
	Total :	5,635	7,823	7,796	7,883	8,962	8,092	11,950	8,101	10,99
	Irrigated :	3,205	4,356	3,640	3,815	2,334	2,026	4,883	1,565	2,77
	B - Wheat									
	Total :	12,496	12,464	12,456	11,241	12,015	11,173	11,210	11.867	11,75
	Irrigated :	12,151	11,848	11,914	10,644	10,831	11,155	10,715	10,988	10,42
	C - Cereals	A4 AD 5								
	Total :	21,285	23,388	23,448	22,243	23,943	22,759	27,127	23,150	29,26
	Irrigated :	15,669	16,473	15,835	14,679	13,372	13,459	15,879	12,976	13,81
5	Total Irrigated Land for Pulses by Development Block A - Total Pulses									
	Total :	3,898	4,019	3,962	3,649	3,537	3,404	4,138	3,125	4,77
•	Irrigated :	326	294	336	239	170	222	187	317	24
	B - Total Food Grain									
	Total :	25,183	27,407	27,410	25,892	27,480	26,163	31,265	0	29,26
	Irrigated :	15,995	16,767	16,171	14,918	13,542	13,681	16,066	0	13,81
5	Irrigated Land for Oilseed by Development Block									
	Total :	210	158	216	236	201	162	242	233	1,36
	Irrigated :	88	.56	85	92	45	48	45	0	3
7	Irrigated Land for Sugarcane by Development Block									
	Total :	80	72	90	125	149	137	132	71	18
	Irrigated :	65	62	80	111	120	122	117	69	18
3	Number of Private Pumpset									
	A - With Boring	2,809	2,539	2,239	1,905	1,905	1,858	1,209	882	
	B - Without Boring	215	215	215	215	132	0	313	0	
)	Number of Private Tubewells	2,110	2,042	1,972	1,881	1,798	1,780	1,759	1,609	1,52
0	Distribution of Fertilizer by Development Block	864	1,256	1,505	2,449	2,731	2,521	2,299	2,126	1,67

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

Table C.8	Past Trend of Land Use in Sarojini Nagar Study Area (2	2/2)
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Mohanlalgani Block

Sr. No.		87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
I	Total Area of Land in Hectares	26,000) 26,000	26,000	26,000	26,000	26,000	26,000	26,000	26,000
2	Net Sown Area in Hectares	21,187	19,471	19,914	25,470	22,378	22,691	22,759	16,226	21,561
3	Net Irrigated Area in Hectares	14,139	13,307	14,282	16,423	12,949	13,672	13,433	10,439	11,392
4	Total Irrigated Land for Main Cr by Development Block A - Rice	ор								
	Tot	al: 4,1 <i>5</i> 9	12,160	10,625	- 11,157	10,781	10,368	7,627	10,979	7,587
	Irrigate	d: 3,730	9,121	5,769	5,845	4,076	4,711	3,058	2,178	3,023
	B - Wheat									
	Tot	al : 12,705	5 12,321	11,124	11,375	11,224		11,966	11,960	7,813
	Irrigate	ed : 12,333	11,963	10,750	10,722	. 10,335	11,311	11,034	11,030	6,470
	C - Cereals								05 0 40	10.010
	Tot	-					25,205	23,091	25,342	19,218
	Irrigate	:d: 16,277	21,229	16,702	16,791	14,785	16,415	14,494	13,594	10,112
5	Total Irrigated Land for Pulses							-		
	by Development Block									
	A - Total Pulses									
	Tot	al: 2,893	3,155	3,396	3,968	4,236	3,861	3,086	3,594	4,148
	Irrigate	•		318				150	216	313
	B - Total Food Grain									
	Tol	al : 21,469	29,425	27,252	29,063	28,877	29,066	26,177	0	19,218
	Irrigate	d: 16,680	21,567	17,020	17,025	1.5,099	16,606	14,644	0	10,112
6	Irrigated Land for Oilseed by Development Block									
		al: 391	250	243	355	299	254	1,034	250	933
	Irrigate	d: 237	122	104	168	145	87	63	0	30
7	Irrigated Land for Sugarcane									
	by Development Block		· .							
	Tot			102				630	146	630
	Irrigate	d: 104	95	101	125	259	144	630	140	630
3	Number of Private Pumpset			÷						
	A - With Boring	2,338		1,957	1,737	1,737		1,557	1,283	0
	B - Without Boring	.304	301	289	288	285	108	0	97	0
9	Number of Private Tubewells	1,741	1,726	1,711	1,701	1,688	1,675	472	447	0
	Distribution of Fertilizer by Development Block	1,973	3,013	3,563	1,475	2,570	2,410	1,379	1,240	1,106

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

 Table C.9
 Past Trend of Land Use in Sataon Study Area (1/2)

Sr. No.		87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
i	Total Area of Land in Hectares	23,517	23,517	23,517	23,517	23,517	23,517	23,517	23,517	23,517
2	Net Sown Area in Hectarcs	18,167	16,450	16,450	15,306	15,936	17,972	n.a.	18,390	18,166
3	Net Irrigated Area in Hectares	8,753	10,543	10,543	9,566	11,026	11,247	n.a.	10,499	11,219
4	Total Irrigated Land for Main Crop by Development Block A - Rice							·		
	Total :	2,450	3,910	3,910	5,127	4,872	4,516	3,168	n.a.	3,829
	Irrigated :	1,809	2,565	2,565	3,971	3,739	3,218	1,815	n.a.	1,479
	B - Wheat									
	Total :	8,410	8,496	9,496	8,383	9,567	9,323	7,345	n.a.	7,536
	Irrigated :	8,184	8,223	8,223	8,244	9,252	9,002	6,743	n.a.	5,494
	C - Cereals	10 765	15 363	16 071	16 202	17 420	16.002	1 404		12 07/
	Total : Irrigated :	13,755 10,340	15,363 14,473	16,271 14,217	16,303 12,510	17,439 13,252	16,996 12,678	1,484 8,275	n.a. n.a.	13,970 8,100
	inigated.	10,540	14,475	17,617	12,510	13,252	12,070	0,275	17.cc.	0,10
5	Total Irrigated Land for Pulses by Development Block A - Total Pulses									
	Total :	4,185	3,946	3,946	3,661	4,127	3,552	n.a.	3,456	3,58
	Irngated :	464	413	413	375	274	208	n.a.	373	59
	B - Total Food Grain	,								
	fotal :	17,940	19,309	19,309	19,964	21,566	20,548	n.a.	n.a.	17,55
	Irrigated :	10,804	11,886	11,886	12,885	13,526	12,886	n.a.	n.a.	8,70
6 64	Irrigated Land for Oilseed by Development Block									
	Total :	1,590	1,939	1,939	1,983	2,185	2,510	n.a.	2,031	n.a
	Irrigated :	325	228	228	227	220	263	n.a.	245	n. a
7	Irrigated Land for Sugarcane by Development Block									
	Total :	353	360	360	303	562	658	n.a.	339	26:
	Irrigated :	352	360	360	300	557	647	n.a.	336	267
8	Number of Private Pumpset									
	A - With Boring	672	624	573	499	481	n.a.	476	419	n.a
	B - Without Boring	61	100	100	99	95	n.a.	81	n.a.	n.a
9	Number of Private Tubewells	2,968	2,799	1,660	2,603	2,275	n.a.	2,473	1,673	n.a
10	Distribution of Fertilizer by Development Block	1,436	1,587	1,327	1,368	1,361	n.a.	1,072	888	n.a

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

Table C.9 Past Trend of Land Use in Sataon Study Area (2/2)

Sr. No.		· · ·	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
1	Total Area of Land in	lectares	26,200	26,200	26,200	26,200	26,200	26,200	26,200	26,200	26,200
2	Net Sown Area in Hec	tarcs	17,436	19,714	19,513	19,790	19,802	20,185	n.a.	n.a.	21,247
3	Net Irrigated Area in H	lectares	10,972	11,105	9,858	f1,066	10,172	9,215	n.a.	n.a.	8,223
ŧ	Total Irrigated Land fo by Development Block										
	A – Rice	Total :	2,614	6,342	6,588	4,328	5,998	5,384	n.a.	n.a,	6,163
		Irrigated :	1,684	-						n.a.	1,442
	B - Wheat	nngmou .	1,00	5,,,02		-1		-,			
		Total :	9,600	7,916	8,164	7,554	8,151	8,205	n.a.	n.a.	5,906
		Irrigated :	9,018	7,365	7,398	7,109	7,414	7,484	N.8.	n.a.	4,583
	C - Cereals										
		Total :			-		•			n.a.	17,887
		Irrigated :	11,232	10,939	11,085	10,798	10,480	10,273	n.a.	n.a.	7,585
5	Total Irrigated Land fo	r Pulses									
	by Development Block	L		÷					•		
. •	A - Total Pulses	+ 1.		÷.;							
		Total :	3,458	3,956	4,621	4,030	3,980	3,632	n.a.	n.a.	4,394
		Irrigated :	465	296			372	311	n.a.	n.a.	386
	B - Total Food Grain	1									
		Total :	18,464	21,860	-	-		20,947	n.a.	n.a.	
		Irrigated :	11,697	11,235	11,430	11,179	10,852	10,584	n.a.	n.a.	n.a.
6	Irrigated Land for Oils by Development Block		:					-			
		Total :	510	475	559	609	501	547	n.a.	n.a.	n.a.
		Irrigated :	84	66	44	117	50	52	n.a.	n.a.	n.a.
7	Irrigated Land for Suga										
	by Development Dices	Total :	82	124	146	120	174	189	n.a,	n.a.	177
		Irrigated :	80					183	n.a.	n.a.	176
B '	Number of Private Pun	npsel .									
	A - With Boring		2,555	2,358	2,199	2,036	n.a.	n.a.	n.a.	n.a.	n.a.
	B - Without Boring		140	140	140	135	n.a.	n.a .	n.a.	n.a.	n.a.
9	Number of Private Tub	ewells	535	505	493	478	n.a.	n.a.	n.a.	n.a.	1,050
10	Distribution of Fertilize Development Block	er by	n.a.	1,130	1,233	665	771	n.a.	n.a.	n.a.	526

