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"Evaluation-Usar Reclamation Programme in Uttar Pradesh"

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Preface

At present scenario, when per capita availability of cultivated land has been deteriorating due to fast expansion of industrialization, urbanization, development of infrastructural facilities etc, the conversion of waste lands into cultivable land has become a very important task before Government of India as well as the State Governments. There was thousands of hectares of lands lying barren due to alkalinity, water logging, ravines, and lack of irrigation facility. Among these different categories of waste lands, area covered by sodic land was maximum which, as a matter of fact, requires minimum efforts physically and financially to convert it into cultivable land. The most of the sodic land was also given to allottees, landless and marginal farmers belonging to scheduled castes but it was beyond their capacity to reclaim the same sodic lands into cultivable land by means of their own funds. Realising the gravity of the situation, Central Government had allocated huge capital to the State Government for reclamation of sodic land under Centrally sponsored scheme during the eighties. The progress of Centrally sponsored scheme of reclamation was undoubtedly very encouraging in the beginning but it started declining during nineties due to financial scarcity. In the meantime, World Bank and European Union agreed to provide financial assistance to Uttar Pradesh Government to launch a Usar Reclamation Programme in the most ten usar prone districts of the State. Thus, this programme was launched during 1992-93 covering the 10 most usar prone districts of the State and it continued till 1999-2000 with the entire financial support from World Bank and European Union.

The achievement of the programme was found positive at ground level and hence World Bank has extended the period of financial aid to Uttar Pradesh Bhumi Sudhar Nigam (UPBSN) upto March, 2005 and also accepted proposal of UPBSN to add 7 more most usar prone districts to already existing 10 districts in the State.

Out of 70 districts of Uttar Pradesh, 46 are considered to be the most usar prone districts of which 29 are being covered by Soil Conservation Department and 17 by UPBSN. UPBSN is an autonomous body and is being fully supported financially by World Bank, therefore, reclamation activities are being carried out in a very scientific manner by well established infrastructural network from top to bottom. As a result of this, most of usar land of the 17 districts being covered, would be reclaimed by the end of 2005. Against this, Soil

Conservation Department has become helpless in carrying out the reclamation programme, as per expectations, due to paucity of funds. The Usar Reclamation Programme has received setback during nineties due to curtailment in budgetary allocation for this programme by Central as well as State Governments. Hence, Soil Conservation Department is not in a position to carry out its performance satisfactorily in usar reclamation activities at present as compared to its earlier achievements in this context. There was a vast difference in operational approach in usar reclamation programme undertaken by the two agencies, Soil Conservation Department and UPBSN. This programme is being carried out in full swing by the UPBSN while it is not the case with Soil Conservation department as it is running in financial crisis.

There was positive tangible impact on the allottee farmers. The per hectare reclamation cost was estimated at Rs. 39,120 for C class usar land followed by Rs. 38,120 and Rs. 33,597 for B and B+ class usar lands. Out of total reclamation cost involved in per hectare of C class usar lands, more than 90 per cent is being shared by UPBSN and the rest 10% is shared by the beneficiaries. Thus, beneficiaries have to invest a very meagre amount for reclamation of their usar lands. The impact of this programme is also very much positive in increasing the net area sown, irrigated areas, gross cropped area and cropping intensity. The C class usar land which was lying barren prior to reclamation is now being used to grow paddy, wheat, fodder crops after reclamation. There is no difference in productivity of paddy and wheat on the normal and reclaimed lands. As a result of this, the price of reclaimed land, more or less, is equal to the price of normal land of adopted villages. The sustainability in production of paddy and wheat is not only maintained but also being increased year by year. This programme has proved to be boon in disquise specially for allottees as they are getting ample employment opportunities on their reclaimed areas and also producing sufficient quantity of foodgrains to cater the consumption need of their family. As against this, they used to totally depend on purchased quantity of foodgrains before reclamation of usar lands. Therefore, implementation of this Usar Reclamation Programme has proved to be one of the most important instruments in alleviating poverty among the allottees.

Keeping in view the significance of the programme and involvement of two important agencies of the State to reclaim the usar land of 46 districts of U.P. the Agro-Economic Research Centre, Allahabad has conducted a study to evaluate the performance of both the agencies at ground level by selecting 120 beneficiaries from 4 project units of 4 districts, two districts namely Ghaziabad

and Mau covered by Soil Conservation Department and two districts viz. Etah and Pratapgarh covered by UPBSN during 1996-97. Pre and post approach analysis of data at farm level have been evaluated while the physical and financial progress of both the agencies have been evaluated on the basis of analysis of time series data from 1992-93 to 2001-02.

I am indebted to the Managing Director, UPBSN, Additional Director U.P. Soil and Director, Remote Sensing Application Centre, Lucknow for providing assistance to my research staff in the completion of this study.

I am also thankful to Project Managers of UPBSN of Etah and Pratapgarh districts and BSA of Ghaziabad and Mau districts for providing all available facilities to our project staff during their visits for collection of primary and secondary data. I also extend my thanks to the technical staff of selected project units of the selected districts for their cooperation given to our staff.

The study was planned and completed by Shri. D. K. Singh Research Officer with the active help of Shri. K.K. Rajput and Hasib Ahmad. For library support, the assistance of Dr. H. C. Malviya is acknowledged.

Comments and suggestions for improvement of the study are most welcome and will be thankfully acknowledged.

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CHAPTER-1

Introduction

"Evaluation- Usar Reclamation Programme in Uttar Pradesh"

Out of 9520 lakh hectares of usar land in the world, India accounts for 0.74 per cent. Of 70 lakh hectares of usar land in the country, Uttar Pradesh ranks first having 18.57 per cent among the 15 usar prone States. It reflects that usar land is about 4.36 per cent of the geographical area of the State. Out of total 11.51 lakh hectares usar land in U.P., only 37 per cent was reclaimed by the end of March 2001, while sizeable portion of 63 per cent remained reclaimable. Uttar Pradesh is the fourth largest State in terms of geographical area, while population of the State is the highest (being 17 crores) among the States of the country. 31 per cent of the State's population lives below poverty line. More than 80 per cent population of the State lives in rural areas and depends upon agriculture and its allied activities for the livelihood. The per capita arable land is only 0.11 hectare, showing a very meagre acreage under plough. More than 89 per cent size of holdings varies between 0-2 hectares only. The arable land is shrinking year by year due to vast expansion in industrialization and urbanization. Besides these, lack of proper utilization of canal water, inadequate water management, use of heavily nitrogenous fertilizers are also the causes for expansion of sodic waste lands.

Population density and land-man ratio are linked with economic development. The rapid industrialization, urbanization, growth of population have resulted in massive deterioration in per capita availability of cultivated land in the State. Therefore, there is an urgent need to arrest further land degradation and also to reclaim 7.26 lakh hectares of sodic waste lands for the cultivation of crops. Under this situation, reclamation of the vast area of sodic land appeared as the only solution to increase the availability of arable land. Most of the allotted land to marginalized farmers and landless labourers were also sodic wastelands, requiring special attention for reclamation to boost socio-economic status of the allottees. Of 70 districts of U.P. 46 are recognized as usar prone districts which are situated in the basin of Ganga and Gomti rivers. Seventeen, out of forty-six districts have maximum acreage of sodic wastelands. Realizing that a sizeable area of usar land exists in the State, the U.P. Government constituted a Land Reclamation Committee in 1963 to know

the ways and means of reclamation of usar land which was spread far and wide in different parts of the State. The Committee had divided the usar lands into the following three broad categories based on pH of soils:

I. Sodic land having pH 8.50
II. Alkaline land having pH between 8.51 and 9.50
III. Sodic and alkaline land with more than 9.51 pH.

The Land Reclamation Committee had recommended the following operational activities before reclamation of sodic lands.

1. Bunding.
2. Leveling.
3. Construction of irrigation channels.
4. Construction of drainage.
5. Installation of tube-wells.

Brief - History of Reclamation Programme in the State:

In order to increase arable area, Government of India had launched a centrally sponsored scheme for reclamation of alkali and saline soils in U.P. during 1985-86 with an outlay of Rs. 11.82 crore. This scheme was basically sponsored for small and marginal farmers. Under this scheme, pyrites/gypsum, green-manuring seeds, free boring worth Rs. 3,000/- and provisions for subsidy on pumpsets were provided to adopt farmers. Beside these, bunding, leveling, drainage etc. had also been made free of cost. On account of this reclamation programme, a sizeable portion of usar land of adopted districts had been converted into productive assets. Since 1978, the state government has been implementing the Usar Reclamation Programme through various scheme viz. Centrally sponsored or state funded.

Since the inception of the Usar Reclamation Programme launched by Agriculture Department, the programme has further been launched under different names, such as centrally sponsored and short duration Usar Sudhar Programme, Ambedkar Usar Sudhar Programme, Bhoomi Sena/ Deen Dayal Usar Sudhar Programme. At present 29 usar prone districts are being covered by Agriculture Department. Out of total area of usar land of 11.51 lakh hectares of 46 districts 26.13 per cent was reclaimed by Agriculture Department by the end of March, 2001.

With the availability of funds from World Bank and E.U., Uttar Pradesh Government had taken the task of Usar Reclamation Programme by establishing Bhumi Sudhar Nigam in 1993. Since its inception 1993, U.P. Bhumi Sudhar Nigam (UPBSN) has been taking a long stride in this direction and has achieved more than 50 per cent target through proper implementation of the programme in 10 most usar prone districts of the State during Phase-I (i.e. from 1993 to 1999). In addition to these districts, 7 more districts were added during Phase-II (1999-2005). Thus, at present 17 most usar prone districts of the State are being covered by UPBSN with the total financial assistance from World Bank and E.U. Out of total 6.86 lakh hectares usar land in 17 districts, 3.04 lakh hectares land i.e. 44.30 per cent land has so far been converted into arable land by March, 2001. Out of the total reclaimed area of 30.04 lakh hectares, 59 per cent and 41 per cent were reclaimed by Soil Conservation Department and UPBSN respectively by the end of March 2001.

Need of the Study

Usar Sudhar Programme is being carried out in 46 districts of U.P. by two agencies viz., Agriculture Department and UPBSN. As against the Agriculture Department, UPBSN has been playing a vital role in the proper implementation of Usar Reclamation Programme. There is no dearth of funds in UPBSN while there is paucity of funds in Agriculture Department. On account of inadequate availability of funds in the Agriculture Department, time bound and properly executed programme could not be carried out in a bigger way. Lack of coordination and integrated approach among the executive agencies, short supply of pyrite and gypsum, delay in adjustment of subsidy, lack of awareness, shortage of staff at grass root levels etc. were the basic bottlenecks in the implementation of Usar Reclamation Programme in case of Agriculture Department.

While UPBSN is a full fledged autonomous Corporation which has been looking after all the activities of reclamation through its well-developed network spread over in 17 usar prone districts of the State. A number of financial institutions with the help of NABARD are also providing financial and technical assistance through SHGs for reclamation of usar land on collective basis. On account of successful implementation of this programme, a sizeable proportion of usar land of 17 districts have been converted into cultivable land. The economy of occupants of usar land has significantly increased because of the production of crops on their usar lands. The employment opportunities on their owned farms have also adequately increased. The value of reclaimed area

has also increased manifold. In spite of these benefits, the diversification in agriculture has taken place due to availability of land for cultivation of fodder crops. Therefore, the reclamation of usar land has proved to be a boon in augmenting the economy of owners of usar land in the State. Now the Usar Reclamation Programme has basically become the People's Participation Programme. The NGOs are also associating themselves with the UPBSN for proper implementation of the programme at grass root level where they are much popular. Now the water uses groups are also being converted into SHGS with help of NABARD to make them capable of doing other economic activities. The Usar Reclamation Programme launched by UPBSN has resulted into improvement in cropping intensity, cropping pattern, investment in fixed and working capital, increase in production and income on adopted farms.

The performance of Agriculture Department in Usar Reclamation Programme is very insignificant as compared to UPBSN. Poor work culture, lack of managerial efficiency, paucity of funds and coordination/linkage etc. on the part of Agriculture Department are basic causes for insignificant achievements in Usar Reclamation Programme. The State Govt. should take note of operational activities of UPBSN for proper implementation of Usar Reclamation Programme to get better results on marginalized farm. The State Govt. should also launch Usar Reclamation Programme as "People's Participation Programme" as UPBSN has been launching since its inception. As it has already been mentioned that only 37 per cent of 11.51 lakh hectare usar land has been reclaimed up to March, 2001 and 63 per cent has to be reclaimed in years to come, therefore, this study would be very beneficial for planners of Usar Reclamation Programme for newly adopted usar areas. This study will also focus on actual negative and positive performance of Usar Reclamation Programme at grass root level. On the basis of experience drawn from the responses of concerned officials involved in the programme and adopted farmers, the new strategies of this programme can be framed for better implementation in the interest of usar land owners. Hence, the study is very useful to Agriculture Department and UPBSN.

Objectives

The evaluation of Usar Reclamation Programme has been made to achieve the following objectives:

I. To analyze the Usar Reclamation Programme in the State.

II. To examine the two main approaches of reclamation being run by Soil Conservation and UPBSN, and to evaluate the role of these agencies and the associated problems.
III. To work out cost-benefit analysis of the reclamation programme with regard to cropping pattern, cropping intensity, income, employment etc.
IV. To find out the pre and post socio-economic development of benefitted farms.
V. To examine sustainability in reclaimed areas, and production and productivity of crops.

Sampling Framework

The study has extensively evaluated the performance of the programme launched by two important agencies, namely Agriculture Department and UPBSN. The cost and benefit analysis has also been made across the type of land, such as B and C class of usar land. Uttar Pradesh is broadly divided into four regions namely West UP, Centre, East U.P and Bundelkhand. Maximum tracts of sodic and alkaline lands are found in the first three regions only. The centrally sponsored Usar Reclamation Programme was initiated in 29 districts spread over these three regions in the State. At present in all 46 usar prone districts are covered under this scheme of which 29 and 17 districts are covered by Agriculture Department and UPBSN respectively. Hence, for proper representation of the samples, the State has been divided in two parts namely west U.P. and east U.P. From each part, two districts, one covered by Agriculture Department and the other by UPBSN occupying highest rank in reclaimed area up to March 2001 have been selected. On the basis of above criteria, districts Ghaziabad and Mau covered by Soil Conservation Department and Etah and Pratapgarh by UPBSN have been finally selected for an exhaustive field survey.

The reclamation works are being carried out through cluster approach by taking more than 4 hectares of land situated in a village. A cluster has been treated as a **"Project Unit"**. The project units are categorized into three types of usar land on the basis of pH of soil as given below:

(i) B^+- pH 8.50 - Two crops can be grown in a year.
(ii) B - pH 8.51 to 9.50 - paddy can be grown in a year.
(iii) C - pH 9.51 and above Barren, no crop can be grown in any season of a year.

The type of soil amendments and reclamation programme differ much in each category of usar land. Hence, to maintain uniformity in selection of project, one from each category occupying maximum coverage of reclaimed area in a selected district has been selected. Thus in all, there are 4 project units of 4 selected districts.

The lists of all covered farms of 4 project units have been prepared and all have been included in the sample. From each unit covered during 1996-97, 30 adopted farmers were selected in proportion to their numbers in the project unit. Reason for taking base year as 1996-97 was to know the sustainability of production and productivity of crops on reclaimed areas for 5 years. Thus, in all, 120 adopted farmers of "C", and "B" category usar land from 4 project units of 4 selected districts were selected to know the impact of Usar Reclamation Programme on the economy of adopted farmers.

The adopted farmers of B+ category were not selected because they got a very meagre share of Usar Reclamation Programme. Both agencies had paid more attention to reclaim the C and B categories of usar land. Inspite of this Soil Conservation Department had adopted those units which possessed maximum areas under C category of usar land during 1996-97 under Ambedkar Usar Sudhar Yojana.

Reference Period

The secondary information from different sources were collected for the years 1993-94 to 2000-2001. However, the cut off year for selection of units and samples were decided 1996-97 to maintain uniformity among the selected districts and project units. The period for collection of data for the post reclamation was 2000-2001 while the pre-reclamation data had been taken for the period 1996-1997 from sample farms.

Methods and Tools Applicable in Evaluation of Programme

The performance of each organization involved in the programme could be assessed through diagrammatic presentation. The measures for performance of implementation of programme on the part of organization as well as on beneficiaries were done through analysis.

The pre and post-cost benefit analysis were made to know the contributory impact on the benefitted farms. The nature of capacity building,

initiatives, content of these initiatives, frequency of such programme etc. have been critically reviewed and analysed against tasks allocated. Besides the above analysis, an effort has also been made to understand and analyse the role of different agencies in improving the implementation of the project. For policy review the interactive discussion with officers from top to bottom of Soil Conservation Department and UPBSN has immensely helped the formulation of strategies for improving efficiency of the programme.

Constraints

The major constraint of the study was non- availability of required information from Directorate of Agriculture, Uttar Pradesh, Lucknow. The data at Directorate are neither maintained neatly nor kept in a systematic manner. There was wide range of unit data of projects between State and districts. Apart from these, there was also no uniformity in the information from top to bottom in most activities of usar reclamation programme in case of Soil Conservation Department. On account of these difficulties, the analysis of data year-wise as well as component wise have given maximum strain in drafting of report.

Secondly the analysis of data by size group and holding could not be possible because most adopted farmers of soil conservation department were marginal. There was no proper representation of adopted farmer among different categories of farms.

Reporting Structure

The report is likely to be submitted in the following format:

1. Introduction

1.1 Brief History of the programme.
1.2 Need of the study.
1.3 Objectives of the study.
1.4 Methodological approach and sampling design.
1.5 Limitations of the study.

2. Review of Methods and Process Developed for Sodic Land Reclamation

2.1 Background of centrally sponsored schemes etc.

2.2 Assessment of Performance of Centrally Sponsored and State Funded Programmes.
2.3 Background of UPBSN.
2.4 Review of U.P.B.S.N., Net work and capabilities.
2.5 Comparative analysis of physical and financial targets and achievements of Agriculture Department and UPBSN.

3. Profile of the Selected Districts

3.1 Status of programme implementation.
3.2 Types of beneficiaries in different project units.
3.3 Rules and responsibilities of agencies involved.
3.4 Inter and intra-institutional interaction.

4. Socio-Economic Status of Selected Farmers

4.1 Caste, size of holding, type of farms, educational status, assets position, land utilization, irrigational facilities, etc.
4.2 pH of soil of usar land.
4.3 Area reclaimed through different means.

Supply of Inputs for Soil Amendment

4.4 Bunding, leveling, drainage, boring, installation of pump-sets.
4.5 Supply of pyrite/ gypsum and seed of green manuring.
4.6 Technical guidance for proper execution of reclamation activities.

Effectiveness of Programme on the Sample Farms

4.7 Change in cropping pattern, enhancement of cropping intensity.
4.8 Production and productivity of crops grown on reclaimed usar land.
4.9 Income, employment etc. generated on reclaimed usar land.
4.10 Improvement of social status.

CHAPTER-II

Progress of Usar Reclamation Programme in Uttar Pradesh

This chapter is an attempt to highlight the progress of Usar Reclamation Programme in Uttar Pradesh during 1992-93 and 2001-02 achieved by both Directorate of Agriculture U.P. and Uttar Pradesh Bhumi Sudhar Nigam (UPBSN). As it has been mentioned in the previous chapter that Usar Reclamation Programme had been launched in 1978-88 by Directorate of Agriculture with financial assistance of Central Government in selected districts but due to non-availability of past data, the achievement of the programme has been analysed from 1992-93 to 2001-02. Secondly, UPBSN had also started reclamation activities from 1992-93 in 10 most usar prone districts. Hence, 1992-93 has been fixed as the base year for analysing the progress of Usar Reclamation Programme of both the agencies.

Since, the work culture and operational activities etc. of Usar Reclamation Programme in both agencies are much different, hence agency-wise progress of reclamation programme has been analyzed in this chapter as mentioned below:

A. Directorate of Agriculture (Soil Conservation Department), U.P.

Directorate of Agriculture, U.P. has a number of departments of which Soil Conservation is one of the most important wings which is looking after the process of maintaining soil fertility, checking of soil erosion, conversion of uncultivable land into cultivable land etc. through different means, such as water harvesting, construction of water-shed, bunding of Nallas, digging of minor and major channels, reclamation of usar land, etc.

Among these activities, the reclamation of usar land is one of the most important tasks of Soil Conservation Department. The Soil Conservation Officer is the in-charge of the selection and the process of works, like identification of site, selection of beneficiaries, categorization of usar land etc. Apart from these, on farm development works (OFD), distribution of soil amendments and inputs, construction of drainage etc. are also being carried out under the supervision of the Soil Conservation Officer. The technical staffs of the department execute the work and programme at field level under

supervision of Soil Conservation Officer who is responsible to Additional Director of 'Soil' Uttar Pradesh. The State Committee is shown in Chart-II-1.

In order to reclaim the sodic land of 29 districts of Uttar Pradesh, the State Government had launched the Usar Reclamation Programme with fifty per cent share of Central Government during 1986-87. This programme is known as "Centrally Sponsored Usar Reclamation Programme". This programme has been carried out continuously since 1986-87 barring a few years in between.

I. Year-wise Progress of Usar Reclaimed Area

Table-II-1 reveals that 1,24,399 hectares of usar land of the covered districts had been reclaimed by Soil Conservation Department up to March, 02. It is also evident from Table II-1 that the maximum area of 25,907 hectares of usar land was reclaimed during 1996-97 followed by 25,905 hectares during 1992-93. However, there was variation in reclaimed area during subsequent years. This was due to non-availability of quantum of funds for reclamation of usar land against target, from Centre as well as State Governments. It may be noted that initially the growth of reclaimed area was higher in comparison to recent years. Out of total usar land of 4.65 lakhs hectares area of 27 districts, 26.76 per cent was reclaimed up to March, 2002. It is also evident from-II-1 that maximum area of usar land being 50.02 per cent was reclaimed under Centrally Sponsored Scheme followed by 47.66 and 2.32 per cent under Ambedkar and Deen Dayal Sudhar Yujana respectively, covering mostly the marginal farmers under Patta Scheme.

II. Physical Progress

Year-wise target and achievement of reclaimed area are presented in Table II-2. The Table depicts that achievement of reclaimed area was less than target in almost all the years from 1992-93 to 2001-02. The percentage of achievement against target was highest, being 95.95, during 1996-97 followed by 91.38 during 1992-93. The percentage of achievement of reclaimed area against target was below 50% during the four years i.e. 2000-01, 98-99, 97-98 & 94-95. Thus, it shows that the progress of this programme was not satisfactory. For want of adequate funds during the study period the targets could not be achieved.

III. Coverage of Beneficiaries

As far as coverage of beneficiaries is concerned, Table-II-3 reveals that out of total beneficiaries of 2,25,601, the maximum number of beneficiaries were covered, being 26.99 per cent, during 1998-99 followed by 24.69 per cent and 23.70 per cent during 1996-97 and 1997-98 respectively. The reason for coverage of maximum number of beneficiaries during 1998-99 was that the area of usar 'Patta' holders had been exclusively reclaimed under Ambedkar Bhumi Sudhar Yojana. It is also evident from Table-II-3 that if average of 8 years of the study period is taken the per beneficiary reclaimed area worked out to 0.55 hectare, ranging between 2.54 and 0.07 hectares during 1993-94 and 1998-99 respectively. The reason for minimum per beneficiary reclaimed area was due to coverage of beneficiaries of Patta holders and Ambedkar Usar Sudhar Yojana.

IV. Allocation of Funds

Year-wise allocation of funds for reclamation of usar land is presented in Table-II-4. It is clear from the table that the maximum amount of Rs. 5,924.84 lakhs was available during 1996-97 followed by Rs. 2,997.52 lakhs during 1995-96 for reclamation of usar land. The total allocated amount during 1992-93 was Rs. 2675.18 lakhs, which went up to Rs. 5,924.84 lakhs during 1996-97, and then it started declining and came down to a low of Rs. 109.01 lakhs during 2001-02. It is also observed from Table-II-4 that there was no allocation of fund during 1999-2000 and on account of this, the reclamation of usar land was stand-still for one year in the selected districts of U.P.

The above facts reveal that allocation of funds for reclamation was erratic and unplanned during the study period. In the wake of this, the Usar Reclamation Programme has suffered a great deal due to non-availability of funds from the Centre as well as the State Governments.

The above analysis also reveals that overall allocation of funds for beneficiary worked out to Rs. 8,011 while the per hectare cost incurred was Rs, 14,529 at aggregate level. However, the per hectare cost incurred was highest, being Rs. 53,820, during 1997-98 and lowest i.e. Rs. 6,224 during 1993-94. There was high variation in per hectare reclamation cost during different years, as it ranged between Rs. 6224 and Rs. 53,820. Thus, it shows that reclaimed area did not increase in proportion to increase in allocation of funds because the reclamation progress had mostly political rather than economic overtone.

It is also evident from the table that percentage allocation of funds was much higher in Ambedkar Bhumi Sudhar Yojana as compared to centrally sponsored scheme. In Ambedkar Bhumi Sudhar Yojana, mostly all the activities of Usar Reclamation Programme were carried out totally on State's exchequer. It is also clear from the table that cost of reclamation of usar land under Ambedkar Bhumi Sudhar Yojana, was comparatively much higher during the study period than that of centrally sponsored scheme. The cost of per hectare usar land was disproportionate in both schemes. This generally happened due to change in government policies.

The unmistakable conclusion is that there was decline in allocation of funds for reclamation of usar prone districts of which 29 are still under the coverage of Soil Conservation Department. More than 29,8821 hectares of usar land of 29 districts are to be reclaimed which requires huge funds. Therefore, Centre as well as State Governments will have to pay adequate attention to allocate suitable funds to boost the Usar Reclamation Programme in the years to come.

V. Matching Grant for Reclamation of Usar Land

Ministry of Agriculture, Govt. of India had agreed to bear 50 per cent share of total cost of reclamation of usar land under centrally sponsored scheme. The centrally sponsored scheme of usar reclamation was started from 1986-87 on the basis of 50:50 share of Central and State Governments in selected districts of U.P. In the meantime, the State Government also launched its own Usar Reclamation Programme under Ambedkar Bhoomi Sena and Deen Dayal Usar Sudhar Yojanas in usar prone districts. Although huge funds had been earn marked for this programme yet continuity could not persist for long time due to scarcity of funds. Detail of matching grant during different years is presented in Table-II-5. The table shows that out of total investment of Rs. 1,80,7,366 lakhs of 9 years, the State Govt. accounted for 89.38 per cent share followed by only 10.62 per cent of Central Government. It is clear from the table that the State Government had about 90 per cent share in the total investment on Usar Reclamation Programme in almost all years of study period.

Due to inadequate financial resources, lack of foresightedness in planning and unsuitable strategy for proper management of available means, this programme has not been properly executed at ground level in the 29 districts of U.P. The Usar Reclamation Programme which raises the per capita availability

of cultivable land and farm income should get top priority in agriculture policy of the State. Therefore, there is a need to raise the allocation of funds for Usar Reclamation Programme so that it can serve the intended purpose. The allocation of funds must be aggressively stepped up to boost up further Usar Reclamation Programme in 29 districts of U.P.

VI. Distribution of Inputs

The exact information regarding distribution of inputs could not be made available from Directorate of Agriculture, U.P. but there has been a fixed norm and on that basis the inputs have ever since been distributed. There is huge subsidy in Gypsum. Out of total cost of a metric tonne of gypsum, farmers have to pay only 25 per cent and get 75% subsidy. There is also 50 per cent subsidy in seed of paddy and wheat, fertilizers, pesticides etc at the time of reclamation yojana. There is hundred per cent subsidy in the price of dhaincha seed. Apart from these, there is a provision of free boring on an area of 4 hectares. On the total cost incurred on "On Farm Development" (OFD), construction of irrigation channels, main drainage etc., Uttar Pradesh Government provides 75 per cent subsidy.

B. Uttar Pradesh Bhumi Sudhar Nigam (UPBSN)

Uttar Pradesh Bhumi Sudhar Nigam was established in 1992-93 at Lucknow with total financial assistance by World Bank and European Union. Since its inception, it has been playing a significant role in reclamation of usar land in adopted villages. It has a very competent staff from top to bottom for proper and systematic execution of its activities. The entire Usar Reclamation Programme is basically based on "People's Participation Programme". There is total transparency in the programme at each stage. In order to improve the efficiency in its operational activities, there is monitoring at different stages. First of all, it developed a very high network of infrastructural facilities in the working area as per guidelines of World Bank. On account of this, each unit had been computerized and also provided with jeep, telephone etc. for proper execution of its activities of Usar Reclamation Programme at ground level. This helps in transmitting the actual position to Managing Director of the UPBSN to review the progress of each unit every day. Due to availability of the above facilities, the Usar Reclamation Programme could be implemented successfully in the adopted villages of U.P. The structure of staffing pattern involved in execution of Usar Reclamation Programme at district level is shown in Chart-II-2.

At the initial stage only 10 out of 46 most prone districts had been covered by UPBSN by the end of 1999-2000. World Bank had allocated funds for Usar Reclamation for 10 districts for the period of 9 years i.e from 1992-93 to 1999-2000. After seeing the satisfactory results of reclaimed areas, World Bank agreed to extend this period till March, 2005 and directed to cover 7 more districts in addition to earlier 10 covered districts.

Besides doing reclamation programme, UPBSN is also making gigantic efforts to improve overall development of the people of the adopted villages by constructing roads, drainage, marketing yards etc. In order to keep people away from taking loans from money lenders at high rates of interest, UPBSN has also undertaken the task to motivate males and females to form Self Help Groups (SHGs) with the help of NGOs in which UPBSN is getting grand success. Hence, UPBSN is confined not only to reclaim the usar land but also doing other economic activities for improvement of socio-economic conditions of farmers of the adopted villages.

The progress made in the reclamation of usar land during 1992-93 to 2001-2002 has been critically examined under the following heads:

I. Area Reclaimed

To review the progress of area reclaimed during the study period, the year-wise data have been analyzed in Table-II-6. Table-II-6 shows that 1,54,706 hectares usar land have been reclaimed up to March 2002. It shows that out of usar area of 11,51,419 hectares of 46 districts, 1,54,706 lakh hectares had been reclaimed by UPBSN, which was 13.43 per cent. While out of total area of usar land of 6,18,332 hectares of 17 districts, more than 25 per cent was reclaimed during the corresponding period. During the initial year of 1992-93 only 2792 hectares of usar land of 10 districts were reclaimed which went up to the extent of 350041 hectares during 2001-02, thereby showing an increase of 1154 per cent over the base year. And this is definitely a landmark in the progress made by UPBSN. Year-wise progress of reclaimed areas is also very encouraging which will be evident from the fact that an area of 35004 hectares of usar land has been reclaimed in 2001-02 alone. From 1992-93 to 2001-02, the coverage of usar land for reclamation has been increasing significantly every year. It is also noticed from table-II-6 that the acreage of usar reclaimed was almost doubled during phase-II over the reclaimed area of phase-I. During phase-II, two additional project units have been established in adopted districts. Each

units of UPBSN was provided Rs. 4 crore for reclaiming 300 hectares of usar land per year. Besides this, the growth rate of reclaimed area per annum was also very high during the study period due to investment of huge amounts.

II. Coverage of Beneficiaries

The coverage of beneficiaries under this programme has been depicted in Table-II-7 which shows that 2.83 lakh farmers had been covered between 1992-93 to 2001-02, out of which 44.77 per cent belonged to OBC followed by 27.96 per cent and 27.27 per cent of SC and other castes respectively.

There were only 363 beneficiaries during 1992-93 but the same increased to the extent of 75689 during 2001-02, It is also evident from the table that there was immense increase in number of beneficiaries year by year during the study period. It, thus, shows that reclaimed area increased in proportion to increase in coverage of beneficiaries. The OBC farmers were 45 per cent while the general and SC/ST were about 27 and 28 per cent respectively of total coverage of farmers in almost all the years of study period.

III. Target and Achievement of Programme

Details of target and achievement of usar reclaimed area has been presented in Table-II-8. It is seen from the table that the achievement was more than target during each year of the study period except during 2000-01. Thus the achievement ranged between 91 and 186 per cent of the target. However, the achievement was around 115 per cent against the target during 1995-96 to 1998-99, which indicates that Usar Reclamation Programme was quite positive. It is surprising to note that achievement against target was about 100 per cent during the years of Phase-II.

IV. Allocation of Funds to Different Components during Phase-I

Allocation of funds is totally related to requirement of reclamation of usar land. Since the total project of reclamation of usar land has been carried out with the financial support of the World Bank, there is no question of shortage of funds. Year-wise details of allocated funds for reclamation of usar land is presented in Table-II-9. Table-II-9 shows that the allocated amount was Rs. 486.24 lakhs during 1993-94, which went to the extent of Rs. 3381.35 lakhs during 2000-01, showing an increase of 595.41 per cent. The growth rate in allocated amount was substantially increasing in subsequent years during the

study period. The level of investment is visibly up-ward year after year and an account of this the quantitative target has been fully achieved in each year of study period.

As regards per hectare cost involved in reclamation of usar land, it worked out to Rs. 17,415 during 1993-94 which went up to Rs. 42,958 during 2001-02. It ranged between Rs. 17,415 and Rs. 53,335 during study period. It reflects that per hectare cost increased with change in year. The per beneficiary allocated funds was Rs. 6,771 during 1993-94 which increased to Rs. 19,867 during 2001-02. It ranged between Rs.6,771 and Rs. 30,915 per beneficiary. Thus, allocated funds increased with change in years. It reflects that allocation of funds per beneficiary and per hectare cost involved in reclamation of usar land was comparatively higher during 2001-02 than that of 1993-94. Interestingly during 2001-02 period, per beneficiary allocated amount and per hectare cost increased because of increase in number of beneficiaries and coverage of more areas of usar land for reclamation.

During the last decade, annual allocation of funds has gone up at a phenomenal rate from barely Rs. 486.24 lakhs during 1993-94 to over Rs. 3381.35 lakhs during 2000-01.

The above analysis gives an impression that UPBSN has been giving more attention to provide maximum amount for land reclamation and farmers share to facilitate extensive proliferation of Usar Reclamation Programme at ground level

UPBSN has to do a number of activities in a selected project unit under Usar Reclamation Programme. The project cost includes institutional development, land reclamation, extension support, researches, inputs for crops production, labour etc. The details of project cost are also presented in Table-II-9. Table-II-9 shows that out of total project cost for reclaimed area during 2000-01, the maximum cost being 70.34 per cent was accounted for land reclamation followed by 14.26 per cent and11.43 per cent for labour and draught power and institutional development respectively. It is also observed from the table that land reclamation cost during the phase-II had suddenly jumped up to more than 65 per cent from 46 per cent of last year of Phase-I. During Phase-I 1994-95 to 1998-99), the land reclamation cost ranged between 33.75 per cent and 46.99 per cent. Next to land reclamation cost, was cost on labour and draught power, which accounted for about 24 per cent of total project cost. It was more or less static throughout the years of Phase-I except 1993-94. Against this, the share on

OFD, inputs and pump sets had a declining tendency in every alternate year during the entire period of Phase-I of the study. It is also clear from the table IV-10 that out of total project cost during 2000-02, UPBSN had borne more than 70 per cent, while the farmers share was only 30 per cent during the corresponding period, while the share of UPBSN was 56 per cent against 44 per cent share of adopted farmers in the years of Phase-I. It shows that UPBSN had borne maximum cost of the project in Phase-II as compared to Phase-I

V. Distribution of Gypsum

Gypsum is a key ingredient for reclamation of usar land. Hence, UPBSN provides gypsum to beneficiaries on very nominal price of Rs. 2/ per bag (50 kg) which is otherwise available at Rs. 56/ per bag in the stores of Agriculture Department. The requirement of gypsum differs on the basis of categories of usar land. The quantity of gypsum required per hectare ranges between 6 to 13 metric tonnes. Year-wise distribution of gypsum quantity has been provided in Table-II-11. Table shows that distributed quantity of gypsum ranged between 6.82 and 9.88 metric tonnes. It is evident from the table that UPBSN had distributed gypsum as per requirement of categories of usar land. Use of gypsum is becoming popular for the reclamation of usar land. There has been no shortage of gypsum during the study period.

VI. Distribution of Inputs

To support the farmers covered under the Usar Reclamation Programme, UPBSN provides to the farmers free of cost the seeds of dhaincha, paddy and wheat, different types of fertilizers, zinc etc. during usar reclamation. Details of per hectare distribution of inputs have been presented in Table-II-11. It is inferred from the table that per hectare distribution of inputs during study period was quite adequate as per prescribed norms. There was slight variation in per hectare distribution of inputs during different years. The per hectare distribution of seeds of paddy and wheat was about 48 kgs and 88 kgs respectively. However, the per hectare distribution of quantity of urea and DAP was comparatively higher in case of wheat than that in paddy during almost all the years of the study period. The distribution of quantity of zinc was higher in paddy than that in wheat. Overall distribution of inputs for paddy and wheat crops was found satisfactory during 1993-94 to 2000-01.

