DISTRICT IRRIGATION PLAN

BAKSA, ASSAM

NABCONS

NABARD CONSULTANCY SERVICES

District Irrigation Plan, 2016-2020

Baksa, Assam

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Foreword by DLIC

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Executive Summary

In an agrarian economy like India, agriculture utilizes the major share of country's exploitable water resources. Though the sector utilizes the maximum share of exploitable water resources, availability of the same at different locations to different extent makes it vital to adopt effective utilization of water through storage, channelizing and judicial use. At some places like Punjab and Haryana, the environmental and socio-economic rationale for this capture by the sector is now being questioned. Accordingly, it is needed to challenge and change the fundamentals of the prevailing view of water resources exploitation. A new and more suitable approach to water resources allocation is necessary if the population is to be adequately fed, without further degradation and destruction of the critical ecosystem services. Water productivity needs to be enhanced considerably, and economic cost-benefit analysis and pricing regimes can play a significant role in such a process. However, these economic measures will not be sufficient on their own. They will need to be buttressed by technological innovation and institutional changes in order to encourage a more equitable distribution of resources and to mitigate potential international conflicts across 'shared' water basins.

Water has unique characteristics that determine both its allocation and use as a resource by agriculture. Agricultural use of water for irrigation is itself contingent on land resources. In a situation of growing water scarcity and rising demands for non-agricultural (household and industrial) use of water, reassessment of sectoral allocations of water are inevitable. In developing countries, irrigated agriculture plays a vital role in contributing towards domestic food security and poverty alleviation. Therefore, achievement of these objectives is dependent on adequate allocations of water to agriculture. Justification of such allocations requires that irrigated agriculture be a cost-effective means of achieving stated political or social objectives, such as food security or poverty alleviation, and that all externalities be taken into account in the pricing mechanism. Improved allocation of irrigation water is required within the agriculture sectors in order to achieve greater efficiency in the use of irrigation water and existing irrigation infrastructure. Reallocation is also required in order to reduce waterlogging and salinization of irrigated land, to decrease the negative environmental impacts and other externalities of irrigation (caused by overextraction of groundwater and depletion and pollution of surface water).

Government of India launched Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) to address the constraints in providing assured irrigation as well as increasing efficiency and productivity of current water use to bring more prosperity to the rural areas. Priorities of Government of India were reflected in the Hon'ble President's address to the joint Session of the Parliament of 16th Lok Sabha where he indicated that "Each drop of water is precious. Government is committed to giving high priority to water security. It will complete the long pending

irrigation projects on priority and launch the 'Pradhan Mantri Krishi Sinchayee Yojana' with the motto of 'Har Khet Ko Pani'. There is a need for seriously considering all options including linking of rivers, where feasible; for ensuring optimal use of our water resources to prevent the recurrence of floods and drought. By harnessing rain water through 'Jal Sanchay' and 'Jal Sinchan', we will nurture water conservation and ground water recharge. Micro irrigation will be popularized to ensure 'Per drop-More crop".

PMKSY has been approved with an indicative outlay of Rs.50,000 crore over a period of five years from 2015-16 to 2019-20. The programme is an amalgamation of on-going schemes of Ministry of Water Resources, River Development and Ganga Rejuvenation, Ministry of Agriculture & Cooperation and Ministry of Rural Development. The existing schemes AIBP, CADWM, MI, SWMA, Watershed & Convergence with MGNREGA were brought together under the umbrella program of PMKSY. Further the scheme seeks convergence with scheme like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNRES), Rashtriya Krishi Vikas Yojana (RKVY), Jawaharlal Nehru National Solar Mission and Rural Electrification programmes (JLNNSM & REP), Rural Infrastructure Development Fund (RIDF), Members of Parliament Local Area Development Scheme (MPLAD), Members of Legislative Assembly Local Area Development Fund (MLALAD), Local Body Funds (LBF), Working Plan of State Forest Department (WPSFD) etc. The PMKSY will be implemented in an area development mode only by adopting a decentralized state level planning and projectised execution structure that will allow the state to draw up their own irrigation development plans based on DIPs and SIPs with a horizon of 5-7 years. The program will be supervised and coordinated utilizing the existing mechanism and structure available under Rashtriya Krishi Vikas Yojana (RKVY) program with state agriculture department acting as the State Nodal Agency for implementation of PMKSY. However, the implementing departments for the four components like AIBP, PMKSY (HarKhetKoPani), PMKSY (Per drop more crop) and PMKSY (watershed development) will be decided by the respective program ministry / department.