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

Table C.10 Past Trend of Land Use in Sursa Study Area

Sr. No.		· .	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
1	Total Area of Land in F	lectarcs	32,300	32,300	32,300	32,300	32,300	32,300	32,300	32,300	21,20
2	Net Sown Area in Hect	ares	20,333	20,496	20,671	18,572	20,605	20,460	21,177	20,739	21,06
3	Net Irrigated Area in H	ectares	12,058	11,629	13,382	14,087	13,777	13,182	12,026	13,819	11,99
4	Total Irrigated Land for by Development Block A - Rice	Main Crop						·			
	A - MLL	Total :	2,176	6,095	6,184	5,395	5,768	3,835	6,117	4,361	10,99
		Irrigated :	1,380	3,590	614	.589	217	112	218	.58	2,77
	B - Wheat	C C									•
		Total :	13,406	11,366	12,898	12,795	13,129	12,887	11,835	13,904	11,7
		Irrigated :	12,813	11,182	11,849	11,952	12,237	11,713	10,185	12,319	10,42
	C - Cereals										
		Total :	21,370	22,516	25,459	23,414	23,704	20,976	22,237	20,933	29,2
		Irrigated :	14,704	15,025	12,695	12,785	12,714	12,144	10,684	12,719	13,8
5	Total Irrigated Land for by Development Block A - Total Puises	Pulses									
		Total :	3,694	3,310	4,059	2,833	2,817	3,168	4,391	3,168	4,7
		irrigated :	397	193	135	149	144	159	171	176	24
	B - Total Food Grain										
		Total :	25,064	25,826	29,518	26,317	26,521	24,144	26,628	n .a.	29,2
		Irrigated :	15,101	15,218	12,834	12,934	12,863	12,303	10,855	n.a.	13,8
5	Irrigated Land for Oilse by Development Block	ed									
	4	Total :	626	775	766	1,379	1,859	1,845	1,569	964	1,3
		Irrigated :	362	206	197	265	106	107	85	180	:
7	Irrigated Land for Sugar by Development Block	rcane									
		Total :	1,146	1,012	825	876	1,054	1,216	1,163	678	18
		Irrigated :	808	679	513	519	577	598	988	493	13
3 .	Number of Private Pum	pset									
	A - With Boring		2,583	2,453	2,290	90	1,869	55	43	n.a.	
	B - Without Boring	1.	192	190	180	170	156	1,918	1,603	na	
>	Number of Private Tube	ewells	100	95	94	2,435	.56	2,342	2,330	n.a.	1,5
0	Distribution of Fertilize Development Block	r by	1,261	1,474	1,917	1,568	1,864	1,662	1,501	1,378	1,6

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

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Table C.11 Past Trend of Land Use in Purwa Study Area

Sr. No).	87-88	86-87	85-86	84-85	83-84	82-83	81-82	80-81	79-80
l	Total Area of Land in Heetares	34,800	34,800	34,800	34,800	34,800	34,800	34,800	34,800	34,800
2	Net Sown Area in Hectares	14,665	14,161	14,088	18,035	14,676	14,490	n.a.	n,a.	14,949
3	Net Irrigated Area in Hectares	11,918	13,918	12,355	11,987	11,093	9,962	n.a.	n.a.	10,874
4	Total Irrigated Land for Main Crop by Development Block A - Rice			·						
	Total :	6,172	8,744	8,530	7,988	7,595	7,922	n.a.	п.а.	6,458
	Irrigated :	3,379	7,818	6,765	6,618	6,003	6,704	n.a.	n.a.	5,861
	B - Wheat	5-90 F			4440					
•	Total :	9,469	9,239	9,070	9,546	9,226	9,313	n.a.	n.a.	8,035
	Irrigated :	9,385	9,196	8,997	8,714	9,026	9,039	n.a.	n.a.	7,351
	C - Cereals								1.1	
	Total :	17,201	19,685	19,365	19,329	18,497	18,343	n.a.	n.a.	17,078
	Irrigated :	13,215	17,311	16,093	15,682	15,382	16,100	n.a.	n.a.	13,995
5	Total Irrigated Land for Pulses by Development Block A - Total Pulses							•		
	Total:	1,944	2,058	2,016	1,938	1,981	1,873	n.a.	n.a.	2,320
· .	Irrigated :	322	105	104	127	110	992	n.a.	n.a.	177
	B - Total Food Grain									
	Total :	19,145	21,743	21,174	21,267	20,478	20,216	n.a.	n.a.	n.a.
	Irrigated :	13,537	17,416	16,238	15,809	15,492	16,192	n.a.	n.a,	n.a
ŝ	Irrigated Land for Oilseed by Development Block									
	Total :	254	204	223	212	103	213	n.a.	n.a.	n.a.
	Irrigated :	12	86	80	91	29	35	n.a.	n.a.	n.a.
7	Irrigated Land for Sugarcane by Development Block									
	Total :	217	303	207	243	287	300	n.a.	n.a.	200
	Irrigated :	214	302	207	228	285	297	n.a.	n.a.	199
3	Number of Private Pumpset							•		
	A - With Boring	2,586	n.a.	2,214	2,051	1,829	n.a.	n.a.	п.а.	n.a.
	B - Without Boring	93	93	93	88	84	n.a.	n.a.	n.a.	n.a.
)	Number of Private Tubewells	155	n.a.	13.5	120	114	n.a.	n.a.	n.a.	1,157
10	Distribution of Fertilizer by Development Block	n.a.	1,300	1,427	865	1,309	1,247	n.a.	n.a.	981

Source: Sankhyakya Patrika of the U.P. State Planning Institue.