VII. Provision of Free Boring

To provide the assured irrigation for reclaimed areas, UPBSN also bears the total cost of boring for making timely availability of water for crops. Provision for providing boring for 4 hectares of reclaimed area is the basic objective of UPBSN before supply of gypsum, inputs etc. The cumulative number of boring from 1993-94 to 2001-02 was 26388, which appears to be sufficient to provide additional irrigation facility to 1,06 lakh hectares land. During 1993-94 number of borings were only 534, which went up to 6701 during 2001-02, showing an increase of 1155 per cent. The number of boring increases with the increase in usar reclaimed areas. There was no dearth of funds for installation of boring facilities in the required areas. (Table-IV-11)

VIII. On Farm Development

First of all, the UPBSN takes On Farm Development activities under Usar Reclamation Programme. Farm Development activity, consists of bunding, leveling, irrigation channels, link drains, etc. These Farm Development activities are done by the covered farms on cooperation basis and no provision for payment to beneficiaries. However, Rs. 1700 per hectare is given to the adopted farmers for leaching and gypsum mixing. It is on record that UPBSN had provided full amount for leaching and gypsum mixing to respective units during 1993-94 to 1999-2000.

IX. Average Cost per Hectare in Usar Reclamation

Average cost per hectare on usar reclamation has been estimated on the basis of expenditures incurred only in the operational activities. The overhead costs, infrastructural costs etc. have not been included in the project unit cost.

The per hectare cost in terms of category of usar land has been estimated on current expenditure and presented in Table-II-12. Table II-12 denotes that per hectare cost was estimated at Rs. 39,120 on the reclamation of "C" category usar land followed by Rs. 38,118 and Rs. 33,577 of "B" and B+ categories of usar lands respectively. Out of per hectare total cost of "C" category of usar lands, the reclamation cost accounted for 55.18 per cent followed by 46.42 per cent on crops production. This tendency also prevailed in B category of usar land while it was not so in B+ category of usar land because crop production cost was higher being 53.25 per cent over reclamation cost of 46.75 per cent. The table also reveals that out of per hectare total cost on "C" category of usar

land, 56.42 per cent was shared by UPBSN and rest 43.58 per cent was borne by adopted farmers. Against this, 81.84 per cent of per hectare cost of B+ category of usar land was shared by adopted farmers while only 18.16 per cent was shared by UPBSN. In case of B category of usar land, the per hectare cost was more or less equally shared by UPBSN and adopted farmers. As such, it reveals that UPBSN has been providing maximum funds for reclamation of "C" category usar land followed by B and B+ categories. It is also clear from the analysis that there was hundred per cent subsidy on the cost of gypsum, leveling, boring, link drain etc. Besides these, there was also 100 per cent subsidy available on the cost of inputs of crop production. This provision of subsidy was available only for C and B categories of usar land while in case of B+ category of usar land, adopted farmers got subsidy on gypsum and seed of dhaincha only.

X. Area under Horticulture and Crops on Usar Reclaimed Area during Phase-II

UPBSN has attached more attention to popularize plantation of guava, ber, aonla etc. on reclaimed areas of 'C' class of lands to generate extra income for adopted farmers during Phase-II. Inter horticulture is much popular among the adopted farmers on B+ and B class of lands. Table-II-13 reveals that out of total reclaimed area of 89961.99 ha. during 1999-2000 to 2001-02, 92.09 per cent reclaimed area was occupied by crops against 7.91 per cent of area under horticulture. The maximum percentage of area under horticulture was found during 2001-02 followed by the year 1999-2000. So far as the class-wise coverage area under horticulture is concerned, the table reveals that plantation of horticulture was higher on 'C' class of land than that on B+ and B class of lands. UPBSN has now better coordination with the Horticulture Department to promote inter-horticulture on reclaimed land. The inter horticulture is being popularized year after year because of awareness and motivation programmes. The Deputy Managers of UPBSN with the help of Horticulture Department give training to selected farmers to cover the reclaimed areas under plantation. In this connection the farmers are also sent for an exposure visit.

XI. Performance of UPBSN

As already mentioned, about 1,54,706 hectares usar land of 17 districts of U.P. have been reclaimed by UPBSN from the commencement of Usar Reclamation Programme to the end of 2002 through provision of drainage network, on farm development, application of gypsum and chemical fertilizers,

irrigation development etc. Besides this, 2460 km. of main drain and 2500 km, of link drains were also constructed. Altogether 26,388 new borings were drilled, developed and made functional, resulting in generation of additional potential of 1,05,552 ha. On account of increase in irrigation potential coupled with conversion of usar land into cultivable land, the cropping intensity has increased by 50 per cent and 100 per cent on B and C class of usar lands respectively. Per hectare production on paddy and wheat was estimated at 21 qtls and 20 qtls on B+ class land prior to reclamation which has increased to 41 qtls and 35 qtls after reclamation, registering an increase of 67 per cent and 105 per cent respectively, while in case of "C" class of usar lands, the per hectare production of paddy and wheat yielded about 29 qtls and 31 qtls after reclamation of usar land which was nil before reclamation. It shows that there is significant enhancement in the production of paddy and wheat after reclamation of usar land.

On account of positive impact of usar reclamation programme on the irrigation potential, cropping intensity and production of paddy and wheat has also resulted in rise in local wage, employment, household income and consumption. It has also helped in checking migration of target groups. Therefore, it has been playing a significant role in alleviation of poverty of adopted farmers belonging to target group.

UPBSN is satisfied with socio-economic impact of Usar Reclamation Programme on the adopted farmers. The details of which are given below:

(i) The wage rates increased from Rs. 35 to 50 and Rs. 30 to 45 per day respectively for men and women.

(ii) The average household income has increased from Rs. 10,500 to Rs. 19,500 per annum. In case of marginal farmers, it has increased by 109% followed by 90% and 59% for small and large farmers respectively.

(iii) There was also a fall in disguised un-employment from 43 to 16 per cent.

XII. Institutional Development

The success of Usar Reclamation Programme launched by UPBSN is also based on the strengthening of village level institutions (WUGs, SLC, SHGs, RSACT and NGOs etc. More than 1003 SICs and 16000 WUGS have been formed to provide better participatory management. With the help of

NGOs about 2166 WSHGs and 3156 MSHGs were formed. The NGOs have been providing services for community mobilization, motivation and awareness campaigns on a large scale. NGOs support the UPBSN in the implementation of projects by developing skills for mobilizing community groups, establishment of SHGs etc. It has also arranged training programme to get better success in institutional development. On account of institutional development, UPBSN has been achieving more than 100 per cent targets in each year. The participation and community mobilization provide a good approach towards partnership between public institutions and NGOs for using inputs in a synergistic manner to get the better result from reclaimed areas.

Besides these tangible benefits, the UPBSN has also been paying adequate attention to provide better infrastructure for easy access to markets and suitable venues for general meeting and cultural activities. There is also provision to open a library in Panchayat Bhawan to provide upto date knowledge in agriculture and allied subjects.

Thus, it may be concluded that UPBSN has been putting remarkable efforts not only in reclaiming usar land but also in improving the human resource and agricultural development by strengthening local institutions and providing extension support respectively. It also helps in promoting environmental protection with comprehensive approach to rehabilitate the sodic lands. The Usar Reclamation Programme has proved to be the most beneficial for vulnerable class of people in ensuring their security and improving their social status.

XIII. Comparative Performance of Soil Conservation Department and Uttar Pradesh Bhumi Sudhar Nigam

Prior to 1992-93 Soil Conservation Department under Directorate of Agriculture was the sole agency to carry out the Usar Land Reclamation Programme for usar prone districts of Uttar Pradesh. But after the establishment of UPBSN, Soil Conservation Department got a major set back and confined its activities only to less usar prone districts. Besides this, there was also no provision of funds in this sector for one-year i.e. 1999-2000 to carry out the Usar Reclamation Programme in adopted districts. There were also other hurdles to smoothly carry out smoothly the Usar Reclamation Programme by the Soil Conservation Department such as interference of politicians, non-availability of adequate funds, lack of proper infrastructural network etc. Even then, the department has been trying its best to carry out the Usar Reclamation

Programme in 29 districts with limited sources they have in their hands. In contrast, UPBSN is fully covered by infrastructural facilities, competent staff, physical and financial net work to execute the operational activities of Usar Reclamation Programme in adopted districts. Indeed, as a result of above net work, UPBSN has taken a big stride towards success since its inception. Hence, Soil Conservation Department stands nowhere before UPBSN. However, an attempt has been made to compare the effectiveness of both the agencies at ground level. The analysis shows that there was vast difference in per hectare investment for reclamation of usar land in overall achievement of both the agencies. The per hectare cost incurred by Soil Conservation Department was Rs. 14,529 whereas it worked out to Rs. 42,898 in case of UPBSN. Thus, there was no match in per hectare reclamation cost between them.

As regards to reclaimed areas, it is evident from the tables that from 1993-94 to 2000-02, 1,24,399 hectares of usar land was reclaimed by Soil Conservation Department while 1,54,706 hectares usar land was reclaimed by UPBSN during the corresponding period, showing 24.36 increase over Soil Conservation Department.

As far as coverage of beneficiaries is concerned, 1.99 lakh beneficiaries were covered during 1992-93-2001-02 by Soil Conservation Department against the 2.83 lakh by UPBSN during the same period, thereby showing that UPBSN was much better in all respects such as, reclaimed area, coverage of beneficiaries and allocation of funds in each year than those of Soil Conservation Department. The position of Soil Conservation Department was much deplorable particularly during 1999-2000 and 2000-01 due to non-availability of funds from the Centre as well as the State Governments. Frequent occurrence of short falls in allocation of funds was the main hurdle before the Soil Conservation Department in keeping its activities.

XIV. Impact of Programme on Land Utilization, Cropping Pattern and Production of Paddy and Wheat

Real extent of success and importance on economy depend upon the leadership qualities of the initiation of the programme and support they would be able to gather during its implementation. Transparency in operation is helpful in avoiding the misuse of funds. The reclamation of usar land is a challenge for both the agencies. Both the agencies had reclaimed 37 per cent of total area of 11.51 lakh hectares of usar land in U.P. upto March, 2001. It shows that out of net sown area of 168.01 lakh hectares in the State, the contribution of

reclaimed area was 2.53 per cent at the end of 2001. This progress has also contributed in increasing on the irrigated area. The attribution was 085 per cent during corresponding period. The per capita availability of cultivable land had also increased to some extent. Land of 'Patta' belonging mostly to target groups was converted into cultivable land specially under Ambedkar Yojana.

Undoubtedly, the Usar Reclamation Programme has boosted the income of usar owner farmers.

The average production per hectare of paddy and wheat in U.P. was 19.76 qtls and 27.20 qtls respectively during 2000-01 and on that basis, the reclaimed area had produced 4.90 lakh metric tonnes of paddy and 6.74 lakhs metric tonnes of wheat during the same year. Therefore, out of total production of paddy and wheat of 115.00 lakh and 249.40 lakh metric tonnes respectively in the State during 2000-01, the share of production in reclaimed area of paddy and wheat was 4.26 per cent and 2.30 per cent respectively. This total production of 11.64 lakh metric tonnes of paddy and wheat was sufficient to meet out consumption need of 4.96 lakh population of the State. The value of total production of paddy and wheat on reclaimed area was estimated at Rs. 6705.90 crores during 2001-02. The Usar Reclamation Programme has made a significant contribution for the growth of yield of paddy and wheat. The potential capacity of irrigation has increased to some extent due to the installation of pump sets in project units under Usar Reclamation Programme. This programme has demonstrated the vast potential for paddy and wheat production in the state. Therefore, Soil Conservation Department and UPBSN should put best efforts in fostering the operational activities of Usar Reclamation Programme in a big way to reclaim more and more usar land in usar prone districts.

Owing to better performance, enjoying greater autonomy, sound infrastructural net work, high transparency at each stage, full strength of Staff, good management capacity etc. the Usar Reclamation Programme has been entrusted to Uttar Pradesh Bhumi Sudhar Nigam only.

CHAPTER-III

Progress of Usar Reclamation Programme in the Selected Districts

It has already been mentioned in the introductory chapter of the report that two districts namely Ghaziabad and Mau covered by Soil Conservation Department and two districts namely Etah and Pratapgarh covered by UPBSN were selected for this study. Hence, an attempt has been made to evaluate the progress of Usar Reclamation Programme district-wise during 1992-93 to 2001-02. Usar Reclamation Programme and its impact have been debated extensively and remained under constant review specially by UPBSN.

The Usar Reclamation Programme has significantly contributed towards enhancement of per capita availability of cultivable land. But it faces growing scarcity of resources specially in the Soil Conservation Department. In order to have better comparative evaluation of Usar Reclamation Programme it has been analysed district-wise as mentioned below:

Selected Districts Covered by Soil Conservation Department

Ghaziabad

Ghaziabad is one of the most usar prone districts of western Uttar Pradesh. Out of geographical area of 2 lakh hectares, 10.17 per cent area was under sodic land prior to commencement of Usar Reclamation Programme. Since the inception of the programme up to the end of March, 2001, about 52 per cent usar land of this district had been reclaimed by the Soil Conservation Department. Due to fast industrialization and urbanization of this district, most of usar land of the district is being utilized in construction of residential buildings, government offices, coverage under industrial complex etc. Even then, 48 per cent of total usar land of the district is to be reclaimed in years to come.

Usar Reclamation Progress is being carried out exclusively by Soil Conservation Department in this district since its beginning till date.

I. Physical Progress

Progress of Usar Reclamation Programme in the district achieved by Soil Conservation Department from 1992-93 to 2001-02 is presented in Table III-1. It is evident from Table –III-1 that during these 10 years, (from 1992-93 to 2001-02) 5,823 hectare usar land had been reclaimed of which 53.31 per cent was done under Bhumi Sena Yojana followed by 46.35 per cent under Ambedkar Bhumi Sudhar Yojana, while only 0.34 per cent was carried out under centrally sponsored scheme. It is surprising to note that the reclaimed area was decreasing year by year during the study period. During 1992-93, the reclaimed area was 1077 hectares, which has come down to its lowest level to 20 hectares during 2001-02. From 1992-93 to 1996-97, the reclaimed area was more or less stationary but afterwards it started declining. During 1999-2000 and 2000-2001 Reclamation Programme could not be carried out due to paucity of funds. Out of total reclaimed area, 90 per cent of 'C' category and 10 per cent 'B' category of usar land were reclaimed over the period of 10 years.

II. Coverage of Beneficiaries

Table-III-1 shows that 11711 usar owners were covered under the programme at the end of 2002 of which 57.53 per cent belonged to scheduled castes. The maximum number of scheduled castes were covered under Ambedkar Bhumi Sudhar Yojana. The number of beneficiaries were closely related to coverage of area of usar land under different yojanas in different years.

III. Coverage of Villages

During 1993-94 to 2001-02, 154 villages out of 685 villages of the district had been covered under this programme. Of total covered villages of 154,9979 farmers were covered in three years i.e. 1993-94 to 1996-97. Hence, it is clear that the progress was satisfactory up to 1995-96 and after that the progress got a major set back due to shortfall in allocation of funds in later years.

IV. Availability of Funds

Table-III-1 shows that the allocation of funds was not made available during 1999-2000 and 2000-01 over the 10 years of the study period. However, the maximum allotment of Rs. 77.55 lakhs followed by 71.61 lakhs were made

available during 1995-96 and 1994-95 respectively during the course of 10 years study period. Allotted amount of funds had registered a positive growth till 1995-96 but afterwards it started declining suddenly. During the period of 10 years, funds were available only for 8 years that too in very erratic manner in the district. It was not available in proportion to coverage of usar land for reclamation during most of the years of the study period. Rs. 353.69 lakhs was made available for reclamation of 5823 hectares of usar land for 10 years which meant Rs. 6072 per hectare which was rather inadequate. The availability of funds per beneficiary worked out to Rs. 3020 during the corresponding period. The per farm reclaimed area was 0.50 hectares for which Rs. 3019 was available to usar owners to reclaim their lands, which shows that beneficiaries had to manage a major share through their own resources besides whatever they received from the Soil Conservation Department. Such shortcomings were witnessed during most of the time during the study period. (Table-III-2)

So far as the availability of funds under different Yojanas is concerned, allocated amount in Ambedkar Bhumi Sudhar Yojana had an edge over the Bhumi Sena Yojana. Out of total allocation of funds of Rs. 353.69 lakhs, the Centre's share was 76.69 per cent against the share of 23.31 per cent of the State in almost all the years of study period. Hence, State Government failed to fulfil its commitment to bear the 50 per cent share of total investment. On account of this, inputs and gypsum were not available to the usar owner as per their requirement during most of the years. It is also indicated in this regard that State Government did not give quick response to provide the matching grant to the Soil Conservation Department causing delay in operational activities of the Usar Reclamation Programme in the district.

V. Target and Achievement of Reclaimed Areas

Target and achievement of reclaimed areas during different years is given in Table III-3. The table shows that the achievement against target of reclaimed areas was more or less admirable for most of the years of the study period. Achievement was higher being 107.27 per cent during 1992-93 followed by 100 per cent during 1994-95, 1995-96 and 2001-02 against the targets. Targets had been fixed to reclaim 1000 hectares of usar land during most of the years, the fund was more than target for 4 years and it was less than target in the remaining six years and thus ranged between 72.27 and 80.59 per cent. It indicates that achievement was more than 100 per cent during those years in which adequate fund was available and vice versa for lower achievement. Hence, achievement against target was co-related with adequate availability of

funds from Centre and State Governments. The Soil Conservation Department had tried its best to achieve its target though availability of funds and other resources were scarce. Thus, it was definitely a praiseworthy effort.

VI. Distribution of Gypsum

Gypsum was distributed among the adopted farmers only till 1997-98 and afterwards there was no programme for gypsum distribution. Gypsum was given on the basis of 75% subsidy to the covered farmers. Distributed quantity of gypsum was about 1.13 M.T. during 1993-94 and 2.91 metric tonnes during 1994-95 while it was 1.82, and 1.33 M.T. during 1995-96, and 1996-97 respectively. Barring these years, Gypsum was not distributed during the remaining years of the study period. It shows that availability of gypsum was totally inadequate though it is an important ingredient for soil improvement. So far distribution of seeds of dhaincha is concerned, it was distributed to the adopted farmers about half quantity of prescribed seed rate of 60 kg per hectare except in 1996-97 on 100% subsidy from 1992-93 to 1997-98 and thereafter, there was no such provision. As such seeds of dhaincha was distributed only for 5 years i.e. 1993-94 to 1997-98. As regards to distribution of seeds of paddy and wheat, different types of fertilizers and other inputs are concerned, it is observed that even the optimum quantity of these were not distributed continuously during the study period. (Table-III-4)

The adopted farmers had to manage these inputs through their own resources while these should have been provided by Soil Conservation Department on the basis of 50 per cent subsidy on prices of these inputs.

VII. Impact of the Programme

Due to scarcity of funds, overload of other works, inadequate infrastructure network, lack of support from mother department etc., the impact of this programme was satisfactory on the ground level. Per capita availability of cultivable land increased. Cropping pattern also changed in favour of paddy, wheat, sugarcane and fodder crops. The cropping intensity on B category of usar land also increased from 100 per cent to 200 per cent. The irrigation intensity also improved very much on account of provision for free boring facility under this programme. The reclaimed area of 5823 hectares are now producing 13310 and 19880 metric tonnes of paddy and wheat respectively which accounts for 3.25 per cent of total production of cereal of the district. It is

sufficient to provide food annually for 143 lakhs persons of the district. The value of production of paddy and wheat was Rs. 19.18 crore grown on reclaimed areas of 5823 hectares, thereby showing Rs. 32940 per hectare against Rs. 6074 per hectare reclamation costs. The value of land was about Rs. 50,000 per hectare prior to reclamation, which has increased by four times. It is also generating employment for 70 thousand persons annually. Economy of patta holders is at substantial level now which was earlier totally dependent upon wages. They are getting employment on their own farms, which was rare before reclamation. In the wake of this programme, the patta holders are now rearing milch cattle to make it as subsidiary occupation. In a nutshell this programme has proved to be quite effective instrument to develop economy of usar owners. Hence, the programme should be continued till the last patch of usar land of this district has been reclaimed. There should not be shortage of funds for reclamation of usar land at any cost if Government intends to actually develop the economy of target groups.

The implication that emerges out of this analysis is that the Usar Reclamation Programme has been playing a premium role in enhancing the per capita availability of cultivable land and to develop the socio-economic conditions of usar owners.

Mau District

Mau is one of the two districts covered by Soil Conservation Department which has been selected for this study because maximum area of usar land has been converted into cultivable land by the end of March, 2001 in comparison to other districts of the eastern U.P. Mau was a Tahsil of Azamgarh district prior to 1989 but now it is a small district consisting of 3 tahsils, 6 blocks and 1280 villages. Mau is a well known small scale industrial district of East U.P. 'Sari' of this district is very much famous across the country. There are two large spinning mills. It is well connected with rail and roads with other parts of the country. Most of the poor families of this district are engaged in making Sari for their livelihood. Even then, more than 75 per cent population of this district is directly or indirectly dependent upon agriculture and its allied activities. The reporting area of the district was 17,1685 hectares during 1998-99 of which 75 per cent was under cultivation. Out of total uncultivable land, usar land accounted for 4.88 per cent. Of 8381 hectares of usar land, 62 per cent had been reclaimed by Soil Conservation Department by the end of March, 2001. Out of total holdings of 12.06 lakhs, more than 83% was marginal/ small farmers having less than 2 hectares of land. The per capita availability of land was only

0.12 hectare during 1998-99, which is rather unviable. The population of the district according to census of 1991 was 14.45 lakhs. The cultivators and agricultural workers numbered 4.02 lakhs forming 27.83 per cent of the total population. The population density of 844 persons per square kilometers was higher than that of State level. There were 1969 thousand operational holdings in the district of which only 5 per cent of the holdings were with more than 4 hectares. In spite of these bottlenecks, there is acute scarcity of infrastructural facilities viz. road, schools, hospitals, electricity etc. in the district. Flood and drought are common phenomena in the district, which occur in almost every alternate year. On account of these problems, the workers belonging to poor families used to go to cities in search of jobs. There are huge latent employment opportunities in agricultural sector. Immediately after independence, Central as well as State governments had taken a number of initiatives to improve the agriculture sector. The primitive form of cultivation of crops has undergone a radical change in this district. Although emphasis on improvement in agriculture production continued but it was not sufficient to fulfil the requirements of all categories of farms. On account of growth of population, more land has to be brought under cultivation.

I. Reclaimed Areas

Out of total areas of 46 usar prone districts of U.P., this district accounted for 0.73 per cent during 2001-02. Of the total usar land of 8,381 hectares of this district 58 per cent had been reclaimed by the end of 2001-02 under different Yojanas viz. Deen Dayal Upadhya, Bhumi Sena, Ambedkar Usar Sudhar Yojana. The progress of area reclaimed and coverage of beneficiaries were quite satisfactory during almost all years of study period except during 1998-99 and 1999-2000. The progress of area reclaimed under different Yojanas over 9 years (1993-94 to 2001-02) is presented in Table III-5. The table shows that out of total usar reclaimed area of 4861.62 hectares, maximum area being 85.30 per cent was reclaimed during 1993-94 to 1997-98. Out of this 62.64 per cent was reclaimed under Ambedkar Bhomi Sudhar Yojana followed by 26.01 per cent and 11.35 per cent of Bhumi Sena Yojana and Centrally sponsored schemes respectively during 1993-94 to 2001-02. The maximum usar land was reclaimed under Ambedkar Bhoomi Sudhar Yojana because it was in operation for 4 years (1995-96 to 1998-99) in the district while other Yojanas lasted for a year or so. The name of yojana was changed with the change in leadership in the government of Uttar Pradesh. During the period 1993-94 to 1997-98 usar reclaimed areas was either increasing or remained stagnant but abruptly it went

down during 1999-2000 from its previous acreage of 144 hectares. It was solely because of non- availability of funds during that period.

II. Coverage of Beneficiaries

The number of beneficiaries covered under different Yojanas in Usar Reclamation Programme is illustrated in Table-III-5. It is evident from the table that out of total beneficiaries of 13,390, maximum of 43.51 per cent belonged to SC which was followed by 30.03 per cent of OBCs and 26.46 per cent of other castes during the five years of the study period. (Information for three years i.e. 1989-99 to 2000-01 is missing as no record was available). Most of patta land had been allotted to landless scheduled castes and reclaimed particularly under Ambedkar Sudhar Yojana. This was the reason for higher coverage of SC beneficiaries during the study period. The poor, small and marginal farmers who did not have capacity to reclaim their usar lands through their own resources were covered under the policy introduced by the U.P. Government under which maximum usar land was to be covered through different yojanas.

III. Allotment of Funds

With a view to augmenting the availability of cultivable land, the Usar Reclamation Programme had been launched effectively in all the usar prone districts of Uttar Pradesh with financial assistance from the centre as well as State Government. The pattern of budget distribution yojana-wise and year-wise has been worked out and same has been presented in table III-5. The Usar Reclamation Programme received greater importance in the districts where population depended more on agriculture. The table reveals that over 9 years from 1993-94 to 2001-02 about Rs. 355 lakhs had been invested to reclaim 4861.62 hectares usar land which came to Rs. 7302 per hectare. There was wide disparity in allocation of funds in different Yojanas and years. In some Yojanas the allocation of funds was satisfactory while it was meagre for Deen Dayal Usar Sudhar Yojana. Out of total budgetary allocation of funds of Rs. 355 lakhs over 9 years, the maximum amount of 61.21 per cent was witnessed in Ambedkar Bhumi Sudhar Yojana. It is heartening to note that allocation of funds had risen considerably from Rs. 22.15 lakhs during 1992-93 to Rs. 78.98 lakhs during 1997-98. It was a matter of great satisfaction that allocation of funds had been rising sharply every year upto 1997-98. On the other hand, the progress from 1998-99 to 2001-02 was disappointing. During this period, the Central and State Governments did not provide adequate funds to the Soil Conservation Department to reclaim usar land in a big way in the district. Thus,

it is noticed that increase in allocation of funds over the years had been very gradual. To keep up pace with the Usar Reclamation Programme in the district, a vast amount of investment is needed in future. In spite of this progress, Soil Conservation Department has remained weak financially and organizationally even at present in comparison to Uttar Pradesh Bhumi Sudhar Nigam.

IV. Matching Grants

The details of matching grants received from Central and State Governments for Usar Reclamation Programme in Mau district is given in Table-III-6. It is clear from the Table that State Government as a whole provided the maximum finance to reclaim usar land of the district. Despite its financial constraints, the State Government bore the total investment on Usar reclamation programme during the period 1993-94 to 1999-2000 as there was no contribution from the Central Government. However during 2000-2001 and 2001-02, the Central Government had given Rs. 38.714 lakhs. Out of the total allocated funds, the contribution of the State Government was 89.11 per cent against 10.89 per cent of the Central Government over 9 years period. The Central Government is expected to provide more funds in achieving the objective of Usar Reclamation Programme of this district during the years to come.

V. Target and Achievement of Reclaimed Areas

Despite financial constraints, poor infrastructural facilities, inadequate number of staff etc., the achievement of reclaimed areas was 100 per cent against target over the 9 years of study period. During each year of the study period, the achievement against target was 100 per cent without any deviation. Thus, the Soil Conservation Department of Mau district had done commendable work in achieving the 100 per cent targets of usar reclamation areas with limited and scarce means available at its command during different years of study period. (Table-III-7)

VI. Allocation of Funds for Different Activities

Allocation of funds for different activities of Usar Reclamation Programme was not found fixed while there was much flexibility in this regard during different years of study period. The allocation of funds was generally made according to priority of activities during a particular year. At aggregate level maximum allocation of funds had been made to the land development

work followed by soil amendments. Out of total investment of Rs. 343.87 lakhs there was 100 per cent subsidy on boring, drainage, while it was 87.54 per cent on input of crop production. Gypsum was available on 59 per cent subsidy.

From 1992-93 to 1998-99, there was maximum contribution by Soil Conservation Department in reclamation of usar land. It is irony of fate that the State Government could not bear its responsibility in sharing committed amount in this programme during 1998-99 to 2000-01. On account of this, the beneficiaries had invested almost all amount through their own means to reclaim the usar land under guidance of Soil Conservation Department.

Therefore, the adopted farmers had to bear extra share of total investment in reclamation of usar land for three consecutive years i.e. 1998-99 to 2000-01 due to huge scarcity of funds with the Soil Conservation Department for this programme during the same period. Table-III-8 also reveals that out of total investment of 343.87 lakhs, as is evident from the data available for 6 years, maximum amount being Rs. 54.15 per cent was invested in land development and 31.50 per cent in soil amendment. It also shows that out of total investment, land development and soil amendment jointly shared more than 85 per cent while the share of boring, drainage, crop production was 7.33 per cent, 3.71 per cent and 2.75 per cent respectively. It implies that land development work and soil amendment were the basic activities of Soil Reclamation Programme. Out of total investment over 9 years the share of Soil Conservation Department was 86.50 per cent against 13.50 per cent shouldered by the adopted farmers. This trend prevailed during almost every year of the study period. (Table-III-8)

VII. Distribution of Gypsum and Inputs for Crops Production

The data of distribution of inputs i.e. seeds of paddy and wheat, different types of fertilizers were not adequately available in the Soil Conservation Department of Mau district, hence, analysis on this aspect was not possible. However information regarding distribution of Gypsum and quantity of seeds of dhaincha for 6 years over the 10 years was available. As such it is noticed that on an average 1.79 M. tonnes per hectare gypsum was distributed during the period of six years. It ranged between low and high of 1.01 to 4.74 M. tonnes during 1996-97 and 2000-01 respectively. The distributed quantity of dhaincha was 25 kg per hectares during these five years ranging between 23 and 60 kgs. per hectare. During 1998-99, 1999-2000 and 2001-02, the Gypsum and dhaincha seeds were not distributed among the adopted farmers, as the same were not available in adequate quantity during the respective years of the study

period. The adopted farmers managed these inputs through their own resources. Besides this, seeds and fertilizers were only distributed in 1993-94 and afterwards it was stopped as there was no provision for the same. (Table-III-9)

Even though the above mentioned inputs were not available but due to allurement of free boring and subsidy on OFD and soil amendments, the Usar Reclamation Programme was a success.

VIII. Impact of the Programme

The impact of the Usar Reclamation Programme has been quite satisfactory in increasing irrigated areas through provision of free borings. In addition to this, the production of paddy and wheat was also raised due to cultivation of these crops on the reclaimed areas. Extra employment has also been generated due to cultivation of crops on reclaimed areas. Owing to these benefits, the overall economic condition of usar owners, specially the target groups, has improved to some extent. Therefore, there was profound impact of Usar Reclamation Programme on the economy of the adopted farmers.

It is estimated that a sum of Rs. 7000 is required for reclamation of one hectare usar land which in return gives a gross income of Rs. 23,000 on reclamation and thus transforms the life of beneficiaries. The value of per hectare reclaimed usar land is increased from Rs. 28,000 to Rs. 1,80,000 which is a remarkable increase. The study also reveals that reclaimed area had also accounted for 9237 and 11450 M. tonnes of paddy and wheat respectively in the total production of food grains of the district. Of the total food grown the share of reclaimed area was about 0.57 per cent. Wheat and paddy produced in the reclaimed land jointly accounted for 20687 M. tonnes, which was sufficient to fulfil the consumption needs of 87095 persons per annum.

Owing to satisfactory impact of this programme on the economy of usar land owners, this programme should continue till such time all the usar land has been reclaimed in the district.

Etah District

Etah is one of the 17 districts covered by UPBSN at present. It is the most usar prone district of Agra region of western U.P. The geographical area of the district has 4,46,014 hectares of land out of which 69.54 per cent was

under cultivation during 2000-01. The per capita availability of cultivated land was 0.17 hectare, which was below the State's average. More than 80 per cent families occupied less than 2 hectares size of holding. The percentage of uncultivable land of reporting area was 30.46 per cent which was higher than the State's Percentage due to higher acreage of usar land. Usar land is spread over in almost all the parts of the district. Out of total usar land, maximum acreage of 80 per cent was under 'C' category, pH of Soil was more than 9. On account of higher concentration of acreage of usar land, UPBSN had adopted this district in Phase-I (during 1992-93 to 1998-99) to implement Usar Reclamation Programme in a big way. During phase-I, a single unit was established to reclaim the usar area. But, in Phase-II two more units have been added to reclaim the rest of usar land of the district by the end of March, 2005. To examine the progress of Usar Reclamation Programme in the district, time series data of 9 years regarding area reclaimed, coverage of beneficiaries, availability of funds etc. were analysed and the same is given below. The analysis provided broad coverage of past and present approaches on how the operational activities of Soil Reclamation Programme can best be applied in the district.

1. Area Reclaimed

The growth of reclaimed area is associated predominantly with availability of funds. The district of Etah is greatly benefitted through UPBSN. With the spread of reclamation programme, the irrigation network, availability of cultivable land and cropping have showed a rapid rise during the programme.

The Usar Reclamation Programme was actually launched during 1992-93 by UPBSN in the district. The details of reclaimed area of usar land year-wise is presented in Table-III-10. Prior to implementation of this programme the area of usar land was 56027 hectares, which accounted for 12.56 per cent of the reporting area of 446014 hectares. From 1993-94 to 1998-1999, there was only one unit to reclaim the usar land of the district. This unit had reclaimed only 8067.67 hectares of usar land by the end of 1998-99. This was only 14.40 per cent of total area of usar land. Keeping in view the huge coverage of usar land of the district, two more units were established during Phase-II of the programme to reclaim the remaining area of the usar land by the end of March, 2005. It is evident from Table-III-10 that out of total reclaimed area of 22851 hectares 35.31 per cent was reclaimed during Phase-I (1993-94 to 1998-99) while it was 64.69 per cent during Phase-II (1999-2000 to 2001-2002). Thus, there was phenomenal growth in reclaimed area over 9 years of the study

period. At the implementation year of the programme, reclaimed area was only 118 hectares, which went up to 2664.79 hectares during 1998-99, showing a 2158.30 per cent increase over the base year. It implies that the Usar Reclamation Programme has been reclaiming more and more usar land every year. The impact of programme was much faster during phase-II than that of Phase-I. Out of total reclaimed usar land of 14783.762 hectares during Phase-II (1999-2000 to 2001-02) unit-I accounted for the highest share being 44.78 per cent followed by 28.07 per cent and 27.15 per cent by units-II and III respectively. These three units of the district are putting up best efforts to increase the reclaimed area year by year. It implies that total area of usar land will be reclaimed by the end of March, 2005.

II. Coverage of beneficiaries

The reasons behind the success of this programme were identified by coverage of large number of usar owners and proper and timely execution of operational activities at ground level. Details of coverage of beneficiaries are presented in Table III-10 which shows that 32505 usar owners were covered over 9 year of the study period. Of 32505 adopted farmers, 32.34 per cent was covered during Phase-I and remaining 67.66 per cent during Phase-II. Table also reveals that only 153 usar owners were covered during 1993-94, which went up to 3070 by the end of Phase-I (1998-99), thereby showing an increase of 1906 per cent over the base year. As far as coverage of beneficiaries during Phase-II is concerned, the table shows that out of 21990 covered families, unit-I accounted for highest share of 44.31 per cent followed by 29.49 and 26.20 per cent of Unit-III and II respectively. This huge coverage of beneficiaries indicate that usar programme is well in operation in the district.

III. Financial Allocation

Details about allocation of funds during 1993-94 to 2001-02 are also given in Table III-10. The table 10 brings out that during the entire period 1993-94 to 2001-02, the total allocation of funds was about Rs. 50 crores of which 27.46 per cent was allotted in Phase-I and 72.54 per cent in Phase-II. The allocation of funds was closely related to reclaimed area of usar land. At the initial year it was only Rs. 27 lakhs, which later on substantially increased to 5.22 crores during 1998-99. It is also noticed from the table that during 1999-2000 to 2001-02 the allocated amount was around 12 crores per annum owing to establishment of two more units. It reflects that each unit received Rs. 4 crores to reclaim about 4928 hectares of usar land per annum. The per hectare

cost for reclamation of usar land came to Rs. 23368 during 1993-94 which was subsequently reduced to Rs. 11609.77 during the last year of phase-I. During Phase-I the per hectare cost of reclamation ranged between Rs. 12461 and Rs. 23368 each year. However, on an average it was about Rs. 17000 per year over the period of 6 years of Phase-I.