The 05 chapters along with introduction chapter, explains the profile of district, its water requirement for agriculture and allied sector, water availability, assessment of water requirement for various sectors and strategic action plan for augmentation and effective management of available water resources.

District Demography:

As per 2011 census, the total population of the district is 9,50,075 out of which population of female and male are 4,81,330 and 4,68,745 respectively. District is predominantly rural and around 98.7% of the population resides in rural area.

Agriculture in Baksa:

Cereals are the major crop among agricultural crops of the district. The area under cereals cultivation during 2014-15 was 113285 hectare which was around 68.7% of the total area under agricultural crops. Kharif is the main crop season for agricultural crops. Out of total 164862 hectare area under agriculture, 123123 hectare was cultivated during Kharif while 35019 hectare was cultivated during Rabi. In case of summer, the total area under agriculture is 6720 hectare only.

District Water Profile:

Baksa is one of the four new districts of Assam created after Census, 2001.The district contains a network of 3 major rivers namely Beki, Pagladia, and Barnadi and around 10 small rivers which are very active during the summer season. There are numerous springs and streams which are a good source of water for household use and small scale irrigation. The district is endowed with large number of Dongs (Natural Depressions) where water remains stagnant for a large part (around 8 months) of the year. Farming community is using dong water for irrigation of their crops since long. The ground water is good and remains at about 25 to 45 feet during winter.

Demand for water and the gap:

The present water demand of the district has been assessed at 1112.55 MCM annually, with Tamulpur being the block with maximum water requirement (156.13 MCM). Goreswar and Dhamdhama blocks stand at 2nd and 3rd position with 155.35 MCM and 142.15 MCM water required in the respective blocks. During 2020, projected total water requirement of the district has been assessed at 1117.54 MCM out of which maximum willbe for Tamulpurblock (156.73 MCM) followed by Goreswar (155.90 MCM) and Dhamdhamablocks (142.81 MCM).

PMKSY Financial Proposal:

Total plan of Baksadistrict for four years works out to be Rs. 2824.53 Crores (Table 5.2). Maximum share of Rs. 2566.91 Crores (90.9%) is for Irrigation Department followed by Soil Conservation with Rs. 172.97 Crores (6.1%). Share of Agriculture/Horticulture Department is Rs. 84.65Crores (3%).

Expected Outcome:

The gross irrigated area in the district is 22043 hectare which is around 13.37% of 164862hectare of the gross cropped area. Various departments of the district have proposed to bring additional acreage of land under irrigated cultivation system. As the water requirement of crops for the existing cropping pattern works out to be 1058.84MCM and if the gross cropped area is to be brought under irrigated area, 917.27MCM additional water is required.

Introduction

Background

Preparation of decentralized area specific district planning process visualized in various plans took concrete shape through the years and initiatives like specific guidelines on methodologies and processes for preparation of district plans; framework for preparation of perspective plan, medium term and annual plans by then planning commission in 1969 and the 73rd and 74th constitutional amendments conferring constitutional status to Panchayats at district and sub district level; local self-government in urban areas; constitution of district planning committee to consolidate the plans prepared at Panchayats and municipalities and prepare a draft development plan for the whole district.

The decentralized planning process was further strengthened through emphasis by planning commission on preparation of district level plans and making it an integral part of the process of preparation of the state's 11th five year plan. The Planning commission issued guidelines in August 2006 for preparation of the district plans. The guidelines define the District Planning as 'the process of preparing an integrated plan for the local government sector in a district taking into account the resources (natural, human and financial) available and covering the sectoral activities and schemes assigned to the district level and below and those implemented through local governments in a state. The document that embodies this statement of resources and their allocation for various purposes is known as the District Plan".