			1	Net Cultivated Area	ed Area	Current	Other B	Barren but	Forest for	Permanent	Usar/Unculti-	Forest	Others	Total
is Ž	Village Name	Geographical Area	Total	Irrigated Von Area	h-Imgated Area	Fallow Lands	Fallow Arable Lands Lands	tble Lands	Timber Lands	Pasture Lands	vable Lands	Lands	Lands	
		(ha)	(ha)	(ha)	(ha)	(ਸ਼ਰ)	(ha)	(ha)	(ha)	(ha)	(faa)	(FLB)	(EU)	(ha)
SAROJ	A. SAROJINI NAGAR BLOCK (LUCKNOW DISTIRCT)	DISTIRCT)												
L' KI	Khande Dev	521	1 03	267	136	83	-	80	0	0	80	0	8 4	521
-	Kasarwara	176	117	83	94 4	36	0	ŝ	0	0	1	0	16	176
ፈ	Paharpur	180	125	81	4	30	0	ŝ	4	0	6	0	14	180
10. B	Banthra	6969	468	280	188	83	4	ę	12	œ	9	0	109	6969
	Bani	181	137	101	36	12	0	4	0	0	6	0	26	181
22. Sa	Sarai Shahzadi	250	156	108	8	11	0	Q,	-1	0	ω.	¢	10	250
А	Kamlapur Ahmadpur	121	68	49	19	33	1	1	0	0	L		11	121
A	Asraf Nagar	255	139	92	4	78	ы	1	0	0	00	0	26	255
A	Amausi	1,645	1 2	359	288	8	17	108	11	0	0	11	611	1,645
A	Anaura	324	179	66	86	24	16	0	0	0	13		27	324
A	Andhpur Dev	260	168	117	51	21	0	4	2	0	51		ц 4	260
A	Alinagar Sunnara	499	216	132	2	212	0	0	0	0	8		8	499
A	Alinagar Khurd	126	32	22	10	60	0	1	0	0	20		13	126
A	Aurawan	241	149	109	4	17	0	(n	7	0	16		4	241
13. Kı	Kurauni	719	331	269	62	4	Ś	9	52	0	74		41	719
X	Kishanpur Kaudiya	149	86	27	2 9	53	Ħ	ભ	0	0	30		~	5
17. KI	Khatola	464	2 8	58	4	141	1	90	0	0	21	180	15	424
Q	Gauri	337	171	157	1 4	57	0	64	ŝ	0	0		102	337
Q	Gahru	619	216	212	4	75	1	v	4	0	0	1	128	619
υ	Chandrawal	239	136	89	47	4	0	9	0	ŝ	30	0	19	239
Ja	Jahanabad	43	33	13	30	Ð	0	1	0	7	0		r	4
Ja	Jaiti Khera	558	372	332	4	27	32	0	0	0	65	Q	ጽ	558
q	Dhawapur	111	8	6 4	11	4 (1	1	2	¢	0	0		17	111
Z	Natkur	199	455	367	88	82	10	9	0	12	Ö		96	661
Z	Numagar Bhadarsa	321	219	150	69	39	0	0	1	0	6£		ង	321
	Neewan	512	276	232	4	116	00	32		0	0		62	512
31. Pa	Parvar Paschim	016	410	280	130	114	0	65	12	0	171		138	910
32. Pa	Parvar Purab	515	220	167	53	3 4	<i>LL</i>	27	0	0	0		155	515
35. Fe	Farukhabad Chillava	341	96	55	4	87	20	5		0	0		130	341
й,	Bijnaur	752	375	232	143	1.59	25	18	11 4	0	0		161	752
й	Č Behtava	115	66	27	96 29	ŝ	ŝ	0	0	0	28	0	13	115
й	ehsa	395	Ś	Ś	0	0	361	0	0	0	αŋ	0	26	395
rrce: N	Source : Miran Khasra, Lucknow & Unnao District THESIL Concerned	trict THESIL Concerned												
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Village func Logentional constraint Log in the functional constraint and constraint					זאמי ריחות אמנם		Cunteria				renmanent	Usar Uncula-	rorest	CHICLE	1013
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	7 2		reographical	l otal	Irngated von-	-Im gated	Failow	Fallow Arab	le Lands	limber	Pasture	vable	Lands	Lands	
Metro Biology Control Convolution Metro Biology Me	No	v Intage roame	Area	(ha)	Area	Area	(ha)	ver ver	(e4)	Lanos	(Pro)	Tands	104	(04)	(cont)
More Brangeri Wittengipur More Brangeri and Baratila More Brance and Baratila More Brance anddratila More Brance anddratila <td>B. MOHAN</td> <td>VLAL GANJ BLOCK (LUCKNOW DISTIR</td> <td></td> <td>(114)</td> <td>11111</td> <td>(111)</td> <td>1.141</td> <td></td> <td>1447</td> <td>(PTT)</td> <td>(1147)</td> <td>(pri)</td> <td>(1911)</td> <td>(prir)</td> <td>(BIL)</td>	B. MOHAN	VLAL GANJ BLOCK (LUCKNOW DISTIR		(114)	11111	(111)	1.141		1447	(PTT)	(1147)	(pri)	(1911)	(prir)	(BIL)
	50. AJ	kbar Beniganj		147	80	<i>S</i> 7	34	0	7	0	1	0	4	13	201
Bandial #23 266 200 86 38 0 7 18 25 1 Displayments 643 371 277 74 114 16 20 1 1 1 Displayments 643 371 287 74 114 16 20 1		irsinghpur	313	208	65	143	39	0	9	18	0	1	6	35	313
		araulta	423	286	200	86	38	0	7	18	25	4	ы	41	418
		hajanmeu	86	65	39	28	7	1	0	0	0	0	0	11	22
		hadeswa	643	371	297	۲ 4	114	16	20	11	1	11	55	4	£
		ewaria Bharosava	403	257	187	65	74	0	10	15	1	0	0	\$	403
Dehava 370 93 55 37 36 6 15 13 2 7 Roberton 13.005 7.584 2.00 24 15 13 2 7 Sub-Total 13.005 7.584 2.30 2.84 7.97 11 1 2 7 10 22 5 Sub-Total 3.85 3.94 13 165 146 157 1		hanuwa Saand	4 <u>44</u>	283	214	69	Э4 4	0	9	0	17	53	99	30	4
I. Game I. (Game		ehawa	370	8	56	37	36	6	15	13	1	7	0	35	207
		aura	1,055	384	300	8	115	m	131	10	21	ŝ	904 40	82	1,055
SOTAN BLOCK (UNNA ODSTRICT) 324 218 124 94 57 11 1 5 0 8 Viauma Chapki 233 311 154 194 57 11 1 5 0 8 Chapki 233 311 155 14 92 51 17 14 0 0 1 Derekhata Achit 73 56 35 35 31 31 16 1 1 1 0	S	ub-Total	13,009	7,595	5,238	2,359	1,350	55	749	476	244	161	1.077	1,132	12,839
Vilame 324 218 124 94 57 11 1 5 0 5 Chlaupi Zitaupi 233 311 165 146 153 2 2 2 2 0 3 Chlaupi 233 311 165 146 153 2 2 2 2 2 0 0 3 Derehata Adat 23 35 35 35 35 35 3	C. ASOHA	V BLOCK (UNNAO DISTIRCT)													
	65. V	ilaura	324	218	124	94	57	11		Ś	0	т	0	29	324
		haupai	533	311	165	146	153	64	7	20	0	80	0	37	533
Darchata Achi 88 72 33 39 8 71 11 1		hilauli	218	143	26	51	17	12	7	14	0	0	0	15	208
		archata Achli	68	72	33	39	8	0	-1	ч	0	0	0	7	88
		erchata Mahant	73	ጽ	36	20	5	0	1	म ्भ	-1	0	o	۲ ۰	5
Cyampur Gomapur Gomapur[170[1337137[1403300Gomapur Gomapur Schofwa[170[13372[610711162Gomapur Gomapur Schofun[170[13372[610711162Kelpur Majharia[13372[61271201121Kelpur Majharia[142]88[61271201212Majharia Makdumpur Memiku[14]3125231901212Neemika Mapur Modumpur[14][13]2524001121Neemika Mapur Mapur Mapur[14][13]25264403011Neemika Mapur Mapur[14][13]2526400111Neemika Mapur Mapur[14][12][12]2611111Neemika Mapur Mapur[14][13][12][14]12111Neemika Mapur Mapur[14][13][12][14]12111Neemika Mapur Mapur[14][13][12][14]122111No[14]<		undiathar	162	111	83	28	24	4	6	Ŷ	2	0	D	10	162
Gomapur Gondwa17013372610711162GondwaGondwa1037441331606121Keelpur Kabipur Kaphur1037441331606121Keelpur Kabipur Kabipur Maihhdumpur1337441331606121Keelpur Kabipur Maihhdumpur14288612712012121Maihhdumpur Makhdumpur141312562112000Nemnikar Makhdumpur14131256211211Nemnikar Makhdumpur16413886524440700000Pahapur Sub-Total209168102444067100000NuMABGANJBLOCK (INNAODISTIRCT)2091681023484040421317NuMABGANJBLOCK (INNAODISTIRCT)11473447340421317NuMABGANJBLOCK (INNAODISTIRCT)108174734042131717Numabudu231511473440000017Shedupur23114 <t< td=""><td></td><td>yanpur</td><td>139</td><td>108</td><td>71</td><td>37</td><td>14</td><td>0</td><td>.ω</td><td>m</td><td>0</td><td>0</td><td>0</td><td>11</td><td>139</td></t<>		yanpur	139	108	71	37	14	0	.ω	m	0	0	0	11	139
	-	omapur	170	133	72	61	0	7	-	11	9	ы	O	10	170
Keepur Keepur70584117001400Kahpur Majharia15913293562319012300Majharia142886127120123000Gaddipur Mathdumpur14131251512012300Mathdumpur Gaddipur4131251512012300Neemtkar Mathdumpur141312544400100Neemtkar Mathdumpur164143102414007000Pahapur Neemtkar1641431024140325000Neemtkar Neemtkar164143102414001117Neemtkar Neemtkar1641431024140325000Nub-Total Sub-Total2091681095340421361117Nub-Total Sub-Total138187114734473410000Tenduva Hinahoudi103985711022230000Tenduva Hinahoudi1039816<	-	ondwa	103	74	41	33	16.	0	v		1	*~4	0	m	103
Kahipur MajinariaISS1329339405900MajinariaIdatIdat88612712012300Gadupur Gadupur Makhdumpur14288612319012300Makhdumpur Makhdumpur14131251512012300Neemikar Makhdumpur1641388652430010Neemikar Makhdumpur1641388652430001Neemikar Makhdumpur1641388652407000Palampur Sub-Total209168109593484040700NAMBGANJ BLOCK (UNNAO DISTIRCT)12779934840421361117Nawalba Baraura1081373400000Bahanau Matura24222615473400000Bahanau334522235000000Bahanau334522235000000Bahanau334522235000000Bah		eelpur	70	2 8	41	17	0	0	1	4	0	0	0	7	70
		shipur	159	132	63	39	4	0	ŝ	Q	0	0	0	σ	159
		fajharia	142	88	61	27	12	0	•~•	53	0	0	0	18	142
		raddipur	65	39	16	23	19	0	1	6	0	0	0	न	65
Neemtikar1641388652430401Paharpur16414310241400700Paharpur634822267032500Paharpur534822267032500OgrapurSub-Total20916810959032502NAWABGANJBLOCK (UNNAO DISTIRCT)1981871147340421317Tenduva Hinankuddi1039366271102230Paraura242226154709541000Bahemau334522235000000Bacluva1631961743250221117Shekthpur163196174326022211Shekthpur163196174325022211Sub-Total1861743250222211Sub-Total1861743250000000Sub-Total1861743250		fakhdumpur	41	31	25	9	64	1	ō	1	0	0	0	ę	41
Paharpur Padmanpur16414310241400700Padmanpur Sub-Total6348222670325002Ograpur Sub-Total209168109590032502NAWABGANJ BLOCK (UNNAO DISTIRCT)2091681095934840421361117NawaBGANJ BLOCK (UNNAO DISTIRCT)1981871147344044440421361117Tenduva Hinankuddi10393662711022300Paraura242226154709541000Bahemau334522235022300Benduva163196174326022110Shekthpur163196174326022211	•	feemtikar	164	138	86	23	4	m	0	ব	0	-	0	4	16 <u>1</u>
Padmanpur63482226703000OgrapurSub-Total20916810959032502OgrapurSub-Total20916810959032502NAWABGANJ BLOCK (UNNAO DISTIRCT)1981871147340421361117Tenduva Hirankuddi1039366271102230Paraura24222615470954100Balhemau33452223500000Benduva163196174326022100		aharpur	164	143	102	4	4	0	0	7	o	0	0	10	5
Ograpur Sub-Total 209 168 109 59 0 3 25 0 2 NAWABGANJ BLOCK (UNNAO DISTIRCT) 2888 2.071 1.272 799 348 40 42 136 11 17 NaWABGANJ BLOCK (UNNAO DISTIRCT) 198 187 114 73 4 0 4 4 0 0 Paraura 103 93 66 27 11 0 2 2 3 0 Balhemau 242 226 154 70 9 5 4 1 0 <td></td> <td>admanpur</td> <td>83</td> <td>\$</td> <td>22</td> <td>26</td> <td>7</td> <td>0</td> <td>m</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>ŝ</td> <td>8</td>		admanpur	83	\$	22	26	7	0	m	0	0	0	0	ŝ	8
Sub-Total 2,888 2,071 1,272 799 348 40 42 136 11 17 NAWABGANJBLOCK (UNNAO DISTIRCT) 198 187 114 73 4 0 4 4 0 0 Tenduva Hirankuddi 103 93 66 27 11 0 2 2 3 0 Paraura 103 93 66 27 11 0 2 2 3 0 Balhemau 242 226 154 70 9 5 4 1 0 0 0 Benduva 33 45 22 23 5 0 <	-		209	168	109	69	0	0	ŝ	25	0	(1	D	11	209
NAWABGANJBLOCK (UNNAO DISTIRCT) Tenduva Hirankuddi Paraura Balhemau Benduva Shekthpur Shekthpur Tenduva Hirankuddi 103 103 114 73 114 73 114 73 114 73 114 73 114 73 114 73 114 73 11 70 9 5 7 11 0 2 2 2 2 2 2 2 2 2 2 2 2 2	I	Sub-Total	2,888	2,071	1,272	799	348	6	42	136	11	17	0	213	2,878
Tenduva Hirankuddi 198 187 114 73 4 0 4 4 0 0 0 1 1 1 0 2 2 3 0 1 0 2 2 3 0 0 0 0 0 2 1 0 2 2 3 0 0 0 0 0 2 1 0 2 2 3 0 <td>D. NAWA</td> <td>BGANJ BLOCK (UNNAO DISTIRCT)</td> <td></td>	D. NAWA	BGANJ BLOCK (UNNAO DISTIRCT)													
Paraura 103 93 66 27 11 0 2 2 3 0 Balhemau 242 226 154 70 9 5 4 1 0 0 Benduva 33 45 22 23 5 0 0 0 0 0 0 5 5 0 0 5 5 0 5 5 0 5 5 0 5		enduva Hirankuddi	198	187	114	73	4	0	4	4	0	0	4	23	226
Balhemau 242 226 154 70 9 5 4 1 0 0 1 <th1< th=""> 1 <th1< th=""> <</th1<></th1<>		araura	103	8	66	27	11	0	6	61	ŝ	0	0	10	121
Benduva 33 45 22 23 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 2 2 2		alhemau	242	226	154	04	σ	ŵ	4	.≓	0	0	0	10	255
Shektipur 163 196 174 32 6 0 2 2 2 1		enduva	33	4 5	22	23	ŝ	0	0	0	0	0	0	1	51
		hekhpur	163	196	174	32	9	0	63		3	1	0	4	223
Sub-Total 739 747 530 225 35 5 12 9 5 1			739	747	530	225	35	'n	2	م	S		4	88	876
Grand-Total 33,488 18,807 13,117 5,740 4,532 760 1,286 773 297 992 2,192		Grand-Total	33,488	18,807	13,117	5,740	4,532	760	1,286	773	297	266	2,192	4.021	33,660