In Phase-II, per hectare cost of reclamation ranged between Rs. 20877 and Rs. 33,2002 per year. Overall per hectare cost was estimated at Rs. 21854 per year over 9 years of the study period. There was no shortage of funds during the study period in the district. In short, operational activities were both timely and target oriented.

IV. Target and Achievement

With support from the World Bank, UPBSN launched its programme to reclaim usar land through establishment of its project units in the adopted districts. These units were reclaiming usar lands with the help of NGOs. Year-wise performance and achievement against target are presented in Table III-11. The table shows that the achievement was 113.86 per cent against target over the 9 years of the study period. It is also evident from the table that achievement was 100 per cent against target from 1993-94 to 1995-96 and afterwards it registered higher percentage ranging between 111.47 and 177.65 per cent than that of previous ones. From 1996-97 to 2001-02, the achievement was more than 100 per cent than that of targeted area. It shows that achievement was always much higher than the targeted area during the study period. It reflects that the performance of project units was quit satisfactory. Analysis shows that support services of Usar Reclamation Programme had reached the ground level in the district to cover more and more usar areas for reclamation in subsequent years. The achievement against target was on the higher side in most of the years, as the physical and financial support was well in command of the project units of the district.

V. Allocation of Funds for Different Activities

For reclamation of usar land, UPBSN has to do a number of operational activities in collaboration with usar owners as such it is a joint effort by the UPBSN and the adopted farmers. Among the components of operational activities, in Usar Reclamation Programme, are included farm development, construction of channels, leveling, boring and installation of pumps sets, distribution of gypsum, seeds of paddy and wheat, fertilizers, zinc etc. which

are basic ingredients. Year-wise amount of different components of Usar Reclamation Programme as shared by UPBSN and adopted farmers has been presented in Table-III-12. It shows that UPBSN had borne about 100 per cent total costs on boring, construction of drainage, gypsum during 1993-94 to 2001-02. However, in case of OFD and inputs on production, it was on 50% basis each by UPBSN and adopted farmers. This type of agreement has been witnessed throughout the study period in this district. At an aggregate level out of total expenditure on different components, UPBSN's share was for 58.66 per cent, which was 41.34 per cent by adopted farmers. However in case of C category of usar land, the UPBSN shared about 85 per cent of total reclamation cost and rest 15 per cent by beneficiaries. This type of sharing of expenditure between UPBSN and adopted farmers was more or less prevalent during 1993-94 to 2001-02. There was 100 per cent subsidy on boring, construction of drainage channel and gypsum while it was about 50 per cent on inputs on crop production. The table shows that amount of subsidy was fully provided to the adopted farmers throughout the study period. In case of OFD, the maximum share of 90 per cent was borne by adopted farmers. The UPBSN involves the adopted farmers in its operation under "People's Participation Programme". Adopted farmers had paid only Rs 2/- per bag of gypsum as token money. It is also clear from table that out of total amount of gypsum, 97.06 per cent was borne by UPBSN and rest 2.94 per cent by adopted farmers over the study period.

VI. Review of Operational Activities

There are many operational activities in usar reclamation involved from its initiation to final touch. After receiving the map from H.Q. supplied by Remote Sensing Application Centre, the technical staff of the unit visits the site and confirms the mapped area under usar land. After completion of other administrative formalities, the Project Manager with a team motivates the villagers through recreational means to cooperate in the Usar Reclamation Programme. The Project Manager takes full support from NGOs in this regard. The Project Manager tries to teach the adopted farmers about the economic viability of the programme as to how the usar land could be converted into viable units free of cost. In this context, first of all, the adopted farmers are asked to do On Farm Development activities with their own efforts and for this purpose no amount is paid to them. It creates enthusiasm in the usar owners of project units to do the On the Farm Development work themselves willingly. Hence, in this regard more than 100 per cent success was noticed over the 9 years period of study.

VII. Distribution of Gypsum

The quantity of Gypsum was made available to adopted farmers in proportion to coverage of their usar lands in each year from 1993-94 to 2001-02 in the district. The year-wise distributed quantity of Gypsum is presented in Table III-13. Table shows that on an average the quantity of gypsum worked out to 8 metric tonnes per year during Phase-I against 9.58 metric tonnes per year during Phase-II. The range of per hectare consumption of gypsum was between 5.31 and 11.55 metric tonnes per year over 8 years of study period.

The requirement of gypsum in usar land is fixed according to pH of soil. If pH of soil is more than 9, the requirement would be 13.M tonnes per hectare while in less than 8 pH of soil, it is only 6.M. tonnes. Therefore, distributed quantity of gypsum was quite normal and according to pH of soil. UPBSN was very prompt and sincere in distribution of gypsum to adopted farmers. For which Rs only 2 was paid by adopted farmers to get 50 kgs of gypsum. On account of this, each adopted farmer was able to use required quantity of gypsum in their respective usar lands. There was no shortage of gypsum, during the study period. It was fully available during Phase-I as well as Phase-II.

VIII. Installation of Pump Sets

Irrigation is a major source for reclamation of usar land. Therefore, UPBSN provided a free boring facility for 4 hectares of usar land. So number of boring facilities increases with increase in acreage of usar land of a project unit. It is noticed from the records that 2786 pump sets were installed by UPBSN up to March 2001 of which 46.73 per cent was during Phase-I and 53.27 per cent in Phase-II. In the beginning of the programme only 25 pump sets were installed which increased up to 629 by the end of March 2001. The growth in number of pump sets were completely associated with coverage of usar land for reclamation. On an average one pump set was installed for 6 hectares of land over 8 years of the study period. It implies that few pump sets had already been installed before implementation of the programme. It reflects that number of pump sets were quite sufficient to irrigate the crops grown on reclaimed areas of usar land. In this regard, UPBSN was quite aware and also provided requisite amounts for boring pump sets without any hindrance during each year of the study period.

IX. Distribution of Inputs

It is already known that UPBSN provides free of cost seeds of dhaincha, paddy and wheat to the adopted farmers during reclamation period. Different types of fertilizers viz. Urea, DAP, MOP and Zinc are provided to the beneficiaries along with seeds of paddy and wheat on subsidized rate. It is noticed that per hectare seed of dhaincha, paddy and wheat worked out to 60 kgs. 58 kgs and 81 kgs. respectively over 8 years of the study period. These quantities of seeds of dhaincha, paddy and wheat was more or less same during different years of study period. It shows that there was no shortage of seeds of these crops in any year during 1993-94 to 2001-02 in the district.

In order to know the distributed quantity of fertilizer and zinc in different years the same has been analyzed in Table-III-13. The table shows that per hectare distributed quantity of Urea and Zinc and DAP were 142 kgs, 114 kgs. and 27 kgs. respectively for paddy crop over 8 years of the study period. Against this, 153 kgs., 63 kgs. and 18 kgs. of Urea, DAP and Zinc were distributed respectively for wheat crop during the corresponding period. Per hectare distributed quantity of different types of fertilizers was more or less within the prescribed norms in almost all the years of the study period. The variation in distributed quantity of fertilizers could happen due to coverage of different categories of usar lands during a particular year. Even then, the distributed quantity of fertilizers in different years was absolutely within the prescribed norms. There was no shortage of any type of fertilizer during the reclamation of usar land in the district. These fertilizers were given free of cost to the adopted farmers.

X. Impact of Programme

There was profound impact on enhancement of cultivable land, boost in production of paddy and wheat, development of dairy enterprises, employment avenues etc. At the end of March 2001, 17022.859 hectares of usar land had been reclaimed in this district which comes to 0.013 per capita. It denotes that 0.019 hectares of land was added more in each individual's possession. Apart from this, the reclaimed area had produced 41294 M. tonnes of paddy and 53854 M. tonnes of wheat during 2000-01This was 10.28 per cent of total production of cereals of the district during corresponding period. This joint production of 95148 metric tonnes of paddy and wheat was sufficient to meet the consumption needs of 4 lakhs population of this district during 2000-01. In the wake of this programme, the benefitted farmers had increased the numbers

of milch cattle on their farms on account of availability of fodder crops. On account of expansion of cultivable land there was enhancement in cropping as well as irrigation intensity and increase in number of pump sets.

On account of the above facilities the adopted farmers are getting more employment on their owned farms. The Patta holders owning to only "C" category of usar land are getting self employment for about 117 days per hectare annually on their reclaimed areas. Thus, the marginalized farmers are much benefitted. Through integrated and all round development because of Usar Reclamation Programme.

The small and marginal farmers mostly belonging to lower castes were dependent on big farmers and money lenders for credit but they are self dependent in this regard due to conversion of water usar groups into Self Help Groups (SHGs) with the motivation of NGOs. Since 1993-94 to 2000-01 the area of usar land of 197 villages have been reclaimed by UPBSN. To facilitate irrigation facilities 2,786 pump sets were installed for assured irrigation of crops grown on reclaimed areas. More than 554 km. Link drains were also made by the end of March 2001, which is now very useful in avoiding water logging.

Apart from this, 41 villages have been connected with pucca roads by the help of UPBSN. Five Kisan Vidyalaya have also been established to provide educational facilities to children residing in remote villages. The value of the reclaimed usar land was about Rs. 60,000 and Rs. 40,000 per hectare of "B" and "C" categories which has gone up to Rs. 1,40,000 and Rs. 1,30,000 after reclamation respectively. It shows that value of land of "B" and "C" categories of usar land has increased by 133.33 per cent and 225 per cent per hectare over the value of pre reclamation respectively. The additional revenue value of total reclaimed area was estimated at Rs. 94.23 crores after investment of Rs. 49.93 crores.

Besides increasing the value of land, the reclaimed area of 22.85 thousand hectares has generated additional income of Rs. 20.56 crore annually which comes to about Rs. 6327 per farm. It has been converting usar land into cultivable land on one hand and providing employment and income to beneficiary farmers on the other.

The NGOs associated with UPBSN have also been developing coordination between Government Officials and rural people to facilitate

economic activities. NGOs help the beneficiary farmers in areas of both social and economic development through the SHGs. The main objective of UPBSN for involvement of SHGs is to check corruption, increase the number of participants and to infuse confidence and ability in them. Thus, UPBSN is also helpful to human resource development.

Pratapgarh District

Pratapgarh is also one of the selected districts which has been covered by the UPBSN for reclamation since 1992-93. It has a very distinct soil texture across different blocks because of the existence of a number of rivers namely Ganga, Gomti and Sai. It is also one of the most backward districts of the Eastern U.P. Agriculture is the main occupation of the most of the households because more than 80 per cent population of the district is directly or indirectly dependent on it and its allied activities. The geographical area of the district is 361385 hectares of land, out of which is 58.82 per cent is under cultivation. The per capita availability of cultivable land is about 0.096 hectare owing to less availability of cultivable land. Majority of male workers of this district go to municipality areas daily to seek jobs. Out of 361385 hectares geographical area of land, 8.77 per cent was marked as usar land during 1992-93. Of 31685 hectares of usar land, 22 per cent and 39 per cent were reclaimed by Soil Conservation Department and UPBSN respectively by the end of March, 2001 and the rest is targeted to be reclaimed by the end of March, 2005. To achieve this target, UPBSN has also established two more units in 1999-2000 in the district. In this way, three full-fledged units have been working in reclamation of usar land since 1999-2000.

Since 1993-94 to 2001-02 these units have played a significant role in enhancement of cultivable land, creation of ample employment avenues, increase in per capita income etc. especially for marginalized farmers. The number of small and marginal farmers continued to rise with average holding getting reduced to less than one hectare and, therefore, is being pushed out of agriculture to non-agricultural activities within rural area. Therefore, it is the need of hour to reclaim usar land with speed to enhance public investment in Usar Reclamation Programme.

To review the progress achieved by the UPBSN, the data of different activities of Usar Reclamation Programme from 1993-94 to 2001-02 have been analyzed, the details of which are given below:

I. Area Reclaimed

Of 31685 hectares of Usar land, 64.67 per cent was reclaimed by UPBSN by the end of 2001-02. The year –wise progress of reclaimed areas of usar land is presented in Table III-15. The table shows that 99.601 hectares of usar land was reclaimed during 1992-93 which has increased to 1667.829 hectares during 1998-99 (Phase-I) thereby showing sixteen times increase over the base year. From 1992-93 to 1998-99 (Phase -I) there was phenomenal increase in reclaimed areas every year. During Phase-I, 9004.759 hectares of usar land had been reclaimed which was 28.42 per cent of total usar land. There was a high jump in reclaimed area with the total of 3843.703 hectares during 1999-2000 due to establishment of two more units. During phase-II (1999-2000 to 2001-02), 11486.381 hectares usar land had been reclaimed. In this way total 20491.14 hectares usar land had been reclaimed from 1992-93 to 2001-02. This comes to about 64.67 per cent of total usar land of this district. Thus, overall progress of reclaimed area of this district was very satisfactory.

The average rate in reclaimed area was 12.86 hectares per annum during Phase-I (1992-93 to 1998-1999) while it was 38.29 hectares per annum during Phase-II (1999-2000 to 2001-02). If this progress continues in coming years too the target of total reclamation of usar land of the district would be achieved by the end of 2005 without any doubt.

II. Number of Beneficiaries Covered

UPBSN has played a significant role in ameliorating the lives of usar owners with achievement of the twin objectives i.e. to increase the cultivable land and to motivate the usar owners to grow crops on the reclaimed areas so as to get food grains as well as fodder crops. The year-wise coverage of number of adopted usar owners is given in Table-III-15. It shows that 37423 beneficiaries were covered over 10 years of the study period with an average of reclaimed area of 0.55 hectare. At the initial year of 1992-93, there were only 151 usar owners covered which went up to 2931 in numbers during 1998-99 showing a phenomenal increase over the base year. Year-wise progress from 1992-93 to 1998-99 (Phase-I) was almost double in number of usar owners every next year. However, the coverage of beneficiaries was about thrice in 1999-2000 over 1998-99. It is also noticed from the table that coverage of beneficiaries was almost stationary during 1999-2000 to 2001-02. The coverage of beneficiaries increases with increase in reclaimed areas and vice-versa. More than 5.72 thousand usar owners were generally covered each year under Usar

Reclamation Programme during Phase-II. This big achievement has played a vital role in changing the life style of usar owners from poverty to self sustained economy. Among the covered beneficiaries, 43.49 per cent belonged to OBC followed by 37.01 per cent and 19.50 per cent to General and Scheduled castes respectively during the 10 years of the study period. It shows that there was no favouritism in selection of beneficiaries of the project units.

III. Allocation of Funds

The allocation of funds during the study period is also presented in Table-III-15 which indicates that on an average, the per hectare cost of reclamation of usar land was estimated at Rs. 21,473. It is also noticed that it was Rs. 30,900 during Phase-II against Rs. 10,559 during Phase-I. Showing an increase of 3 times over the cost of Phase-I. The reasons of higher cost per hectare of usar reclamation during Phase-II were the inclusion of additional activities and enhancement of prices of inputs as compared to those in Phased-I. The cost per hectare was fully associated with reclaimed areas in almost all the years of the study period. It increases with the increase in reclaimed areas. In all, there was no shortage of funds throughout the study period UPBSN has ear-marked a massive investment for Phase-II in order to improve the overall development of project units. As far as availability of funds per adopted farmer is concerned, the table also reveals that it was worked out to be Rs. 11,758 on an average of 9 years of the study period. The allocation of fund per beneficiary was estimated at Rs. 14878 during Phase-II while it was only Rs. 6678 during Phase-I. It reflects that the allocation of funds per beneficiaries was higher by 123 per cent during Phase-II than the amount of per beneficiary during Phase-I.

IV. Year-wise Target and Achievement of Reclaimed Area

As part of its monitoring, UPBSN review its achievement against target annually. The target and achievement of reclaimed areas for the last 10 years are given in Table-III 16. From the table it is clear that achievement was 100 per cent against target from 1992-93 to 1998-99 (Phase-I) while it declined during Phase-II (i.e. 1999-2000 to 20001-02) to 89.20 per cent. The reason for this decline was the to transition, lack of coordination between the three units of the project in carrying out soil amendment and inputs. On the whole, the achievement against target of reclaimed area was quite satisfactory during the entire study period in the district. Even then, these three units should pick up more momentum in years to come as desired by the UPBSN.

V. Allocation of Funds for Different Operations

It has already been mentioned that during 1999-2000, two more units were established in this district to reclaim total usar land by the end of 2005. (Now these units are in operation but data from these two new units are not available.) The allocation of funds on different components of Usar Reclamation Programme of first unit is presented in Table-III-17. The table shows that maximum funding of 40.73 per cent was earmarked for soil amendment followed by 20.01 per cent on inputs during the study period. Boring and land development accounted for meagre share being 2.18 per cent and 1.50 per cent respectively during the same period. Of total allocation of funds of Rs. 25. 25 crore over the 9 years (1993-94 to 2001-02) drainage accounted for only 9.57 per cent share while miscellaneous expenditure was as high as 26.01 per cent. The table also shows that allocation of funds on different components varied very much in different years. During 1993-94 maximum allocation of funds being 70.54 per cent was made to soil amendment which was reduced to 29.97 per cent during 1999-2000 because of the increase in miscellaneous expenditure during the same period. It is also noticed from the table that allocation of fund is determined on the basis of requirement of project units. Allocation of funds for soil amendment, inputs and boring is mostly fixed while the expenditure on drainage, leveling etc. vary according to the structure of project units.

The total funds deployed for different components increased from Rs. 11.97 lakhs in 1993-94 to Rs. 4.18 crore during 2001-02 which is more than 35 times over the base year. Allocation of funds to soil amendment continued to dominate and it ranged from 28.04 per cent to 70.54 per cent. In fact, soil amendment accounted for the maximum share of fund allocation for 4 years of nine years study period. However no consistent pattern in allocation of funds for various components was observed between 1993-94 to 1998-99 and 1999-2000 to 2001-02 except for inputs. Allocation of funds for miscellaneous activities remained steady during Phase-I of the study period while its share has gone up to 49 per cent during 1999-2000. During Phase-II, UPBSN has taken up extra activities, i.e. training programme, construction of roads digging up main drainage etc. resulting in higher share of total allocated amount. Thus allotted funds were mainly for soil amendment, land development, drainage and miscellaneous expenditures as they form 77.81 per cent part of the total allocated funds during the study period.

It is also revealed from the study that the total investment on boring, drainage and land development was borne by UPBSN. While the expenditure on soil amendments was 97.5 per cent and 2.50 per cent shared by UPBSN and adopted farmers respectively. In case of expenditure on crops inputs, the share of UPBSN and adopted farmers was 80 per cent and 20 per respectively. Hence, out of total cost incurred per on hectare reclamation of usar land came to Rs. 21,413. The share of UPBSN and Farmers was presently estimated at 85 per cent and 15 per cent respectively for reclamation of C category of usar lands in Pratapgarh district.

As such, UPBSN adopted a higher level of transparency and openness in the distribution of funds on different components for effectively carrying out its programme under Usar Land Reclamation. Thus it is apparent that UPBSN carries a strong will and positive approach to reclaim the usar land in the time to come also.

VI. Distribution of the Gypsum and Inputs for Crop Production

After completion of OFD, construction of irrigation channels, leveling, bunding, installation of pump sets, Gypsum is provided to adopted farmers according to pH of the soil for leaching purpose. The quantity of gypsum ranging between 6 M. tonnes to 13 M. tonnes is fixed according to pH of soil. It is evident from the Table-III-18 that on an average 7.74 M. tonnes of gypsum per hectare was given to the adopted farmers. However, it varied between 5.38 M. tonnes and 8.67 M. tonnes during the study period. It reflects that there was no shortfall in the distribution of gypsum. The distributed quantity per hectare was 100 per cent optimal during the study period. There was no shortage of Gypsum in any year of the study period. This was available at the rate of Rs. 2 per bag of 50 kgs at the UPBSN stores. It was the basic ingredient in treatment for reclamation of usar land.

VII. Distribution of Seed of Dhaincha

UPBSN distributes free of cost seed of dhaincha to adopted farmers at the rate of 60 kgs per hectare for green manuring. Table-III-18 reveals that an average of 46 kgs. Of seed of dhaincha was distributed to adopted farmers. The distributed quantity of dhaincha seed was more or less with-in-limit of normal quantity of 60 kg per hectare. The reason for below quantity of seed of dhaincha per hectare in particular year was due to increase in area of B+ category of usar

land in which there was no provision for distribution of seed of dhaincha. It shows that there was no shortage of seed of dhaincha during study period.

VIII. Distribution of Seeds of Paddy

UPBSN provides about 50 kgs. seeds of paddy per hectare to the adopted farmers to take first crop in reclaimed areas. Table-III-18 reveals that on an average the supplied paddy seeds was about 48 kgs per hectare over the 9 years. The reasons for shortfall in quantity of seeds of paddy was due to coverage of B+ category of usar land for which there was no provision for supply of seeds. Thus it shows that supplied quantity of seeds of paddy was adequate according to norms for 'B' and 'C' categories of usar land. There was no shortage of seeds of paddy during the entire study period. It was also distributed to the adopted farmers well in time.

IX. Distribution of Fertilizers and Zinc

The details of year-wise distribution of different fertilizers and zinc is given in Table-III-18. The table reveals that distributed quantity of different fertilizers and Zinc was within the prescribed norms during each year of the study period. During the course of study period sufficient quantity was made available to the adopted farmers as and when they had demanded it by the UPBSN which was fully conscious to ensure the availability of fertilizers and zinc at the right time.

IX. Distribution of Seeds of Wheat

There was also provision to supply wheat seeds to most of the adopted farmers just after harvesting of paddy on reclaimed areas. UPBSN supplied about 1000 kgs seeds of wheat to the adopted farmers free of cost. Table-III-18 shows that 90 kg seeds of wheat were distributed to the adopted farmers. It varied from year to year due to coverage of different types of usar land for reclamation. There was no provision for distribution of seeds of wheat for the B+ category of usar land. Therefore, the distributed quantity of seeds of wheat increases with decrease in coverage area of B+ category of usar land and vice-versa. However, distributed quantity of wheat seeds was fully in consonance with prescribed norm during each year of the study period. No adopted farmer was deprived of getting the wheat seeds in any year of the study period. It shows that there was sufficient quantity of wheat seeds for distribution among the adopted farmers in each year of the study period.

X. Distribution of Fertilizers and Zinc

DAP, urea, zinc etc. are being provided to adopted farmers along with seeds of wheat. On an average, 164 kgs. urea, 67 kgs DAP and 19 kgs zinc per hectare were distributed to the adopted farmers over the 9 years of the study period. However, there was a marginal variation in average distributed quantity of these inputs in different years of study period but there was no shortage of these inputs during the entire study period. The adopted farmers were much benefitted to get adequate quantity of these inputs free of cost. In order to motivate the adopted farmers to use the normal quantity of these inputs during the next year, this practice of free distribution of inputs is adopted by the UPBSN during the initial years for the beneficiaries chosen under the Usar Reclamation Programme. Thus, the above analysis reveals that there was no shortage of gypsum, seeds, fertilizers, zinc etc. during the entire study period in the district. It was made available to the adopted farmers well in time during the entire course of study period. Thus, the role of UPBSN was unprecedented and phenomenal during the study period so far as distribution of gypsum and inputs in the district of Pratapgarh is concerned.

XI. Impact of the Programme on Economy of the District

Since 1992-93 to 2001-02, the cumulative reclaimed area was 20491 hectares, which accounted for 9.64 per cent of netarea sown. This reclaimed area is fully irrigated and two crops namely paddy and wheat are being grown annually on reclaimed areas. Prior to reclamation it was lying barren. Hence, a notable development during 1990, resulted in a significant acceleration of growth rate of paddy and wheat output in Pratagarh district. Out of 17,1375 hectares of net irrigated area of this district, contribution of installed pump sets under Usar Reclamation Programme was about 11.96 per cent. For this, the reclaimed area had contributed 39682 and 47863 M. tonnes of paddy and wheat respectively in total production of cereals during 2001-02. Out of the total production of paddy and wheat of the district during 2001-02, the share of reclaimed area was 17.35 per cent and 15.06 per cent of paddy and wheat respectively. The total production of paddy and wheat of 87545 M. tonnes was sufficient for more than 3.68 lakhs population for their consumption annually. UPBSN has invested Rs. 44 crores over the 9 years from 1993-94 to 2001-02 to reclaim 20491 hectares of usar land. Thus reclamation cost per hectare of usar land was Rs. 21,473. The gross value of production of paddy and wheat worked out to Rs. 48.56 crore during 2001-02, cost and capital ratio comes to 1: 1.10

during the corresponding period. It reflects that there was interactive impact of Usar Reclamation Programme on the economy of usar owners. As far as generating the employment opportunity was concerned, the reclaimed area of 20491 had generated employment for 3.07 lakhs of workers during 2001-02. The study reveals that with the increase in cultivable land, the rate of participants specially those of marginalized farmers, increased to a considerable extent on their reclaimed areas. Overall, it appears from the above analysis that Usar Reclamation Programme has given a positive impact on the economy of the adopted farmers and generated ample employment avenues for the workers of the district of Pratapgarh.

Apart from these, UPBSN has constructed 374 km link drains during the study period. This is very useful to drain out excess of water from logging areas. The crops are grown on the waterlogged areas because of drained out water by link drains. With the help of NGOs the water user groups have also been converted into Self Help Groups (SHGs). Therefore, UPBSN is not only reclaiming the usar land but also making sincere efforts to maintain sustainability in reclaimed areas by creating awareness among the adopted farmers. To provide sound financial footing to adopted farmers, UPBSN has also taken a task to form SHGs in adopted villages with the help of NGOs. Most of SHGs of this district are economically viable and financially betteroff. These SHGs have been providing loans to their members to meet out the productive and unproductive expenditure. The banks are also helping SHGs to provide adequate funds as and when they require. The women SHGs have been performing excellent job in this district. On account of this positive effect, more and more SHGs are adding in non-adopted villages also.

Three units of UPBSN have been carrying out the reclamation activities in full swing in achieving their fixed targets in stipulated time with the help of NGOs. The adopted farmers are also being motivated to plant anola, berr and guava on reclaimed areas for getting more returns in years to come.

Table III-2
Year-wise Per Hectare Recurring Cost and Availability of Funds per Beneficiary in Ghaziabad District

Years	Area Reclaimed (Hect.)	Number of Beneficiary	Amount allocated (Lakhs)	Per hectare cost for reclamation (Rs)	Per Beneficiary allocated amount (Rs)	Area covered per beneficiary (Hect.)
1992-93	1077	1786	59.32	5508	3321	0.60
1993-94	727	2740	40.04	5508	1461	0.27
1994-95	1300	1451	71.61	5508	4935	0.90
1995-96	1000	1960	77.55	7755	3957	0.51
1996-97	800	2042	53.31	6664	2611	0.39
1997-98	436	803	32.79	7521	4083	0.54
1998-99	463	861	17.13	3700	1990	0.54
1999-2000	-	-	-	-	-	-
2000-01	-	-	-	-	-	-
2001-02	20	68	1.85	9250	2721	0.29
All	5823	11711	353.60	6072	3019	0.50

Table III-5 B
Year-Wise Per Hectare Recurring Cost and Availability of Fund per Beneficiary in Mau District

Years	Area Reclaimed (Hect.)	Number of Beneficiaries	Amount allocated (Lakhs) (Rs.)	Per hectare cost for reclamation (Rs)	Per Beneficiaries allocated amount (Rs)	Area covered per beneficiaries (Hect.)
1992-93	N.A	N.A	N.A	N.A	N.A	N.A
1993-94	246	954	22.15	9004	2322	0.26
1994-95	1000	3593	74.82	7482	2082	0.28
1995-96	1026	3063	60.44	5891	1973	0.34
1996-97	921	3010	67.83	7365	2253	0.31
1997-98	954	2594	78.98	8279	3045	0.37
1998-99	144	-	10.29	7146	-	-
1999-2000	18.62	-	1.23	6606	-	-
2000-01	472	-	34.51	7311	-	-
2001-02	80	176	5.14	6425	2920	0.45
All	4861.62	13390	355.39	7310	2654	0.36

Source: BSA office Mau

Table-III-6
Matching Grant for Usar Reclamation Programme in Mau District

(Rs. Lakhs)

Years	Grant Received From Govts.		
	Centre	State	Total
1992-93	N.A	N.A	N.A
1993-94	-	22.15 (100.00)	22.15 (100.00)
1994-95	-	74.82 (100.00)	74.82 (100.00)
1995-96	-	60.44 (100.00)	60.44 (100.00)
1996-97	-	67.83 (100.00)	67.83 (100.00)
1997-98	-	78.98 (100.00)	78.98 (100.00)
1998-99	-	10.29 (100.00)	10.29 (100.00)
1999-2000	-	1.23 (100.00)	1.23 (100.00)
2000-01	34.51 (100.00)	-	34.511 (100.00)
2001-02	4.203 (81.77)	0.937 (18.23)	5.14 (100.00)
All	38.714 (10.89)	316.677 (89.11)	355.391 (100.00)

Note: Figures in brackets are percentage of total grant.
Source: BSA office Mau

Table III-7
Target and Achievement of Reclaimed Area in Different Years in Mau District

Years	Target (Hect)	Achievement (Hect)	Percentage Achievement over Target
1992-93	-	-	-
1993-94	246	246	100.00
1994-95	1000	1000	100.00
1995-96	1026	1026	100.00
1996-97	921	921	100.00
1997-98	954	954	100.00
1998-99	144	144	100.00
1999-2000	18.62	18.62	100.00
2000-01	472	472	100.00
2001-02	80	80	100.00
All	4861.62	4861.62	100.00

Source: BSA office Mau

Table III-11
Target and Achievement of Reclaimed Area by Year-wise in Etah District

Years	Target (Hect.)	Achievement (Hect)	Percentage of Achievement over Target
1993-94	118.00	118.00	100.00
1994-95	884.73	884.73	100.00
1995-96	955.34	955.34	100.00
1996-97	15.00	1768.74	117.92
1997-98	1500.00	1672.07	111.47
1998-99	1500.00	2664.79	177.65
1999-2000	4490.00	5232.920	116.55
2000-01	3797.00	3722.269	98.03
2001-02	5119.00	5828.573	113.86

Source: UPBSN, Etah District

Table III-16
Target and Achievement of Reclaimed Area by Year-wise in Pratapgarh District

Years	Target (Hect.)	Achievement (Hect)	Percentage of Achievement over Target
1992-93	99.601	99.601	100.00
1993-94	695.350	695.350	100.00
1994-95	1174.780	1174.780	100.00
1995-96	1607.322	1607.322	100.00
1996-97	2109.867	2109.867	100.00
1997-98	1650.010	1650.010	100.00
1998-99	1667.829	1667.829	100.00
1999-2000	4236.458	3843.703	90.73
2000-01	3874.086	3761.273	97.20
2001-02	4351.271	3881.405	89.20
All	21466.574	20491.14	95.46

Source: UPBSN Pratapgarh District

Table II-2
Target and Achievement of Usar Reclaimed Areas by Soil Conservation Department in Uttar Pradesh

Years	Target (Hect.)	Achievement (Hect)	Percentage of Achievement over Target
1992-93	28350	25905	91.38
1993-94	30076	18258	60.71
1994-95	30485	13570	44.51
1995-96	27000	23816	88.21
1996-97	27000	25907	95.95
1997-98	24000	7988	33.28
1998-99	36000	4108	11.41
1999-2000	-	-	-
2000-01	10000	361	3.61
2001-02	5000	4486	89.72
All	217911	124399	57.09

Source: Soil Conservation Deptt., Directorate of Agriculture- Lucknow.

Table II-3
Number of Farmers covered under Usar Reclamation Programme by Soil Conservation Department in Uttar Pradesh

Years	Number of Farmers covered	Cumulative	Per Beneficiary reclaimed area (Ha.)	Per beneficiary allocated funds (Rs.)
1992-93	26345 (11.68)	26345	0.98	10154
1993-94	7195 (3.19)	33540	2.54	15794
1994-95	8278 (3.67)	41818	1.64	12911
1995-96	12896 (5.72)	54774	1.85	23244
1996-97	55711 (24.69)	110425	0.45	10635
1997-98	53457 (23.70)	163882	0.15	355
1998-99	60906 (26.99)	224788	0.07	3630
1999-2000	-	-	-	-
2000-01	813 (0.36)	450389	0.44	5590
2001-02	-	-	-	-
All	225601 (100.00)	-	0.55	8011

Figures in brackets are percentage to total.
Source: Soil Conservation Deptt., Directorate of Agriculture, Lucknow.

Table II-5
Matching Grant for Reclamation of Usar Land in Uttar Pradesh

(Rs. in Lakhs)

Years	Central Govt.	State Govt.	Total
1992-93	239.59 (8.96)	2435.59 (91.04)	2675.18 (100.00)
1993-94	265.77 (23.39)	870.59 (76.61)	1136.36 (100.00)
1994-95	198.93 (18.61)	869.81 (81.39)	1068.74 (100.00)
1995-96	391.76 (13.07)	2605.76 (86.93)	2997.52 (100.00)
1996-97	437.92 (7.39)	5486.92 (92.61)	5924.84 (100.00)
1997-98	142.51 (7.48)	1763.12 (92.52)	1905.63 (100.00)
1998-99	88.52 (4.00)	2122.41 (96.00)	2210.93 (100.00)
1999-2000	-	-	-
2000-01	45.45 (100.00)	-	45.45 (100.00)
2001-02	109.01 (100.00)	-	109.01 (100.00)
All	1919.46 (10.62)	16154.40 (89.38)	18073.66 (100.00)

Figures in brackets are percentage to total.

Source: Soil Conservation Deptt., Directorate of Agriculture- Lucknow.

Table II-8
Year-wise Target and Achievement of Reclaimed Areas by UPBSN in Uttar Pradesh

(Hect.)

Years	Target	Achievement	Percentage of achievement over target
1992-93	196	196	100.00
1993-94	1500	2792	186.00
1994-95	4500	7278	162.00
1995-96	9000	10534	117.00
1996-97	12000	13397	112.00
1997-98	12000	13469	112.00
1998-99	12000	17274	144.00
1999-2000	20000	27597	137.98
2000-01	30,000	27361	91.20
2001-02	35000	35004	100.01
All	136196	154902	113.73

Source: UPBSN-Lucknow

Table II-10
Component Wise Financial Expensed Upto Oct. 2002 by UPBSN
(Phase-II)

(Rs. crore)

Particulars	Expenses		
	1999-2000	2000-01	2001-02
Land Reclamation	33.12 (87.74)	57.62 (39.48)	52.68 (35.03)
Main Drain Remodeling	1.63 (4.32)	16.46 (11.29)	14.95 (9.94)
Technical Dissemination	1.16 (3.07)	2.00 (1.37)	2.66 (1.77)
Up-gradation of Roads	0.19 (0.50)	4.40 (3.01)	7.78 (5.17)
HRD & INSH Capacity Building	0.41 (1.09)	4.01 (2.75)	5.58 (3.71)
Adoptive Research	0.01 (0.01)	0.06 (10.04)	0.22 (0.15)
Project Management	1.23 (3.27)	18.76 (12.86)	20.71 (13.77)
Total	37.75 (100.00)	103.31 (70.80)	104.58 (69.54)
Farmer Contribution	-	42.62 (29.20)	45.79 (30.46)
Grand Total	37.75 (100.00)	145.93 (100.00)	150.37 (100.00)

Figures in brackets are percentage to grant total.
Source: UPBSN, Lucknow.

Table-II-7
Years-Wise Number of Beneficiaries Covered Under Usar Reclamation Programme by UPBSN in Uttar Pradesh

Years	Number Beneficiaries			
	SC/ST	OBC	General	Total
1992-93	145 (39.94)	114 (31.40)	104 (28.66)	363 (100.00)
1993-94	2828 (39.38)	1981 (27.59)	2372 (33.03)	7181 (100.00)
1994-95	4588 (29.90)	6230 (4059)	4529 (29.51)	15347 (100.00)
1995-96	6986 (27.46)	11705 (46.01)	6749 (26.53)	25440 (100.00)
1996-97	8233 (26.39)	14256 (45.69)	8710 (27.92)	31199 (100.00)
1997-98	8076 (25.64)	14513 (46.08)	8908 (28.08)	31497 (100.00)
1998-99	11317 (28.71)	16260 (41.24)	11849 (30.05)	39426 (100.00)
1999-2000	2502 (26.80)	4433 (47.48)	2401 (25.72)	9336 (100.00)
2000-01	13004 (27.55)	21149 (44.80)	13051 (27.65)	47204 (100.00)
2001-02	21367 (28.23)	35917 (47.45)	18405 (24.32)	75689 (100.00)
All	79046 (27.96)	126558 (44.77)	77078 (27.27)	282682 (100.00)

Figures in brackets are percentage to total
Source-UPBSN, Lucknow.