Government of India through a resolution in National Development Council on 29th May 2007 conceived a special Additional Central Assistance Scheme (ACAS) to address the slow growth of agriculture and allied sectors by incentivizing states to draw up plans for their agriculture sectors more comprehensively. The NDC resolution states "GoI will introduce a new Additional Central Assistance Scheme to incentivize states to draw up plans for their agriculture sector more comprehensively, taking agro-climatic conditions, natural resource issues and technology into account, and integrating livestock, poultry and fisheries, etc. This will involve a new scheme for Additional Central Assistance (ACA) to State Plans, administered by the Union Ministry of Agriculture over and above its existing Centrally Sponsored Schemes, to supplement the State-specific strategies including special schemes for beneficiaries of land reforms. The newly created National Rainfed Area Authority will, on request, assist States in planning for rainfed areas".

The NDC in its resolution advised the states to prepare a comprehensive district agriculture plans (C-DAP) that will fully utilize available resources and will include allied agriculture sectors. Further, GOI issued a manual on preparation of comprehensive district agriculture plans to help the states prepare C-DAP. As per these guidelines, the objective of district planning is 'to design an integrated and participatory action plan for the development of local area in general and agriculture and allied sectors in particular'. The objectives of Comprehensive District Agriculture Plan (C-DAP) are:

- To prepare a Comprehensive District Agriculture Plan (C-DAP) through participatory process involving various organisations and stakeholders.
- To enable optimum utilisation of scarce natural, physical & financial resources.

- To assess and plan for the infrastructure required to support the agriculture development.
- To establish linkages with the required institutional support services, like credit, technology transfer, ICT, research etc.
- To evolve an action plan for achieving sustainable agricultural growth with food security and cropping system that will improve farmers' income.

The guidelines required the state/district authorities to (i) ensure that the agricultural plans are prepared for the district and then integrated into the agricultural plans of the State based on the agro-climatic conditions, availability of technology, trained manpower and natural resources; (ii) local needs / crops / feed and fodder / animal husbandry / dairying / fisheries / priorities are reflected in the plan; (iii) productivity gaps for important crops and livestock and fisheries are reduced; and (iv) the returns to the farmers from these are maximized.

The latest move in the process of strengthening of decentralized planning process was the Government of India guidelines issued in 2015 in the form of a template for the preparation of District Irrigation Plan (DIP) and State Irrigation Plan (SIP) as part of the Pradhan MantriKrishiSinchayeeYojana (PMKSY) program and made the preparation of DIP and SIP mandatory for the states to receive funds from the program. The present report is a product of these long drawn efforts of Government of India to strengthen the decentralized planning process in the country focusing on the vital resource i.e., water.

Water is of vital importance for human & animal life, maintenance of ecological balance and promotion of developmental activities. Considering its vital importance and ever increasing demand for water, in the face of population growth, urbanization & industrialization and considerations of climatic change, making water, an increasingly a scarce resource, available to multiple uses, planning and management of this vital resources, utilization of water economically, optimally and equitably assumes greater importance.

According to the 12th Five year Plan the water budget estimates of India by Ministry of Water Resources suggests an availability of 1123 billion cubic meters (BCM) against a current estimated demand of 710 BCM. The Standing Committee of the Ministry of Water Resources estimates that this water demand will rise to 1093 BCM by 2025. Though the existing water availability in the immediate future seems to be adequate, with the near constant supply of water resources in the face of increasing demand on account of population growth, urbanisation and industrialization will strain the water supply-demand balance.

The per capita water availability which stood at 5,177 cubic meters in 1951 was reduced to 1820 cubic meters in 2001 while the international prescribed limit is 1800 cubic meters. The projected per capita availability of water is 1341 cubic meters in 2025 and 1140 cubic meters in 2050 suggesting shortage of water in the medium term[1]. Further, the all India water balance estimates does not reflect the variations in water balance across time and space- certain areas having a positive water balance and the others facing acute shortage. The problem is further accentuated by water quality related issues.