		Table.C.13	Villa;	ge-wise F	resent L	and Use	in Satao	ge-wise Present Land Use in Sataon Study Area (1/2)	rea (1/2)					
+ -: .0		Geographical	Total	Cultivated Area Irrisated n-Irrisated	sa misated	Current Fallow	Other Fallow A	Валеп but Arabie Lands	Forest for Timber	Permanent Pasture	Usar/Unculti- vable	Forest I ands	Other ¹ ands	Totai
	Village Name	Area	Area	Arca	Arca	Lands			Lands	Lands	Lands		-	
		(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(tha)	(ru)	(eq)	(P13)	(tra)
A. SATAON BLOCK (RAE BARELI DISTRICT	BARELI DISTRICT)													
5 Onai Paharpur		386	254	195	50	8	19	n	. 64	Ś	7	0	4	386
6 Konsa		2,870	2,335	1,437	868	601	0	50	0	18	0	37	321	2,870
7 Korihar		1,536	1,095	735	360	112	0	4	70	30	0	0	189	1.536
10 Khusrupur		106	8	61	31	ŝ	0	1	1	0	0	0	6	106
11 Garhi Dula Rai		208	122	2	28		12		6	0	ŝ			
13 Gamhipur		80	62	39	23	•	1		9	0	0	o	6	80
14 Gauri Sataon		- 76	50	25	25	10	Ч	0	ŝ		0	0	9	76
15 Chaknasirpur		16	13	S	8	(1	O	0	0	0	0	о	Ţ	16
16 Chandwai		117	93	69	54	00	0	64	ŝ	•	0	6	7	117
29 Domapur		198	157	101	56	10.	ī	ò	Ś	1	0	0	15	198
33 Nirashapur		130	110	81	59	80	0	1	2	¢	0	0	σ	130
38 Purai		197	434	297	137	171	0	16	26	0	0	27	4	197
45 Bardar		1,028	734	380	355 355	131	1	28	10	0	0	0	124	1,028
46 Bankat		114	65	29	36	28	0	11	Ģ	0	0	0	10	114
47 Manpur		118	100	57	4	7	0	4	ŝ	0	0	0	6	118
48 Malikmau Chanbara		395	210	147	63	105	-	22	13	7	0	Ö	42	395
50 Raula		202	125	89	36	35	ŝ	و	ŝ	Ģ	Q		25	202
56 Shekhapur		123	63	71	22	64	0	-	6	m	0	~	5	123
58 Sataon		1,180	800	588	212	191 191	15	0	41	13	6	•	108	1,180
68 Husepur		65	55	47	80	6	0	0	-	0	0	0	7	65
69 Hajipur		783	657	353	304	- 15	o,	0	13	en	7	, 0	8	783
70 Hardaurpur		72	. 45	29	16	12	0	•	90	0	ö	0	2	72
Sub-Total		10,600	7,701	4,929	2,772	1. 49.1	8	288	225	78	18	8	1,125	10,600
B. KHEERO BLOCK (RAE BARELI DISTRICT	BARELI DISTRICT)		÷			. •				-	·			
27 Chandemau		172 -	141	92	49	16	0	64	o	0	0	о .	13	172
45 Naugava		122	86	61	6	24	0	4	0	0	0	0	80	122
47 Paho		866	S 04	329	175	149	12	18	17	13	62	0	16	866
52 Baraula		195	145	102	6 4	4	0	00	4	0	0	0	94 4	195
57 Basigava		224	106	60	4	8	0	17	ò	0	0	0	80	224
60 Bhitargaon		1,318	866	<i>5</i> 78	288	62	80	2	2	0	27	0	148	1,318
72 Rampur Majara		139	124	68	35	2	0	Q	61	0	o	0	Ś	139
Sub-Total		3,036	1,972	1,317	655	367	92	109	87	13	89	0	307	3,036
Data Source - Mirzar Khasra Rae Baseli & Unnao District THESII. Concerned	Dae Racali & I Innao D	ethict THESII . Oor	homon	-		. . .	- -							
A ICAL COLLECT VIILLAN AND A CALL	Kar Darci & Ollio 1		Inclued		;							t i		

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	Table.C.13	Villa	Village-wise Present Land Use in Sataon Study Area (2/2)	resent L	and Use	in Sataor	Study A	rea (2/2)					
			Net Cultivated Area	i Area	Current	Other	Barren but	Forest for	Permanent	Usar/Unculti-	Forest	Other	Total
Geographical				mgated	Fallow	Fallow Arable Lands	able Lands	Timber	Pasture	vable	Lands	Lands	
llage Nar			Area	Arca	Lands	Lands		Lands	Lands	Lands			
	(ha)		(ha)	(ha)	(ta)	(pa)	(ha)	(tra)	(ha)	(fia)	(ha)	(ha)	(ha)
C. HILAULI BLOCK (UNNAO DISTRICT)													
1 Ahesa	636	367	325	4	22	ŝ	28	10	0	156	0	\$	636
2 Akohani	2,584	721	629	62	923	38	308	0	133	323	0	138	2,584
8 Basari	496	298	261	37	24	35	12	13	0	0	0	114	496
11 Gulariha	2,768	955	686	269	642	169	344	108	0	0	0	550	2,768
13 Indaura	241	142	124	18	53	Ċ	4	Ś	0	0	0	2	241
I 4 Jaisinghkhera	272	136	100	36	6 5	0	κ	ŝ	ξ	0	0	\$	272
19 Lotna	526	265	232	33	4	0	0	9	7	0	0	204	526
23 Mavai	2,708	1/1	422	349	800 8	8	196	41	0	0	0	705	2,708
25 Nari Chak	521	370	331	39	ST	0	v	7	o	41	0	4 3	521
50 Chhipipur	53	31	R	80	19	0	0		0	0	0	61	83
56 Galibpur	361	267	171	8	89	61		0	0	H	ŝ	17	361
60 Khanpur	211	155	110	45	29	0	4	0	ŝ	7	0	18	211
65 Rajwada	515	6 04	213	196	4	જ	13	26	4	80	0	4 2	515
66 Sarai Mubarak	235	153	125	28	4	ŝ	13	7	ŝ	6	0	16	235
Sub-Total	12,127	5,040	3.782	1,258	2,755	353	932	324	153	533	5	2,032	12,127
Grand-Total	25,763	14,713	10,028	4,685	4,166	498	1,329	636	244	640	73	3,464	25,763
Data Source : Miran Khasra, Rae Bareli & Unnao District THESIL Concerned	mao District THESIL Cone	emed										·	
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Total		(ha)		258	693	1 1 1	451	1,062	346	249	270	378	<u>4</u>	706	219	427	156	385	276	271	633	460 4	138	124	202	808	365	328	822	562	256	128	37	110	381
Other ¹ and	L'ANGS	(ha)		2	28	21	21	57	37	26	4	38	44 7	62	11	21	90	18	31	13	61	47	t~	Ξ	3	85	4	53	11	ŝ	21	v	•	4	24
Forest Tande	SDUPT	(ha)		12	4	17	9	73	6	5	4	17	36	108	0	4	о [°]	0	σ	13	30	\$	17	25	0	8	4	ጽ	132	128	0	0	0	o '	0
ar/Unculti- vable	vaole Lands	(ha)		¢	116	Ł	61	10	9		ŝ	61	1 4	67	4	103		22		m	4	9	0	4	4	17	¥.	10	67	4	0	0	0	o	0
Permanent Usar/Unculti	Lands	(ha)		m	0		0	v	0	17	0	0	0	17	4	0	• 0		1	, Ei	4	00	0	0	0	0	ý,	o	0	0	0	o	ŝ	0	0
Net Cultivated Area Current Other Barren but Forest for 1	Lands	(ha)		ы	80	4	0	17	-1	1	61		-1	H4	ч	0	~1	0	TJ	ч	80	0	Ś	0	m I		m	-1	4	19	ጣ	ы	0	m	
Barren but Arabie Lande	Lavie Lalius	(ha)		10	59	6	8	143	13	12	20	8	1 98	16	60	18	34	¥,	. 10	0	94 94	45 2	**1	4	275	88	8	12	ន	19	4	m	ε	-1	1
Other Eatlow		(ha)		0	1	0		58	0	0	0	0	0	4	1	0	Ś	0	0	4	37	¢	0	0		0	0	0	0	9	0	80	0	ŝ	0
Current	Lands	(ha)		0	233	13	143	191	6 3	57	20	16	95	124	28	78	4	25	'n	47	75	97	00	\$	49	63	45	23	7	51	20	8	4	1	26
Area	-imgaled Area	(ha)	•••	20	93	102	ŝ	72	97	29	29	36	62	56	4	23	10	12	65	63	109	51	16	ň	1	55	31	42	59	68	27	26	15	12	87
Net Cultivated Area	urngateo Non-umgateo Area	(ha)		188	145	131	2	435	140	71	136	133	346	251	122	138	96 9	181	152	114	229	162	86	29	337	472	153	161	432	228	171	76	10	76	242
Total	l otal Area	(ha)		208	238	233	159	507	237	100	165	169	408	307	162	161	106	193	217	17	338	213	102	32	481	527	184	203	491	296	198	102	22	88	329
Jacamahinal	uccographical Area	(ha)		298	663	£1	451	1,062	346	249	270	378	794	706	219	427	150	381	278	271	634	461	138	124	907	814	365	328	927	562	256	128	37	110	381
	Village Name	b	A. SURSA BLOCK (HARDOI DISTRICT) (1/3)	mau	ra	ur.	mau	achlai	pur	IT		Tasaura	н.	, E	wan		្ត	Salkupur	12	iya			ra		:		akalan	12	13	ur			หลน	Juc	40 Asauli 381
Ŭ	No.		A. SURSA BLO	1 Achhramau	2 Andhama	3 Umrapur	4 Ainchamau	5 Odra Pachlai	6 Arangapur	7 Kamrauli	8 Tikri	9 Dhinni Tasaura	10 Turtipur	11 Tundwal	12 Dahigawan	13 Daleipur	14 Newada	17 Daheti Salkupur	18 Barauwa	19 Baharaiya	21 Bikapur	22 Bausara	23 Bhataura	24 Bhitha	25 Marsa	26 Meoni	27 Mahurakalan	31 Sarsaiya	32 Sauntera	33 Hosiapur	36 Dholia	37 Deoria	38 Nanamau	39 Faridapur	40 Asauli