Table-III-3
Target and Achievement of Reclaimed Area by Different years in Ghaziabad Distt.

(Hectare)

Years	Target	Achievement	Percentage of achievement over target
1992-93	1000.00	1077.00	107.70
1993-94	1000.00	727.00	72.27
1994-95	1300.00	1300.00	100.00
1995-96	1000.00	1000.00	100.00
1996-97	1000.00	800.00	80.00
1997-98	541	436	80.59
1999-2000	-	-	-
2001-02	20.00	20.00	100.00
All	6481	5823.00	88.48

Source-BSA Ghaziabad

CHAPTER-IV

Impact of Usar Reclamation Programme on the Selected Farms

I. Profile of Sample Beneficiaries

This chapter looks at the empirical evidence of impact of Usar Reclamation Programme on the socio-economic conditions of sample of adopted farmers. The study based on yearly data (1996-97 to 2000-01) is to analyse post benefits of Usar Reclamation Programme on the sample farms. As it has already been mentioned in the introductory chapter of the report that of 60 samples from two districts (Ghaziabad and Mau) covered by Soil Conservation Department, and equal number of samples from two districts (Etah and Pratapgarh) covered by UPBSN were selected for the study. 60 samples covered by Soil Conservation Department 48% belonged to scheduled castes followed by 45% and 7% belonging to OBC and general castes respectively. In case of samples covered by UPBSN, the maximum samples being 73% belonged to OBC followed by 25% belonging to general castes. It reflects that out of total samples, the coverage of scheduled castes was maximum in case of Soil Conservation Department and minimum in UPBSN. It denotes that Soil Conservation Department had covered those projects during 1996-97, which had allotted target groups, while it was not the criterion with the UPBSN during the corresponding period.

Table-IV-1
Sample Farms by Caste

(Number of Households)

Category of Usar Land	Soil Conservation Department				UPBS Nigam			
	SC	OBC	Others	Total	SC	OBC	Others	Total
B	7 (70.00)	2 (20.00)	1 (10.00)	10 (100.00)	1 (3.44)	16 (55.18)	12 (41.38)	29 (100.00)
C	22 (44.00)	25 (50.00)	3 (6.00)	50 (100.00)	-	28 (90.32)	3 (9.68)	31 (100.00)
Total	29 (48.33)	27 (45.00)	04 (6.67)	60 (100.00)	1 (1.67)	44 (73.33)	15 (25.00)	60 (100.00)

Figures in brackets are percentage to all castes.
SC = Scheduled castes
OBC= Other Backward Castes
Others = General Castes

II. Population

The per farm population of sample farms covered by Soil Conservation Department was a little bit higher 8.85 as compared to 8.37 per farm covered by UPBSN. The numbers of children on both the sample farms were higher than that of adult male and female members.

Table-IV-2
Working Members on the Sample Farms

(Number of Households)

Sex	Soil Conservation Department		UPBS Nigam	
	Total Population	Working Members	Total Population	Working Members
Males (Adults)	163	152 (93.25)	149	121 (81.20)
Females (Adults)	145	95 (65.52)	141	100 (70.92)
Children	223	81 (36.32)	212	58 (27.36)
Total	531	328 (61.77)	502	279 (55.58)

Figures in brackets are the percentage of working numbers to total population.

III. Educational Status

The educational standard of sample farms of both the agencies was not up to mark because 36.35% and 28.29% out of total population covered by Soil Conservation Department and UPBSN respectively were illiterate. It is also evident from Table IV-3 that educational standard of sample farmers covered by UPBSN was higher than that of sample farmers covered by Soil Conservation Department. It shows that majority of children of target groups were not attending schools due to poverty and lack of infrastructural facilities.

IV. Working Members

The details of working members of selected farms is also presented in Table-IV-2. It is clear from the table that the working members of the total population worked out to 61.77% on the sample farms of Soil Conservation Department against 55.58% on the sample farms of UPBSN. It is interesting to note that the percentage of working males and females member of the total

population of both farms were more or less equal while the child labour was substantially higher being 36.32% on the sample farms of Soil Conservation Department against 27.36% on its counterpart. It reflects that samples farmers belonging to SC covered by Soil Conservation Department had engaged their children as labourers rather than sending them to schools. Table IV-2 also shows that majority of males of sample farmers both the agencies was engaged in economic activities while it was about 60% in case of female population. On an average working numbers of both the sample farms got gainful employment on their owned farms as well as outside the farms also. Hence, the Usar Reclamation Programme had generated additional employment opportunities on the sample farms.

Table- IV-3
Educational Status of Sample Farmers

(Number of Households)

Educational Status	Soil Conservation Department			UPBS Nigam		
	Districts			Districts		
	Ghaziabad	Mau	Total	Etah	Pratapgarh	Total
Illiterate	96 (40.85)	97 (32.77)	193 (36.35)	70 (29.91)	72 (26.86)	142 (28.29)
Literate						
Primary Level	79 (33.62)	98 (33.11)	177 (33.33)	83 (35.47)	109 (40.67)	192 (38.25)
S.C	51 (21.70)	76 (25.68)	127 (23.92)	59 (25.21)	58 (21.64)	117 (23.31)
Graduate	9 (3.83)	25 (8.44)	34 (6.40)	22 (9.41)	29 (10.83)	51 (10.15)
All	235 (100.00)	296 (100.00)	531 (100.00)	234 (100.00)	268 (100.00)	502 (100.00)

Figures in brackets are percentage to total population.

V. Occupational Structure

The occupational structure of sample farms covered by both the agencies is shown in Table IV-4. The table presents that agriculture was main occupation of majority of sample households covered by UPBSN while there was much diversion in occupational structure on the sample farms covered by Soil Conservation Department. Out of 60 sample farms of UPBSN, 53 households had adopted agriculture as sole occupation followed by service. None of sample households of UPBSN had adopted labour and dairy as main occupation.

Against this, only half of sample households of Soil Conservation Department had adopted agriculture as main occupation followed by 32% labour occupation, even after Usar Reclamation Programme. Beside these, service and dairy were other main occupations of 8 and 2 sample households respectively.

Table-IV-4
Occupations on Sample Farms

(No. of Households)

Occupations	Agencies					
	Soil Conservation Deptt.			UPBS Nigam		
	Districts			Districts		
	Ghaziabad	Mau	Total	Etah	Pratapgarh	Total
1. Main	-	-	-	-	-	-
Agriculture	8	23	31	28	25	53
Dairy & Others	2	-	2	-	-	-
Service	2	6	8	2	5	7
Labour	18	1	19	-	-	-
Total	30	30	60	30	30	60
2. Subsidiary	-	-	-	-	-	-
Agriculture	20	7	27	9	5	14
Dairy & Others	4	13	17	16	3	19
Service	-	2	2	-	3	3
Labour	6	8	14	5	19	24
Total	30	30	60	30	30	60

Table IV-5 also presents that there was much changes in main occupations on the small and marginal farms covered by Soil Conservation Department on account of reclamation programme. The Patta holders had shifted from their labour occupation to agriculture because of the availability of cultivable land. Prior to this programme, labour was the main occupation of 25 sample households covered by Soil Conservation Department, out of which 24 per cent had shifted to agriculture. The shift in occupation from labour to agriculture was mostly by patta allottee sample farmers covered by Soil Conservation Department. Thus, the impact of Usar Reclamation Programme had generated much employment opportunities at reclaimed areas. The farmers were now busy in cultivation of crops on the reclaimed areas instead of going to get employment on others' farms.

Table-IV-5
Pre and Post Occupations on Sample Farms

(No. of Households)

Occupations	Agencies			
	Soil Conservation Deptt.		UPBS Nigam	
	Pre reclamation	Post Reclamation	Pre reclamation	Post Reclamation
1. Main				
Agriculture	25	31	50	53
Dairy & Others	2	2	-	-
Service	8	8	7	7
Labour	25	19	3	-
Total	60	60	60	60
2. Subsidiary				
Agriculture	20	27	16	14
Dairy & Others	10	17	10	19
Service	2	2	3	3
Labour	28	14	31	24
Total	60	60	60	60

VI. Subsidiary Occupations

There was little scope of earning by depending only on one occupation on limited acreage of land for the members of a household throughout a year. Therefore, the landless marginal and small farmers generally adopted the subsidiary occupations to meet out the social and economic obligations. It is evident from table IV-4 that dairy and labour were subsidiary occupations of majority of sample farms covered by both the agencies. Thus it was an important factor that members of sample farmers were engaged in different pursuits. Among the subsidiary occupations, dairy, labour and agriculture were prominently covered by both the agencies. Prior to Usar Reclamation Programme labour was the main occupation of patta allottees which has now been substituted by agriculture after implementation of the programme. It is also noticed from table-IV-4 & 5 that marginal and small sample farmers have also started rearing milch cattle after the reclamation of their usar lands. Now they have sufficient land and assured irrigation facilities to grow fodder crops in different seasons to meet the fodder requirement of their cattle. On account of Usar Reclamation Programme, there has been much diversion into occupational activities among the adopted farms. The trend was in favour of agriculture and dairy from labourers occupation after implementation of Usar Reclamation Programme. As such above analysis reflects that there was diversion in

occupational structure in main as well as subsidiary occupations on sample farms after the beginning of the reclamation programme which was earlier confined only to agriculture and labour.

VIII. Sample Farms by Category of Usar Land

The classification of sample farms by categories of usar land is presented in Table IV-6. Table IV-6 shows that out of 60 sample farmers covered by Soil Conservation Department, 50 sample farmers had C category of Usar lands and rest 10 had B category usar lands. Against this, out of 60 farmers covered by UPBSN, 36 sample farmers had C and 24 had B categories of usar lands. Thus, out of 120 sample farmers, 86 samples had C category of Usar lands while only 34 samples had B category of usar lands. It shows that the Soil Conservation Department as well as UPBSN had paid maximum attention to reclaim C category of Usar lands in comparison to that of B and B+ categories of usar lands. Both the agencies had preferred to take those patches of land where the coverage of area under C class land was found maximum.

Table-IV-6
Sample Farms by Category of Land

(No. of Households)

Category of Usar Land	Agencies					
	Soil Conservation Deptt.			UPBS Nigam		
	Districts			Districts		
	Ghaziabad	Mau	Total	Etah	Pratapgarh	Total
B	5 (16.67)	5 (16.67)	10 (16.67)	8 (26.67)	16 (53.33)	24 (40.00)
C	25 (83.33)	25 (83.33)	50 (83.33)	22 (73.33)	14 (46.67)	36 (60.00)
• Total	30 (100.00)	30 (100.00)	60 (100.00)	30 (100.00)	30 (100.00)	60.00 (100.00)

- Figures in brackets are percentage to total
- Note: B= Partial usar land
  C= Pure usar land

IX. Sample Farmers by Castes and Categories of Usar Lands

Table-IV-7 presents that out of 60 sample farmers covered by Soil Conservation Department, 22 and 25 households of SC and OBC had possessed the C category usar land. In case of samples covered by UPBSN 28 households

of OBC had possessed C category of usar land. The B category usar land was confined to OBC and general castes. It is also noticed from table-IV-7 that coverage of SC was only single in case of UPBSN while it was maximum in case of Soil Conservation Department. It reflects that patta land had been given mostly to SC followed by OBC, which was exclusively C category of usar land.

Table- IV-7
Distribution of Sample Farmers According to Caste and Type of Usar Land

Agencies	Categories of usar land							
	B				C			
	Scheduled Caste	OBC	General	Total	Scheduled Caste	OBC	General	Total
Soil Conservation Department	7 (70.00)	2 (20.00)	1 (10.00)	10 (100.00)	22 (44.00)	25 (50.00)	3 (6.00)	50 (100.00)
UPBSN	1 (3.45)	16 (55.17)	12 (41.38)	29 (100.00)	-	28 (90.32)	3 (9.68)	31 (100.00)
All	8 (20.51)	18 (46.15)	13 (33.34)	39 (100.00)	22 (27.16)	53 (65.43)	6 (7.41)	81 (100.00)

Figures in brackets are percentage to total

The composition of sample beneficiaries of Soil Conservation Department shows that 48.33% of them were scheduled castes and 45.00% OBC. Thus, the target group had benefitted from the distribution of patta lands.

X. Details of Category of Land on the Sample Farms

The details of category of land owned by sample farmers is presented in Table-IV-8 which shows that 49,306 hectares land was cultivated by sample farmers covered by Soil Conservation Department, which accounted for 0.82 hectare per farm. It was only 0.47 hectare per farm prior to reclamation of usar land, thereby showing 74.47% increase over the cultivated areas. The average holding size has also witnessed an increase after reclamation programme. Of 49,306 hectares of owned land, by the sample farms covered by Soil Conservation Department, the average of usar land accounted for 54.12%. The table also presents that out of total usar land of 26,685 hectares, the proportionate share was 54.75% and 45.25% of inherited and allotted usar lands respectively. It shows that inherited usar land was mostly B class while allotted lands was C category, on the sample farms covered by Soil Conservation Department. In regard to sample farmers covered by UPBSN, table-IV-8 shows

that at an aggregate level, the proportionate share of inherited and allotted usar land worked out to 46.29% and 53.71% respectively. The proportion of allotted usar land of class C category was comparatively higher by 52.26% over the inherited usar land of 15.96 hectares while the acreage of inherited and allotted usar land of B class was more or less equal. It confirms that inherited usar land was generally B class while allotted usar land was C class on the sample farms covered by both the agencies. Out of total owned area, the usar land accounted for 54.12% and 39.18% on the sample farms which had been totally reclaimed by Soil Conservation Department and UPBSN respectively. It is also evident from the table that Soil Conservation Department and UPBSN had reclaimed all the usar land of sample farmers which had come under the jurisdiction of a project units. The maximum attention was given to reclaim C class land rather than B and B+ classes of land.

Table-IV-8
Proportionate Share of Usar Areas to Owned Areas on the Sample Farms

(Area in Hectare)

Category of Usar Land	Soil Conservation Department				UPBS Nigam			
	Owned Land	% of Usar Land to owned land			Owned Land	% of Usar Land to owned land		
		Inherited	Patta	Total		Inherited	Patta	Total
B	11.708	33.78 (67.84)	16.02 (32.16)	49.80 (100.00)	22.332	21.50 (57.34)	16.00 (42.66)	37.50 (100.00)
C	37.598	28.33 (51.09)	27.13 (48.91)	55.46 (100.00)	34.564	15.96 (39.63)	24.30 (60.37)	40.26 (100.00)
Both	49.306	29.63 (54.75)	24.49 (45.25)	54.12 (100.00)	56.896	18.13 (46.29)	21.05 (53.71)	39.18 (100.00)

Note- Figures in brackets are percentage of total usar land.

XI. Pre and Post Land Utilization on the Sample Farms

Table-IV-9 presents that out of total owned land on sample farms covered by Soil Conservation Department was only 57.70% under cultivation prior to the programme, which has come totally under cultivation after the programme. The cropping intensity has also increase to 200 per cent, which was 179 per cent prior to the programme. On an average the per farm net area sown has increased by 73.30% after the programme from 0.47 hectare per farm prior to the programme. It shows that the enhancement in net sown area per farm was 0.35 hectare after the reclamation of usar land. It is also noticed from Table-IV-9 that there was no change in owned area on the sample farms covered by both

agencies. The areas leased in and leased out on the sample farms was also not prevalent in both the cases.

Table-IV-9
Pre & Post Situation of Land Utilization on the Sample Farms

(Areas in Hectares)

Details of Land	Soil Conservation Deptt.			UPBSN		
	Pre Reclamation	Post Reclamation	% Change over the Pre-reclamation	Pre Reclamation	Post Reclamation	% Change over the Reclamation
Owned Area	49.306	49.306	-	56.896	56.896	-
Usar Land B	5.830	5.830	-	8.376	8.376	-
C	20.855	20.855	-	13.916	13.916	-
Total	26.685	26.685		22.292	22.292	
Area Leased in	-	-	-	-	-	-
Area Leased out	-	-	-	-	-	-
Net Area sown	28.451	49.306	73.30	42.980	56.896	32.38
Net Irrigated Area	28.451	49.306	73.30	42.980	56.896	32.38
Gross Cropped Area	51.072	98.612	93.08	77.584	113.792	46.67
Cropping intensity	179.51	200.00	20.49	180.51	200.00	19.49

Table-IV-10
Classification of lands on the Sample Farms

(Area in Hectare)

Category of Usar land	Soil Conservation Deptt.					UPBS Nigam				
	No. of sample	Owned land	Usar Land		Total reclaim-ed areas	No. of sample	Owned land	Usar Land		Total reclaimed areas
			Owned	Patta				Owned	Patta	
B	10	11.708 (1.1708)	3.955 (0.3955)	1.875 (0.1875)	5.830 (0.5830)	24	22.332 (0.9305)	4.803 (0.2001)	3.573 (0.1489)	8.376 (0.3490)
C	50	37.598 (0.7519)	10.655 (0.2131)	10.200 (0.2040)	20.855 (0.4171)	36	34.564 (0.9601)	5.515 (0.1532)	8.401 (0.2334)	13.916 (0.3866)
Both	60	49.306 (0.8217)	14.610 (0.2435)	12.075 (0.2012)	26.685 (0.4447)	60	56.896 (0.9482)	10.318 (0.1719)	11.974 (0.1996)	22.292 (0.3715)

Figures in brackets are per farms

As far as the net area sown on the sample farms covered by UPBSN is concerned table-IV-9 reveals that per farm it worked out to 0.95 hectare after reclamation which was only 0.72 hectare prior to the programme thereby showing 32.38% increase. The gross cropped area also increased by 46.67% after the programme from 77,584 hectares prior to the programme. The cropping intensity, which was only 180.51% prior to the programme has increased to 200% after the programme.

The above analysis reveals that role of Soil Conservation Department as well as UPBSN was quite positive in increasing bet area sown, net irrigated area, gross cropped area and cropping intensity on the sample farms.

Pre and Post General Cropping pattern on Sample Farms

The Usar Reclamation Programme has given an opportunity to change cropping pattern by making productive use of wastelands. Earlier C class of usar lands was totally denuded of any vegetative cover, while B class of usar land was also in a bad shape and their productive use was far below potential. However, the farmers did not grow crops on their degraded lands prior to implementation of Usar Reclamation Programme.

Table-IV-11
General Cropping Pattern in Pre and Post Reclaimed Land

(Area in Hectares)

Name of Crops	Soil Conservation Deptt.			UPBS Nigam		
	Pre Reclamation	Post Reclamation	% Change over the Pre-reclamation	Pre Reclamation	Post Reclamation	% Change over the Reclamation
Kharif Crops						
Paddy	15.483	34.393	+ 122.13	30.450	42.000	+ 37.93
Pulses	4.233	5.200	+ 22.84	5.000	6.343	+ 26.86
Oilseeds	2.150	2.150	-	3.450	5.000	+ 44.92
Others	2.193	3.163	+ 44.23	4.080	2.553	- 37.42
Total	24.059	44.906	+ 86.65	42.980	55.896	+ 30.05
Rabi Crops						
Wheat	14.828	35.393	+ 138.69	28.500	42.300	+ 48.42
Pulses	2.000	3.150	+ 57.50	1.000	2.896	+ 189.60
Oilseeds	1.195	1.950	-63.17	2.250	5.250	+ 133.33
Others	2.343	4.763	+ 103.28	2.854	6.450	+ 125.99
Total	20.366	45.256	+ 122.21	34.604	56.896	+ 64.420
S. Cane	6.647	8.450	+ 27.12	-	1.000	-
Gross-Cropped Area	51.072	98.612	+ 93.08	77.584	113.792	+ 46.67

The Usar Reclamation Programme also helped the usar owners to make productive use of their lands for growing paddy and wheat crops. The reclaimed usar land has been intensively utilized by adopted farmers. As shown in Table-IV-11 the general cropping pattern during pre and post reclamation programme was almost same. Paddy, wheat, pulses, oilseeds, etc. were main crops on the sample farms during pre and post reclamation programme. But the allocation of acreage under crops was positively changed in favour of paddy and wheat crops after reclamation programme.

As shown in table IV-11 that out of gross cropped area of 98.612 hectares of sample farmers covered by Soil Conservation Department paddy and wheat accounted for 34.87% and 35.89% respectively after the programme which was 30.31 and 29.03% respectively prior to the programme. In absolute term, the area under paddy and wheat was more than double after reclamation over its pre programme area. Besides this, the adopted farmers have also been putting the reclaimed area under pulses, sugarcane, fodder crops. This shows that entire land of adopted sample farmers was under cultivation in Kharif as well as Rabi seasons. Therefore, Soil Conservation Department had made remarkable efforts to convert wastelands into cultivable lands thereby enabling the adopted farmers to grow crops. The same situation, more or less, prevailed on the sample farms covered by UPBSN during the corresponding period.

Cropping Pattern on Reclaimed Area

The cropping pattern on reclaimed area on the sample farms is illustrated in table IV-12. From the table IV-12 it can be seen that out of total reclaimed area of 26.685 hectares on sample farms covered by Soil Conservation Department, B and C class of usar lands accounted for 21.85% and 78.15% respectively. Prior to reclamation programme, the paddy was grown on B class land while C class land was not suitable for cultivation of agricultural crops. Hence, most of these lands remained barren and unused till 1996-97. Since the implementation of Usar Reclamation Programme, B as well as C class of lands has been made cultivable. No field of sample farmers was vacant. Thus, it can be inferred from Table-IV-12 that the adopted farmers were more concentrating on the cultivation of paddy and wheat than any other crop. It is scientifically proved that if the same piece of land is cultivated with paddy, wheat and dhaincha for a considerable period of time, the soil fertility and structure of reclaimed area could be improved gradually. On account of this, paddy and wheat were common crops on reclaimed areas. With availability of assured

irrigation, few sample farmers had kept reclaimed areas under fodder, sugarcane, pulses etc. It may also be inferred from above analysis that the total area of C class of land on the sample farms was being used for cultivation of paddy and wheat, which was totally uncultivable prior to the programme. On the other hand, the area of B class land was exclusively used for paddy prior to the programme, which is now being used for wheat also after the reclamation.

Table -IV-12 also shows that paddy alone was grown on B as well as C class lands during Kharif season. It is also noticed from table –IV-12 that wheat was main crop on reclaimed areas during Rabi season on the sample farms covered by both the agencies. Apart from wheat, fodder, pulses and sugarcane were also grown on the limited areas by the sample farmers. It is concluded with this result that the paddy and wheat are only crops which are highly suitable for the reclaimed areas. Hence, on this ground reclaimed areas are best suited for growing paddy and wheat crops.

Table-IV-12
Cropping Pattern on Unreclaimed and Reclaimed Usar Land on the Sample Farms

(Area in Hectare)

Name of crops	Soil Conservation Department				UPBS Nigam			
	Categories of Usar Land				Categories of Usar Land			
	B		C		B		C	
	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)
Paddy	5.830	5.830	-	20.855	8.376	8.376	-	13.916
Wheat	-	5.130	-	18.885	-	6.833	-	13.511
Fodders	-	0.400	-	1.710	-	0.200	-	0.200
Others	-	0.300	-	0.260	-	1.343	-	0.205
Total	5.830 (0.583)	11.660 (1.166)	-	41.710 (0.834)	8.376 (0.349)	16.752 (0.698)	-	27.832 (0.773)

Figures in brackets are per farm

The gross cropped was increased by 98.12 per cent on the sample farms covered by Soil Conservation Department while it was 46.67 per cent increase on its counterpart i.e. UPBSN due to enhancement of area under paddy and wheat on the reclaimed areas. During 1997-98, paddy and wheat shared 50.00%

and 45% of gross area respectively after reclamation programme on the sample farms covered by Soil Conservation Department while the paddy and wheat accounted for 50.00% and 45.63% per cent respectively to gross cropped area crops after reclamation on the sample farms covered by UPBSN. It shows that paddy and wheat jointly accounted for 95% and 95.63% area to grass cropped area on the sample-farms covered by Soil Conservation Department and UPBSN respectively during 1997-98. It is also observed that the increase in sown area of C class land was higher than B class land on the sample farms covered by both the agencies. In all, C class land was made cultivable after reclamation so it led to an appreciable increase in cropped area. The B class of usar land was conventionally single cropped area prior to the programme and through reclamation it was made double cropped area. Therefore, the impact of Usar Reclamation Programme had played a significant role in increasing the acreage of paddy and wheat on the sample farms covered by both the agencies. It also shows that there was much diversification in cropping pattern after reclamation of usar land than those of prior to reclamation.

Expenditure on Various Components for Usar Reclamation on the Sample Farms Covered by the Soil Conservation Department

The Soil Conservation Department was getting funds from Central government under centrally sponsored scheme for reclamation of usar lands of usar prone districts of the State. Besides this fund, U.P. Government had also launched simultaneously a number of Usar Reclamation Schemes viz. Ambedkar Usar Sudhar Yojana, Bhumi Sudhar Yojana etc. by its own funds. But it is an irony that financial allocation of funds by both the Governments could not be made timely and adequately during most of the years which became a hurdle in implementing the project effectively. On account of this, there was major set back in proper execution of OFD and mixing of gypsum at farms level. Due to paucity of funds, OFD as well as procurement of gypsum was much below the standard norm. Besides these, the production inputs were not supplied timely and adequately to the adopted farmers, therefore, the per hectare reclamation cost was estimated at Rs. 10,979 in case of areas covered by the Soil Conservation Department which was well below from the per hectare reclamation cost Rs. 26640 per hectare of the covered areas by UPBSN.

Table-IV-13
Per Hectare Expenditure on Various Components for Usar Reclamation on the Sample Farms Covered by Soil Conservation Department

(RS.)

Categ-ory of Usar Land	Reclai-med area (ha.)	Earth Work		Production Inputs							Total
				Paddy			Wheat				
		OFD	Gypsum	Seed	Fertili-zer	Irrigat-ion	Seed	Fertili-zer	Irrigat-ion	Dhainc-ha seed	
B	5.830	21708 (3723)	13340 (2288)	3154 (540)	2798 (480)	6646 (1139)	5853 (1004)	2558 (439)	6559 (1125)	1639 (281)	64255 (11019)
C	20.855	71352 (3422)	58122 (2787)	11261 (540)	10511 (504)	25922 (1243)	20860 (1000)	9135 (438)	25475 (1221)	5887 (282)	238525 (11437)
All	26.685	93060 (34.87)	68643 (2572)	14415 (540)	9679 (363)	28404 (1064)	26713 (1001)	11693 (438)	32875 (1232)	7526 (282)	293008 (10979)

Figures in brackets are per hectare expenditure.

The reclamation cost included the expenses made on items like OFD, soil amendment, boring, material, crop inputs etc., which is presented in Table-IV-13. It is evident from the table that out of per hectare reclamation cost of Rs. 11,019 on B category of farms, OFD claimed highest share being 37.79% followed by 20.76% on gypsum. The table also reveals that the input cost accounted for 45.45% of the total per hectare cost incurred in the reclamation of B class usar lands. In case of C class of usar lands, the OFD cost was also higher being 29.22% followed by 24.27% on gypsum. The production input cost accounted for 45.71%. Among the input cost, the share of irrigation was maximum followed by cost of seed. The table also presents cost per hectare on reclamation on C class usar lands which was a little higher by 3.79% over per hectare reclamation of Rs. 11019 of B class usar lands. Except cost of gypsum, the other costs on reclamation were more or less the same on both the categories of farms.

Share of Sample Farmers in Reclamation of Usar Lands

The per hectare total cost of reclamation in B class usar lands worked out to Rs. 11,019 which was shared at 68% by Soil Conservation Department and 32% by sample farmers respectively. The share of sample farmers was 40.13% per hectare in total cost of reclamation of C class usar lands. It is also noticed from the Table-IV-14 that there was hundred per cent subsidy on the expenditure of OFD and seed of dhaincha. Against this, only 50% subsidy was available on price of production inputs. Table-IV-14 also shows that there was

50% subsidy on prices of Gypsum for non-allottees while it was 75% subsidy for Patta holders belonging to scheduled castes. On account of high price of gypsum and provision for only 50% subsidy, the sample farmers could not use normal quantity of gypsum in reclamation process which ranged between 1 to 2 tonnes per hectare which was far too less than normal requirement of 6 to 12 tonnes per hectare. The amount of subsidy in different components of Usar Reclamation Programme was not consistent/similar throughout the State even for a particular year. There was hundred per cent subsidy which was available to the scheduled castes during the Ambedkar Usar Sudhar Yojana but it was not provided to such an extent to other Usar Sudhar Yojanas. However, on an average, 65% of total expenditure on reclamation was subsidised and rest 35% was expended by sample farmers themselves.

There was hundred per cent subsidy available for boring material. It also includes provisions for subsidy for pump sets, which could be managed by way of subsidy on bank loan at concessional rates of interest. It is also inferred that allottees had received much subsidies on the expenditure for reclamation than those of non-allottees during the reference year. To facilitate use of adequate quantity of gypsum as required in sodic lands, provision of subsidy on this component should be made available by the Soil Conservation Department also as being done by the UPBSN to the adopted farmers.

Expenditure on Reclamation of Usar Land on the Sample Farms Covered by UPBSN

The reclamation of usar land is basically done through the use of gypsum and water. Prior to mixing the gypsum properly and leaching process, a number of earth work such as bunding, leveling, drainage, channels etc. have to be completed. Besides these, the B+ and B classes of usar lands require less quantity of gypsum and other inputs for reclamation than that of C class usar lands. The bunding, leveling, irrigation, channels, drainage, installation of pump sets are pre-requisite activities of Usar Reclamation Programme. The details of expenditure on various components for reclamation of usar land is presented in Table IV-15. It is clear from Table-IV-15 that the total expenditure incurred by the 60 sample farmers as well as UPBSN on reclamation of 22.292 hectares of usar land accounted for Rs. 5,93,858 giving per hectare expenditure of Rs. 26,640 and per farm expenditure of Rs. 9898 respectively. It is also noticed from table-IV-15 that per hectare expenditure on reclamation of usar land of C class was estimated at Rs. 27,580 against Rs. 22,551 for per hectare usar land of B class. Thus, the reclamation of C class usar land was rather costlier than that

of B class usar lands. This was mainly attributed to higher expenditure on gypsum. Out of total expenditure for reclamation of a hectare of usar land of B and C classes, expenditure on gypsum was highest being 58.27 % followed by 24.04% expenditure on production inputs.

Table-IV-15 also presents that more than 75.96 per cent of reclamation expenditure was consumed for boring, gypsum, leaching and drainage development whereas the balance 24.04 per cent of expenditure was on inputs viz. seeds, fertilizers, zinc, green manuring etc. thus, it is clear that out of total expenditure, maximum was spent on gypsum for both the categories of B and C class usar lands.

Farmers and UPBSN share in Expenditure for the Reclamation of Usar Lands

UPBSN has been doing a reasonably good job by providing physical and financial help to the adopted farmers during the reclamation of their lands which is evident from table-IV-16 that more than 98% of total expenditure was borne by UPBSN alone whereas rest 2% only was shared by the adopted farmers. The quantity of gypsum which was required for B and C classes of usar lands were 6 and 13 tonnes per hectare respectively which had been provided to covered farmers at a token amount of Rs. 2 per bag of 50 kgs. Besides this, adopted farmers had received adequate quantity of seeds of paddy, wheat and dhaincha, fertilizers, zinc MOP etc free of cost during the reclamation of their usar lands. There was no discrimination in supply of gypsum and production inputs because of transparency in manual work by themselves in doing bunding, leveling, leaching etc. There was also provision of hundred per cent subsidy on boring. The cost of pump sets had to be borne by owners of borings. There was also provision of 50 per cent subsidy on the value of a pump set. In this way adopted farmers had shared very meagre amount being 2 per cent while 98 per cent was shared by UPBSN. Thus, it is clearly established that UPBSN had fully supported the covered farmers in the process of reclamation of usar lands. As such it is concluded that UPBSN has been helping the allottees and marginal farmers in a big way by providing gypsum, production inputs, services and institutional credits which are the basic instruments of usar reclamation programme.

Table-IV-17
Per Hectare Cost Incurred in Paddy & Wheat Crops on Reclaimed Land in Reference Year

(in Rs.)

Inputs	Soil Conservation Department				UPBS Nigam			
	Categories of Usar Land				Categories of Usar Land			
	B		C		B		C	
	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat
Human Labour	4017	3267	3971	3078	4183	4887	3739	3454
Draught Labour	450	431	430	474	600	733	541	400
Tractor	1223	1800	1434	1899	1353	1943	1654	1994
Seed	635	1218	624	1250	600	1305	598	1203
Fertilizer	1240	1345	1150	1204	1319	1353	1695	1350
Pesticides	52	75	24	34	113	167	28	44
Irrigation	1206	1600	1099	1485	1088	1719	1000	1643
Others	101	74	25	18	156	326	128	64
Total	8924	9810	8757	9442	9412	12433	9383	10152

Income from Reclaimed Areas

With the transformation of soil face with an assured supply of irrigation water, the usar land turned fertile. On account of positive impact of usar reclamation programme on the production of paddy and wheat, the income of adopted farmers had tremendously increased. Table-IV-18 reveals that per hectare net income worked out to Rs. 5,222 and Rs. 5,202 on B and C class of lands on the sample farms covered by Soil Conservation Department during reference year while Rs. 5,635 and Rs. 5,328 per hectare net income were estimated on B and C class of lands on the sample farms covered by UPBSN during the corresponding period. It shows that per hectare net income obtained from different enterprises grown on B class lands on the sample farms covered by both the agencies was higher than that of C class of lands. It also reflects that B class land was found more profitable than the C class land on the sample farms of selected districts. The table also shows that the per hectare net income on the reclaimed areas of B and C class lands of the sample farms covered by UPBSN was marginally better than the sample farms covered by the Soil Conservation Department, while the per household income obtained from reclaimed areas was estimated at Rs. 4631 on the sample farms covered by Soil Conservation Department against Rs. 4045 per household on the sample farms covered by UPBSN. Table IV-18 also reveals that per household income was

higher being 40.33% on B class land than Rs. 4,339 on C class land on the sample farms covered by Soil Conservation Department. While the per household income in both classes of land was same on the sample farms covered by UPBSN (Table-IV-18). It indicates that the per household income has been increased to Rs. 4,338 annually due to positive impact of reclamation programme.

Comparative Analysis of Income on the Sample Farms Before and After Reclamation Programme

As already mentioned in this chapter that only paddy was grown on un-reclaimed areas of B class land while C class land was totally unfit for the cultivation of crops. Hence, per hectare net income derived from paddy was only Rs. 2,700 in un-reclaimed B class land which has increased to Rs. 5,222 per hectare after reclamation, thereby showing an increase of 93.41 per cent. On the other hand the adopted farmers had received Rs. 5,202 net income per hectare from C class land just after reclamation which was nil before the reclamation. Thus, the increase in net income per farm on the farms covered by Soil Conservation Department was Rs. 4,515 and Rs. 4,339 on B and C class of lands of reclaimed areas respectively. In case of sample farms covered by UPBSN the increase in net income was Rs. 2693 and Rs. 4119 on B and C class of lands respectively. It denotes that the reclaimed area of B as well as C class lands have been contributing significantly in increasing the per household income of adopted farmers. The sample farmers who were mostly allottees have been getting much benefit from reclaimed areas. It is observed that contribution of C class reclaimed areas was maximum from zero on the sample farms either covered by Soil Conservation Department or by UPBSN. The above analysis gives an impression with this result that Usar Reclamation Programme has proved to be a boon as far as allottees and small and marginal farmers are concerned in adopted districts. On account of this, the economic status of target groups has gone up manifold and hence they can be included in the mainstream of cultivators.

Table-IV-19
Pre and Post Per Hectare Net Income From Reclaimed Areas

(in Rs.)

Name of crops	Soil Conservation Department				UPBSN			
	Categories of Usar Land				Categories of Usar Land			
	Net Income B		Net Income C		Net Income B		Net Income C	
	Pre reclamation	Post reclamation	Pre reclamation	Post reclamation	Pre reclamation	Post reclamation	Pre reclamation	Post reclamation
Paddy	2700	4350	-	4132	3552	4622	-	4774
Wheat		6355	-	7008		8003	-	6022
Fodder		2400	-	2076		2162	-	2914
Others		3138	-	2583		2614	-	603
Average	2700	5222	-	5202	3552	5635	-	5328

Proportionate Share of Net Income from Reclaimed Areas to Total Income

The reclaimed areas had contributed a major share in total income of adopted farmers. As shown in Table-IV-20 it is clearly evident that out of total income of Rs. 5,41,134 on the sample farms covered by Soil Conservation Department the share of reclaimed areas was 51.34 per cent against 35.09 per cent of UPBSN. It is also noticed from the table -IV-20 that share of "C" class land was highest being 54.69% and 37.24 to total income against the share of 42.15% and 32.17% of "B" class land on the sample farms covered by Soil Conservation Department and UPBSN respectively.