With the abundant surface and ground water supply in the first five decades since independence, more than 80 percent of the total available water resources were allocated for irrigation purposes and the rest meeting

[1]Ministry of Water Resources (2011), Strategic Plan for Ministry of Water Resources, Government of India, New Delhi.

the domestic and industrial demands. In a recent study[2]on the demand for water from agriculture, domestic and industrial uses in 2000, 2025 and 2050 seems to suggest that domestic demand (34 BCM in 2000, 66 BCM in 2025 and 101 BCM in 2050) and industrial demand (42 BCM in 2000, 92 BCM in 2025 and 161 BCM in 2050) for water will utilize the total balance water available while agriculture demand for water will be (605 BCM in 2000, 675 BCM in 2025 and 637 BCM in 2050). This change is partly because of the changing sectoral contributions of India's GDP and also partly because of dynamics of irrigation development in the country where the initial expansion in area under irrigation is propelled by the availability of abundant water resources and availability of good quality land. This is no longer the case in many of the states where the availability of land and water are serious constraints for further expansion of irrigation. Further, as per the erstwhile planning commission up to March 2012 out of 141 million hectares of net sown area in the country 114 (or 81%) million hectares is Irrigation Potential Created (IPC) and 88 (or 62%) million hectares is Irrigation Potential Utilised (IPU) leaving almost 20% of irrigated potential unutilized. This leaves 40 percent of the net sown area in the country dependent on rainfall which makes farming a high risk and less productive.

The competing demands for water resources and the emerging issues and concerns were to be addressed through certain basic principles and commonality in approaches in dealing with planning, development and management of water resources[3] under an Integrated Water Resource Management framework. The main objectives of water resource management as delineated in National Water Policy 2012 are:

a) Planning, development and management of water resources need to be governed by common integrated perspective considering local, regional, State and national context, having an environmentally sound basis, keeping in view the human, social and economic needs.
b) Principle of equity and social justice must inform use and allocation of water.
c) Good governance through transparent informed decision making is crucial to the objectives of equity, social justice and sustainability. Meaningful intensive participation, transparency and accountability should guide decision making and regulation of water resources.
d) Water needs to be managed as a common pool community resource held, by the state, under public trust doctrine to achieve food security, support livelihood, and ensure equitable and sustainable development for all.
e) Water is essential for sustenance of eco-system, and therefore, minimum ecological needs should be given due consideration.
f) Safe Water for drinking and sanitation should be considered as pre-emptive needs, followed by high priority allocation for other basic domestic needs (including needs of animals), achieving food security, supporting sustenance agriculture and minimum eco-system needs. Available water, after meeting the above needs, should be allocated in a manner to promote its conservation and efficient use.
g) All the elements of the water cycle, i.e., evapo-transpiration, precipitation, runoff, river, lakes, soil moisture, and ground water, sea, etc., are interdependent and the basic hydrological unit is the river basin, which should be considered as the basic hydrological unit for planning.
h) Given the limits on enhancing the availability of utilizable water resources and increased variability in supplies due to climate change, meeting the future needs will depend more on demand management,

[2]Amarasinghe, U.A., Shah T., Turral, H. and Anand, B.K. 2007. *India's water future to 2025-2050:Business-as-usual scenario and deviations*. Research Report 123, International Water Management Institute, Colombo.
[3]Ministry of Water Resources, National Water Policy, 2012, Government of India, New Delhi.

and hence, this needs to be given priority, especially through (a) evolving an agricultural system which economizes on water use and maximizes value from water, and (b) bringing in maximum efficiency in use of water and avoiding wastages.

i) Water quality and quantity are interlinked and need to be managed in an integrated manner, consistent with broader environmental management approaches inter-alia including the use of economic incentives and penalties to reduce pollution and wastage.

j) The impact of climate change on water resources availability must be factored into water management related decisions. Water using activities need to be regulated keeping in mind the local geo climatic and hydrological situation.