1

Tuge Name Components Total		140001	9727 A				U DULOG	VIACUATION INC. I I COULD LAILE USE III JUISS JUULY AIRS (20)	(413) Tana (21	A	f for a ff To a she	Terest.		÷
Area Area Area Area Lands Lands <thlands< th=""> <thlands< th=""> <thlands<< th=""><th>Si.</th><th>Geographical</th><th>Total</th><th>Irrigated Non-</th><th>Imigated</th><th>Fallow</th><th>Fallow</th><th>Arable Lands</th><th>Timber</th><th></th><th>usar unculu- vable</th><th>Lands</th><th>Lands</th><th>101</th></thlands<<></thlands<></thlands<>	Si.	Geographical	Total	Irrigated Non-	Imigated	Fallow	Fallow	Arable Lands	Timber		usar unculu- vable	Lands	Lands	101
	No. Village Name	Area	Area	Area	Area	Lands	Lands		Lands	Lands	Lands			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(fra)
	A. SURSA BLOCK (HARDOI DISTRICT)													
	41 Odranewaliya	470	379	326	8	18	ŝ	9	7	0	0		31	4
	42 Kasrawan	. 682	473	319	52	4	13	ନ୍ଧ	4	0	H4		ß	Ŷ
443 343 99 113 113 856 373 113 12 14 15 13 856 383 13 14 15 13 14 15 101 103 133 14 16 17 1 1 1 1 37 14 17 14 16 17 1	43 Khajurahara	2,132	1,647	1,313	334	217	0	62	0	0	15		165	2.1
656 460 187 91 15 14 98 387 11	44 Jura	708	42	343	66	118	12	33	•~4	0	11		4	~
	45 Bhadaicha	863	656	469	187	91	15	4	6	খ			£	0 0
	46 Malihamau	753	96	8	13	14	0	12	-4	14	ч		15	
	47 Madhopur	180	156	122	34 8	Ŵ	0		17	0	0		16	• •
	48 Sursa	257	195	183	12	w	17	19	0	17	0		33	
	49 Akhnapur	135	ğ	68	36	53	¢	•		0	0		~	
	50 Kauthalia	168	125	101	24	23	o	ίΩ	ų	0	0		13	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	51 Guna	27	56	16	10	-1	0	0	0	0	0		0	
	S2 Ghamoiya	65	31	4	17	20	0	0	1	0	0		13	•
	53 Peng	368	274	170	10 40	45 2	1	4	17	1	4		35	
414 280 134 135 0 334 313 117 280 134 135 0 33 41 121 40 536 516 536 516 536 516 536 516 536 516 536 516 536 516 536 516 536 516 536 516 536 516 526 516 <td>54 Marhia</td> <td>4</td> <td>30</td> <td>24</td> <td>9</td> <td>10</td> <td>0</td> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td></td> <td>7</td> <td></td>	54 Marhia	4	30	24	9	10	0	0	1	0	0		7	
	55 Shabuddinpur	646	414	280	134	135	0	6 3	4	0	4		\$	
	56 Sarra	590	384	343	4	121	4	32	00	0	'n		36	
	57 Sathra	518	405	296	109	37	0	σ	6	0	6		ST	
	58 Sikandarpur	165	109	88	21	29	0	0	0	01	0		17	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	59 Keharmau	150	117	8	36	a	0	10	1	0	0		<u>1</u> 3	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	61 Gangapur	333	206	100	106	19	25	51	ŝ	0	2		19	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	62 Ghosar	279	195	101	40 4	19	12	22	4	0	0		5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	63 Pachkohra	331	267	201	8	10	0	15	· 1	0	p -4 (36	•••
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	64 Bannapur	683	165	242	221	121	0 (88	vn v	0 0	ייז (\$	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		C61	121	21	ŧ.;	N, S	5 (<u></u> ,	Ϋ́	о (5 0		₫ t	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	oo bnawampur	251	212	0 22	53	U G) (יי	c	7 C				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0/ Durlawati	4 20 C C C	527		3 5	3 5	4 6	2 F	λ¢	n t				
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	oo Ditamaliau 20 Mahima Mahadhana	000		166	22	ןׂ ג	2 4	7 0	<u>-</u>	n c	о с		5 8	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	CO EVENUATE INTERESTIPUT	117		100		t ?	10	00	⊣ ;	5 0	o (11	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		0/0	ç î	160	אין 1	J (~ 0		01) (۰ C		6	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	71 Senramau	4	<u>,</u>	1	<u>.</u>	5 1	5	11			-1 1		49	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	72 Sarauya	051	721	ሪ ይ	51	- (0	، 10	~ (4	- ч		2 2	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	73 Singnwamau		152	027	1	io i	0	-	ינא	o (4		5) S	
133 104 49 28 0 2 9 0 0 2 130 92 38 9 0 2 1 2 0 1 12 132 126 66 30 6 1 0 2 1 12 122 61 61 16 0 9 0 0 0 2	74 Sohanya	853	494	402	75	3	9	<u>1</u> 38	0	12	ייק		\$	
130 92 38 9 0 2 1 12 192 126 66 30 6 1 0 0 7 17 15 122 61 61 16 0 9 0 0 0 21 15	75 Flarha	217	ក្ត	5	46 6	83 °	0	17	σ,	0 0	Ç (រុ :	
192 126 66 30 6 1 0 0 7 17 15 122 61 61 16 0 9 0 0 0 21	76 Hathiai	157	0EI	26	χ, X	יי	0	17		1	⇒ I		12	
122 61 61 16 0 9 0 0 0 0 21	77 Matuwa	269	192	126	8;	05	<u>ہ</u>		0	• •	~ •		1	
	78 Abdulpur	168	51	61	61	16	0	σ	0	0	0		21	

		Table.C.14	Villa	age-wise P	resent La	nd Use in	Sursa S	Village-wise Present Land Use in Sursa Study Area (3/3)	3/3)					
				Net Cultivated Area	i Area	Current	Other	Barren but	Forest for	Permanent Usar/Unculti	ar/Unculti-	Forest	Other	Total
Si.		Geographical	Total	Irngated Non-Imgated	-Irrigated	Fallow		Arable Lands	Timber	Pasture	vable	Lands	Lands	
o Z	Village Name	Area	Area	Area	Area	Lands	Lands		Lands	Lands	Lands			
		(ha)	(Ed)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(Pa)	(tra)	(pa)	(ha)
A. SU	A. SURSA BLOCK (HARDOI DISTRICT) (3/3)													
	79 Tashkhera	123	8	71	22	v	0	17	1	0	0	0	9	123
	80 Barbatapur	8 3	35	32	rî)	٧	0	-4	17	0	0	0	Ś	8 4
	81 Rajepur	131	8	2	19	26	0	¢	1	'n	0	0	ው	131
~*	83 Kairmair	177	117	47	70	17	0	9		ò	4	21	12	175
	Sub-Total	28.846	17,824	13,484	4,340	3,278	239	1,964	205	130	805	1,309	2.170	27,924
B. AF	B. AHILOLI BLOCK (HARDOI DISTRICT)									-				
18	Karahi	275	228	181	42	10		ω	т	¢Υ	0	61	30	280
20.	Khajurmai	329	25	179	80	σ	S	4	6	7	0	-1	39	16
ų	Jarera	47	36	18	18	ŝ	1	F ~4	0	0	0	0	9	4
37.	Danmandi	132	16	2	27	17	9	٢		0	4	0	9	132
S	Punnivan	315	223	200	53	26	0	80	0	16	-1	Ś	36	315
51.	Fandapur	802	577	382	195	5	80	107	9	-	0	0	45	797
8	Wallipur	760	666	\$	262	30	œ	6		0	Ħ	0	4	757
61.	Pipona	354	277	178	66	15	ŝ	27	н	0	19		58	354
62	Vaishpur	65	4	36	10	Ś	0	~	14	٥	0	ö	ŝ	59
6	Daudpur	125	86	50	36	23	0	10	-1	0	4	0	σ	125
65.	Bamhna Khera	110	79	51	28	4	1	80	1	0	0	0	5	109 109
74.	Anuwan	115	57	88	11	ė		1	0	o	0	0	10	115
	Sub-Total	3,423	2,431	1,829	831	204	34	176	22	22	12	6	271	3,181
	Grand-Total	32,269	20,255	15,313	5,171	3,482	273	2,140	227	152	817	1,318	2,441	31.105
Data 5	Data Source · Miran Khasara Hardoi District THESII. Concerned	HESII . Concerned												