Table-IV-20
Proportionate Share of Net Income Derived from Usar Reclamation areas to Total Net Income (during the Reference Year i.e. 2001-02)

(in Rs.)

Categories of Usar Land	Soil Conservation Department			UPBS Nigam		
	Total net income from all crops	Net income from crops on reclaimed areas	% share of reclaimed area to total net income	Total net income from all crops	Net income from crops on reclaimed areas	% share of reclaimed area to total net income
B	144476 (14448)	60890 (6089)	42.15	293442 (12227)	94396 (3933)	32.17
C	396658 (7933)	216941 (4339)	54.69	398246 (11062)	148301 (4119)	37.24
Total	541134 (9019)	277831 (4631)	51.34	691688 (11528)	242697 (4045)	(35.09)

Figures in brackets are per farm net income.

Pre and Post Net Income from the Sample Farms

Pre and post net income from the sample farms is illustrated in Table-IV-21. The table shows that per farm net income from all the crops on 'B' category of farms covered by the Soil Conservation Department was Rs. 7,034 whereas it was Rs. 5,048 per farm for UPBSN prior to Usar Reclamation Programme which increased to Rs. 9,366 and Rs. 7,444 respectively on the farms covered by both the agencies, thereby showing an increase of 33.15% and 23.08% respectively after the implementation of the Usar Reclamation Programme. On the other hand, the per farm net income obtained from C category of lands covered by the Soil Conservation Department was Rs. 2,679 and in case of UPBSN it was Rs. 4,588 per farm prior to the programme which has gone up to Rs. 6,016 and Rs. 7,681 respectively after the programme, showing an increase of 124.56% and 67.42 respectively on the net income of both the agencies.

Thus, it shows that at the aggregate level, per farm net income has increased by 93.08% and 46.67% on the sample farms covered by Soil Conservation Department and UPBSN respectively. The analysis also shows that the sample of C category farms were more benefitted than those of B category of farms covered by both the agencies.

Table IV-21
Pre and Post Net Income on the Sample Farms

(Area-hect., production-Rs.)

Category of Usar Land	Soil Conservation department		Net value of Production		UPBS Nigam		Net Value of Production	
	Area				Area			
	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)	Pre reclamation (1996-97)	Post reclamation (1997-98)
B	17.586	23.416	70344	93664 (33.15)	36.288	44.664	145152	178656 (23.08)
C	33.486	75.196	133944	300784 (124.56)	41.296	69.128	165184	276512 (67.39)
Total	51.072	98.612	204288	394448 (93.08)	77.584	113.792	310336	455168 (46.67)

Note-Figures in brackets are percentage income over pre reclamation net income

Economic Benefit of Usar Reclamation

Out of total net income of Rs. 1,44,476 on the sample farms of B category the reclaimed areas accounted for 42.15% while it was 54.69% of total

income of Rs. 3,96,658 on the sample farms of C category covered by Soil Conservation Department during reference period against this the B and C class of reclaimed areas covered by UPBSN contributed 32.17% and 37.24% to total net income of the sample farms respectively during corresponding period. At the aggregate level, reclaimed areas accounted for 51.34% and 35.09% of the total net income of sample farms covered by Soil Conservation Department and UPBSN. Table-IV-20 also presents the contribution of reclaimed area of C class was much higher to total income than that of B class of Land on the sample farms covered by both the agencies.

Table IV-22
Per Household and Per Capita Net Income from Reclaimed Areas

(in Rs.)

Categories of usar land	Soil Conservation Department			UPBS Nigam		
	Net Income	Per household Income	Per Capita Income	Net Income	Per household Income	Per Capita Income
B	60890	6089	603	94396	3933	450
C	21,69,41	4339	503	148301	4119	511
Average	277831	4631	523	242697	4045	479

Disposal of Cash Income from Crops grown on the Reclaimed Lands

The incremental income obtained by the sample farmers from crops grown on reclaimed lands contributed a lot in raising the subsistence level. Table IV-23 presents data of the use of cash income by 120 sample households and opinion of their priority for expending in different sectors/items. It is evident from table IV-23 that about 70% of the cash income was expended to meet the consumption expenditures. Next to this, more than5% of the cash income was expended on purchase of livestock, social ceremonies and payment of old debts were the priority sectors for expenditure of cash income obtained from reclaimed lands. It is noteworthy that none of sample farmers had expended cash income on acquiring lands and farm machinery while some sample farmers had expended handsome amount of cash income to meet the expenditure on medicines. On the whole, the increased income from reclaimed areas had a significant positive impact on the level of living of the adopted sample farmers covered by both the agencies.

Table-IV-23
Disposal or Cash Income Incurred from Reclamation Area

(Figures in per cent)

Items of Expenditures	Soil Conservation Deptt		UPBS Nigam	
	Category of Usar Land		Category of Usar Land	
	B	C	B	C
	% of total cash income expended	% of total cash income expended	% of total cash income expended	% of total cash income expended
Payment to old dept	3	4	5	5
Consumption	69	71	68	72
Medicine	5	4	4	5
Soil ceremonies	3	1	4	2
Purchase of durable Assets	1	1	1	1
Purchase of fixed Assets	1	1	1	1
Repair & Maintenance of houses	2	1	2	1
Purchase of Live stock	6	5	5	3
Purchase of Inputs	1	2	1	1
Payment on Education	5	4	5	4
Payment on Clothes	3	5	3	4
Others	1	1	1	1
All	100	100	100	100

Employment Generation

The degraded lands have been brought under crops and cropping intensity has also increased due to positive impact of Usar Reclamation Programme in the sample farms. The other variables like fertilizers, pesticides, irrigation etc. have also given positive effects on crops productivity. On account of these factors, the employment avenues of family labour as well as hired labour have significantly increased on the sample farms covered by both the agencies. The details of crop-wise employment days of family labour and hired labour on reclaimed areas on sample farmers covered by both the agencies is presented in table-IV-25. It is evident from the table that 107 days and 98 days per hectare were generated on B and C class reclaimed area on the sample farms covered by the Soil Conservation Department. While it was 116 days and 97 days per hectare which had been generated on B class and C class of reclaimed areas on the sample farms covered by the UPBSN. Thus, the employment days generated on account of reclamation of Usar Lands accounted for 54.17 and 39.17 per cent to total employment days on the sample farms covered by Soil Conservation Department and UPBSN respectively. It was

estimated at 79 additional employment days per farm on the sample farms covered by Soil Conservation Department while it was 39 additional days on the sample farms covered by UPBSN. It is also noticed from the table that the C class reclaimed areas provided 98 days employment per hectare and 82 days per farm annually which was totally nil before reclamation while B class reclaimed areas have provided 106 days per hectare and 124 days per farm annually covered by Soil Conservation Department. In case of UPBSN, the per hectare employment had generated 97 days on the "C" class land which was net before reclamation. Thus, the sample farmers have been getting 118 days additional employment days per farm annually on reclaimed areas. The allottees as well as marginal farmers who had C class usar lands are getting ample employment on their reclaimed areas which was not available before reclamation. With the utilization of C class reclaimed areas, there has been a sharp increase in the labour requirement which is estimated to be 100 per cent which was nil before reclamation on the samples covered by both the agencies. Table-IV-25 shows that use of labour increased due to use of entire reclaimed areas. But they preferred to work on owned farms instead of going to outside farms. Thus, it also plays an important role in checking out the migration from villages to cities because of availability of employment in the reclaimed areas. Besides this, there has been much agricultural diversion and creation of non-farm employment on the sample farms generating gainful employment to the family members on the sample farms covered by Soil Conservation Department and UPBSN. Hence, there has been noticeable generation of employment avenues on the sample farms because of positive effect of Usar Reclamation Programme. The reclaimed areas have created 88 and 77 employment days per farm on the sample farms covered by Soil Conservation Department and UPBSN respectively (Table-IV-26).

Table-IV-26
Per Farm Additional Employment Days Generated Annually on Reclaimed Areas

(Days)

Category of Usar Land	Soil Conservation Department			UPBS Nigam		
	Before Reclamation	After Reclamation	Additional employment over prior to Reclamation	Before Reclamation	After Reclamation	Additional employment over prior to Reclamation
B	10	124.50	114.50	38.04	80.87	42.83
C	-	81.70	81.70	-	75.17	75.17
Average	10	88.83	78.83	38.04	77.45	39.41

Table-IV-27
Number of Persons Received Employment on Reclaimed Areas on the Sample Farms during Reference period

(Numbers)

Category of Usar Land	Soil Conservation Department			UPBS Nigam		
	Family Labour	Hired Labour	Total	Family Labour	Hired Labour	Total
B	59	97	156	110	133	243
C	221	289	510	155	183	338
All	280	386	666	265	316	581

It is also evident from table-IV-27 that the reclaimed areas of sample farms covered by Soil Conservation Department had created employment opportunities for 666 members of which B and C class accounted for 156 and 510 persons respectively. While the reclaimed areas of sample farms covered by UPBSN had created employment opportunities for 5861 of which B and C had contributed employment opportunity for 243 and 338 persons. It is also evident from table that workers got maximum employment opportunity on the "C" class reclaimed areas than that on "B" class reclaimed areas covered by the both agencies. Thus, it can be concluded that the Usar Reclamation Programme has been generating employment on a sustained basis on the sample farms covered by both the agencies. An important plank of Usar Reclamation Programme is to convert the uncultivated lands to cultivable lands by which overall production of crops with be increased and it will also generate ample employment opportunities for unemployed workers of rural areas.

Usar Reclamation Programme has thus proved to be useful in providing security of employment and sustainable livelihood to adopted farmers who reclaimed their usar lands of the selected districts.

Sustainability of Areas under Crops on Reclaimed Areas

The sowing of paddy and wheat has proved to be the most suitable crops on the usar reclaimed areas. It is general tendency of adopted farmers to grow paddy and wheat crops in relatively better reclaimed lands which still persists. Table-IV-28 presents data of area under different crops for the years 1997-98 to 2001-02 on all sample farms covered by both the agencies. It is evident from Table-IV-28 that paddy and wheat were main crops occupying 47.86% and

47.25% shares on B class lands on sample farms covered by Soil Conservation Department during 2001-02 as compared to 45.56 and 43.74 on the C class lands during the corresponding period. This trend of allocation of area under paddy and wheat crops was more or less same for 5 years i.e. from 1997-98 to 2001-02. A very limited chunk of reclaimed area was devoted to fodder and other crops during the study period.

As far as sustainability of area under paddy and wheat crops on the sample farms covered by UPBSN is concerned, table-IV-28 shows that more than 80% of reclaimed area was devoted to these crops during period i.e. 1997-98 to 2001-02. In the rest 20% reclaimed area, fodder and other crops accounted for more or less equal percentage of area. There was a marginal shift of area in favour of fodder and other crops during different years on B and C class of lands. As such paddy and wheat were the dominant crops of the reclaimed areas on sample farms covered by both the agencies maintaining more than 90 per cent sustainability on coverage of areas, since the start of the reclamation of usar programme till the reference period. It is inferred from above analysis that coverage of area under paddy and wheat was more than 90 per cent in the year 1997-98. Thereafter the coverage of area of these crops declined gradually over the years due to marginal shift in favour of fodder and other crops. The role of Usar Reclamation Programme was very much impressive in increasing the acreage of paddy and wheat crops. Besides these crops, the B class land was conventionally single cropped areas which was made double cropped area through reclamation. In the same manner C class usar lands had been converted into normal lands bearing two crops in a year which was barren prior to reclamation.

Impact of Usar Reclamation Programme on the Productivity of Crops

Improvement in productivity on reclaimed area was the core objective of Uasr Reclamation Programme. Hence, in order to get better yield on reclaimed areas, adopted farmers had received gypsum, improved seeds, fertilizers, pesticides, improved agricultural implements under harvesting structures on the subsided rates at the time of reclamation of usar lands. By adopting new technology, the yield of paddy and wheat had increased manifold. Prior to reclamation programme, productivity of paddy on B class lands was very low while C class land was not under cultivation and hence almost all these lands were lying barren. Table-IV-29 presents the average per hectare yield of paddy and wheat before and after reclamation programme on B and C class lands on the sample farms covered by both the agencies. From Table IV-29 it can be

seen that average productivity of paddy on B class land was only 10 quintals prior to reclamation which has jumped to 21.90 quintals after reclamation programme on the sample farms covered by Soil Conservation Department showing more than double enhancement.

Table-IV-29
Pre and Post per Hectare Production of Paddy and Wheat on Usar Lands Sample Farms

(Qtls/Ha.)

Crops	Soil Conservation Department				UPBS Nigam			
	B		C		B		C	
	Pre (1996-97)	Post (97-98)	Pre (96-97)	Post (97-98)	Pre (96-97)	Post (97-98)	Pre (96-97)	Post (97-98)
Paddy	10.00	21.90	-	20.08	10.50	22.62	-	23.10
Wheat	-	20.99	-	20.16	-	23.13	-	20.79

This type of increase was also obtained on the sample farms covered by the UPBSN. The average productivity of paddy on C class land obtained was 20.99 qtls and 23.10 qtls on the sample farms covered by Soil Conservation Department and UPBSN respectively after reclamation programme which was zero prior to the programme. While the productivity of paddy was higher on "C" class and "B" class reclaimed areas covered by UPBSN than the productivity of its counter part. It was reverse in case of wheat. It is also evident from the table-IV-29 that average productivity of paddy and wheat was higher on B class land than that of C class of lands on the sample farms covered by Soil Conservation Department after reclamation programme. It is also noticed from table-IV-29 that average productivity of paddy and wheat was much better on the B and C class lands in the sample farms covered by UPBSN compared to its counterpart. The above analysis highlights that as a result of Usar Reclamation Programme, the yield of paddy and wheat has significantly increased on B and C class of lands. The performance per hectare yield was much better on the sample farms covered by UPBSN than that of sample farms covered by Soil Conservation Department.

Table-IV-30
Year-wise Production of Paddy and Wheat Crops on Reclaimed Land

(in qtls)

Years	Soil Conservation Department				UPBS Nigam			
	Categories of Farms				Categories of Farms			
	B Crops		C Crops		B Crops		C Crops	
	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat
1997-98	127.73 -	107.67 -	418.76 -	380.72 -	189.46 -	144.38	321.50 -	280.89
1998-99	129.01 (+1.00)	117.76 (+9.37)	502.81 (+20.07)	405.59 (+6.53)	202.24 (+6.74)	165.12 (+14.36)	371.80 (+15.64)	300.88 (+7.11)
1999-00	135.54 (+5.06)	121.82 (+3.44)	554.74 (+10.33)	378.90 (-7.04)	211.57 (+4.61)	172.60 (+4.53)	404.10 (+8.69)	312.23 (+3.77)
2000-01	147.53 (+8.85)	133.47 (+9.56)	522.48 (-32.26)	445.72 (+17.63)	222.71 (+5.26)	189.49 (+8.91)	424.75 (+4.95)	337.67 (+8.14)
2001-02	172.86 (17.17)	138.90 (+4.06)	556.28 (+6.47)	461.96 (+3.63)	227.50 (+2.15)	185.87 (-1.91)	437.31 (+2.96)	360.58 (+6.78)

Figures in brackets are percentage change over the proceeding year.

Sustainability of Productivity of Crops on the Reclaimed Areas

In order to know the sustainability of productivity of crops on reclaimed areas, the average yield per hectare of crops grown on both B as well as C class of reclaimed areas of sample farms covered by both the agencies over the period of five years from 1997-98 to 2001-02 has been analyzed in Table IV-31. It is evident from the table-IV-31 that average productivity of paddy and wheat on B as well as C class of lands on the sample farms covered by the Soil Conservation Department had tendency to increase every year from 1997-98 to 2001-02. It is also evident from the table that growth of average yield of paddy and wheat was comparatively much higher on C class land than B class land on the sample farms covered by Soil Conservation Department. More or less the same tendency of growth rate of productivity of these crops on B as well as C class of lands on the sample farms covered by UPBSN was also prevailing during the corresponding period. Thus it is inferred from Table-IV-31 that per hectare yield of paddy and wheat was not only sustained on the reclaimed areas but also increased the yield obtained at the inception of the programme. In fact, the good performance by the yields of paddy and wheat in initial years of the programme had developed a sense of confidence and feeling among the sample

farmers to invest money on the reclaimed areas for improving the productivity of crops. On account of this, the results obtained during the study period was positive on the B and C class of reclaimed areas of sample farmers covered by both the agencies.

Table-IV-31
Year-wise Productivity of Paddy and Wheat Crops of Reclaimed Land

(Qtls./Ha.)

Years	Soil Conservation Department				UPBS Nigam			
	B		C		B		C	
	Crops		Crops		Crops		Crops	
	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat	Paddy	Wheat
1997-98	21.90 (-)	20.99 (-)	20.08 (-)	20.16 (-)	22.62 (-)	21.13 (-)	23.10 (-)	20.79 (-)
1998-99	22.13 (+1.05)	21.93 (+4.77)	24.11 (+20.07)	21.47 (+6.49)	24.17 (+6.85)	24.16 (+14.34)	26.71 (+15.62)	22.27 (+6.64)
1999-00	23.25 (+5.06)	23.03 (+17.97)	26.60 (+10.32)	23.04 (+7.31)	25.26 (+4.51)	25.25 (+14.51)	29.03 (+8.68)	23.11 (+3.77)
2000-01	26.44 (+13.72)	24.18 (+4.99)	27.42 (+3.08)	24.43 (+6.03)	27.41 (+8.51)	26.75 (+5.94)	31.31 (+7.85)	24.80 (+7.21)
2001-02	30.98 (+16.17)	25.21 (+4.25)	29.27 (+6.75)	25.32 (+3.64)	31.93 (16.49)	26.81 (+0.22)	32.26 (+3.03)	26.58 (+7.17)

Figures in brackets are percentage change over the proceeding year.

The reclaimed area of B and C class of sample farms covered by Soil Conservation Department jointly yielded 729.14 quintals and 600.86 quintals of paddy and wheat respectively during 2001-02 which accounted for 82.41% and 67.34% of total production of respective enterprises. While the reclaimed area of B and C class of sample farms covered by UPBSN had contributed 49.87% and 48.18% of paddy and wheat to total production respectively during the corresponding period. It reflects that the reclaimed area had yielded sufficient quantity of paddy and wheat to adopted farmers to meet the consumption need of the family members which was totally dependent upon the purchased quantity prior to this programme. Total production of paddy and wheat on sample farms covered by Soil Conservation Department was sufficient to cater to the consumption need of 405 members of sample farmers annually.

Availability of food grains on the sample farms covered by UPBSN was 978 qtls, which was sufficient for 335 members annually. It shows that the adopted farmers had sufficient marketable surplus on account of the reclamation, which was found in deficit prior to the programme. This became possible owing to a considerable increase in production of paddy and wheat on reclaimed areas. Hence, the Usar Reclamation Programme could be considered as one of the most beneficial programmes for target groups.

Comparative Status of Valuation of Usar Lands before and After Reclamation Programme

On account of Usar Reclamation Programme, the uncultivable lands have been converted into productive use to provide ingredients, inputs, extension services etc. to adopted farms for reclamation of their own lands. Now they are enjoying the resultant increase in their income. The adopted farmers were by and large satisfied with financial, technical, extension service etc. supported by Soil Conservation and UPBSN. They are having at least two crops viz. paddy and wheat annually on the reclaimed areas. Besides these crops, fodders, vegetables have also been grown on the reclaimed areas o account of assured availability of irrigation facilities. The productivity of crops grown on reclaimed is equal to that on normal lands. Hence, there is a very slight different between the normal land and reclaimed usar land in regard to cropping pattern, cropping intensity, production/productivity, income, employment opportunities etc. thus, the value of per hectare reclaimed areas is more or less equal to the value of normal lands. The reclamation of usar lands has proved to be an effective measure to improve overall socio-economic condition specially of allottees and marginal and small farmers. As shown in Table-IV-32, there were 188.42 per cent and 136.70 per cent increase in per hectare value of Rs. 98,358 and Rs. 1,60, 924 prior to reclamation of C and B class of lands on the sample farms respectively covered by Soil Conservation Department. On an average, the value of reclamation of usar land increased by about 153 per cent from the value prior to reclamation of usar lands on the sample covered by Soil Conservation Department. On the other land, the per hectare price of reclaimed land of C and B class covered by UPBSN increased by 155.45 per cent and 122.47 per cent respectively from per hectare price prior to reclamation. Overall, per hectare price of reclaimed areas of usar land increased by 134.64 per cent from the per hectare price prevailing prior to its reclamation. The above analysis reflects that the per hectare price of reclaimed area of C class land increased by about three times to that of per hectare price prior to reclamation. It is thus concluded that enhancement in per hectare price of

reclaimed areas of B and C class lands on the sample farms covered by the Soil Conservation Department was relatively more than the prices of B and C class lands of sample farms covered by UPBSN. This was due to high price of lands in Ghaziabad district.

Table-IV-32
Pre and Post Value of Per Hectare Usar Areas

(in Rs.)

Categories of Usar lands	Soil Conservation Department			UPBS Nigam		
	Before reclamation (1996-97)	After reclamation (1997-98)	% increase in value over before reclamation	Before reclamation (1996-97)	After reclamation (1997-98)	% increase in value over before reclamation
B	1,60,924	3,80915	136.70	1,75,625	390,718	122.47
C	98,358	2,75,815	188.42	102675	2,62,288	155.45
Average	1,29,641	3,28,365	153.29	1,39,150	3,26,503	134.64

Thus, this programme has not only helped in making productive use of usar lands but also played a significant role in pushing up the per hectare value of lands by about 140 per cent over the value which was prevailing prior to reclamation. This was an important impact of Usar Reclamation Programme in enhancement of prices of usar lands of adopted farmers covered by both the agencies.

Tangible Impact of Usar Reclamation Programme on the Adopted Farms in Selected Districts

(a) Before the implementation of Usar Reclamation Programme social status of usar land owners was very deplorable as they were having infertile lands through which they could not generate any income and as such were neglected in forming relation with progressive farmers prior to the programme. While at present their social status has significantly come up to the desired level. Now they have no problem in forming social contact with progressive farmers of the developed villages. Thus, this programme has proved to be a boon in disguise in pushing up their social status in the society.

(b) Most of huts/houses of allottee farmers which were earlier either kachcha or thatched have now been converted into pucca houses due to augment in income by enhancement of production on reclaimed areas.

(c) The education awareness has also been spreading among the target groups because of the motivation of NGOs through Usar Reclamation Programme. Most of the children of allottees were not attending schools prior to this programme but due to increase in empowerment among the women through SHGs they are now sending their children to primary schools.

(d) The allottees and marginal farmers who had tiny areas of cultivable lands were not able to fulfil the consumption needs even for two months from the total production prior to this programme but they are now able to meet the consumption needs for more than 6 months due to production obtained from the reclaimed areas. Thus, the reclaimed areas have been contributing a major share in total commodities available for consumption purposes. In most cases, it has been found that the adopted farmers had sufficient marketable surpluses to meet essential commitments.

Besides the above benefits, there has been much diversification on the sample farms due to availability of irrigation facilities, a major thrust of this programme. The adopted farmers have been rearing milch cattle to get supplementary income throughout the year. The allottees as well as marginal farmers are taking much interest in rearing milch cattle due to availability of cultivable lands for growing fodder crops on the reclaimed areas.

(e) Since its inception, this programme has been creating awareness among the farmers to take two crops along with green manuring (Dhaincha) to maintain sustainability in reclaimed areas. Hence, almost all the sample farmers are not leaving any vacant space in their reclaimed areas right from the beginning of the programme. The adopted farmers are being advised to plant guava, anola etc. in the reclaimed areas so that acreage of usar land can be checked/ prevented in future and thus it will help in maintaining the ecological balance in the area.

(f) The main occupation of allottees as well as marginal farmers was in non-farm sectors prior to this programme while after its implementation agriculture alongwith dairy has become main occupation. The wage rate particularly in transplanting of paddy and harvesting/ threshing of crops has also increased due to scarcity of labours. Now the allotttees and

marginal farmers pay more attention to do agricultural operations on their own farms rather than going to outside farms. This has been effective mostly in the adopted villages.

Exclusive Role of UPBSN in the Overall Development Process at Grass-root Level

No doubt, Soil Conservation Department as well as UPBSN have made successful strides in overall development process of adopted farms through the reclamation of sizeable areas of usar lands. However, the Soil Conservation Department was confined only in reclamation of usar lands of selected units of adopted districts. Besides this, no other development activities was taken up at grass root level due to paucity of funds, lack of qualified staff, inadequate infrastructural facilities while UPBSN has been putting grand efforts not only in reclamation of usar lands but also doing multifarious activities such as, organizing training programme, motivation for sending children to schools, forming SHGs/ Kisan Mitra, developing entrepreneurships among the adopted farmers etc. Its total approach is scientific and target oriented. Selection of sites of units of usar lands of particular area is based on the map provided by Remote Sensing Application Centre, Lucknow. All the operational activities are generally executed by a beneficiary committee with the help of NGOs. There is total transparency at each stage. Hence, it is also called People's Participation Programme. All the operational activities of Usar Reclamation Programme are being carried out with the help of NGOs. The formation of SHGs of women and conversion of water users into SHGs have proved to be a very helpful instrument to fulfil credit needs of adopted farmers. On account of this, new generation institutions have been developing very fast while the informal institutions are getting depressed. UPBSN is not confined only to reclamation of usar lands of the selected units but also it has a very wide spectrum to overall development of particular areas by construction of link roads, big nallas etc. This helps in checking the soil erosion and preventing in further spreading of usar lands.

In order to stabilize the water table, UPBSN has been putting maximum emphasis on installation of pump sets in adopted units. It leads in checking salts to come out of the upper surface of soil. UPBSN has also been developing library facilities in adopted villages to provide reading materials so that the adopted farmers may remain in touch with the innovations in agriculture.

In view of these i.e. sincere efforts, high devotion in execution of operational activities of usar reclamation at grass root level, development in basic infrastructural facilities etc. the impact of usar reclamation programme has been found very positive both in the terms of quality and quantity on the adopted farms. On account of these, sustainability in quality of soil, production and productivity of crops have also been found fully in fact since the inception of the programme in the year 1997-98 to the reference year of 2001-02 on the adopted farms. Besides these benefits, the environment of the adopted villages and its adjoining areas has also been purified due to plantation of trees and sowing of the crops on reclaimed areas.

Attitude and Opinion of Adopted Farmers Regarding Usar Reclamation Programme

The success of any developmental programme is basically dependent upon the satisfaction of covered groups from its execution. The Usar Reclamation Programme had been launched in usar prone districts of U.P. to reclaim usar lands of specially patta holders by Soil Conservation Department in the beginning of eighties. Hence, the coverage areas were mostly confined to reclaim the pure usar lands (C class). This agency was providing fifty per cent subsidy on gypsum, inputs etc. to involve maximum number of target groups. While, UPBSN had started its activities in those areas of adopted districts, which had maximum compact areas of usar lands of C class. This area could be inherited or received as patta land in case of UPBSN, the selection of project units was also based on supply of maps of usar lands by Remote Sensing Application Centre, Lucknow. The coverage of project units was annually target oriented which was based on availability of funds and strength of staff. Hence, Usar Reclamation Programme was launched in very scientific and systematic manner in adopted districts by UPBSN. It had provided gypsum on very nominal amount of Rs. 2/ per bag (50 kgs) and there was hundred per cent subsidy on inputs viz. seed, fertilizers, boring etc. at the time of execution of programme on a ground level while the OFD and other miscellaneous work are done by the adopted farmers themselves for which this programme is known as 'People's Participation Programme'. Even then the beneficiaries were asked about their attitude and opinion in regards to this programme in order to establish its significance and utility. The response obtained from them is listed in Table-IV-33. It is thus evident from Table-IV-33 that all the sample benefices of both the agencies were fully satisfied with the positive impact of the programme. The distribution of gypsum/ pyrite inputs was fair in case of UPBSN, while it was not up to the mark on the beneficiary farms covered by

Soil Conservation Department. It was prejudiced and unfair among the target groups, while the sample beneficiaries of both the agencies were fully satisfied with success of boring and functioning of pumpsets. Few of the sample beneficiaries of Soil Conservation Department were not satisfied with adjustment of subsidy on the amount of loan taken for purchase of pumpsets. It was not reported by sample beneficiaries of UPBSN.

As far as timely completion of project units is concerned, the sample beneficiaries of Soil Conservation Department had reported that project units could not be completed within the stipulated time due to injunctions and judicial complexities. Almost all patta sample benefices of Soil Conservation Department told that they had acquitted possession of allotted usar lands which were actually reclaimed. Many of the sample beneficiaries of both the agencies complained about non-availability of soil testing facilities. Preferential attitude in collection of soil for testing and pH had been widely reported by the respondents of both the agencies.

In regard to technological dissemination at ground level, most of the respondents of Soil Conservation Department were ignorant while the respondents of UPBSN were fully acquainted with the latest technological breakthrough in agriculture due to availability of latest literature on agriculture in adopted villages.

The sample beneficiaries of UPBSN had more access to banks than its counterparts.

There was no provision of training facilities of adopted farmers of Soil Conservation Department while it was available to adopted farmers of UPBSN. Hence, the respondents of Soil Conservation Department were ignorant about training programme. Against this, the respondents of UPBSN were fully aware about the training programme.

The respondents of UPBSN were fully satisfied with OFD construction of channels, etc. while the respondents of Soil Conservation Department were partially satisfied with these works.

Most of the respondents of both the agencies were satisfied with the supplied quantity of gypsum/pyrite but there was discrimination in the distribution of inputs viz. seeds, fertilizers etc. as complained by the

respondents of Soil Conservation Department. There was no complaint in this regard from the sample beneficiaries of UPBSN.

The sample beneficiaries of UPBSN were fully satisfied with the work of water users groups (WUGs) and Site Implementation Committees (SICs) as none had complained against these organizations.

The respondents of UPBSN were also satisfied with transparency and accountability at the level of project functionaries.

The respondents of Soil Conservation Department had expressed their view about the bad shape of constructed structures of bunding, channels and leveling. Most of these structures are in damaged condition at present. However, no such complaint was lodged by the sample beneficiaries of UPBSN.

As far as attitude of officials from bottom to top was concerned, it was found to be quite cordial during the execution of the programme as told by majority of the beneficiaries. Almost all the respondents of UPBSN were fully satisfied with working of SHGs. The role of NGOs was also appreciated by the majority of sample beneficiaries of UPBSN.

In order to maintain the sustainability of production and productivity of crops grown on reclaimed areas, almost all the sample beneficiaries had demanded the seed of Dhaincha free of cost.

All the sample beneficiaries had demanded for supply of second dose of gypsum/ pyrite to reclaim the left patches of usar lands.

The beneficiaries of Soil Conservation Department were against the charges of price of gypsum/ pyrite, which they opined should be provided at nominal price as being done in UPBSN.

Due to lack of harmony among different agencies, the execution of this programme was frequently delayed as reported by the respondents of the Soil Conservation Department. This was not complained by its counterpart.

In a nut-shell, the Usar Reclamation Programme has been remarkably successful.. Almost all the beneficiaries of both the agencies, by and large, were satisfied with the benefits earned through Usar Reclaimed Programme. UPBSN

is a vibrant corporation performing need-based functions, which has provided tangible benefits to its beneficiaries.

CHAPTER -V

Summary and Conclusion

Uttar Pradesh is the most populous yet the fourth largest State in terms of geographical area among the States of the country, 31 per cent of the states population live below poverty line. The per capita arable land estimated is only 0.11 hectare, showing a very meager average under plough. The arable land is shrinking year by year because of vast expansion of industrialization and urbanization which have resulted in massive deterioration in per capita availability of cultivable land in the State. Besides these, lack of proper utilization of canal water, inadequate water management and use of heavily nitrogenous fertilizers are also the causes for expansion of the sodic waste lands. Uttar Pradesh having 18.57 per cent of Usar land ranks first among the 15 Usar prone States of the country. Thus, the Usar land is about 4.36 per cent of the entire geographical area of the State. Out of 11.51 lack hectares Usar land in U.P., only 37 per cent was reclaimed by the end of March, 2001, while a sizeable portion of 63 per cent remained reclaimable. It was also seen that most of the allotted land to marginalized and landless farmers was sodic waste lands, requiring special attention for reclamation to boost the socio-economic status of the allottees. Out of total 70 districts of U.P., 46 are recognised as usar prone districts which are situated in the basin of Ganga and Gomti rivers. Realising that a sizeable area of usar land exists in the State, the U.P. Govt. had constituted a Land Reclamation Committee in 1963 to know the ways and means of reclamation of usar land which is spread far and wide in different parts of the State. In continuation with this process, Government of India had also launched a Centrally Sponsored Scheme in U.P. with an outlay of Rs. 11.82 crore in order to reclaim the usar land during 1985-86. This scheme was basically sponsored for small farmers. On account of this programme, a sizeable portion of usar land of adopted districts had been converted into productive assets. Since the inception of the Usar Reclamation Programme launched by Agriculture Department, the programme has further been expanded under different names, such as, Ambedkar Usar Sudhar Yojana, Bhumi Sena Yojana, Deen Dayal Bhumi Sudhar Yojana etc. at first instance, all the 46 usar prone districts of U.P. were covered by Soil Conservation Department but at per sent only 29 usar prone districts are being covered by this department. Out of total area of usar land of 11.51 lakh hectares of 46 districts, 26.13 per cent was

reclaimed by Agriculture Department by the end of March, 2001. Due to paucity of funds, the Soil Conservation Department could not carry out their reclamation programme in bigger way. Lack of coordination, short supply of pyrite and gypsum, delay in adjustment in subsidy, etc. were the basic bottlenecks in the implementation of Usar Reclamation Programme in the usar prone districts. However, with the availability of funds from World Bank and European Union, U.P. Government has undertaken a task to reclaim usar lands through Usar Reclamation Programme since 1992-93 and had established Uttar Pradesh Bhumi Sudhar Nigam at Lucknow. From 1992-93 to 1998-99, only 10 districts were covered while from 1999-2000 to 2004-05, 7 more districts have been added to already existing 10 districts, making a total of 17 usar prone districts to be covered by the UPBSN. Out of 6.86 lakh hectares usar land of 17 districts, 3.04 lakh hectares i.e. 44.30 per cent usar land had been converted into arable land up to March, 2001. UPBSN is a full fledged on autonomous Corporation and fully financed by the World Bank. With the help of competent staff it has been looking after all the activities of reclamation through well developed net work spread over to 17 districts.

To get the hundred per cent transparency at different stages of reclamation activities and also maintaining the sustainability in production, productivity on reclaimed areas, the UPBSN involves its beneficiaries in every activity. Hence, it is also known as "People's Participation Programme". UPBSN is not only reclaiming the usar lands but also developing the integrated infrastructural facilities, such as construction of link drains, irrigation channels, link-roads and school sites etc. in the adopted districts.

Keeping in view the importance benefits of the programme, the AER Centre, Allahabad has carried out the present study entitled as "Evaluation of Usar Reclamation Programme in U.P.". The Study, it is believed, would help the planners of Usar Reclamation Programme in newly adopted usar areas. Since, this study is based on the information at grass root level of the programme, it will facilitate in providing basic guidelines to the beneficiaries and assist the concerned staff engaged in the activities of the programme to carry out their function smoothly.

Objectives

The evaluation of Usar Reclamation Programme has been made to achieve the following:

(i) To analyse the progress of Usar Reclamation Programme in the State (1992-93 to 2001-02).
(ii) To examine the two main approaches of reclamation being run by the Soil Conservation Department and UPBSN and to evaluate the role of these agencies and their associated problems.
(iii) To work out cost-benefit analysis of the reclamation programme with regard to cropping pattern, cropping intensity, income, employment, etc.
(iv) To find out the pre and post socio-economic development of the benefited farms.
(v) To examine sustainability in reclaimed areas and production and productivity of crops.

Sampling Design

At present, in all, 46 districts of the State are being covered under the scheme. Out of which 29 and 17 districts are being covered by Agriculture Department and UPBSN respectively. Hence, for proper representation of the samples, two districts namely Ghaziabad and Mau covered by Soil Conservation Department and two districts viz. Etah and Pratapgarh covered by UPBSN, occupying the highest rank in usar reclaimed area upto March, 2001 have been selected. From each district, one project unit which covered maximum reclaimed area during 1996-97 was chosen. In each unit, 30 beneficiaries were also selected in proportion to their numbers in the area to know the impact of Usar Reclamation Programme on the economy of these adopted beneficiaries.

Reference Period:

The secondary information from different sources were collected for the years 1992-93 to 2001-02 while the primary data were also collected from selected beneficiaries during the 1996-97 to 2001-02 for pre and post analysis of the programme.