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The funds under this program would be provided to the states as per the pattern of assistance of Centrally Sponsored Schemes (CSS) decided by the Ministry of Finance and NITI Aayog. During 2015-16 the existing pattern of assistance of ongoing scheme was continued. An outlay of Rs. 50,000 crore has been approved for 2015-20. The financial assistance provided to the state governments from this centrally sponsored scheme is

subject to fulfillment of certain conditions.Firstly, a state will become eligible to access PMKSY fund only if it has prepared the District Irrigation Plans (DIP) and State Irrigation Plan (SIP), excepting for the initial year, and the expenditure in water resource development for agriculture sector in the year under consideration is not less than the baseline expenditure, which is defined as the average of the expenditure in irrigation sector irrespective of the department in the state plan in three years prior to the year under consideration. Secondly, States will be given additional weightage for levying charges on water and electricity for irrigation purposes, so as to ensure sustainability of the programme. Thirdly, interstate allocation of PMKSY fund will be decided based on

- Share of percentage of unirrigated area in the state vis-à-vis national average including prominence of areas classified under Desert Development Programme (DDP) and Drought Prone Area Development Programme (DPAP)
- Increase in percentage share of expenditure on water resource development for agriculture sector in State Plan expenditure in the previous year over three years prior to it and
- Improvement in irrigation efficiency in the state.

Vision

The overreaching vision of Pradhan MantriKrishiSinchayeeYojana (PMKSY) will be to ensure access to some means of protective irrigation to all agricultural farms in the country, to produce 'per drop more crop', thus bringing much desired rural prosperity.

Objective

The objectives of the PMKSY are to:

a) Achieve convergence of investments in irrigation at the field level (preparation of district level and, if required, sub district level water use plans).
b) Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (HarKhetkoPani),
c) Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.
d) Improve on-farm water use efficiency to reduce wastage and increase availability both in duration and extent,
e) Enhance the adoption of precision-irrigation and other water saving technologies (More crop per drop).
f) Enhance recharge of aquifers and introduce sustainable water conservation practices
g) Ensure the integrated development of rainfed areas using the watershed approach towards soil and water conservation, regeneration of ground water, arresting runoff, providing livelihood options and other NRM activities.
h) Promote extension activities relating to water harvesting, water management and crop alignment for farmers and grass root level field functionaries.
i) Explore the feasibility of reusing treated municipal waste water for peri-urban agriculture, and
j) Attract greater private investments in irrigation.

Strategy/approach

To achieve these objectives PMKSY adopted strategies that include

a) Creation of new water sources; repair, restoration and renovation of defunct water sources; construction of water harvesting structures, secondary & micro storage, groundwater development, enhancing potentials of traditional water bodies at village level like Jal Mandir (Gujarat); Khatri, Kuhl (H.P.); Zabo (Nagaland); Eri, Ooranis (T.N.); Dongs (Assam); Katas, Bandhas (Odisha and M.P.) etc.
b) Developing/augmenting distribution network where irrigation sources (both assured and protective) are available or created;
c) Promotion of scientific moisture conservation and run off control measures to improve ground water recharge so as to create opportunities for farmers to access recharged water through shallow tube/dug wells;
d) Promoting efficient water conveyance and field application devices within the farm viz, underground piping system, Drip & Sprinklers, pivots, rain-guns and other application devices etc.;
e) Encouraging community irrigation through registered user groups/farmer producers' organisations/NGOs; and
f) Farmer oriented activities like capacity building, training and exposure visits, demonstrations, farm schools, skill development in efficient water and crop management practices (crop alignment) including large scale awareness on more crop per drop of water through mass media campaign, exhibitions, field days, and extension activities through short animation films etc.

Programme Components

PMKSY has following four components:

1. Accelerated Irrigation Benefit Programme (AIBP): to focus on faster completion of ongoing Major and Medium Irrigation including National Projects.

2. PMKSY (HarKhetkoPani): This component focuses on-

a) Creation of new water sources through Minor Irrigation (both surface and ground water)
b) Repair, restoration and renovation of water bodies; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures (Jal Sanchay);
c) Command area development, strengthening and creation of distribution network from source to the farm;
d) Ground water development in the areas where it is abundant, so that sink is created to store runoff/ flood water during peak rainy season.
e) Improvement in water management and distribution system for water bodies to take advantage of the available source which is not tapped to its fullest capacity (deriving benefits from low hanging fruits). At least 10% of the command area to be covered under micro/precision irrigation.
f) Diversion of water from source of different location where it is plenty to nearby water scarce areas, lift irrigation from water bodies/rivers at lower elevation to supplement requirements beyond IWMP and MGNREGS irrespective of irrigation command.
g) Creating and rejuvenating traditional water storage systems like Khatri, Kuhl etc. at feasible locations.