Data Source : Miran Khasara, Hardoi District THESIL Concerned

	1	Net	Cultivated Area	rea	Current	CEPer	Barren but	Forest lor	remanent	Usar/Unculti-	Forest	CIECT	1 0 3
	Geographical	Total	migated Non-Irrigated	n-Irrigated	Fallow	Fallow A	Arable Lands	Timber	Pasture	vable	Lands	Lands	
Village Name	Area	Area	Area	Area	Lands	Lands	(64)	Lands	Lands	Lands	i enter	(eq)	(eq)
A. PURWA BLOCK (UNNAO DISTRICT) (1/3)	()	((111)	Ĩ	(111)	/11111	()			(211)	Ì	(111)	
1 Beval Mansa Khera	308	155	147	œ	33	0	L.	0	0	51	0	6	30
2 Bhatmau	230	168	161		22	9	'n	4	0	60	0	61	230
3 Chamiyani	1,075	825	589	236	. 35	20	41	50	0	27	0	11	1,072
4 Garha Kola	171	<u>4</u>	129	15	0	m	Ś	0	0	1	0	12	171
S Jajanpur	96	73	ŝ	17	Ņ	e	4	6	0		0	ς. Γ	8
6 Kishan Khera	151	119	118	1	00	0	7	0	3	0	0	30	15
7 Lakhmade Mau	328	238	235	μ	30	0	ŝ	0	0	0	0	<u>55</u>	32
8 Mahra Man	289	178	175	ι ņ	37	41	6	0	0	0	0	31	8
9 Maigawan Sewak	113	62	52	27	13		-1	ч	0	1	0	11	11
10 Muraita	246	162	143	19	22	15	16	. ⊸•	0	0	0	30	4 4
11 Rasupur	128	111	59	52	ŝ	0	7	0	0	00	0	4	12
12 Sijnisohra mau	262	151	114	37	32	11	22	4	0	0	0	42	262
13 Tewaria	150	96	95	r-1	32	4	1	0	0	0	0	16	15
14 Salethu	345	282	254	28	21	0	9	0	0	o	0	36	¥
16 Barwat	163	105	68	37		9			0	Q			
35 Achal Khera	145	104	100	4	26	0	9	0	0	1	0	80	145
36 seer Sahab Lal	11	10	10	0		0		0	0	0			
37 Ahamadabad Grunt	- 84	20	5 8	12	0	۲	ы	0	0	7	0	m	-
38 Atwa	55	성	36	4	14	0	'n	0	0	7	0	80	ŝ
39 Badey Khera	190	130	130	0	0	7	0	00	0	26	4	10	<u>6</u>
40 Banigaon	754	55	509	38	74	0	38	0	0	е р	0	47	75
41 Bhadnang	575	299	285	14	131	0	84 84	0	00	4	0	6	57
42 Bishun Khera	362	259	258	1	m	35	27	0	0	25	0	13	362
43 Chak Jamalpur	104	103	0	26	0	0	4	0	0	0	0	4	01
44 Dhirji Khera	8	76	56	20	0	0	4	0	0	4	0	σ	9.
46 Fatehganj	160	88	61	21	52	0	6	9	1	њч 1	0	10	16
48 Cangdaspur	100	65	58	7		0		0	1	9			
49 Himmatpur Khera	185	139	113	26		1		0	0	0			
50 Kasroar	556	245	235	10	147	ო	76	4	0	17	0	2	556
53 Newada	171	135	95	4		0		0	0	15			
54 Kasba Pacihim	418	257	211	46	16	5	ŝ	25	0	6	0	8	418
55 Patti Sukhnandan	109	65	62	ŋ	ŝ	17	7	•	0		0	32	01
56 Kasba Ramahimmat	458	257	229	28	0	67	14	ы	18	0	0	10 10	45
57 Kasba Bhawanipur	362	219	209	10	66	29	10	Ō	1	17	Ö	20	36
58 Chandi garhi	127	2	70	4	15	ŝ	11	0	0	21	0	τŋ	12
60 Kalyanpur	59	28	28	0	14	15	1	0	0	0	¢	1	59
Data Source : Miran Khasra, Unnao & Rae Bareli District THESIL Concerned	istrict THESIL C	oncerned		-									

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		Net	Net Cultivated	Area	Current	Other	Barren but	Forest for	Forest for Permanent Usar/Unculti-	Usar/Unculti-	Forest	Other	Total
	Geographical	Totai	Total Irrigated N	Non-Irrigated	Fallow	Failow A	Fallow Arable Lands	Timber	Pasture	vable	Lands	Lands	
Village Name	Area	Årea	Area	Arca	Lands	Lands		Lands	Lands	Lands		· .	
	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(tra)	(Fa)	(ha)
A. PURWA BLOCK (UNNAO DISTRICT) (2/3)													
61 Bharthi Garhi	<i>S</i> 7	29	58	٦	12	4	Ŷ	0	0	w	0	T	5
62 Seer Kaaley Khan	21	18	18	0	1	П	0	0	0	4		0	51
63 Ramuamarpur	358	188	178	10		ť		o	0	36			
64 Simri Mau	142	4	10	30	8	0	7	0 ,	0	2	61	9	142
65 Suee Khera	194	97	81	16		4		v	Ö	0			
66 Tikar Kalan	307	213	212	•••	9	37	20	0	0	20	0	11	307
67 Tikar Khurd	206	137	127	10	51	0	7	0	0	6		9	206
68 Tripurarpur	1,059	534	501	33	σ	7	170	76	0	0	0	263	1,059
69 Tusroar	221	173	148	25	(1	7	11	۴	0	0		32	221
70 Bachholia	39	27	19	00	0	0	0	ŝ	0	o		ወ	39
72 Asehru	291	227	209	18	33	0		ŝ	0	0		25	291
75 Bhopatpuk	165	313	181	129	111	0	ς,	10	1	15	0	8	89 89
76 Shanker Chak	16	11	σ	63	61	0	0	0	1	0	0	64	16
77 Basnoha	135	105	88	37	4	m	'n	4	1	7	0	12	135
78 Chhulamau	169	106	8	26	0	ы	S	6	18	0	0	29	169
79 Dela	.82	2	51	13	4	0	ŝ	-1	o	0	0	80	82
81 Asgarganj	4 0	19	. 11	6	11	9	ŝ	0	0	m	0	Ś	6
82 Mohiuddinpur	471	251	<u>1</u> 29	87	39	30	1	12	0	18		114	471
83 Bhataumau	105	61	¥	7	33		•	0	0	v		ব	105
84 Bhitauli	177	66	76	23	32	81	\$	4	0	2		. 16	171
85 Chandrasena	4 <u>1</u>	103	8	23	1	Ś	1	4	0	Q		ន	4
86 Darehata	372	182	171	11	75	Q	00	8	0	42		51	372
87 Himmatpur	85	2	31	ន	21	0	0	4	0	0		Q	85
88 Kodra	284	151	8	85. 87	27	17	Ś	Q	0	0		78	282
89 Muraita	237	4	8	\$	32	16	7	ŝ	0	. 13	0	27	237
90 Naya Gaon	150	106	72	94 4	29	4	1	0	0			σ	150
91 Pinjra	334	186	113	52	17	ŝ	9	4	1	23		35	334
92 Topra	248	162	159	ŝ	84	9	9	10	0	Ś		15	248
93 Jamupur	260	207	8	111	7	7	ŝ	Ŷ	0	00		21	260
94 Baijuamau	176	145	122	ន	1	7	80	ίη.	0	0		12	176
95 Ghinakhera	123	8	8	20	30		~	0	0	0		9	133
96 Mamrejpur	. 454	320	308	12	16	.85	15	°	ò	15	0 0	30	454
97 Pakra Buzurg	458	326	300	26	24	81	0	0	0	0	0	27	458
98 Panhan	92	73	69	4		9	1-4	0	0	Μ	Ö	80	8
99 Purandarpur	198	117	76	41	56	0	•••	0	0	0	r~1_	ឌ	198
								•			-		

		Net Chirivated Area Current Other Barren but Forest for Per	Net Cultivated Area	rea	Current	Other	Barren but	Forest for	Permanent	Lisar/Linculti-	Forest	Other	1012
Si.	Geographical	Total Ir	Total Irrigated Non-Imgated	1-Imigated	Fallow	Fallow A.	Fallow Arabie Lands	Timber	Pasture	vable	Lands	Lands	
No. Village Name	Area	Агеа	Area	Area	Lands	Lands		Lands	Lands	Lands			
	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(na)
A. PURWA BLOCK (UNNAO DISTRICT) (3/3)													i
101 Ram Khera	66	49	4	6	6	0	ሱ	0	0	0	0	Ś	66
102 Rawatpur	145	112	101	11	4	14	7	0	0	0	0	80	145
103 Turkaha	118	88	41	47	64	Ś	61	0	0	0	0	21	118
104 Afsani	151	131	72	59	0	64	4	0	0	1	0	13	151
105 Adhauli	173	- 121	48	67 6	17		15	0	0	9	0	12	173
109 Kathar	145	116	52	4 3	14	(1	Ŷ	0	0	0	0	80	145
Sub-Total	18,276	11,888	9,769	2,035	1,954	623	859	289	<u></u> у	595	17	1.963	18,272
B. SUMELPUR BLOCK (UNNAO DISTRICT)													
4 Khijauli	216	142	121	21	0	4	13	0	0	1	0	. 16	216
7 Pakra Khurd	451	311	305	9	59	m	22	0	-4	4	0	4	151
8 Saraiyan	149	2	7	1	80	64	11	0	0	ť	0	4	671
Sub-Total	816	537	203	34	67	4 64	46 8	0	-1	18	0	98	816
C. HILAULI BLOCK (UNNAO DISTRICT)													
15 Jera	518	271	181	06	108	25	0	6	0	4	0	. 19	518
28 Patewala Dasi	204	133	108	25	12	11	0	(1	0	00	0	38	201
Sub-Total	722	4 4	289	115	120	36	0	11	0	52	O	8	722
D. KHEERO BLOCK (RAE BARELI DISTRICT)													
7 Aindhi	384	244	132	112	5 8	ŝ	4	ŝ			0	10	38-
32 Jari	407	258	177	81	80		9	16	11	च	0	32	101
79 Sheopun	223	161	88	73	16	0	80	9			0	32	223
Sub-Total	1,014	663	397	266	154	ы	18	27	II.	Ŧ	0	5	1.014
Grand-Total 20,828 13,492	20.828	13,492	10,958	2,450	2,295	741	923	327	66	699	17	2,294	20.824