Findings based on Secondary Information:

The Usar Reclamation Programme is being carried out by two agencies viz. Soil Conservation Department and UPBSN in 46 most usar prone districts of the State. Therefore, agency-wise performance of the programme has been analysed from which the following findings have emerged:

I. Soil Conservation Department:

At pre sent out of 46 districts of the State, 29 usar prone districts are being covered by this agency. The findings are based on the analysis of data from 1992-93 to 2001-02.

(i) Out of total usar land of 4.68 lakh hectares of 29 districts, 26.76 per cent was reclaimed up to March, 2002.

(ii) The achievement against target of reclaimed area was lower in almost all the years of the study period. Hence, the progress in the programme was not satisfactory for want of adequate funds to achieve the target during the study period.

(iii) From 1992-93 to 2001-02, 2,25,601 usar owners were covered. They were mostly marginal/small farmers or allottees.

(iv) Allocation of funds for reclamation programme was erratic and unplanned during the entire period of study. Besides this, there was no allocation of funds for the programme during 1999-2000. During this period, the reclamation programme remained standstill for one year for covered districts.

(v) Due to inadequate financial resources, lack of foresightedness in planning and unsuitable strategy in proper management of available means, the programme could not be properly executed at ground level in the 29 districts of U.P.

(vi) The allocation of funds per beneficiary worked out to Rs. 8,011 while the per hectare cost incurred was Rs. 14,529 at aggregate level. However, there was vast variation in per hectare reclamation cost during different years which ranged between Rs. 6,224 and Rs. 53,820.

(vii) Supply of gypsum was not adequate and timely. The quantity of gypsum supplied on an average was 2 to 3 tonnes per hectare, whereas its actual requirement is 6 to 13 metric tonnes. The supply of inputs such as seeds of paddy, wheat, dhaincha, different types of fertilizers and zinc were quite low against their requirements during the study period.

II. Uttar Pradesh Bhumi Sudhar Nigam (UPBSN)

UPBSN was established during 1992-93 at Lucknow with total financial assistance by World Bank and European Union. At the initial stage, only 10 out of 46 most usar prone districts of the State had been covered which continued upto 1999-2000. This duration is known as Phase-I. The physical and financial progress of the programme was quite remarkable during this phase. On this

account, the World Bank was agreed to extend its aid programme up to March, 2005 in order to cover 7 additional districts. Hence at pre sent in all 17 most usar prone districts of the State are being covered by this agency during Phase-II which started in 2000 and will continue till March, 2005. UPBSN is not only confined to reclaim the usar lands, but also doing other activities in order to improve the socio-economic conditions of the villages under its jurisdiction.

The progress made in reclamation of usar land during 1992-93 to 2001-2002 has been critically analysed with the following findings:

(i) During the initial year of 1993-94 only 2,792 hectares of usar lands of 10 districts were reclaimed which went up to the extent of 35,004 hectares during 2001-02, thereby showing an increase of 11.54 per cent over the base year. It is also found that out of total usar land of 17 districts, 25 per cent was reclaimed during 1992-93 to 2001-02 which means that the remaining 75 percent will have to be reclaimed by the end of March, 2005. Hence to achieve this target UPBSN has established two additional units in most of the covered districts.

(ii) As regards to coverage of beneficiaries under this programme, 2.83 lakh farmers were covered during 1992-93 to 2001-02 of which 44.77 per cent belonged to OBC followed by 27.96 per cent and 27.27 per cent of SC and other castes respectively.

(iii) The achievement against target was more than 100 per cent during most of the study period as it ranged between 91 and 180per cent.

(iv) There was no shortage of funds during Phase-I as well as Phase-II. The level of investment moved upward every year and on a account of this, the quantitative target was fully achieved in each year of the study period. The allocated amount was Rs. 486.24 lakhs during 1993-94 which went to the extent of Rs. 15,037.00 lakhs during 2001-02 showing an increase of 2992 per cent over the study period.

(v) Per hectare cost was estimated at Rs. 39,120 on reclamation of 'C' category usar land followed by Rs. 38,120 and Rs. 33,597 for B and B+ categories of usar land respectively over the study period.

(vi) The reclamation cost accounted for 53.18 per cent of total cost followed by 46.42 per cent on inputs of crop production.

(vii) There was hundred per cent subsidy on cost of gypsum, levelling, boring, link drainage and inputs for the owners of C and B categories of usar land.

(viii) The distributed quantity of gypsum, seeds of dhaincha, paddy and wheat, fertilizers, zinc etc. was optimum in almost all the years of the study period.
(ix) 2460 kms of main drain, 2500 link drains were also constructed.

Performance of UPBSN

(i) It has generated additional irrigation for 10555 ha. land.
(ii) The cropping intensity has increased form zero to 200 per cent in case of C category of usar reclaimed areas. Per ha. production of paddy and wheat on B+ class category usar land has increased from 21 qtls. and 20 qtls to 41 qtls and 35 qtls respectively.
(iii) The per ha. production of paddy and wheat on reclaimed area of C class category of usar land has yielded about 29 qtls. and 31 qtls after reclamation which was nil prior to the reclamation programme.
(iv) Wage rates increased from Rs. 35 to 50 and Rs. 30 to 45 per day respectively for men and women.
(v) There was also a fall in disguised un-employment from 43 to 16 per cent.
(vi) More than 2,166 WSHGs and 3,156 MSHGs were formed.
(vii) Number of libraries, Panchayat Bhawan etc. have also been constructed in adopted villages to provide better knowledge in agriculture and allied activities.
(viii) Inter horticulture is being made much popular among the adopted farmers. Out of the reclaimed areas of U.P., horticulture accounted for 7.01 per cent and this shows its growing popularity every year.

Impact of Usar Reclamation Programme carried out by both agencies in U.P.

On account of reclamation of usar lands, the net area sown of the State has enhanced by 2.53 per cent followed by 0.85 per cent increase of irrigation potential at the end of 2001.

The share of production of paddy and wheat grown in reclaimed area was 4.66 per cent and 2.70 per cent of total production of the State respectively during 2001. The total production of these crops of 11.64 lakh metric tonnes was sufficient to meet consumption need of 4.96 lakh population of U.P. state annually. The value of total production of these crops was estimated at Rs. 6,705.90 crore during 2001-02.

Findings Based on primary data:

The following findings have emerged from pre and post analysis of data collected from 120 selected beneficiaries of 4 project units of 4 districts covered by the Soil Conservation Department and UPBSN during 1996-97:

(i) Only allottees and small farmers were covered by Soil Conservation Department while it was not the case with UPBSN.

(ii) Almost all usar land, whether inherited or allotted to beneficiaries, were reclaimed by both these agencies. There was no partisan in this regard.

(iii) The inherited usar land was mostly "B" class while it was "C" class for the allottees.

(iv) Both agencies had preferred to take those patches of land where coverage of area under "C" class of usar land was found maximum.

(v) Soil Conservation Department and UPBSN both had paid maximum attention to reclaim "C" category of usar lands in comparison to "B+" and "B" categories of usar land.

(vi) Total usar land of each project unit irrespective of its classification was reclaimed. There was no particular division in this respect, although maximum financial assistance was provided for "C" category of usar land while it was least available in case of B+ class of usar land.

(vii) There was much difference in operational activities of usar reclamation of Soil Conservation Department and UPBSN. UPBSN prefers to involve maximum participation of beneficiaries in Farm Development activities. The supply of gypsum and inputs were free of cost to the adopted farmers during the reclamation of usar land. Thus, it is know as "People's Participation Programme". This short of activity was not being carried out by the Soil Conservation Department and gypsum and inputs were provided on subsidized rates to its adopted farmers.

(viii) The huge shortage in supply of gypsum and inputs was complained by the adopted farmers of Soil Conservation Department while it was not the case with UPBSN, as sufficient quantities of gypsum and inputs were given by UPBSN to its adopted farmers.

(ix) The sample farmers covered by Soil Conservation Department could not use normal quantity of gypsum in reclamation process which was ranged between 1 and 2 tonnes per hectare. It was much below the required quantity. While UPBSN had provided required quantity of gypsum to the beneficiaries as per the category demand of the usar land.

(x) Out of total expenditure for reclamation, cost on B and C classes of usar land was the highest on gypsum being 58.27% followed by 24.04% on production inputs.

(xi) There was acute shortage of funds in Soil Conservation Department during the study period while it was not so in UPBSN.

(xii) The per hectare reclamation cost was estimated at Rs.10,077 in case of area covered by Soil Conservation Department which was well below the per hectare reclamation cost of Rs. 2,46,400 in the areas covered by UPBSN.

(xiii) at present the reclamation cost per hectare has been estimated at Rs. 39,120 of "C" class usar lands followed by Rs. 38,120 and Rs. 33,597 in B and B+ class of usar land respectively in case of UPBSN.

(xiv) More than 85 per cent reclamation cost is being shared by UPBSN and rest 15 per cent by its adopted farmers. Out of total reclamation cost, the earth work and gypsum accounted for more than 65 per cent followed by 35 per cent inputs for crop production.

(xv) Besides reclamation of usar land, UPBSN is also undertaking construction of link roads, "Nallas", main and link drain, school sites and library in adopted villages to provide better infrastructural facilities for integrated development. These were not performed by Soil Conservation Department.

(xvi) The role of NGOs was found quite satisfactory in motivating farmers for doing the reclamation activities willingly and also in the formation of WSHGs and MSHGs.

Impact of Usar Reclamation Programme:

(i) Majority of children of target group have started going to schools due to the impact of awareness among the women.

(ii) Much diversion occurred in main and subsidiary structure of occupations.

(iii) The main occupation of the allottees as well as of the marginal farmers prior to implementation of this programme was in the non-agriculture sectors, whereas after its implementation, their main occupation is now agriculture and dairy.

(iv) Due to implementation of usar reclamation programme the patta holders whose main occupation earlier was as labourers have now switched over to agriculture and dairy due to availability of arable lands.

(v) The per capita availability of cultivable land has also increased from 0.09 hectare to 0.11 hectare after reclamation programme.

(vi) Due to impact of this programme, net area sown net irrigated area and gross cropped areas have increased manifold.
(vii) The cropping intensity has increased by two hundred per cent on reclaimed area of C class usar land which was lying barren earlier.
(viii) Two crops could be grown on reclaimed areas of B class which was not even suitable for a single crop prior to implementation of the programme.
(ix) There was much diversification in cropping pattern after reclamation programme.
(x) The reclaimed C class usar land is also being used for cultivation of fodder and sugarcane.
(xi) Paddy and wheat have become main crops of the reclaimed areas.
(xii) The average productivity of paddy on "C" class reclaimed usar land has worked out to 20.99 quintals and 28.10 quintals on the sample farms covered by Soil Conservation Department and UPBSN respectively which was nil prior to implementation of the programme.
(xiii) The average productivity of paddy on B class usar land prior to reclamation was only 10 qtls. which went up to 21.90 qtls after reclamation.
(xiv) The reclaimed areas have yielded sufficient quantity of paddy and wheat to the adopted farmers to meet the consumption need of allottee family members who used to be dependent on purchased quantity prior to the programme.

Income

With the transformation of soil face with an assured supply of irrigation water, the usar land turned into fertile soil. On account of positive impact of Usar Reclamation Programme on the production of paddy and wheat, the income of adopted farmers have increased tremendously.

Per hectare net income worked out to Rs. 5,222 and Rs. 5,202 on B and C class of usar reclaimed lands on the sample farms covered by Soil Conservation Department during the reference year while it was Rs. 5,635and Rs. 5,338 per hectare net income on B and C class of reclaimed usar land on the sample farmers covered by UPBSN during the corresponding period.

The per hectare net income obtained for different crops grown on B class lands on the same farms covered by both the agencies was higher than C class of lands. Per hectare net income on reclaimed areas of B and C class lands on

the sample farms covered by UPBSN was marginally better than the sample farms covered by Soil Conservation Department.

Per household income was higher being Rs. 40,339 on B class land than Rs. 4,339 on C class land on the sample farms covered by Soil Conservation Department while the per household income in both class of lands was more or less same on the sample farms covered by UPBSN. It shown that per household income has increased by Rs. 4,338 annually due to positive impact of reclamation programme.

On account of this, the economic status of target groups has also gone up manifold and hence they can be included in the mainstream of cultivators.

(xv) The employment avenues of family as well as hired labourers have significantly increased on the beneficiary farms. 107 and 98 days per hectare employment have been generated on B and C class of usar reclaimed areas respectively.

(xvi) There was sharp increase in labour requirement which was estimated to be 100 per cent on C class usar reclaimed areas which was nil earlier. On account of this, migration from villages to cities in search of jobs by and large has been checked particularly in case of allottees.

(xvii) This programme has been generating employment on sustained basis on the sample farms covered by both the agencies.

(xviii) Per hectare prices of reclaimed area has increased by 134.64 per cent from the prices prevalent prior to the reclamation.

(xix) Prices of C class reclaimed usar land has increased three fold of the price existing prior to reclamation.

(xx) The incremental income has been expanded to meet the expenditure on consumption followed by medicines, education, construction of houses etc.

(xxi) Formation of SGHs of women and conversion of water users to SHGs have proved to be very useful instrument to fulfil credit need of the adopted farmers. On account of this new generation institution have been developing very fast while the informal institution are vanishing gradually.

The impact of usar reclamation programme has been found to be very positive in both the quantitative and qualitative terms on the adopted farmers on account of their sustainability in quality of soil and production of crops which has been found fully intact since the inception of the programme.

Undoubtedly, the impact of Usar Reclamation Programme carried out by Soil Conservation Department as well as UPBSN was found very positive so far socio-economic development of adopted farmers is concerned. The allottees and also marginal usar owners were much benefitted and they are now above the poverty line. However, the role of Soil Conservation Department in the reclamation of usar land has been on lower trend every year due to paucity of funds. Against this, the role of UPBSN was very constructive during Phase-I (1992-93 to 1999-2000). On that ground, World Bank had extended its activities up to March, 2005 and allowed to cover 7 more additional districts under the purview of the programme. In contrast, Due to scarcity of funds, the Soil Conservation Department is finding it difficult to carry out its programme of Usar Land Reclamation in 29 districts allotted to it. Hence, Uttar Pradesh Government should approach the World Bank to give additional aid in order to cover the 29 districts also under Soil Conservation Department so as to have total reclamation of usar land still existing in the State.

Policy Implication:

On the basis of findings of the study, following suggestions are being made for further strengthening the programme in the interest of usar owners.

Soil Conservation Department

Sl. No.	Problems	Suggestions	Agencies Responsible for Action
I	Identification of categories of sodic Lands	Identification of categories of sodic Lands should be based on the map prepared by Remote Sensing Application Centre Lucknow. It should not be based on revenue records.	Director of Agriculture U.P. should take help from RSAC Lucknow to get correct acreage of usar lands.
II	Delay in acquisition of usar land by allottees	There should be prompt action against illegal occupants	District Magistrate should take action in this regard.
III	Most of the usar lands of the allottees are lying unreclaimed due to pending court cases.	Cases should be decided on priority basis	State Govt. should taken concrete steps towards this.
IV	Soil Conservation Department should not be asked only to reclaim the usar lands of patta holders marginal and small farmers.	There should not be any legal binding in selection of project units.	State Government should promulgate legislation to select project units for reclamation of usar lands without any bias.
V	Lack of adequate infrastructural facilities at each stage.	From bottom to top there should be proper linkage and coordination among the officials to avoid delay in usar reclamation activities.	State Govt. should expand the infrastructural facilities in order to extract more benefits out of the reclamation programme for target groups/ allottees.
VI	No clear cut and standing policy in this regard as policy changes with the	Policy for usar reclamation programme should not be changed with the change in govt.	Govt. should remain firm on the policy already made in this regards without being affected

	change in govt.		by the change in govt.
VII	Irregular allocation of funds in different years. Curtailment of funds in the programme year by year.	Seeing the importance of the reclamation programme for the benefit of allottees, marginal/ small farmers funds should be increased instead of curtailing the same year after year.	State Govt. should earmark sufficient budget every year in this regard.
VIII	Non availability of matching grants.	Matching grants should be made available prior to implementation of the programme.	State as well as Central Govt. should be prompt in allocation of their share.
IX	Inadequate soil testing facilities and delay in receiving the result thereof.	Soil testing facilities should be expanded at block level for obtaining quick results.	Director of Agriculture U.P. for establishing the same.
X	Inadequate availability of gypsum as per requirement by Soil Conservation Department	Availability of gypsum should be ensured at any cost to avoid delay in leaching activity	Director of Agriculture U.P.
XI	Inadequate and untimely supply of inputs like seeds of paddy, wheat and dhaincha, fertilizers, zinc etc.	Adequate allotment of funds should be ensured each year for purchase of best quality and required quantity of inputs.	State Govt. through Director of Agriculture U.P.
XII	Lack of monitoring at grass-root level.	Monitoring programme should be made by private agencies to know the proper utilization of funds on different components of Usar Reclamation Programme.	State Govt. through Director of Agriculture U.P.
XIII	Lack of integrated approaching to	All pursue effort should be made farmers to take	Additional Director U.P. Soil with the help of

	maintain sustainability in reclaimed areas, production and productivity of paddy and wheat crops.	at least two crops in reclaimed areas during a year.	Extension Department.
XIV	Inadequate staff to look after all reclamation activities.	Sufficient staff should be posted in the district to attain the achievement of target of Usar Reclamation Programme. Besides, this financial support is also needed to meet out the contingencies.	Additional Director, U.P. Soil.
XV	Lack of coordination among the different departments of Agriculture.	There should be proper coordination among different departments of Agriculture viz. BSA, DAO, DHO, Engineer of MI etc.	CDO of the districts should form a coordination committee at District level.

Uttar Pradesh Bhumi Sudhar Nigam (UPBSN)

UPBSN has been executing reclamation activities in a very scientific manner i.e. identification of site of usar land to the completion of the reclamation through best means available at each stage. UPBSN applies all the procedures to reclamation programme as has been laid down by the World Bank. The application of high technology at each state, availability of sufficient funds, full support of infrastructural net work, availability of competent staff etc. are the favourable points of UPBSN. Usar Reclamation Programme undertaken by this agency is in full swing in the adopted districts. However, some lacunae exist in the execution programme, some of which are as follows:

Sl. No.	Problems	Suggestion	Agencies responsible for action
I	Delay in getting clearance from Revenue Department to acquire the usar land for reclamation.	Delay should be avoided.	District Magistrate in coordination in with project managers.
II	Odd policies of adopted villages create problems to motivate the usar owners for participation in Usar Reclamation Programme.	The project manager and staff of NGOs should try to educate villagers about the benefit of the programme. It should also be brought to their notice that the cost involved in reclamation will not be realised from them in future.	Project Manager with the staff of NGOs.
III	Political pressure and local hooliganism come in the way of proper distribution of gypsum	High class security should be provided to project manager to enable to perform his duties without any favour or fear.	District Administration
IV	Downfall in efficient working as compared to initial stages of the programme.	More promotional avenues should be available for efficient staff and transfer should be curtailed.	Project Managers should be given liberty to run the units in a suitable manner.

V	Delay in procuring of maps from Remote Sensing Application Centre.	Maps should be made available timely for joint verification of reclamation sites.	Director Remote Sensing Application Centre Lucknow.
VI	Lack of correct categorisation of sodic lands Sometimes B class of usar land is treated as C category of usar land.	There should be proper monitoring and at the same time soil scientists should be more cautious in this direction.	Tonal officer and Project Manager of the unit concerned.
VII	Per hectare reclamation cost is very high due to huge investment on overhead items.	Curtailment in overhead cost is required in order to divert the same towards other components of usar reclamation programme.	Managing Director UPBSN
VIII	Delay in acquisition of usar land of proposed project units due to its possession by unauthorized farmers.	Unauthorised farmers should be removed through legal means on priority basis.	District Magistrate
IX	Unrealistic targets should not be allotted to project manager.	Target should be based on past achievement	Zonal officer & Project Manager UPBSN
X	Distribution of inferior quality of inputs.	It should be avoided.	Managing Director, UPBSN.
XI	Delay in construction of irrigation channels main and link drainages, link roads etc. are generally happen in adopted villages.	All these works should be completed before usar reclamation programme of a project unit.	Zonal officers and General Manager. UPBSN

In brief, the policy of usar reclamation programme is well designed in the interest of beneficiaries. Policy is also quite cohesive and corrective and dose not require any amendment. All the activities of Usar Reclamation Programme have been appropriately executed at different stages right from the day of its inception.

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Preliminary Draft report

"Evaluation-Usar (Sodic Land) Reclamation Programme in Uttar Pradesh"

Executive Summary

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EXECUTIVE SUMMARY

Introduction

Uttar Pradesh is the most populous yet the fourth largest State in terms of geographical area among the States of the country, 31 per cent of the states population live below poverty line. The per capita arable land estimated is only 0.11 hectare, showing a very meager average under plough. The arable land is shrinking year by year because of vast expansion of industrialization and urbanization which have resulted in massive deterioration in per capita availability of cultivable land in the State. Besides these, lack of proper utilization of canal water, inadequate water management and use of heavily nitrogenous fertilizers are also the causes for expansion of the sodic waste lands. Uttar Pradesh having 18.57 per cent of Usar land ranks first among the 15 Usar prone States of the country. Thus, the Usar land is about 4.36 per cent of the entire geographical area of the State. Out of 11.51 lack hectares Usar land in U.P., only 37 per cent was reclaimed by the end of March, 2001, while a sizeable portion of 63 per cent remained reclaimable. It was also seen that most of the allotted land to marginalized and landless farmers was sodic waste lands, requiring special attention for reclamation to boost the socio-economic status of the allottees. Out of total 70 districts of U.P., 46 are recognised as usar prone districts which are situated in the basin of Ganga and Gomti rivers. Realising that a sizeable area of usar land exists in the State, the U.P. Govt. had constituted a Land Reclamation Committee in 1963 to know the ways and means of reclamation of usar land which is spread far and wide in different parts of the State. In continuation with this process, Government of India had also launched a Centrally Sponsored Scheme in U.P. with an outlay of Rs. 11.82 crore in order to reclaim the usar land during 1985-86. This scheme was basically sponsored for small farmers. On account of this programme, a sizeable portion of usar land of adopted districts had been converted into productive assets. Since the inception of the Usar Reclamation Programme launched by Agriculture Department, the programme has further been expanded under different names, such as, Ambedkar Usar Sudhar Yojana, Bhumi Sena Yojana, Deen Dayal Bhumi Sudhar Yojana etc. at first instance, all the 46 usar prone districts of U.P. were covered by Soil Conservation Department but at per sent only 29 usar prone districts are being covered by this department. Out of total area of usar land of 11.51 lakh hectares of 46 districts, 26.13 per cent was

reclaimed by Agriculture Department by the end of March, 2001. Due to paucity of funds, the Soil Conservation Department could not carry out their reclamation programme in bigger way. Lack of coordination, short supply of pyrite and gypsum, delay in adjustment in subsidy, etc. were the basic bottlenecks in the implementation of Usar Reclamation Programme in the usar prone districts. However, with the availability of funds from World Bank and European Union, U.P. Government has undertaken a task to reclaim usar lands through Usar Reclamation Programme since 1992-93 and had established Uttar Pradesh Bhumi Sudhar Nigam at Lucknow. From 1992-93 to 1998-99, only 10 districts were covered while from 1999-2000 to 2004-05, 7 more districts have been added to already existing 10 districts, making a total of 17 usar prone districts to be covered by the UPBSN. Out of 6.86 lakh hectares usar land of 17 districts, 3.04 lakh hectares i.e. 44.30 per cent usar land had been converted into arable land up to March, 2001. UPBSN is a full fledged on autonomous Corporation and fully financed by the World Bank. With the help of competent staff it has been looking after all the activities of reclamation through well developed net work spread over to 17 districts.

To get the hundred per cent transparency at different stages of reclamation activities and also maintaining the sustainability in production, productivity on reclaimed areas, the UPBSN involves its beneficiaries in every activity. Hence, it is also known as "People's Participation Programme". UPBSN is not only reclaiming the usar lands but also developing the integrated infrastructural facilities, such as construction of link drains, irrigation channels, link-roads and school sites etc. in the adopted districts.

Keeping in view the importance benefits of the programme, the AER Centre, Allahabad has carried out the present study entitled as "Evaluation of Usar Reclamation Programme in U.P.". The Study, it is believed, would help the planners of Usar Reclamation Programme in newly adopted usar areas. Since, this study is based on the information at grass root level of the programme, it will facilitate in providing basic guidelines to the beneficiaries and assist the concerned staff engaged in the activities of the programme to carry out their function smoothly.

Objectives

The evaluation of Usar Reclamation Programme has been made to achieve the following:

(i) To analyse the progress of Usar Reclamation Programme in the State (1992-93 to 2001-02).
(ii) To examine the two main approaches of reclamation being run by the Soil Conservation Department and UPBSN and to evaluate the role of these agencies and their associated problems.
(iii) To work out cost-benefit analysis of the reclamation programme with regard to cropping pattern, cropping intensity, income, employment, etc.
(iv) To find out the pre and post socio-economic development of the benefited farms.
(v) To examine sustainability in reclaimed areas and production and productivity of crops.

Sampling Design

At present, in all, 46 districts of the State are being covered under the scheme. Out of which 29 and 17 districts are being covered by Agriculture Department and UPBSN respectively. Hence, for proper representation of the samples, two districts namely Ghaziabad and Mau covered by Soil Conservation Department and two districts viz. Etah and Pratapgarh covered by UPBSN, occupying the highest rank in usar reclaimed area upto March, 2001 have been selected. From each district, one project unit which covered maximum reclaimed area during 1996-97 was chosen. In each unit, 30 beneficiaries were also selected in proportion to their numbers in the area to know the impact of Usar Reclamation Programme on the economy of these adopted beneficiaries.

Reference Period:

The secondary information from different sources were collected for the years 1992-93 to 2001-02 while the primary data were also collected from selected beneficiaries during the 1996-97 to 2001-02 for pre and post analysis of the programme.

Findings based on Secondary Information:

The Usar Reclamation Programme is being carried out by two agencies viz. Soil Conservation Department and UPBSN in 46 most usar prone districts of the State. Therefore, agency-wise performance of the programme has been analysed from which the following findings have emerged:

II. Soil Conservation Department:

At pre sent out of 46 districts of the State, 29 usar prone districts are being covered by this agency. The findings are based on the analysis of data from 1992-93 to 2001-02.

(i) Out of total usar land of 4.68 lakh hectares of 29 districts, 26.76 per cent was reclaimed up to March, 2002.

(ii) The achievement against target of reclaimed area was lower in almost all the years of the study period. Hence, the progress in the programme was not satisfactory for want of adequate funds to achieve the target during the study period.

(iii) From 1992-93 to 2001-02, 2,25,601 usar owners were covered. They were mostly marginal/small farmers or allottees.

(iv) Allocation of funds for reclamation programme was erratic and unplanned during the entire period of study. Besides this, there was no allocation of funds for the programme during 1999-2000. During this period, the reclamation programme remained standstill for one year for covered districts.

(v) Due to inadequate financial resources, lack of foresightedness in planning and unsuitable strategy in proper management of available means, the programme could not be properly executed at ground level in the 29 districts of U.P.

(vi) The allocation of funds per beneficiary worked out to Rs. 8,011 while the per hectare cost incurred was Rs. 14,529 at aggregate level. However, there was vast variation in per hectare reclamation cost during different years which ranged between Rs. 6,224 and Rs. 53,820.

(vii) Supply of gypsum was not adequate and timely. The quantity of gypsum supplied on an average was 2 to 3 tonnes per hectare, whereas its actual requirement is 6 to 13 metric tonnes. The supply of inputs such as seeds of paddy, wheat, dhaincha, different types of fertilizers and zinc were quite low against their requirements during the study period.

II. Uttar Pradesh Bhumi Sudhar Nigam (UPBSN)

UPBSN was established during 1992-93 at Lucknow with total financial assistance by World Bank and European Union. At the initial stage, only 10 out of 46 most usar prone districts of the State had been covered which continued upto 1999-2000. This duration is known as Phase-I. The physical and financial

progress of the programme was quite remarkable during this phase. On this account, the World Bank was agreed to extend its aid programme up to March, 2005 in order to cover 7 additional districts. Hence at pre sent in all 17 most usar prone districts of the State are being covered by this agency during Phase-II which started in 2000 and will continue till March, 2005. UPBSN is not only confined to reclaim the usar lands, but also doing other activities in order to improve the socio-economic conditions of the villages under its jurisdiction.

The progress made in reclamation of usar land during 1992-93 to 2001-2002 has been critically analysed with the following findings:

(i) During the initial year of 1993-94 only 2,792 hectares of usar lands of 10 districts were reclaimed which went up to the extent of 35,004 hectares during 2001-02, thereby showing an increase of 11.54 per cent over the base year. It is also found that out of total usar land of 17 districts, 25 per cent was reclaimed during 1992-93 to 2001-02 which means that the remaining 75 percent will have to be reclaimed by the end of March, 2005. Hence to achieve this target UPBSN has established two additional units in most of the covered districts.

(ii) As regards to coverage of beneficiaries under this programme, 2.83 lakh farmers were covered during 1992-93 to 2001-02 of which 44.77 per cent belonged to OBC followed by 27.96 per cent and 27.27 per cent of SC and other castes respectively.

(iii) The achievement against target was more than 100 per cent during most of the study period as it ranged between 91 and 180per cent.

(iv) There was no shortage of funds during Phase-I as well as Phase-II. The level of investment moved upward every year and on a account of this, the quantitative target was fully achieved in each year of the study period. The allocated amount was Rs. 486.24 lakhs during 1993-94 which went to the extent of Rs. 15,037.00 lakhs during 2001-02 showing an increase of 2992 per cent over the study period.

(v) Per hectare cost was estimated at Rs. 39,120 on reclamation of 'C' category usar land followed by Rs. 38,120 and Rs. 33,597 for B and B+ categories of usar land respectively over the study period.

(vi) The reclamation cost accounted for 53.18 per cent of total cost followed by 46.42 per cent on inputs of crop production.

(vii) There was hundred per cent subsidy on cost of gypsum, levelling, boring, link drainage and inputs for the owners of C and B categories of usar land.

(viii) The distributed quantity of gypsum, seeds of dhaincha, paddy and wheat, fertilizers, zinc etc. was optimum in almost all the years of the study period.
(ix) 2460 kms of main drain, 2500 link drains were also constructed.

Performance of UPBSN

(i) It has generated additional irrigation for 10555 ha. land.
(ii) The cropping intensity has increased form zero to 200 per cent in case of C category of usar reclaimed areas. Per ha. production of paddy and wheat on B+ class category usar land has increased from 21 qtls. and 20 qtls to 41 qtls and 35 qtls respectively.
(iii) The per ha. production of paddy and wheat on reclaimed area of C class category of usar land has yielded about 29 qtls. and 31 qtls after reclamation which was nil prior to the reclamation programme.
(iv) Wage rates increased from Rs. 35 to 50 and Rs. 30 to 45 per day respectively for men and women.
(v) There was also a fall in disguised un-employment from 43 to 16 per cent.
(vi) More than 2,166 WSHGs and 3,156 MSHGs were formed.
(vii) Number of libraries, Panchayat Bhawan etc. have also been constructed in adopted villages to provide better knowledge in agriculture and allied activities.
(viii) Inter horticulture is being made much popular among the adopted farmers. Out of the reclaimed areas of U.P., horticulture accounted for 7.01 per cent and this shows its growing popularity every year.

Impact of Usar Reclamation Programme carried out by both agencies in U.P.

On account of reclamation of usar lands, the net area sown of the State has enhanced by 2.53 per cent followed by 0.85 per cent increase of irrigation potential at the end of 2001.

The share of production of paddy and wheat grown in reclaimed area was 4.66 per cent and 2.70 per cent of total production of the State respectively during 2001. The total production of these crops of 11.64 lakh metric tonnes was sufficient to meet consumption need of 4.96 lakh population of U.P. state

annually. The value of total production of these crops was estimated at Rs. 6,705.90 crore during 2001-02.

Findings Based on Primary Data:

The following findings have emerged from pre and post analysis of data collected from 120 selected beneficiaries of 4 project units of 4 districts covered by the Soil Conservation Department and UPBSN during 1996-97:

(i) Only allottees and small farmers were covered by Soil Conservation Department while it was not the case with UPBSN.
(ii) Almost all usar land, whether inherited or allotted to beneficiaries, were reclaimed by both these agencies. There was no partisan in this regard.
(iii) The inherited usar land was mostly "B" class while it was "C" class for the allottees.
(iv) Both agencies had preferred to take those patches of land where coverage of area under "C" class of usar land was found maximum.
(v) Soil Conservation Department and UPBSN both had paid maximum attention to reclaim "C" category of usar lands in comparison to "B+" and "B" categories of usar land.
(vi) Total usar land of each project unit irrespective of its classification was reclaimed. There was no particular division in this respect, although maximum financial assistance was provided for "C" category of usar land while it was least available in case of B+ class of usar land.
(vii) There was much difference in operational activities of usar reclamation of Soil Conservation Department and UPBSN. UPBSN prefers to involve maximum participation of beneficiaries in Farm Development activities. The supply of gypsum and inputs were free of cost to the adopted farmers during the reclamation of usar land. Thus, it is know as "People's Participation Programme". This short of activity was not being carried out by the Soil Conservation Department and gypsum and inputs were provided on subsidized rates to its adopted farmers.
(viii) The huge shortage in supply of gypsum and inputs was complained by the adopted farmers of Soil Conservation Department while it was not the case with UPBSN, as sufficient quantities of gypsum and inputs were given by UPBSN to its adopted farmers.
(ix) The sample farmers covered by Soil Conservation Department could not use normal quantity of gypsum in reclamation process which was ranged between 1 and 2 tonnes per hectare. It was much below the required

quantity. While UPBSN had provided required quantity of gypsum to the beneficiaries as per the category demand of the usar land.

(x) Out of total expenditure for reclamation, cost on B and C classes of usar land was the highest on gypsum being 58.27% followed by 24.04% on production inputs.

(xi) There was acute shortage of funds in Soil Conservation Department during the study period while it was not so in UPBSN.

(xii) The per hectare reclamation cost was estimated at Rs.10,077 in case of area covered by Soil Conservation Department which was well below the per hectare reclamation cost of Rs. 2,46,400 in the areas covered by UPBSN.

(xiii) at present the reclamation cost per hectare has been estimated at Rs. 39,120 of "C" class usar lands followed by Rs. 38,120 and Rs. 33,597 in B and B+ class of usar land respectively in case of UPBSN.

(xiv) More than 85 per cent reclamation cost is being shared by UPBSN and rest 15 per cent by its adopted farmers. Out of total reclamation cost, the earth work and gypsum accounted for more than 65 per cent followed by 35 per cent inputs for crop production.

(xv) Besides reclamation of usar land, UPBSN is also undertaking construction of link roads, "Nallas", main and link drain, school sites and library in adopted villages to provide better infrastructural facilities for integrated development. These were not performed by Soil Conservation Department.

(xvi) The role of NGOs was found quite satisfactory in motivating farmers for doing the reclamation activities willingly and also in the formation of WSHGs and MSHGs.

Impact of Usar Reclamation Programme:

(i) Majority of children of target group have started going to schools due to the impact of awareness among the women.

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With the transformation of soil face with an assured supply of irrigation water, the usar land turned into fertile soil. On account of positive impact of Usar Reclamation Programme on the production of paddy and wheat, the income of adopted farmers have increased tremendously.

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Per household income was higher being Rs. 40,339 on B class land than Rs. 4,339 on C class land on the sample farms covered by Soil Conservation Department while the per household income in both class of lands was more or less same on the sample farms covered by UPBSN. It shown that per household income has increased by Rs. 4,338 annually due to positive impact of reclamation programme.

On account of this, the economic status of target groups has also gone up manifold and hence they can be included in the mainstream of cultivators.

(i) The employment avenues of family as well as hired labourers have significantly increased on the beneficiary farms. 107 and 98 days per hectare employment have been generated on B and C class of usar reclaimed areas respectively.
(ii) There was sharp increase in labour requirement which was estimated to be 100 per cent on C class usar reclaimed areas which was nil earlier. On account of this, migration from villages to cities in search of jobs by and large has been checked particularly in case of allottees.
(iii) This programme has been generating employment on sustained basis on the sample farms covered by both the agencies.
(iv) Per hectare prices of reclaimed area has increased by 134.64 per cent from the prices prevalent prior to the reclamation.
(v) Prices of C class reclaimed usar land has increased three fold of the price existing prior to reclamation.
(vi) The incremental income has been expanded to meet the expenditure on consumption followed by medicines, education, construction of houses etc.
(vii) Formation of SGHs of women and conversion of water users to SHGs have proved to be very useful instrument to fulfil credit need of the adopted farmers. On account of this new generation institution have been developing very fast while the informal institution are vanishing gradually.