3. PMKSY (Per Drop More Crop):

a) Programme management, preparation of State/District Irrigation Plan, approval of annual action plan, Monitoring etc.
b) Promoting efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm (Jal Sinchan);
c) Topping up of input cost particularly under civil construction beyond permissible limit (40%), under MGNREGS for activities like lining inlet, outlet, silt traps, distribution system etc.
d) Construction of micro irrigation structures to supplement source creation activities including tube wells and dug wells (in areas where ground water is available and not under semi critical/ critical/ over exploited category of development) which are not supported under AIBP, PMKSY (HarKhetkoPani), PMKSY (Watershed) and MGNREGS as per Taluka/district irrigation plan.
e) Secondary storage structures at tail end of canal system to store water when available in abundance (rainy season) or from perennial sources like streams for use during dry periods through effective on-farm water management;
f) Water lifting devices like diesel/ electric/ solar pumpsets including water carriage pipes, underground piping system.
g) Extension activities for promotion of scientific moisture conservation and agronomic measures including cropping alignment to maximise use of available water including rainfall and minimise irrigation requirement (Jal Sarankchan);
h) Capacity building, training and awareness campaign including low cost publications, use of pico projectors and low cost films for encouraging potential use water source through technological, agronomic and management practices including community irrigation.
i) The extension workers will be empowered to disseminate relevant technologies under PMKSY only after requisite training is provided to them especially in the area of promotion of scientific moisture conservation and agronomic measures, improved/ innovative distribution system like pipe and box outlet system, etc. Appropriate Domain Experts will act as Master Trainers.
j) Information Communication Technology (ICT) interventions through NeGP-A to be made use in the field of water use efficiency, precision irrigation technologies, on farm water management, crop alignment etc. and also to do intensive monitoring of the Scheme.

4. PMKSY (Watershed Development):

a) Effective management of runoff water and improved soil & moisture conservation activities such as ridge area treatment, drainage line treatment, rain water harvesting, in-situ moisture conservation and other allied activities on watershed basis.
b) Converging with MGNREGS for creation of water source to full potential in identified backward rainfedTalukas including renovation of traditional water bodies

Rationale/ Justification

In reference to the status and need of irrigation, the water resource management including irrigation related priorities was identified for Sirmour district by the peoples' representatives of district with support from

administration and technical experts. For instance the reports of Strategic Research and Extension Plan (SREP) prepared under ATMA program, Comprehensive District Agriculture Plan (C-DAP) prepared as part of Rashtriya Krishi Vikas Yojana (RKVY), Potential Linked Credit Plans (PLP) of NABARD and the Integrated District Development Plan etc. identified number of irrigation related issues for Sirmour district including (i) promoting water use efficiency through sprinkler and drip irrigation; (iii) promoting protected polyhouse cultivation to minimize risk factors and enhance quality and productivity; (iv) Improvement of on-farm water delivery and efficiency of existing irrigation systems; (v) promotion of soil conservation of arable & non-arable land through engineering measures; (vi) creation of new water harvesting structures, check dams, ponds, tanks, etc (vii) increase the forest cover in the district and (viii) land improvement measures.

Methodology

During the course of preparation of District Irrigation Plan (DIP) the team visited Sirmour district to collect data and have interaction with all the stakeholders. Methodology adopted to prepare DIP is outlined in brief as under:

a) Collection of primary and secondary data from field from various sources including published documents and websites.
b) Various meetings were held to obtain ground level realities and data from key personnel/stakeholders through structured, unstructured interviews, focused group discussions etc.
c) Meetings with State Government departments and related institutions were held
d) Meeting was also held with State Level authorities.
e) GIS maps of the areas/clusters were studied to understand the land morphology, topography of the district.
f) Focused group discussions and interaction with agriculture officers, horticulture officers, soil conservation officers, extension officers, rural development department, animal husbandry department, irrigation officers both at Talukas anddistrict level for identifying the key issues and focus areas of the region.
g) Discussion with NABARD officer of the district was also held during the visit.

On the basis of detailed discussion and analysis of data, the team arrived at the projections of various components of PMKSY and Department wise plan for four years from 2016-17 to 2019-20 as detailed in the plan.