Soil Map	Soil series	Land Capability	Description	Area	
Unit No.	•	Classes		ha	. %
2 3	GANGAULI TANDA	· · · · · · · · · · · · · · · · · · ·	2, 3, and 4 are located in Upland, while 6, and 16 are located in Midland.	32,654	29.1
4 6 16	AMETHI KAKARI MERAURA	1	The land has good drainability and the soil strata have good permeability. Nearly no limitation factor is present in the soil. Land is capable of yielding good harvest.		
1	LAKHPERA	2-1	1 is located in Upland. The land has good drainability and the soil strata have good permeability. The soil is sensitive to drought and is low in fertility. Yield of harvest is somewhat limited. Irrigation is needed.	1,138	1.0
9 10	SAIDAPUR GARHI	2-2	9, and 10 are located in Midupland. Drainability of the land is moderately good. Permeability of soil strata is somewhat moderate.	26,806	23.8
			Ground water level may rise from time to time, thus making the land wetness. Yield of harvest is somewhat limited. Drainage is needed.		
11 12	HASANPUR UTELWA	3-3	11, and 12 are located in Midland. Drainability of the land is poor. Permeability of soil strata is also slow. Ground water level	9,162	8.2
			rises frequently to sub-surface soil, thus making the land wetness. Yield of harvest is severely impaired. Strong alkalinity of lower strata may tend to make reaction of fertilizers ineffective. Plant growth is irregular.	·	
14 15	GOSHAINGANJ UTTARGAON	3-2	14, and 15 are located in Lowland. Draianability of the land is extremely poor. Permeability of soil strata is very slow. Ground surface is wetness and frequently flooded.	7,143	6.3
			Cultivation is severely limited. Crushability of soil is poor and sprouting may be irregular.Plant growth may be irregular also. Draining needs to be intensified.		
7 8	TAMORIA SITAULI	4-1	7, and 8 are located in mid Upland. While drainability of the land is moderate, permeability of soil strata is moderately slow. Ground surface is strongly to very strongly	16,648	14.8
		:	alkaline. During rabi season concentration of saline may be present in ground surface. Lower soil strata are wetness and yield of harvest is extremely limited. About half of the area is		
			used as paddy, while another half is left unutilized.		
13	POKHARA	4-2	13 is located in mid Lowland. Drainability of the land is poor. Pemeability of	6,683	6.0
			soil strata is slow. Ground surface is strongly- very strongly alkaline. During rabi season concentration of saline may be present in ground	· · · ·	
			surface. Soil strata are wetness up to the stratum near ground surface. Yield of harvest is extremely limited. Most of the area is left		÷
			unutilized. Rate of cultivation is very low.		•
·	miscellaneous			12,115	10.8
	Total			112,349	100.0

Table.C.16 Land Capability Classification

Table.C.17 Land Capability Classes and Suggestions for Management (1/3).

Land Capability Classes	Soil Map Unit No.	Soil series	Problems of soils	Suggestions for management
	0 m 4 n ñ	GANGAULI TANDA AMETHI KAKARI MERAURA	 Gentle or irregular sloping may cause irrigation to be irregular. Surface soil is poor in humus content. 	 Modification of cultivated land surface irregularities and construction of ridges. Spreading of rice hulls or bulky organic manures to maintain soil fertility and to improve and maintain physical properties of soil such as water holding capacity. TANDA soil series: Spreading of alkalinity neutralizing material based on the results of soil test.
2-1	-	LAKHPERA	 Gentle or irregular sloping may cause irrigation to be irregular. Irrigation is imperative. Surface soil is poor in humus content. 	 Modification of cultivated land surface irregularities and construction of ridges. Full irrigation of surface soil and underlying soil straturn. Aggressive efforts are needed to improve chemical and physical properties of soil by spreading rice hulls or bulky organic manures.
5-2	Ø 01	SAIDAPUR GARHI	 The land becomes wet by the rise of ground water level during kharif season. Surface soil is poor in humus content. 	 Excessive wetness during kharif season tends to impair functions of plant roots and causes irregular plant growth. Intensified drainage should be effective. Rainfall during kharif season contributes to enhance soil leaching and prevents soil capability deterioration. Spreading of rice hulls or buiky organic manures to improve chemical and physical properties of soil.
3-1	11 12	HASANPUR UTELWA	 Ground water level rises during kharif season to make soil wet up to 60cm depth. Surface soil is poor in humus content. 	 Reasonably satisfactory effects of drainage maybe expected. Frecipitation during karif season contributes to accerate soin reaching. For addition of organic manures, refer to the above.

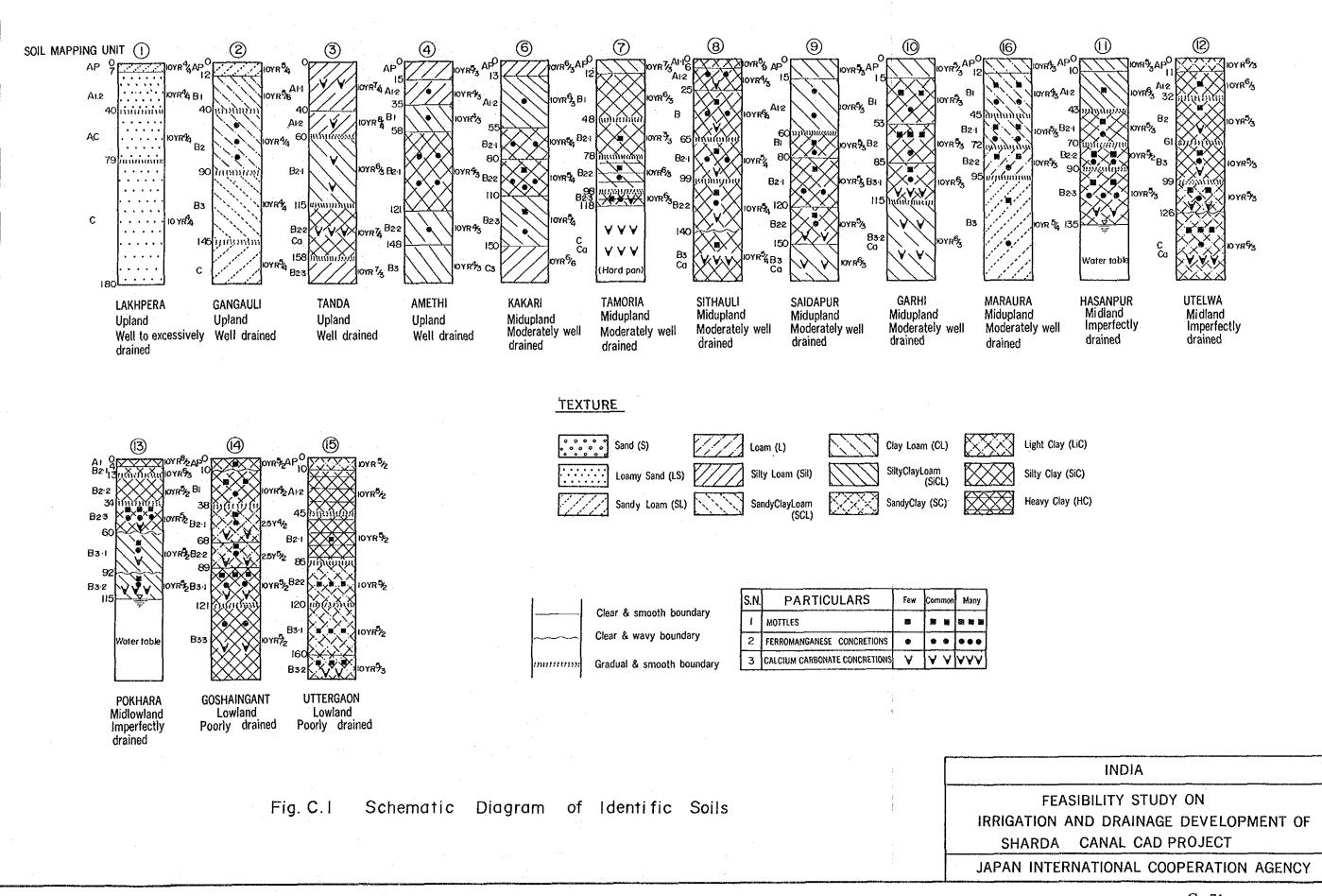
Table.C.17 Land Capability Classes and Suggestions for Management (2/3)