The impact of usar reclamation programme has been found to be very positive in both the quantitative and qualitative terms on the adopted farmers on

account of their sustainability in quality of soil and production of crops which has been found fully intact since the inception of the programme.

The Patta holders had shifted from their labour occupation to agriculture because of the availability of cultivable land. Prior to this programme, labour was the main occupation of 25 sample households covered by Soil Conservation Department, out of which 24 per cent had shifted to agriculture. The shift in occupation from labour to agriculture was mostly by patta allottee sample farmers covered by Soil Conservation Department. Thus, the impact of Usar Reclamation Programme had generated much employment opportunities at reclaimed areas. The farmers were now busy in cultivation of crops on the reclaimed areas instead of going to get employment on others' farms.

Undoubtedly, the impact of Usar Reclamation Programme carried out by Soil Conservation Department as well as UPBSN was found very positive so far socio-economic development of adopted farmers is concerned. The allottees and also marginal usar owners were much benefitted and they are now above the poverty line. However, the role of Soil Conservation Department in the reclamation of usar land has been on lower trend every year due to paucity of funds. Against this, the role of UPBSN was very constructive during Phase-I (1992-93 to 1999-2000). On that ground, World Bank had extended its activities up to March, 2005 and allowed to cover 7 more additional districts under the purview of the programme. In contrast, Due to scarcity of funds, the Soil Conservation Department is finding it difficult to carry out its programme of Usar Land Reclamation in 29 districts allotted to it. Hence, Uttar Pradesh Government should approach the World Bank to give additional aid in order to cover the 29 districts also under Soil Conservation Department so as to have total reclamation of usar land still existing in the State.

Policy Implication:

On the basis of findings of the study, following suggestions are being made for further strengthening the programme in the interest of usar owners.

Soil Conservation Department

Sl. No.	Problems	Suggestions	Agencies Responsible for Action
I	Identification of categories of sodic Lands	Identification of categories of sodic Lands should be based on the map prepared by Remote Sensing Application Centre Lucknow. It should not be based on revenue records.	Director of Agriculture U.P. should take help from RSAC Lucknow to get correct acreage of usar lands.
II	Delay in acquisition of usar land by allottees	There should be prompt action against illegal occupants	District Magistrate should take action in this regard.
III	Most of the usar lands of the allottees are lying unreclaimed due to pending court cases.	Cases should be decided on priority basis	State Govt. should taken concrete steps towards this.
IV	Soil Conservation Department should not be asked only to reclaim the usar lands of patta holders marginal and small farmers.	There should not be any legal binding in selection of project units.	State Government should promulgate legislation to select project units for reclamation of usar lands without any bias.
V	Lack of adequate infrastructural facilities at each stage.	From bottom to top there should be proper linkage and coordination among the officials to avoid delay in usar reclamation activities.	State Govt. should expand the infrastructural facilities in order to extract more benefits out of the reclamation programme for target groups/ allottees.
VI	No clear cut and standing policy in this regard as policy changes with the change in govt.	Policy for usar reclamation programme should not be changed with the change in govt.	Govt. should remain firm on the policy already made in this regards without being affected by the change in govt.
VII	Irregular allocation of	Seeing the importance	State Govt. should

	funds in different years. Curtailment of funds in the programme year by year.	of the reclamation programme for the benefit of allottees, marginal/ small farmers funds should be increased instead of curtailing the same year after year.	earmark sufficient budget every year in this regard.
VIII	Non availability of matching grants.	Matching grants should be made available prior to implementation of the programme.	State as well as Central Govt. should be prompt in allocation of their share.
IX	Inadequate soil testing facilities and delay in receiving the result thereof.	Soil testing facilities should be expanded at block level for obtaining quick results.	Director of Agriculture U.P. for establishing the same.
X	Inadequate availability of gypsum as per requirement by Soil Conservation Department	Availability of gypsum should be ensured at any cost to avoid delay in leaching activity	Director of Agriculture U.P.
XI	Inadequate and untimely supply of inputs like seeds of paddy, wheat and dhaincha, fertilizers, zinc etc.	Adequate allotment of funds should be ensured each year for purchase of best quality and required quantity of inputs.	State Govt. through Director of Agriculture U.P.
XII	Lack of monitoring at grass-root level.	Monitoring programme should be made by private agencies to know the proper utilization of funds on different components of Usar Reclamation Programme.	State Govt. through Director of Agriculture U.P.
XIII	Lack of integrated approaching to maintain sustainability in reclaimed areas, production and	All pursue effort should be made farmers to take at least two crops in reclaimed areas during a year.	Additional Director U.P. Soil with the help of Extension Department.

	productivity of paddy and wheat crops.		
XIV	Inadequate staff to look after all reclamation activities.	Sufficient staff should be posted in the district to attain the achievement of target of Usar Reclamation Programme. Besides, this financial support is also needed to meet out the contingencies.	Additional Director, U.P. Soil.
XV	Lack of coordination among the different departments of Agriculture.	There should be proper coordination among different departments of Agriculture viz. BSA, DAO, DHO, Engineer of MI etc.	CDO of the districts should form a coordination committee at District level.

Uttar Pradesh Bhumi Sudhar Nigam (UPBSN)

UPBSN has been executing reclamation activities in a very scientific manner i.e. identification of site of usar land to the completion of the reclamation through best means available at each stage. UPBSN applies all the procedures to reclamation programme as has been laid down by the World Bank. The application of high technology at each state, availability of sufficient funds, full support of infrastructural net work, availability of competent staff etc. are the favourable points of UPBSN. Usar Reclamation Programme undertaken by this agency is in full swing in the adopted districts. However, some lacunae exist in the execution programme, some of which are as follows:

Sl. No.	Problems	Suggestion	Agencies responsible for action
I	Delay in getting clearance from Revenue Department to acquire the usar land for reclamation.	Delay should be avoided.	District Magistrate in coordination in with project managers.
II	Odd policies of adopted villages create problems to motivate the usar owners for participation in Usar Reclamation Programme.	The project manager and staff of NGOs should try to educate villagers about the benefit of the programme. It should also be brought to their notice that the cost involved in reclamation will not be realised from them in future.	Project Manager with the staff of NGOs.
III	Political pressure and local hooliganism come in the way of proper distribution of gypsum	High-class security should be provided to project manager to enable to perform his duties without any favour or fear.	District Administration
IV	Downfall in efficient working as compared to initial stages of the programme.	More promotional avenues should be available for efficient staff and transfer should be curtailed.	Project Managers should be given liberty to run the units in a suitable

			manner.
V	Delay in procuring of maps from Remote Sensing Application Centre.	Maps should be made available timely for joint verification of reclamation sites.	Director Remote Sensing Application Centre Lucknow.
VI	Lack of correct categorisation of sodic lands Sometimes B class of usar land is treated as C category of usar land.	There should be proper monitoring and at the same time soil scientists should be more cautious in this direction.	Tonal officer and Project Manager of the unit concerned.
VII	Per hectare reclamation cost is very high due to huge investment on overhead items.	Curtailment in overhead cost is required in order to divert the same towards other components of usar reclamation programme.	Managing Director UPBSN
VIII	Delay in acquisition of usar land of proposed project units due to its possession by unauthorised farmers.	Unauthorised farmers should be removed through legal means on priority basis.	District Magistrate
IX	Unrealistic targets should not be allotted to project manager.	Target should be based on past achievement	Zonal officer & Project Manager UPBSN
X	Distribution of inferior quality of inputs.	It should be avoided.	Managing Director, UPBSN.
XI	Delay in construction of irrigation channels main and link drainages, link roads etc. are generally happen in adopted villages.	All these works should be completed before usar reclamation programme of a project unit.	Zonal officers and General Manager. UPBSN

In brief, the policy of usar reclamation programme is well designed in the interest of beneficiaries. Policy is also quite cohesive and corrective and dose not require any amendment. All the activities of Usar Reclamation Programme have been appropriately executed at different stages right from the day of its inception.

ABBREVIATIONS

1.	MK	Mitr Kishan
2.	MIS	Management-Introduction System
3.	NABARD	Natural Bank for Agricultural & Rural Development
4.	NGOs	Non-Government Organisations
5.	OFD	On Farm Development
6.	SHGs	Self Help Groups
7.	SIC	Site Implementation Committee
8.	TCO	Technical Coordinator Officer
9	UPBSN	Uttar Pradesh Bhumi Sudhar Nigam
10.	WUG/ WUSHG	Water Usar Group/ Water Usar Self Help Groups

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Table II-1

Year-wise Reclaimed Area under Different Yojana by Soil Conservation Department in Uttar Pradesh

(Area in Hectares)

Years	Area Reclaimed in different yojana					
	Centrally sponsored scheme	Ambedkar, bhoomi sudhar yojana, bhoomi Sena etc.	Deen Dayal Usar Sudhar Yojana	Total	Cumulative	Percentage change
1992-93	13714 (52.94)	12191 (47.06)	-	25905 (100.00)	25905	-
1993-94	15372 (84.19)	-	2886 (15.81)	18258 (100.00)	44163	-29.52
1994-95	10177 (75.00)	3393 (25.00)	-	13570 (100.00)	57733	-34.55
1995-96	12331 (51.78)	11485 (48.22)	-	23816 (100.00)	81549	+75.50
1996-97	5778 (22.30)	20129 (77.70)	-	25907 (100.00)	107456	+8.78
1997-98	-	7988 (100.00)	-	7988 (100.00)	115444	-(69.17)
1998-99	-	4108 (100.00)	-	4108 (100.00)	119552	-48.57
* 1999-2000	-	-	-	-	-	-
2000-2001	361 (100.00)	-	-	361 (100.00)	119913	00.00
2001-2002	4486 (100.00)	-	-	4486 (100.00)	124399	+1142.66
All	62219 (50.02)	59294 (47.66)	2886 (2.32)	124399 (100.00)	-	-

Note: Figures in brackets are percentage to total. Source:
Soil Conservation Deptt. Directorate of Agriculture Lucknow.

* Non Ability of Funds

Table II-4
Year-wise Allocation of Funds under Different Yojana by Soil Conservation Department in Uttar Pradesh

(Rs. in lakhs)

Years	Allocated Funds in Different Yojana						
	Centrally sponsored scheme	Ambedkar, bhoomi sudhar yojana, bhoomi Sena etc.	Deen Dayal Usar Sudhar Yojana	Total	Cumulative	Percentage change	Percentage Cost Rs.
1992-93	479.18 (17.91)	2196.00 (82.09)	-	2675.18 (100.00)	2675.18	-	10327
1993-94	531.54 (46.78)	-	604.82 (53.22)	1136.36 (100.00)	3811.54	(-57.52)	6224
1994-95	387.86 (36.29)	680.88 (63.71)	-	1068.74 (100.00)	4880.28	(-59.51)	7876
1995-96	783.52 (26.14)	2214.00 (73.86)	-	2997.52 (100.00)	7877.80	(+180.47)	12586
1996-97	875.84 (14.78)	5049.00 (85.21)	-	5924.84 (100.00)	1302.64	(97.66)	22869
1997-98	285.02 (14.96)	1620.61 (85.04)	-	1905.63 (100.00)	15708.27	(-67.84)	23856
1998-99	88.57 (4.01)	2122.36 (95.99)	-	2210.93 (100.00)	17919.20	(+16.02)	53820
1999-2000	-	-	-	-	-	-	
2000-01	45.45 (100.00)	-	-	45.45 (100.00)	17964.65	-	12590
2001-02	109.01 (100.00)	-	-	109.01 (100.00)	18073.66	(+139.85)	24300
All	3585.99 (19.84)	13882.85 (76.81)	604.82 (3.35)	18073.66 (100.00)		-	14529

Note: Figures in brackets are percentage to total.
Source: Soil Conservation Deptt. Directorate of Agriculture Lucknow.

Table -II-6
Year-wise Reclaimed Areas, Allocated Funds and Covered Farmers by UPBSN in Uttar Pradesh

Years	Area (Ha.)		Funds (Rs. in lakhs)			Beneficiaries (Nos.)	
	Reclaimed Area	Cumulative	Allocated Funds	Cumulative	Number of Adopted Farmers	Cumulative	Pert hectare cost of reclamation
1993-94	2792	2792	486.24	486.24	7181	7182	17415
1994-95	7278 (160.67)	10070	1846.78 (279.80)	2333.02	15347 (113.71)	22528	25374
1995-96	10534 (44.73)	20606	3735.37 (102.26)	6068.39	25440 (65.76)	47968	35460
1996-97	13397 (27.18)	34001	5734.61 (53.52)	11803.00	31199 (22.63)	79167	42805
1997-98	13469 (0.54)	47470	6986.00 (21.82)	18789	31497 (0.95)	110664	51867
1998-99	17274 (28.25)	64744	8118.76 (16.21)	26907.76	39426 (25.17)	150090	46998
1999-2000	27597 (59.76)	92341	9828.40 (21.05)	36736.16	9336 (76.32)	159426	35614
2000-01	27361 (-0.86)	119702	14593.00 (48.48)	51329.16	47204 (405.61)	206630	53335
2001-02	35004 (27.93)	154706	15037.00 (3.04)	66366.16	75689 (60.34)	282319	42958
All	154706		66366.16		282319		42898

Figures in brackets are percentage change.
Source-UPBSN-Lucknow
Note- Data for 1992-93 was not available.

Table II-13

Area under Horticulture and crops on Reclaimed Areas during Phase-II

Years	**Area in Horticulture (ha)**				**Area in crops (ha)**				**G. total**
	B+	B	C	Total	B+	B	C	Total	
1999-2000	908.66	618.82	626.27	2154.40	3602.20	7532.80	14307.50	25442.50	27596.90
	(3.29)	(2.24)	(2.27)	(7.80)	(13.05)	(27.30)	(51.85)	(92.20)	(100.00)
2000-01	693.17	395.92	373.90	1462.99	3260.40	6786.50	15851.20	25898.10	27361.09
	(2.53)	(1.45)	(1.37)	(5.35)	(11.92)	(24.80)	(57.93)	(94.65)	(100.00)
2001-02	700.00	1050.00	1750.00	3500.00	6300.00	9452.00	15752.00	31504.00	35004.00
	(2.00)	(3.00)	(4.00)	(10.00)	(18.00)	(27.00)	(45.00)	(90.00)	(100.00)
Total	2301.83	2064.74	2750.82	7117.39	13162.60	23771.30	45910.70	82844.60	89961.99
	(2.56)	(2.29)	(3.06)	(7.91)	(14.63)	(26.42)	(51.04)	(92.09)	(100.00)

Figures in brackets are percentage of G. Total
Source-UPBSN-Lucknow
* Estimated data

Table II-9

Project cost by Component by year (UPBSN) in Uttar Pradesh

I. Phase-I

(Rs. in lakh)

Particulars	Years							
	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01
1-Project Cost								
A-Institutional Development	208.97 (42.98)	266.20 (14.41)	341.28 (9.14)	678.20 (11.83)	842.59 (12.06)	903.17 (11.13)	600.41 (6.11)	386.36 (11.43)
B- Land Reclamation	49.52 (10.18)	623.27 (33.75)	1527.69 (40.90)	2472.02 (43.11)	3008.00 (43.06)	3815.29 (46.99)	6356.76 (64.68)	2378.32 (70.34)
C- Agri. Dev. (Extension Support)	2.24 (0.46)	8.73 (0.47)	36.74 (0.98)	39.70 (0.69)	48.68 (0.70)	66.76 (0.82)	67.71 (0.69)	40.28 (1.19)
D- Reclamation Technology/ Research	10.99 (2.26)	37.81 (2.05)	86.38 (2.31)	71.67 (1.25)	212.43 (3.04)	236.54 (2.92)	231.13 (2.35)	94.24 (2.79)
Total Project Cost	271.73 (55.88)	936.01 (50.67)	1992.09 (53.33)	3261.59 (56.88)	4111.71 (58.86)	5021.77 (61.86)	7256.01 (78.83)	2899.20 (85.74)
Farmers Share (OFD Inputs) & Pump sets	188.90 (38.85)	492.90 (26.69)	782.90 (20.96)	1103.00 (19.23)	1006.00 (14.40)	1257.20 (15.48)	254.30 (2.59)	- (-)
Value of Labour & Drought power	25.61 (5.27)	417.87 (22.63)	960.38 (25.71)	1370.02 (23.89)	1868.29 (26.74)	1839.80 (22.66)	2318.09 (23.58)	482.15 (14.26)
Total	486.24 (100.00)	1846.78 (100.00)	3735.37 (100.00)	5734.61 (100.00)	6986.00 (100.00)	8118.76 (100.00)	9828.40 (100.00)	3381.35 (100.00)

Figures in brackets are percentage to total

Source-UPBSN

Note- Project cost of Phase-II not encluded.

Table II-11

Year-wise Distribution of Inputs to Adopted Farmers by UPBSN in Uttar Pradesh

Years	Area reclaimed	Number of villages adopted	Number of borings	Gypsum (MT)	Seed of Dhaincha (kg)	Paddy (Per hect.)				Wheat (Per hect.)			
						Seed (kg)	Urea (kg)	DAP (kg)	Zinc (Kg)	Seed (kg)	Urea (kg)	DAP (kg)	Zinc (Kg.)
1993-94	2792	59	534	27587 (9.88)	60	55	140	19	32	100	117	50	23
1994-95	7278	95	1151	56404 (7.75)	60	60	127	24	27	82	89	61	19
1995-96	10534	155	1442	71864 (6.82)	60	33	68	18	24	80	152	58	18
1996-97	13397	199	2199	101030 (7.54)	60	38	109	13	27	73	124	54	15
1997-98	13469	203	2193	123037 (9.13)	60	48	139	13	30	91	152	67	18
1998-99	17274	241	2889	162498 (9.41)	60	46	139	13	27	91	124	65	19
1999-2000	27597	434	4683	250567 (9.08)	60	47	139	13	27	91	165	66	20
2000-01	27361	455	4596	252136 (9.13)	60	49	160	13	30	94	168	66	19
2001-02	35004	674	6701	323821 (9.25)	60	57	129	14	28	NA	-	NA	-
All	154706	2515	26388	1368944 (8.85)	60	48	128	15	28	88	136	61	19

Figures in brackets are per hectare distribution of Gypsum.
Source -UPBSN-Lucknow.

Table II-12

Per Hectare Cost in Land Reclamation by Category-Wise of Usar Land (UPBSN) in Uttar Pradesh

(Rs.)

Description	Category of Usar Land								
	B+			B			C		
	Subsidy	Farmer Share	Total Cost	Subsidy	Farmer Share	Total Cost	Subsidy	Farmer Share	Total Cost
1- Bunding	-	1125 (100.00)	1125 (100.00)	-	1125 (100.00)	1125 (100.00)	-	1125 (100.00)	1125 (100.00)
Field drain	-	277 (100.00)	277 (100.00)	75 (27.08)	202 (72.92)	277 (100.00)	100 (36.10)	177 (63.90)	277 (100.00)
Irrigation Channel	-	264 (100.00)	264 (100.00)	-	264 (100.00)	264 (100.00)	-	264 (100.00)	264 (100.00)
Leveling	-	400 (100.00)	400 (100.00)	-	400 (100.00)	400 (100.00)	4.00 (100.00)	-	400 (100.00)
Mixing	-	227 (100.00)	227 (100.00)	-	227 (100.00)	227 (100.00)	227 (100.00)	-	227 (100.00)
Small Structure	-	369 (100.00)	369 (100.00)	-	369 (100.00)	369 (100.00)	369 (100.00)	-	369 (100.00)
Boring	-	1335 (100.00)	1335 (100.00)	1335 (100.00)	- (-)	1335 (100.00)	1335 (100.00)	-	1335 (100.00)
Water Charge	-	3400 (100.00)	3400 (100.00)	1700 (50.00)	1700 (50.00)	3400 (100.00)	1700 (100.00)	-	1700 (100.00)
Pump Set	-	3000 (100.00)	3000 (100.00)	-	3000 (100.00)	3000 (100.00)	-	3000 (100.00)	3000 (100.00)
Gypsum	4380 (96.48)	160 (3.52)	4540 (100.00)	8760 (96.48)	320 (3.52)	9080 (100.00)	10950 (96.48)	400 (3.52)	11350 (100.00)
Linc Drain	759 (100.00)	- (-)	759 (100.00)	759 (100.00)	- (-)	759 (100.00)	759 (100.00)	-	759 (100.00)
Total	5139 (32.74)	10557 (67.26)	1596 (100.00)	12629 (62.41)	7607 (37.59)	20236 (100.00)	15840 (76.13)	4966 (23.87)	20806 (100.00)

2.Crop Production									
Seed Paddy	(-)	450 (100.00)	450 (100.00)	450 (100.00)		450 (100.00)	450 (100.00)	-	450 (100.00)
Urea	(-)	146 (100.00)	146 (100.00)	-	146 (100.00)	146 (100.00)	195 (100.00)	-	195 (100.00)
DAP	(-)	820 (100.00)	820 (100.00)	206 (25.12)	614 (74.88)	820 (100.00)	1094 (100.00)	-	1094 (100.00)
Zinc	(-)	330 (100.00)	330 (100.00)	330 (100.00)		330 (100.00)	440 (100.00)	-	440 (100.00)
Wheat Seed	(-)	1020 (100.00)	1020 (100.00)	900 (88.23)	120 (11.77)	1020 (100.00)	900 (88.23)	120 (11.77)	1020 (100.00)
DAP	(-)	781 (100.00)	781 (100.00)	781 (100.00)		781 (100.00)	781 (100.00)		786 (100.00)
Urea	(-)	904 (100.00)	904 (100.00)	904 (100.00)		904 (100.00)	904 (100.00)		904 (100.00)
Potas	(-)	231 (100.00)	231 (100.00)	231 (100.00)		231 (100.00)	231 (100.00)		231 (100.00)
Zinc	(-)	275 (100.00)	275 (100.00)	275 (100.00)		275 (100.00)	275 (100.00)		275 (100.00)
Dhaincha Seed	480 (100.00)	- (-)	480 (100.00)	480 (100.00)		480 (100.00)	480 (100.00)		480 (100.00)
Labour Cost	(-)	7490 (100.00)	7490 (100.00)	(-)	7490 (100.00)	7490 (100.00)	-	7490 (100.00)	7490 (100.00)
Animal Cost	(-)	4100 (100.00)	4100 (100.00)	(-)	4100 (100.00)	4100 (100.00)	-	4100 (100.00)	4100 (100.00)
Insect	- (-)	374 (100.00)	374 (100.00)	(-)	374 (100.00)	374 (100.00)	-	374 (100.00)	374 (100.00)
Total	480 (2.75)	16921 (97.25)	17401 (100.00)	4557 (26.19)	12844 (73.81)	17401 (100.00)	5750 (32.24)	12084 (67.76)	17834 (100.00)
Grant Total	5619 (16.98)	27478 (83.02)	33097 (100.00)	17186 (45.66)	20452 (54.34)	37638 (100.00)	21590 (55.87)	7050 (44.13)	38640 (100.00)
Dhaincha	480 (100.00)		480 (100.00)	480 (100.00)	-	480 (100.00)	480 (100.00)	-	480 (100.00)
Grant Total	6099 (18.16)	27478 (81.84)	33577 (100.00)	17666 (46.35)	20452 (53.65)	38118 (100.00)	22070 (56.46)	17050 (43.58)	39120 (100.00)

Note: Figures in brackets are percentage share of total cost. Source: UPBSN- Lucknow.

Table-III-1

Year-Wise Reclaimed Area, Number of Farmers Adopted and Allocated of Funds Under Different Sponsored Schemes in Ghaziabad District

Years	Reclaimed Area in different Sponsored Schemes (hect.)				Nos. of Beneficiaries Covered Castes (Nos.)				Financial Allocation under different Sponsored Schemes (Lacs)			
	Centrally Sponsored Scheme	Bhumi Sena Yojana	Ambedkar Bhoomi Sudhar Yojana	Total	SC	OBC	Others	Total	Centrally Sponsored Scheme	Bhumi Sena Yojana	Ambedkar Bhoomi Sudhar Yojana	Total
1992-93	-	1077.00 (100.00)	-	1077.00 (100.00)	1086 (60.81)	-	700 (39.19)	1786 (100.00)	-	59.32 (100.00)	-	59.32 (100.00)
1993-94	-	727.00 (100.00)	-	727.00 (100.00)	937 (34.20)	-	1803 (65.80)	2740 (100.00)	-	40.04 (100.00)	-	40.04 (100.00)
1994-95	-	1300.00 (100.00)	-	1300.00 (100.00)	920 (63.40)	-	531 (36.60)	1451 (100.00)	-	71.61 (100.00)	-	71.61 (100.00)
1995-96	-	-	1000.00 (100.00)	1000.00 (100.00)	1370 (69.90)	-	590 (30.10)	1960 (100.00)	-	-	77.55 (100.00)	77.55 (100.00)
1996-97	-	-	800.00 (100.00)	800.00 (100.00)	1349 (66.06)	-	693 (33.94)	2042 (100.00)	-	-	53.31 (100.00)	53.31 (100.00)
1997-98	-	-	436.00 (100.00)	436.00 (100.00)	510 (63.51)	-	293 (36.49)	803 (100.00)	-	-	32.79 (100.00)	32.79 (100.00)
1998-99	-	-	463.00 (100.00)	463.00 (100.00)	515 (59.81)	-	346 (40.19)	861 (100.00)	-	-	17.13 (100.00)	17.13 (100.00)
1999-2000	-	-	-	-	-	-	-	-	-	-	-	-
2000-01	-	-	-	-	-	-	-	-	-	-	-	-
2001-02	20.00 (100.00)	-	-	20.00 (100.00)	50 (73.53)	-	18 (26.47)	68 (100.00)	1.85 (100.00)	-	-	1.85 (100.00)
All	20.00 (0.34)	3104.00 (53.31)	2699.00 (46.35)	5823.00 (100.00)	6737 (57.53)	-	4974 (42.47)	11711 (100.00)	1.85 (0.52)	170.97 (48.35)	180.78 (51.13)	353.60 (100.00)

Note:- Figures in brackets are percentages to total.

Source:- BSA Office, Ghaziabad

Table-III-5-A

Year-wise Reclaimed Area Number of Farmers Covered and Allocated of Funds Under Different Sponsored Schemes in Mau District

Years	Area Reclaimed in different Sponsored Schemes (hect.)				Nos. of Beneficiaries Covered Castes				Financial Allocation under different Sponsored Schemes (Lacs)			
	Centrally Sponsored Scheme	Bhumi Sena Yojana	Ambedkar Bhoomi Sudhar Yojana	Total	SC	OBC	Others	Total	Centrally Sponsored Scheme	Bhumi Sena Yojana	Ambedkar Bhoomi Sudhar Yojana	Total
1992-93	-	-	-	-	-	-	-	-	-	-	-	-
1993-94	-	246 (100.00)	-	246 (100.00)	381 (39.94)	290 (30.40)	283 (29.66)	954 (100.00)	-	22.15 (100.00)	-	22.15 (100.00)
1994-95	-	1000 (100.00)	-	1000 (100.00)	1145 (31.87)	1431 (39.83)	1017 (28.30)	3593 (100.00)	-	74.82 (100.00)	-	74.82 (100.00)
1995-96	-	-	1026 (100.00)	1026 (100.00)	1786 (58.31)	607 (19.82)	670 (21.87)	3063 (100.00)	-	-	60.44 (100.00)	60.44 (100.00)
1996-97	-	-	921 (100.00)	921 (100.00)	1517 (50.40)	816 (27.11)	677 (22.49)	3010 (100.00)	-	-	67.83 (100.00)	67.83 (100.00)
1997-98	-	-	954 (100.00)	954 (100.00)	911 (35.12)	877 (33.81)	806 (31.07)	2594 (100.00)	-	-	78.98 (100.00)	78.98 (100.00)
1998-99	-	-	144 (100.00)	144 (100.00)	-	-	-	-	-	-	10.29 (100.00)	10.29 (100.00)
1999-2000	-	18.62 (100.00)	-	18.62 (100.00)	-	-	-	-	-	1.23 (100.00)	-	1.23 (100.00)
2000-01	472 (100.00)	-	-	472 (100.00)	-	-	-	-	34.51 (100.00)		-	34.51 (100.00)
2001-02	80 (100.00)	-	-	80 (100.00)	86	-	90	176	5.14 (100.00)		-	5.14 (100.00)
All	552 (11.35)	1264.62 (26.01)	3045 (62.64)	4861.62 (100.00)	5826 (43.51)	4021 (30.03)	3543 (26.46)	13390 (100.00)	39.65 (11.16)	98.20 (27.63)	217.54 (61.21)	355.39 (100.00)

Note:- Figures in brackets are percentage to total.

Source:- BSA Office Mau

Table III-9

Distribution of Inputs for Crops Production by Years in Mau District

Particulars	Years										
	1992-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-01	2001-02	Total
1. Nos. of Village Covered	N.A	2	48	28	22	24	N.A	N.A	18	2	144
2. Nos. of Borings	N.A	6	108	90	119	119	N.A	N.A	-	11	442
3. Nos. of Pumping Sets	N.A	6	108	90	119	119	N.A	N.A	-	11	442
4. Distributed quantity of Gypsum (M.T)	N.A	885.85 (3.60)	3081.26 (3.08)	2250.00 (2.19)	930.20 (1.01)	1128.42 (1.18)	N.A	N.A	2239.529 (4.74)	N.A	8275.73 (1.79)
5. Distributed quantity of seed of green Manuring (Qtls)	N.A	147.60 (0.60)	237.43 (0.24)	261.25 (0.15)	210.00 (0.23)	N.A	N.A	N.A	282.00 (0.60)	N.A	1138.28 (0.25)
6. Distributed quantity of seed of Paddy (qtls)	N.A	5.782 (0.23)	N.A	N.A	NA	N.A	N.A	N.A	N.A	N.A	5.782 (0.23)
7. Distributed quantity of Fertilizers (Qtls)	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
a. Urea	N.A	9.642 (0.0392)	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	9.642 (0.0392)
b. DAP	N.A	8.683 (0.0353)	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	8.683 (0.0353)
c. Zinc	N.A	2.25 (0.009)	N.A	NA	N.A	N.A	N.A	N.A	N.A	N.A	2.25 (0.009)
8. Distributed Quantity of Seed of Wheat (Qtl)	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
9. Distributed quantity of Fertilizers	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
a. Urea	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
b. DAP	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A
c. Zinc	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A

1. Note- Figures in brackets are per hectare reclaimed Area.
2. Source-BSA Office Mau.

3. Data were not maintained in systematic manner at Mau Distt.

Table III-4

Distribution of Inputs for Different activities by Years in Ghaziabad District

Particulars	Years									
	1993-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-01	2001-02	Total
1. Nos. of Village Covered	36	30	33	22	18	14	-	-	-	154
2. Nos. of Boring	112 (6.00)	280 (4.00)	250 (4.00)	200	109	-	-	-	5	956
3. Nos. of Pumping Sets	112 (6.00)	280 (4.00)	250 (4.00)	200 (4.00)	109 (4.00)	-	-	-	5 (4.00)	956 (4.00)
4. Distributed quantity of Gypsum (M.T)	819.00 (1.13)	3783.00 (2.91)	1820.00 (1.82)	850.00 (1.95)	617.15 (1.33)	-	-	-	-	7889.15 (1.48)
5. Distributed quantity of seed of green Manuring (Qtls)	260.00 (0.36)	352.00 (0.27)	456.07 (0.45)	322.00 (0.74)	180.00 (0.39)	-	-	-	-	1570.07 (0.26)
6. Distributed quantity of seed of Paddy (qtls)	-	350.00 (0.27)	264.90 (0.26)	-	102.20 (0.23)	-	-	-	-	717.10 (0.27)
7. Distributed Qty.of Fer. (Qtls)	-	-	-	-	-	-	-	-	-	-
a. Urea	-	-	1960.02 (1.96)	1600.00 (2.00)	974.65 (2.24)	-	-	-	-	4534.67 (2.00)
b. DAP	-	-	-	-	-	-	-	-	-	-
c. Zinc	-	-	-	-	-	-	-	-	-	-
8. Distributed Quantity of Seed of Wheat (Qtls)	-	-	585.40 (0.57)	-	300.40 (0.69)	-	-	-	-	885.80 (0.62)
9. Distributed quantity of Fertilizers (Qtls)	-	-	-	-	-	-	-	-	-	-
a. Urea	-	-	1947.73 (1.95)	-	-	-	-	-	-	1947.73 (1.95)
b. DAP	-	-	-	-	-	-	-	-	-	-
c. Zinc	-	-	-	-	-	-	-	-	-	-

Note- Figures in brackets are per hectare use of inputs.

Source-BSA Office Ghaziabad.
Data were not maintained systematic manner.

Table III-10

Year-Wise Reclaimed Area, Number of Farmers Covered and Allocated Funds in Etah District

Years	Area Reclaimed (Hect.)				Nos. of Beneficiaries Units				Financial Allocation Units			
	Units				Units							
	I	II	III	Total	I	II	III	Total	I	II	III	Total
1993-94	118.00	-	-	118.00	153	-		153	2757431	-		2757431 (23368.06)
1994-95	884.73	-	-	884.73	1301	-		1301	14470183	-		14470183 (16355.48)
1995-96	959.34	-	-	959.34	1503	-		1503	14500292	-		14500292 (15114.86)
1996-97	1768.74	-	-	1768.74	2059	-		2059	22039668	-		22039668 (12460.66)
1997-98	1672.07	-	-	1672.07	2429	-		2429	31109652	-		31109652 (18605.47)
1998-99	2664.79	-	-	2664.79	3070	-		3070	52255909	-		52255909 (19609.77)
1999-2000	2435.87	1490.881	1306.169	5232.920	3102	1772	1982	6826	48093249	34044032	34855063	116992344 (22356.99)
2000-01	1759.35	838.491	1124.428	3722.269	2478	1383	2042	5903	52390933	30720677	40476684	123588294 (33202.41)
2001-02	2425.658	1818.14	1583.775	5828.573	4164	2606	2491	9261	38996042	40236981	42446940	121679963 (20876.67)
Total	14688.548	4148.512	4014.372	22851.432	20259	5761	6485	32505	276613359	105001690	117778687	499393736 (21853.94)

Note: Figures in brackets are per hectare cost of reclamation of Usar Land.
Source: UPBSN Etah District

Table III-15

Year-Wise Reclaimed Area, Number of Farmers Covered and Allocated Funds in Pratapgarh District

Years	Area Reclaimed (Hect.)				Nos. of Beneficiaries Units				Financial Allocation Units			
	Units				Units				Units			
	I	II	III	All	I	II	III	All	I	II	III	All
1992-93	99.601	-		99.601	151			151		-	-	
1993-94	695.350	-		695.350	1084			1084	1197250	-	-	1197250 (1722)
1994-95	1174.780	-		1174.780	2003			2003	9867356	-	-	9867356 (8399)
1995-96	1607.322	-		1607.322	2312			2312	18444042	-	-	18444042 (11475)
1996-97	2109.867	-		2109.867	3171			3171	19079641	-	-	19079641 (9043)
1997-98	1650.010	-		1650.010	2587			2587	23530607	-	-	23530608 (14261)
1998-99	1667.829	-		1667.829	2931			2931	22967158	-	-	22967158 (13771)
1999-2000	1447.824	1076.676	1319.203	3843.703	2772	1766	3373	7911	53701514	27005927	28358500	109065941 (28375)
2000-01	1283.942	928.549	1548.782	3761.273	2499	1240	3312	7051	61865687	25495255	33450506	120811448 (32120)
2001-02	961.469	1544.687	1375.249	3881.405	2518	2722	2982	8222	41853080	48667757	24531500	115052337 (296.42)
Total	12697.994	3549.912	4243.234	20491.14	22028	5728	9667	37423	252506336	101168939	86340506	440015781 (21473)

Note: Figures in brackets are per hectare cost of reclamation of Usar Land.