Chapter 1: General Information of the District

1.1 District profile:

Baksa District is situated in the foot hills of Bhutan surrounded by Udalguri District in the East, Chirang District in the West, Barpeta and Nalbari District in the South and Bhutan in the North. It is located along NH 31 with its remote area having a distance of 10 - 50 km away from it. The geographical area of the District is 2074.90 Sq. km. The climate of the District is subtropical in nature with warm & humid summer followed by dry and cool winter.The District falls within the Lower Brahmaputra valley zone of Assam having average road communication. However, communication in the interiors is a problem in the District.

Location and Geographical Unit:

Baksa District is located between 90°8/ E to 91°85/ E Longitude and 26°35/ N to 26°83/ N Latitude. It is situated in North West side of Assam, surrounded by Chirang District in the West, Barpeta, Nalbari and Kamrup District in the south, Udalguri District in the East and Bhutan in the North. The geographical area of the District is 2074.90 sq. km. Agro - ecologically, the district falls under Lower Brahmaputra Valley Zone. It has a network of 3 major tributaries of the Brahmaputra, namely-Beki, PagladiaandBarnadi and 10 small rivers which arevery active during the summer season.

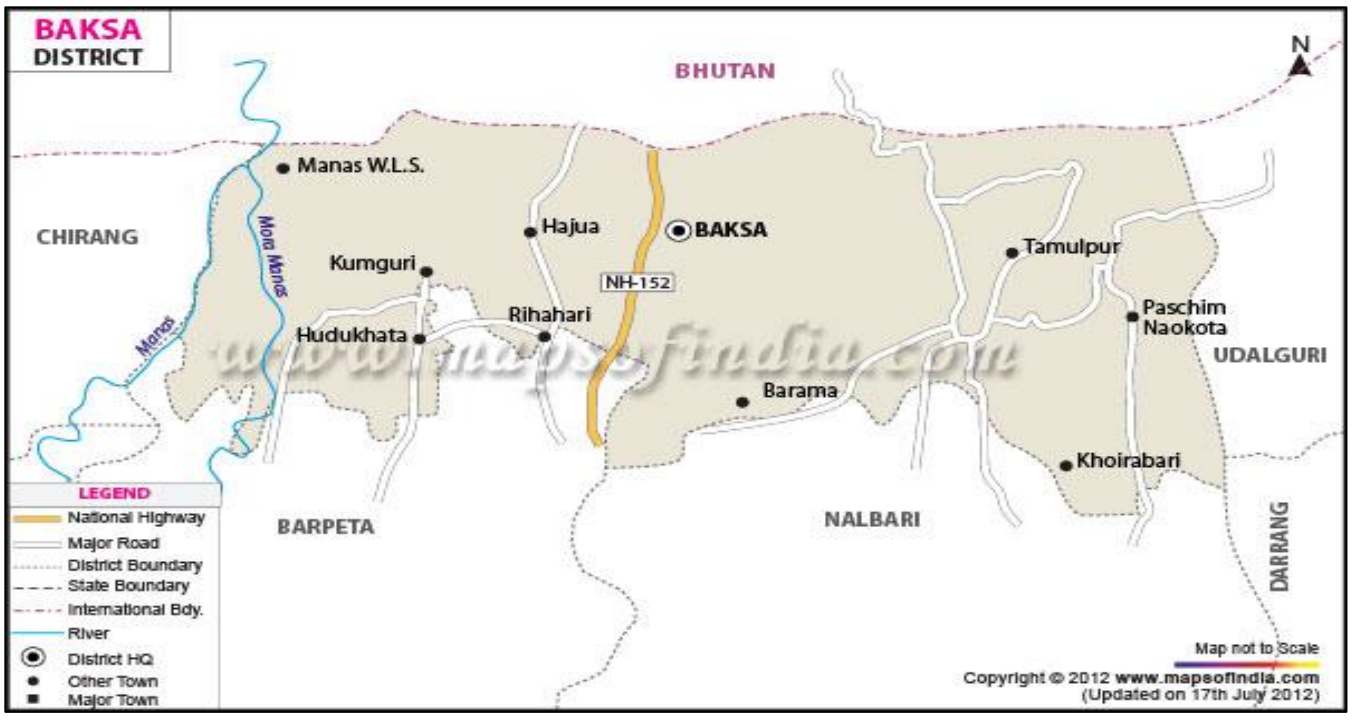


FIGURE 1.1: DISTRICT MAP OF BAKSA

Table 1.1: District Profile

Name of the District	District Code	Latitude	Longitude
Baksa	324	26°35/ N to 26°83/ N	90°8/ E to 91°85/ E