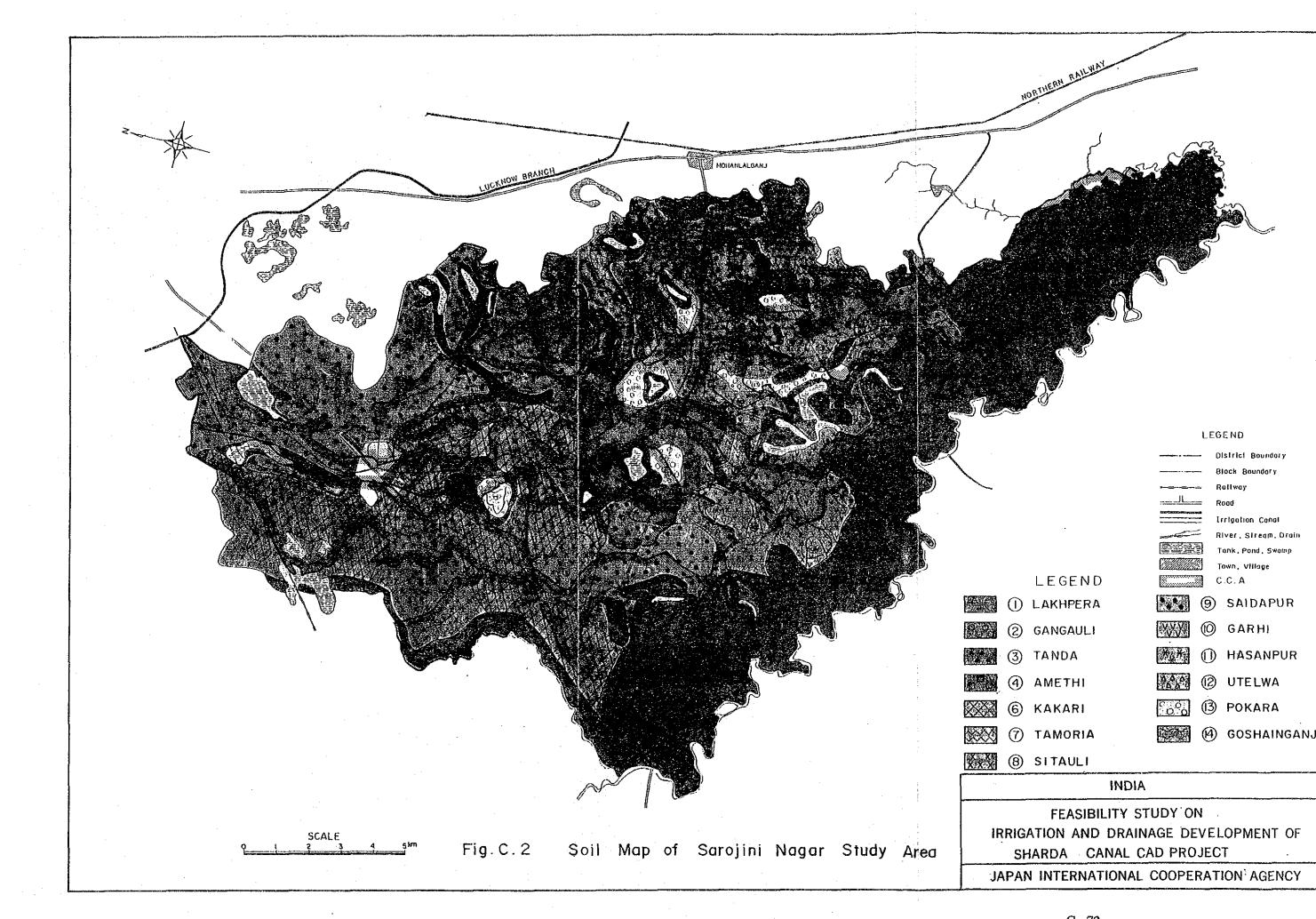
Land Capability Soil Map Classes Unit No.	Soil Map Unit No.	Soil senes	Problems of soils	Suggestions for management
3-2	41 2	GOSHAINGANJ UTTARGAOAN	 GOSHAINGANJ (1) The land is very wet and drainage is UTTARGAOAN poor. Even during rabi season, the land remains very wet underneath 40 - 50cm depth. (2) Soil texture is very fine and soil crushability is poor. 	 During kharif season, most of the land is utilized as paddy as the land is very wet up to ground surface. Plant growth is irregular and rate of fructification is low. Open drain system with high drainability or underdrain system which is provided with measures to enhance water permeability and water drainability such as filling of rice hulls or broken bricks is needed. Sprouting of plant seeds is irregular due to poor crushability of soil, thus resulting significant reduction of harvest. Spreading of rice hulls or bulky manures together with machanized tilling is needed. Keeping as deep as possible soil strata dry during rabi season would help.
4	80 -7	TAMORIA SITAULI	 Soil is strongly alkaline. Cround water level rises during kharif season to make soil very wet up to 10 - S0cm depth. Saline may be concentrated in ground surface during rabi season. Surface soil is poor in humus content 	(1) Both surface and subsoil are strongly alkaline. Alkalinity neutralizing material must be spread properly on the basis of the results of soil test. In case large quantities of alkalinity neutralizing material have to be spread, it is recommended to divide spreading into spreading one half of the quantities before tilling and the other half after completion of tilling, or spreading over two years. Neutralizing agent must be mixed well with soil.

Table.C.17 Land Capability Classes and Suggestions for Management (3/3)	Problems of soils Suggestions for management	(1) Soil in Arrandian Marian (2) Dannardian Africation
Table.C.17	Map Soil series No.	TANCOTA
	Map No.	r

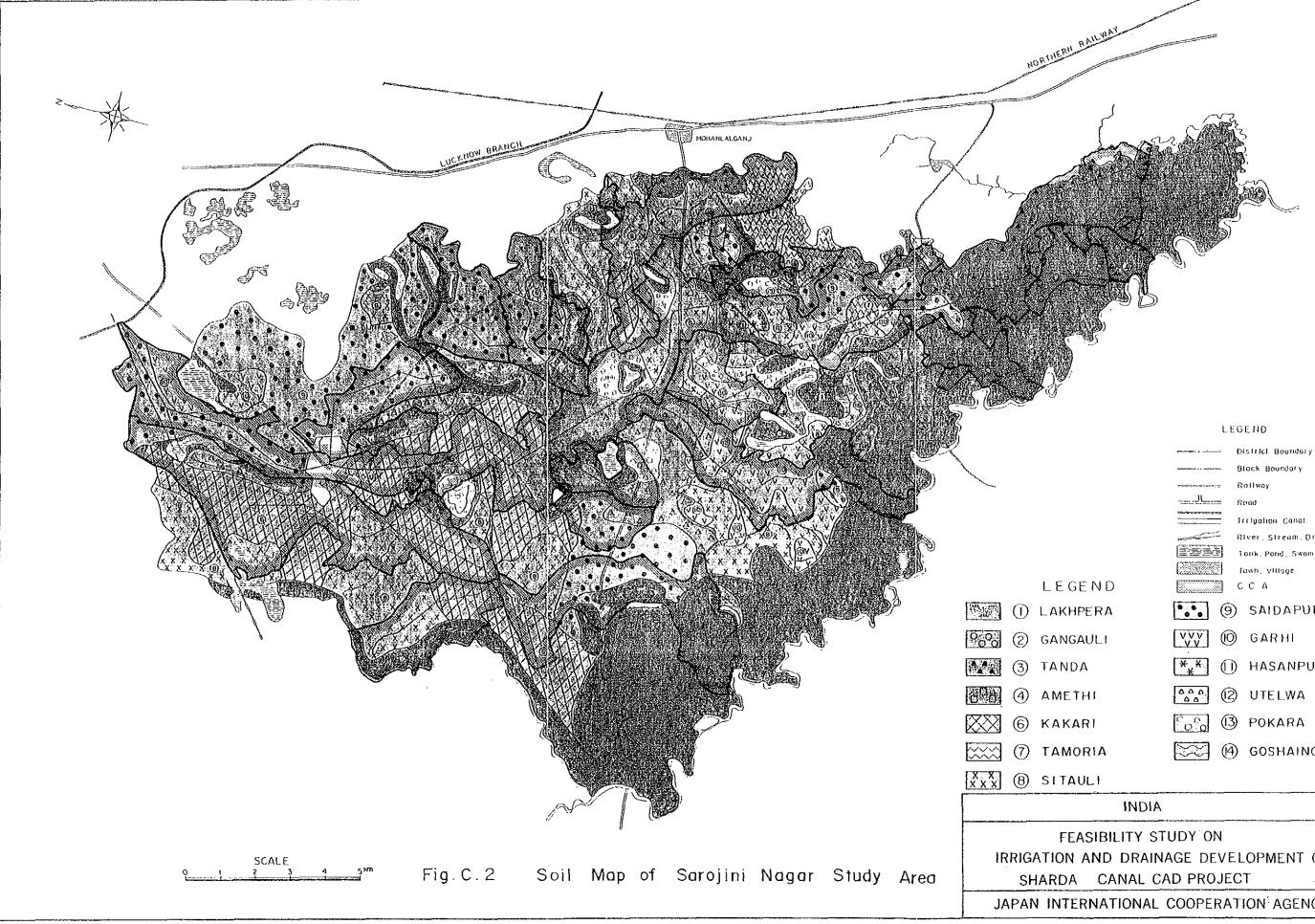
Land Capability Soll Map Classes Unit No.	Soil Map Unit No.	Soil series	Problems of soils	Suggestions for management
4-1	7- 00	TAMORIA SITAULI	 Soil is strongly alkaline. Ground water level rises during kharif season to make soil very wet up to 10 - 50cm depth. Saline may be concentrated in ground surface during rabi season. Surface soil is poor in humus content 	 (2) Reasonably satisfactory effects of drainage may be expected. Precipitation during kharif season contributes to accelerate soil leaching. Irrigation during rabi season also helps soil leaching. It is imperative to secure irrigation water sufficient for the desalination of soil. (3) Spreading of rice hulls or bulky organic manures must be promoted. Addition of micro-elements to soil, in particular zinc, together with fertilizers is needed. Addition of bulktor of burky organic together with fertilizers is needed.
4 1	<u>.</u>	POKHARA	 Soil is strongly alkaline. Soil strata up to 60cm depth remain very wet all year round. Concentration of saline in ground surface is heaviest during rabi season. Surface soil is poor in humus content. 	 Both surface and subsoil are storongly alkaline. Alkalimity neutralizing material must be spread properly on the basis of the results of soil test. See above for spreading details. Installation of drainage system is imperative. Additional measures to enhance drainability are also needed. As said above, use of open drainage system or underdrain system must be provided with measures to enhance water permeability. Soil leaching during rabi season is also needed. For addition of organic manures and micro- elements, refer to the above.

FIGURES





	Rollway
	Road
	Lirigation Conal
•	River, Stream, Orain
	Tank, Pond, Swamp
	Town, Village
EGEND	C.C. A
KHPERA	💽 🧐 SAIDAPUR
NGAULI	GARHI
NDA	HASANPUR
AETHI	😥 🕼 UTELWA
KARI	BOKARA
MORIA	GOSHAINGANJ
TAULI	
INDIA	
FEASIBILITY ST	UDY ON
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	Irrigation Canal
	River, Stream, Drain
	Tonk, Pond, Swomp
	Fown, Village
EGEND	ССА
AKHPERA	(9) SAIDAPUR
ANGAULI	VVV VV () GARHI
ANDA	[[★] ★ [★]] () HASANPUR
METHI	UTELWA
AKARI	Colo B POKARA
AMORIA	GOSHAINGANJ
ITAULI	
INDIA	
FEASIBILITY ST	UDY ON
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RDA CANAL CA	AD PROJECT
NTERNATIONAL	COOPERATION AGENCY
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