Source: UPBSN Etah District

Table III-13

Distribution of Inputs to Adopted Farmers by Years in Etah District

Name of Activities	Years								
	1993-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-01	All
1. Nos. of Village Covered	2	10	8	15	20	20	57	65	197
2. Nos. of Boring	25	161	152	252	257	455	855	629	2786
3. Nos. of Pump Sets	25	161	152	252	257	455	855	629	2786
4. Distributed quantity of Gypsum (M.T)	1363.90 (11.55)	5954.89 (6.79)	6260.15 (6.53)	9385.35 (5.31)	15491.26 (9.26)	27301.60 (10.25)	52448.40 (10.02)	33394.65 (8.97)	151600.19 (8.91)
5. Distributed quantity Dhaincha (Qtls)	70 (0.59)	530.00 (0.60)	575.60 (0.60)	1060.00 (0.59)	1003.20 (0.60)	1600.00 (0.60)	3140.00 (0.60)	2230.00 (0.60)	10208.80 (0.60)
6. Distributed quantity of seed of Paddy (qtls)	46 (0.40)	157.28 (0.18)	326.70 (0.34)	5886 (0.33)	684.00 (0.41)	1140.00 (0.43)	2960.40 (0.56)	2631.50 (0.71)	9950.00 (0.58)
7. Distributed quantity of Fertilizers (Qtls)									
a. Urea	94.80 (0.80)	116.80 (1.32)	808.90 (0.84)	1000.00 (0.56)	2500.00 (1.50)	4450.00 (1.67)	7764.90 (1.48)	6516.30 (1.75)	24298.70 (1.42)
b. DAP	22.60 (0.19)	1861.00 (2.10)	880 (0.92)	400.00 (0.27)	1860.00 (1.11)	3300.00 (1.24)	6354.00 (1.21)	5458.00 (1.46)	19547.00 (1.14)
c. Zinc	17.60 (0.15)	216.90 (0.25)	215.60 (0.25)	365.40 (0.21)	436.60 (0.26)	730.00 (0.27)	1544.20 (0.30)	1115.50 (0.30)	4641.80 (0.27)
8. Distributed Quantity of Seed of Wheat (Qtls)	106.00 (0.90)	634.70 (0.72)	965.70 (1.00)	1019.00 (0.58)	1420.00 (0.85)	2280.00 (0.85)	3987.10 (0.76)	3412.00 (0.92)	13824.50 (0.81)
9. Distributed quantity of Fertilizers (qtls)									
a. Urea	51.30 (0.43)	681.70 (0.77)	1818.50 (1.90)	2130.00 (1.20)	2900.00 (1.73)	4067.50 (1.53)	8002.70 (1.53)	6445.70 (1.73)	26097.40 (1.53)
b. DAP	43.70 (0.37)	453.10 (0.52)	698.40 (0.73)	8000.00 (0.45)	1074.50 (0.64)	1695.20 (0.63)	3532.70 (0.67)	2478.10 (0.67)	10775.70 (0.63)
c. Zinc	29.00 (0.26)	153.90 (0.17)	201.10 (0.21)	160.00 (0.091)	312.30 (0.19)	467.80 (0.17)	1004.80 (0.19)	710.02 (0.19)	3039.10 (0.18)

Note- Figures in brackets are per hectare.

Source-UPBSN. Etah- District. Variation in per hectare as per norm is due to taking three categories of Usar Land.

Table III-14

Allocation of Funds in Different Activities of Usar Reclamation in Etah District

Years	Boring	Land Development	Drainage	Soil Amendment	Crop Production	Total
1993-94	134050 (3.62)	433722 (11.72)	61451 (1.66)	1636680 (44.22)	1435418 (38.78)	3701321 (100.00)
1994-95	859740 (4.22)	28804484 (14.14)	314525 (1.55)	7145868 (35.09)	9167414 (45.00)	20368031 (100.00)
1995-96	811680 (3.99)	2974429 (14.63)	267346 (1.31)	7512000 (36.97)	8759299 (43.10)	20324754 (100.00)
1996-97	1559282 (6.81)	5094761 (22.25)	299302 (1.31)	11262420 (49.19)	4678819 (20.44)	22894584 (100.00)
1997-98	1585980 (3.80)	5458268 (13.09)	396301 (0.95)	18589500 (4459)	15663469 (37.57)	41693518 (100.00)
1998-99	2429700 (3.52)	8876437 (12.87)	578726 (0.84)	32761920 (47.51)	24315140 (35.26)	68961923 (100.00)
1999-2000	2146680 (3.33)	8289665 (12.84)	547273 (0.85)	29108400 (45.10)	24439219 (37.88)	64531237 (100.00)
2000-01	1569960 (3.26)	6532695 (13.56)	356168 (0.74)	21696000 (45.02)	18028254 (37.42)	48183077 (100.00)
2001-02	2091180 (3.32)	15557908 (24.71)	285090 (0.46)	17706369 (28.12)	27317183 (43.39)	62957730 (100.00)
Total	13188252 (3.73)	56098369 (15.86)	3106182 (0.87)	147419157 (41.69)	133804215 (37.85)	353616175 (100.00)

Note- Figures in brackets are percentage to total.

Table III-17

Allocation of Funds in Different Important Activities of Usar Reclamation in Pratapgarh District (Unit-I)

(Rs.)

Years	**Boring**	Land Development	**Drainage**	Sail Amendment	Crop Production	Others	Total
1992-93	N.A	N.A	N.A	N.A	N.A	N.A	N.A
1993-94	10994 (0.92)	16509 (1.39)	-	844553 (70.54)	321689 (26.86)	3505 (0.29)	1197250 (100.00)
1994-95	487138 (4.94)	101364 (1.03)	-	5714794 (57.92)	3038625 (30.79)	525435 (5.32)	9867356 (100.00)
1995-96	306910 (1.67)	1028163 (5.57)	-	11576765 (62.77)	5062225 (27.45)	469979 (2.54)	18444042 (100.00)
1996-97	430881 (2.26)	362325 (1.90)	3855569 (20.21)	8592559 (45.04)	5185299 (27.19)	653008 (3.42)	19079641 (100.00)
1997-98	1171900 (4.98)	581919 (2.47)	245000 (1.04)	12853263 (54.62)	7937357 (33.74)	741169 (3.15)	23530608 (100.00)
1998-99	873841 (3.80)	753999 (3.29)	-	12851868 (55.96)	7554285 (32.89)	933165 (4.06)	22967158 (100.00)
1999-2000	416008 (0.77)	669467 (1.25)	1466605 (2.73)	16093805 (29.97)	8645509 (16.10)	26410120 (49.18)	53701514 (100.00)
2000-01	1114839 (1.80)	225403 (0.36)	15323952 (24.77)	17345028 (28.04)	6374792 (10.30)	21481672 (34.73)	61865686 (100.00)
2001-02	533416 (1.27)	57050 (0.14)	3270675 (7.82)	16961970 (40.53)	6563184 (15.68)	14466784 (34.56)	41853079 (100.00)
Total	5345927 (2.18)	3796199 (1.50)	24161801 (9.57)	102834605 (40.73)	50682965 (20.01)	65684837 (26.01)	252506334 (100.00)

Note: Figures in brackets are percentage to total funds

Source- UPBSN Pratapgarh District

Table-III-12

Allocation of Funds for Different Activities in Etah District

Years	Boring		Pumpset		Land Development			Drainage		
	Total	**Subsidy**	**Total**	**Farmers**	**Total**	**Subsidy**	**Farmers Share**	**Total**	**Subsidy**	**Farmers Share**
1993-94	**134050 (100.00)**	**134050 (100.00)**	**360000 (100.00)**	**360000 (100.00)**	**433722 (100.00)**	**43248 (9.97)**	**390474 (90.03)**	**61451 (100.00)**	**11382 (18.52)**	**50069 (81.49)**
1994-95	**859740 (100.00)**	**859740 (100.00)**	**2415000 (100.00)**	**2415000 (100.00)**	**2880484 (100.00)**	**254838 (8.85)**	**2625646 (91.15)**	**314525 (100.00)**	**314525 (100.00)**	**- (-)**
1995-96	**811680 (100.00)**	**811680 (100.00)**	**2280000 (100.00)**	**2280000 (1100.00)**	**2974429 (100.00)**	**250711 (8.43)**	**2723718 (91.57)**	**267346 (100.00)**	**267346 (100.00)**	**-** (-)
1996-97	**1559282 (100.00)**	**1559282 (100.00)**	**4380000 (100.00)**	**4330000 (100.00)**	**5094761 (100.00)**	**396657 (7.78)**	**4698104 (92.22)**	**299302 (100.00)**	**299302 (100.00)**	**- (-)**
1997-98	**1585980 (100.00)**	**1585980 (100.00)**	**4455000 (100.00)**	**4455000 (100.00)**	**5458268 (100.00)**	**487911 (8.94)**	**49703057 (91.06)**	**396301 (100.00)**	**396301 (100.00)**	**- (-)**
1998-99	**2429700 (100.00)**	**2429700 (100.00)**	**6825000 (100.00)**	**6825000 (100.00)**	**8876437 (100.00)**	**812535 (9.15)**	**8063902 (90.85)**	**578726 (100.00)**	**578726 (100.00)**	**- (-)**
1999-2000	**2146680 (100.00)**	**2146680 (100.00)**	**6030000 (100.00)**	**6030000 (100.00)**	**8289665 (100.00)**	**771198 (9.30)**	**7518467 (90.70)**	**547273 (100.00)**	**547273 (100.00)**	**- (-)**
2000-01	**1569960 (100.00)**	**1569960 (100.00)**	**4410000 (100.00)**	**4410000 (100.00)**	**6532695 (100.00)**	**629072 (9.63)**	**5903623 (90.37)**	**356168 (100.00)**	**356168 (100.00)**	**- (-)**
2001-02	**2091180 (100.00)**	**2091180 (100.00)**	**6075000 (100.00)**	**6075000 (100.00)**	**15557908 (100.00)**	**7249431 (46.60)**	**8308477 (53.40)**	**285090 (100.00)**	**285090 (100.00)**	**- (-)**
Total	**13188252 (100.00)**	**13188252 (100.009)**	**37230000 (100.00)**	**37230000 (100.00)**	**56098369 (100.00)**	**10895601 (19.43)**	**45202768 (80.57)**	**3106182 (100.00)**	**3056113 (98.38)**	**50069 (1.62)**

Continued on next page.

Table-III-12

Continued

Years	Soil Amended			Crop Production			Grand Total		
	Total	**Subsidy**	**Farmers share**	**Total**	**Subsidy**	**Farmers Share**	**Total**	**Subsidy**	**Farmers Share**
1993-94	**1636680 (100.00)**	**1636680 (100.00)**	**- (-)**	**1435418 (100.00)**	**662013 (46.12)**	**773405 (53.88)**	**4061312 (100.00)**	**2487373 (61.24)**	**1573948 (38.76)**
1994-95	**7145868 (100.00)**	**7145868 (100.00)**	**- (-)**	**9167414 (100.00)**	**3792808 (41.37)**	**5374606 (58.63)**	**22783031 (100.00)**	**12367779 (54.28)**	**10415252 (45.72)**
1995-96	**7512000 (100.00)**	**7512000 (100.00)**	**- (-)**	**8759299 (100.00)**	**3643605 (41.59)**	**5115694 (58.41)**	**22604754 (100.00)**	**12485342 (55.24)**	**10119412 (44.76)**
1996-97	**11262420 (100.00)**	**10887006 (96.66)**	**375414 (3.34)**	**4678819 (100.00)**	**528297 (11.29)**	**4150522 (88.71)**	**27274584 (100.00)**	**13670544 (50.12)**	**13604040 (49.88)**
1997-98	**18589500 (100.00)**	**17969850 (96.66)**	**619650 (3.34)**	**15663469 (100.00)**	**6623284 (42.28)**	**9040185 (57.72)**	**46148518 (100.00)**	**27063326 (58.65)**	**19085192 (41.35)**
1998-99	**32761920 (100.00)**	**31669856 (96.66)**	**1092064 (3.34)**	**24315140 (100.00)**	**13883451 (57.10)**	**10431689 (42.90)**	**75786923 (100.00)**	**49374268 (65.15)**	**26412655 (34.85)**
1999-2000	**29108400 (100.00)**	**2838120 (96.66)**	**970280 (3.34)**	**24439219 (100.00)**	**10361120 (12.40)**	**14078099 (57.60)**	**70561237 (100.00)**	**41964391 (59.47)**	**28596846 (40.53)**
2000-01	**21696000 (100.00)**	**20972800 (96.66)**	**723200 (3.34)**	**18028254 (100.00)**	**7806958 (43.30)**	**10221296 (56.70)**	**52593077 (100.00)**	**31334958 (59.58)**	**21258119 (40.42)**
2001-02	**17706369 (100.00)**	**17147262 (96.84)**	**559107 (3.16)**	**27317183 (100.00)**	**11780983 (43.12)**	**15536200 (56.88)**	**69032730 (100.00)**	**38553946 (55.85)**	**30478784 (44.15)**
Total	**147419157 (100.00)**	**143079442 (97.06)**	**4339715 (2.94)**	**133804215 (100.00)**	**59082519 (44.16)**	**74721696 (55.84)**	**390846175 (100.00)**	**229301927 (58.66)**	**161544248 (41.34)**

Table III-18
Distribution of Inputs to Adopted Farmers by Years in Pratapgarh

Years	**No. of village covered**	**Area reclaimed (Hect.)**	**Nos. of Borings**	**Quantity of Gypsum (MT)**	**Quantity of Dhaincha (qtls)**	**Paddy**				Wheat			
						Qty. of seed (qtls)	Fertilizer Qty. (qtls)			Qty. of seed Qtls	Fertilizer Qty. (qtls)		
							Urea	DAP	Link		Urea	DAP	Link
1993-94	**16**	**695.350**	**74**	**5375 (7.73)**	**319 (0.45)**	**346 (0.50)**	1148 (1.65)	109 (0.16)	253 (0.36)	619 (0.89)	1633 (2.35)	432 (0.62)	134 (0.19)
1994-95	**14**	**1174.780**	**127**	**9682 (8.24)**	**504 (0.42)**	**462 (0.39)**	1577 (1.34)	181 (0.15)	375 (0.32)	1133 (0.96)	2076 (1.77)	829 (0.70)	249 (0.24)
1995-96	**25**	**1607.322**	**158**	**10304 (6.41)**	**764 (0.47)**	**530 (0.33)**	1519 (0.95)	191 (0.12)	324 (0.20)	1045 (0.65)	2091 (1.30)	846 (0.52)	252 (0.16)
1996-97	**31**	**2109.867**	**230**	**11343 (5.38)**	**1000 (0.47)**	**827 (0.39)**	2186 (1.04)	247 (0.12)	454 (0.21)	1558 (0.74)	2772 (1.31)	1143 (0.54)	328 (0.16)
1997-98	**21**	**1650.010**	**192**	**10606 (6.43)**	**1001 (0.60)**	**782 (0.47)**	1930 (1.17)	237 (0.14)	436 (0.26)	1449 (0.88)	2690 (1.63)	1052 (0.63)	292 (0.18)
1998-99	**34**	**1667.829**	**237**	**12380 (7.42)**	**953 (0.57)**	**744 (0.45)**	1921 (1.15)	257 (0.15)	393 (0.24)	1351 (0.81)	2732 (1.63)	1158 (0.69)	307 (0.18)
1999-2000	**67**	**3843.703**	**841**	**32627 (8.49)**	**1269 (0.33)**	**2149 (0.55)**	5285 (1.36)	398 (0.10)	1083 (0.27)	3731 (0.96)	6155 (1.60)	2807 (0.79)	730 (0.18)
2000-01	**69**	**3761.273**	**800**	**32600 (8.67)**	**NA**	**2071 (0.55)**	5964 (1.59)	427 (0.11)	1188 (0.32)	3695 (0.98)	6931 (1.84)	2773 (0.74)	768 (0.20)
2001-02	**93**	**3881.405**	**788**	**32898 (8.46)**	**NA**	**1867 (0.48)**	6060 (1.56)	439 (0.11)	1200 (0.31)	3795 (0.98)	-	-	-
Total	**370**	**20391.539**	**3447**	**157815 (7.74)**	**5810 (0.46)**	**9778 (0.48)**	27590 (1.35)	2486 (0.12)	5706 (0.28)	18376 (0.90)	27080 (1.64)	11040 (0.67)	3060 (0.19)

N. B. - Figures in bracket are per hectare quantity.
Source- UPBSN, Pratapgarh District.

Table-III-8 (A)

Financial allocation in different activities of Usar Reclamation Programme in Distt. Mau.

(in Rs.)

Sl. No.	Heads	1992-93			1993-94			1994-95			1995-96		
		Expend -iture	Subsidy	Farmer Shares	Expendit -ure	Subsidy	Farmer Shares	Expendit -ure	Subsidy	Farmer Shares	Expendit -ure	Subsidy	Farmer Shares
1	Boring	-	-	-	0.36 (100.00)	0.36 (100.00)	- (-)	5.40 (100.00)	5.40 (100.00)	- (-)	4.50 (100.00)	4.50 (100.00)	- (-)
2	Pumpsets	-	-	-	0.72 (100.00)	0.36 (50.00)	0.36 (50.00)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
3	Land Development	-	-	-	5.53 (100.00)	5.53 (100.00)	- (-)	30.00 (100.00)	30.00 (100.00)	30.00 (100.00)	- (-)	41.00 (100.00)	41.00 (100.00)
4	Drainage	-	-	-	1.76 (100.00)	1.76 (100.00)	- (-)	10.00 (100.00)	10.00 (100.00)	- (-)	-	-	-
5	Soil Amendments	-	-	-	10.63 (100.00)	5.67 (53.34)	4.96 (46.66)	27.42 (100.00)	14.37 (52.40)	13.05 (47.60)	12.55 (100.00)	6.57 (52.35)	5.98 (47.65)
6	Crop Production	-	-	-	3.15 (100.00)	1.97 (62.54)	1.18 (37.46)	2.00 (100.00)	2.00 (100.00)	- (-)	2.39 (100.00)	2.39 (100.00)	- (-)
	Over All	-	-	-	22.15 (100.00)	15.65 (70.65)	6.50 (29.35)	74.82 (100.00)	61.77 (82.56)	13.05 (17.44)	60.44 (100.00)	54.46 (90.11)	5.98 (9.89)

Table-III-8 (B)

Financial allocation in different activities of Usar Reclamation Programme in Distt. Mau.

(in Rs.)

Sl. No.	Heads	1996-97			1997-98			1998-99			1999-2000		
		Expend-iture	Subsidy	Farmer Shares	Expendit-ure	Subsidy	Farmer Shares	Expendit-ure	Subsidy	Farmer Shares	Expendit-ure	Subsidy	Farmer Shares
1	Boring	7.14 (100.00)	7.14 (100.00)	(-) (-)	7.14 (100.00)	7.14 (100.00)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
2	Pumpsets	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
3	Land Development	48.35 (100.00)	48.35 (100.00)	- (-)	59.03 (100.00)	59.03 (100.00)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
4	Drainage	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
5	Soil Amendments	10.50 (100.00)	5.25 (50.00)	5.25 (50.00)	12.73 (100.00)	6.37 (50.00)	6.36 (50.00)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
6	Crop Production	1.85 (100.00)	1.85 (100.00)	- (-)	0.08 (100.00)	0.08 (100.00)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)
	Over All	67.84 (100.00)	62.59 (92.26)	5.25 (7.74)	78.98 (100.00)	72.62 (91.95)	6.36 (8.05)	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)

Table-III-8 (C)

Financial allocation in different activities of Usar Reclamation Programme in Distt. Mau.

(in Rs.)

Sl. No.	Heads	2000-01			20001-2002			All		
		Expend-iture	Subsidy	Farmer Shares	Expendit-ure	Subsidy	Farmer Shares	Expendit-ure	Subsidy	Farmer Shares
1	Boring	- (-)	- (-)	- (-)	0.66 (100.00)	0.66 (100.00)	- (-)	25.20 (100.00)	25.20 (100.00)	- (-)
2	Pumpsets	- (-)	- (-)	- (-)	1.20 (100.00)	0.90 (75.00)	0.30 (25.00)	1.92 (100.00)	1.26 (65.62)	066 (34.38)
3	Land Development	- (-)	- (-)	- (-)	2.28 (100.00)	1.92 (84.22)	0.36 (15.78)	186.19 (100.00)	185.83 (99.81)	0.36 (0.19)
4	Drainage	- (-)	- (-)	- (-)	1.00 (100.00)	1.00 (100.00)	- (-)	12.76 (100.00)	12.76 (100.00)	- (-)
5	Soil Amendments	34.51 (100.00)	25.88 (74.99)	8.63 (25.01)	- (-)	- (-)	- (-)	108.33 (100.00)	64.11 (59.18)	44.22 (40.82)
6	Crop Production	- (-)	- (-)	- (-)	- (-)	- (-)	- (-)	9.47 (100.00)	8.29 (87.54)	1.18 (12.46)
	Over All	34.51 (100.00)	25.88 (74.99)	8.63 (25.01)	5.14 (100.00)	4.48 (87.16)	0.66 (12.84)	343.87 (100.00)	297.45 (86.50)	46.42 (13.50)

N.B. 1- Figures in brackets are Percentage share to total funds.

2- Source B. S. A. Office Mau.

3- The allocation share indifferent activities during 1992-93, 1998-99 and 1999-2000 was not included because data were not available

Table-IV-14
Share of Sample Farmers in Reclamation Cost of Usar Lands

(in Rs.)

Category of Farms	Earth Work				Paddy						Wheat						Dhaincha seed		Total All	
	OFD		Gypsum		Seed		Fertilizer		Irrigation		Seed		Fertilizer		Irrigation					
	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share	Total Expe.	Farm-ers Share
B	3723	-	2288	1144 (50.00)	540	270 (50.00)	480	240 (50.00)	1139	683 (60.00)	1004	502 (50.00)	4.39	-	1125	675 (60.00)	281	-	11019	3514 (31.89)
C	3422	-	2787	2090 (75.00)	540	270 (50.00)	504	252 (50.00)	1243	745 (60.00)	1000	500 (50.00)	438	-	1221	733 (60.00)	282	-	11437	4590 (40.13
Average	3487	-	2572	1607 (62.00)	520	270 (50.00)	363	181 (50.00)	1064	638 (60.00)	1001	501 (50.00)	438	-	1232	739 (60.00)	282	-	10979	3936 (35.85)

Figures in brackets are percentage of share of sample farmers.

Table-IV-13

Per Hectare Expenditure on Various Components for Usar Reclamation on Sample Farms

(Amt. in Rs.)

Category of Usar Land		OFD	Gypsum	Earth Works			Production Inputs			Dhaincha	All
				Seed	Fertilizer	Irrigation	Seed	Fertilizer	Irrigation		
B	5.830	21708	13340	3154	2798	6646	5853	2558	6559	1639	64255
		(3723)	(2288)	(540)	(480)	(1139)	(1004)	(439)	(1125)	(281)	(11019)
C	20.855	71352	58122	11261	10511	25922	20860	9135	25475	5887	238525
		(3422)	(2787)	(540)	(504)	(1243)	(1000)	(438)	(1221)	(282)	(11437)
All	26.685	93060	68.643	14415	9679	28404	26713	11693	32875	7526	293008
		(34.87)	(2572)	(540)	(363)	(1064)	(1001)	(438)	(1232)	(282)	(10979)

Figures in brackets are per hectare expenditure.

Table-IV-15

Per Hectare Reclamation Cost of Usar Land on the Sample Farms Covered by UPBSN During 1996-97

(Amt. in Rs.)

Category of Usar Land	Reclaimed Area	**Name of the Components**														
		Boring & Pumping	Gypsum	Leaching	Drainage Development	Sub Total	Inputs									G. Total
							Paddy			Wheat						
							Seed	Fertilizer	Linc	Seed	Fertilizer	Linc	Mop	Green manuring	Sub total	
B	8.376	2964	12082	1413	190	16649	550	668	628	1068	981	219	151	1637	5902	22551
		(13.14)	(53.58)	(6.27)	(0.84)	(73.83)	(2.44)	(2.96)	(2.78)	(4.73)	(4.35)	(0.97)	(0.68)	(7.26)	(26.17)	(100.00)
C	13.916	3000	16090	1412	388	20890	594	1003	725	1250	1509	410	111	1088	6690	27580
		(10.88)	(58.34)	(5.12)	(1.41)	(75.74)	(2.15)	(3.64)	(2.63)	(4.53)	(5.47)	(1.49)	(0.40)	(3.94)	(24.26)	(100.00)
Average	22.292	2987	15525	1412	314	20238	578	877	689	1092	1310	338	126	1392	6402	26640
		(11.21)	(58.27)	(5.30)	(1.18)	(75.96)	(2.17)	(3.29)	(2.59)	(4.10)	(4.92)	(1.27)	(0.47)	(5.22)	(24.04)	(100.00)

Figures in brackets are percentage to total cost.

Table IV-16

Per Hectare Farmers and UPBSN Shares in the Cost of Different Components for Reclamation of Usar Lands on the Sample Farms, During 1996-97

(Amt. In Rs.)

Category of Farms	Components														
	Boring			Gypsum			Leaching			Drainage			Inputs		
	Total	Farmers	UPBSN	Total	Farmers	UPBSN	Total	Farmers	UPBSN	Total	Farmers	UPBSN	Total	Farmers	UPBSN
B	2964 (100.00)	-	2964 (100.00)	12082 (100.00)	283 (2.34)	11799 (97.66)	1413 (100.00)	-	1413 (100.00)	190 (100.00)	115 (60.53)	75 (39.47)	5902 (100.00)	-	5902 (100.00)
C	3000 (100.00)	-	3000 (100.00)	16090 (100.00)	364 (2.26)	15726 (97.74)	1412 (100.00)	-	1412 (100.00)	388 (100.00)	261 (67.26)	127 (32.74)	6690 (100.00)	-	6690 (100.00)
Average	2987 (100.00)	-	2987 (100.00)	15,525 (100.00)	356 (2.29)	15169 (97.71)	1412 (100.00)	-	1412 (100.00)	314 (100.00)	207 (65.92)	107 (34.08)	6402 (100.00)	-	6402 (100.00)

Note- Figures in brackets are percentage to total.

Table-IV-18

Paid Out Costs, Gross Income and Net Income on the Reclaimed Area during the Year 2001-02

(Amt. in Rs.)

Crops	Soil Conservation Department Categories Usar Land						Uttar Pradesh Bhumi Sudhar Nigam Categories Usar Land					
	B			C			B			C		
	Total Cost	Total Income	Net Income	Total Cost	Total Income	Net Income	Total Cost	Total Income	Net Income	Total Cost	Total Income	Net Income
Paddy	49799 (8924)	74069 (13274)	24270 (4350)	166425 (8757)	24957 (12889)	78532 (4132)	67060 (9412)	99996 (14034)	32936 (4622)	127195 (9383)	191908 (14157)	64713 (4774)
Wheat	54053 (9810)	89069 (16165)	35016 (6355)	172268 (9442)	300135 (16450)	127867 (7008)	86201 (12433)	141686 (20436)	55485 (8003)	137720 (10152)	219418 (16174)	81698 (6022)
Fodder	750 (3000)	1350 (5400)	600 (2400)	5610 (3032)	9450 (5108)	3840 (2076)	3750 (2998)	6455 (5160)	2705 (2162)	1080 (3086)	2100 (6000)	1020 (2914)
Other	1316 (4112)	2320 (7250)	1004 (3138)	9918 (3800)	16660 (6383)	6742 (2583)	5483 (4383)	8753 (6997)	3270 (2614)	1330 (922)	2200 (1525)	870 (603)
All Crops	105918 (9084)	166808 (14306)	60890 (5222)	354261 (8493)	571202 (13695)	216941 (5202)	162494 (9699)	256890 (15334)	94396 (5635)	267325 (9605)	415626 (14933)	148301 (5328)

Note- Figures in brackets are per hectare.

Table-IV-24

Crop-wise Employment days on Reclaimed Areas on the Sample Farms

(Days)

Crops	Soil Conservation Department						U.P.B.S.Nigam					
	B			C			B			C		
	Hired	Family	Total	Hired	Family	Total	Hired	Family	Total	Hired	Family	Total
Paddy	357 (45.94)	244 (52.14)	601 (48.27)	1217 (52.50)	938 (53.08)	2155 (52.75)	507 (47.78)	406 (46.14)	913 (47.04)	723 (49.15)	649 (52.55)	1372 (50.70)
Wheat	387 (49.81)	203 (43.38)	590 (47.39)	945 (40.77)	724 (40.98)	1669 (40.86)	439 (41.38)	384 (43.64)	823 (42.40)	693 (47.11)	561 (45.52)	1254 (46.34)
Fodder	15 (1.93)	5 (1.06)	20 (1.61)	65 (2.80)	35 (1.98)	100 (2.45)	59 (5.56)	40 (4.54)	99 (5.10)	30 (2.04)	10 (0.82)	40 (1.48)
Other	18 (2.32)	16 (3.42)	34 (2.73)	91 (3.93)	70 (3.96)	161 (3.94)	56 (5.28)	50 (5.68)	106 (5.46)	25 (1.70)	15 (1.21)	40 (1.48)
All Crops	777 (100.00)	468 (100.00)	1245 (100.00)	2318 (100.00)	1767 (100.00)	4085 (100.00)	1061 (100.00)	880 (100.00)	1941 (100.00)	1471 (100.00)	1235 (100.00)	2706 (100.00)

Note- Figures in brackets are percentage to all crops.

Table-IV-25

Per-hectare Employment days in Different Crops on the Sample Farms

(Days)

Crops	Soil Conservation Department						G. Total	UPBSN						G. Total
	B			C				B			C			
	Hired	Family	Total	Hired	Family	Total		Hired	Family	Total	Hired	Family	Total	
Paddy	63.98	43.73	107.71	64.04	49.36	113.40	112.10	71.16	56.98	128.14	53.33	47.87	101.20	110.48
Wheat	70.23	36.84	107.07	51.80	39.68	91.48	95.09	62.78	54.91	117.69	51.08	41.35	92.43	101.37
Fodder	60.00	20.00	80.00	35.13	10.92	54.05	57.14	47.16	31.97	79.13	83.33	27.78	111.11	86.28
Other	56.25	50.00	106.25	34.87	26.82	61.69	66.55	38.80	34.65	73.45	71.42	42.86	114.28	81.43
Average	66.64	40.14	106.78	55.57	42.36	97.93	99.87	63.33	52.53	115.86	52.85	44.37	97.22	104.25

Table-IV-28

Area under Different Crops on Reclaimed Land during 1997-98 to 2001-2002

(Area in hectares)

Years	Soil Conservation Department										**UPBSN**									
	Categories Usar Land										Categories Usar Land									
	B Crops					C Crops					B Crops					C Crops				
	Paddy	Wheat	Fodder	Othe -r	total	Paddy	Wheat	Fo- dder	Other	Total	Paddy	Wheat	Fodde -r	Other	Total	Paddy	Whea -t	Fodde -r	Other	Total
1997-98	5.830 (50.00)	5.130 (44.00)	0.400 (3.43)	0.300 (2.57)	11.660 (100.00)	20.855 (50.00)	18.885 (45.28)	1.710 (4.09)	0.260 (0.63)	41.710 (100.00)	8.376 (50.00)	6.833 (40.79)	0.200 (1.19)	1.343 (8.02)	16.7 52 (100.00)	13.916 (50.00)	13.511 (48.54)	0.200 (0.72)	0.205 (0.74)	27.832 (100.00)
1998-99	5.830 (50.00)	5.370 (46.05)	0.160 (1.37)	0.300 (2.58)	11.660 (100.00)	20.855 (50.00)	18.885 (45.27)	1.710 (4.10)	0.260 (0.63)	41.710 (100.00)	8.376 (50.00)	6.832 (40.78)	0.251 (1.50)	1.293 (7.72)	16.752 (100.00)	13.916 (50.00)	13.511 (48.54)	0.100 (0.37)	0.305 (1.09)	27.832 (100.00)
1999-00	5.830 (50.00)	5.290 (45.37)	0.240 (2.05)	0.300 (2.58)	11.660 (100.00)	20.855 (50.00)	16.445 (39.42)	1.800 (4.31)	2.610 (6.27)	41.710 (100.00)	8.376 (50.00)	6.833 (40.79)	0.143 (0.85)	1.400 (8.36)	16.752 (100.00)	13.916 (50.00)	13.511 (48.54)	0.250 (0.90)	0.155 (0.56)	27.832 (100.00)
2000-01	5.580 (47.85)	5.520 (47.34)	0.250 (2.15)	0.310 (2.66)	11.660 (100.00)	19.055 (45.68)	18.245 (43.74)	1.800 (4.32)	2.610 (6.26)	41.710 (100.00)	8.125 (48.50)	7.084 (42.29)	0.251 (1.50)	1.292 (7.71)	16.752 (100.00)	13.566 (48.74)	13.616 (48.92)	0.350 (1.26)	0.300 (1.08)	27.832 (100.00
2001-02	5.580 (47.86)	5.510 (47.25)	0.250 (2.14)	0.320 (2.75)	11.660 (100.00)	19.005 (45.56)	18.245 (43.74)	1.850 (4.44)	2.610 (6.26)	41.710 (100.00)	7.125 (42.33)	6.933 (41.38)	1.251 (7.47)	1.443 (8.62)	16.752 (100.00)	13.556 (48.70)	13.566 (48.74)	0.360 (1.29)	0.350 (1.27)	27.832 (100.00)

Figures in brackets are percentage to total.

Table-IV-33

Attitude and Opinions of Adopted Farmers Regarding Programme of Usar Reclamation in U.p.

Sl no.	Particular	Soil Conservation Department Categories of Farm		**UPBSN** Categories of Farm	
		B	C	B	C
1	Do you satisfy with programme ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
2	How many members are in your project unit ?	8 (100.00)	12 (24.00)	9 (100.00)	12 (100.00)
3	Do you satisfy with secretary functioning ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
4	Do you satisfy with the farm development programme ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
5	Is boring function properly ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
6	Are you getting water as per crop demand ?	10 (100.00)	45 (90.00)	24 (100.00)	36 (100.00)
7	Do you satisfy with functioning of pumpset/ boring ?	8 (80.00)	40 (80.00)	24 (100.00)	31 (86.11)
8	Did you get adequate of gypsum & pyrite ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
9	Did you receive adequate quantity of seed/ fertilizer time of reclamation year	50 (50.00)	20 (40.00)	24 (100.00)	36 (100.00)
10	Did you get subsidy on inputs ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
11	Was any bainess in distribution of input among the beneficiaries ?	10 (100.00)	42 (84.00)	24 (100.00)	30 (83.00)
12	What was attitude of officials in distribution of inputs ?	10 (100.00)	47 (94.00)	24 (100.00)	36 (100.00)
13	Did you satisfy with allotment of boring/ pumpset ?	10 (100.00)	35 (70.00)	24 (100.00)	17 (47.00)
14	Are you member of SHGS ?	- (-)	- (-)	1 (4.00)	17 (47.00)

15	What is opinion of NGOS in reclamation of Usar Land ?	- (-)	- (-)	20 (83.00)	26 (72.00)
16	Do you satisfy with the procedure adopted in selection of office bears ?	- (-)	- (-)	24 (100.00)	36 (100.00)
17	Are you member of farmer's club ?	- (-)	- (-)	18 (75.00)	14 (39.00)
18	Have project completed timely ?	10 (100.00)	30 (60.00)	24 (100.00)	28 (78.00)
19	Are you getting facility of soil testing ?	5 (50.00)	15 (30.00)	7 (29.00)	20 (56.00)
20	Did you get inputs according to PH soil ?	6 (60.00)	34 (68.00)	24 (100.00)	27 (75.00)
21	Are you getting effective communication, appropriate, literature ?	- (-)	- (-)	24 (100.00)	29 (80.00)
22	Is effective technology dissemination providing ?	- (-)	- (-)	24 (100.00)	33 (90.00)
23	Are you getting better banking facilities ?	- (-)	- (-)	14 (58.33)	18 (50.00)
24	Did you get in house training	- (-)	- (-)	-	-
25	How many times used Gypsum in usar land since ?	Once	Once	Once	Once
26	Did you apply teaching operations ?	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)
27	Are you growing manuring crop regularly ?	5 (50.00)	15 (30.00)	-	-
28	Are you using caw dung or other organic manuring regularly ?	6 (60)	10 (20.00)	16 (67.00)	15 (42.00)
	Total of Samples	10 (100.00)	50 (100.00)	24 (100.00)	36 (100.00)

Note- Figures in brackets are percentage to total sample

Table-3

Details of Works done by Indo-Dutch Project, Jyalikote Nainital during the last Seven Years

Sl.no.	Particulars	Weait	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1	Quantity of pesturalized compost prepared in the centre	Tonnes	115.65	97.83	99.300	145.400	77.573	73.573	44.120
2	No. of Growers who have been supplied compost	(nos)	33	07	20	63	35	21	19
3	Spawn prepared in centre (a) Button mushroom	(nos/bottle)	46	74	2254	3700	3056	1922	1213
	(b) Oyster mushrrom		28	229	173	150	336	400	226
4	Production of mushroom during Research 15 days	(kgs)	1459.550	2280.400	1099.00	100.00	884.650	800	950
5	No. of 15 days training to the growers	(nos)	341	472	463	601	270	270	230
6	No. of persons who were imparte100.95d technic-al guidance about mushroom cultivation	(No.)	233	364	368	196	401	400	450
7	Private Production/ mushroom production in society	(Qtl)	100.95	116.820	159.200	1428.330	1521.820	1600	1700
8	Registered society of mushroom producers	(No.)	-	-	4	4	4	4	4