Source: Census of India, Baksa

Brief History

Baksa is one of the four new district of the state Assam created after Census, 2001. According to Bodo source the name originated from a kind of rice grain which is known as "Bagsa". Baksa district was created from parts of Barpeta, Nalbari, and Kamrup districts. A very small part of Darrang District also falls within the District. In order to get a clear picture of the history of Baksa the history of erstwhile undivided Kamrup district can be traced back from which the districts of Barpeta, Nalbari and the present Baksa were curved out. The kingdom of Kamrupa according to Jogini Tantra and KalikaPurana extended from Karotoya in the west to the east of Dikkarabasini. Narak was a very powerful and prosperous king of Kamrupa whose capital was named as Pragjyotishpur, the present Guwahati of today. Baksa formed a part of this kingdom of king Narak. After Narak it was ruled by a chain of non-Aryan prices a thousand years before the Christ. Thereafter, for many centuries nothing certain about the history of the region can be known from any source. Under a treaty made on February 24, 1826, at Yandaboo, Assam ceded to the East India Company. In 1833 the British portion of the valley was divided into four districts – Goalpara, Kamrup (including Nalbari), Darrang and Nagaon (Khagarijan). These districts were placed under the Commissioner of Assam with his headquarters at Guwahati. The general administration of Assam including justice was vested on the Commissioner of Assam with his headquarters at Guwahati. Gradually many changes took place in administration.

Administrative Set-up of Baksa[1]

The Deputy Commissioner of the District is the overall in charge of theadministration of the entire district. He also acts as the Collector in case of Revenue matters, as a District Magistrate in case of maintenance of Law and Order and General Administration, as a District Election Officer in case of conduct of Election, as a Principal Census Officer while conducting Census, and so on. A number of Officers, like Additional Deputy Commissioners, Sub divisional Officers, Extra Assistant Commissioners and others assist the Deputy Commissioner is looking after the administration of the district. At lower level each sub-division is headed by one Sub-Divisional Officer whereas under him there will be Revenue Circle Officers for each revenue circles who are responsible for the entire administration of the area under their respective revenue circle. For the administrative purposes, the entire district is divided into three sub-divisions: Mushalpur, Salbari and Tamulpur. These sub-divisions comprising of 690 villages are further divided into 13 revenue circles: Baskahaving 86 villages,Barama (Part) having 36 Villages,Tamulpur having 183 Villages, Goreswar (Part) having 93 Villages,Baganpara (Part) having 44 Villages, Ghograpar (Part) having 3 Villages, Barnagar (Part) having 92 Villages, Bajali (Part) having 2 Villages, Jalah (Part) having 79 Villages, Patharighat(Part) having 1 Village, Rangia (Part) having 6 Villages, Sarupeta (Part) having 54 Villages and Tihu (Part) having 11 Villages. There are 2 Census Towns in this district, namely- TakhlibilarPathar (CT) and No.2 Goreswar (CT).Three VidhanSabha constituencies of this district are Tamulpur, Barama and Chapaguri. All of these are part of KokrajharLok Sabha constituency. Important point to be noted is that Baksa is the only district in Assam where there is no notified town. Baksa district covers an area of 2457 Sq.Km. (Rural: 2451.14 Sq.Km and Urban: 5.86 Sq.Km)

[1]As per District Census Hand Book 2011

1.2 Demographic profile:

As per the 2011 census, the total population of the district is **9,50,075** out of which male population is **4,81,330** and female population is **4,68,745.** The scheduled caste population is **73083**and scheduled tribe is **331,007.** The population density is 386 per square kilometre.

Table 1.2: Demography of Baksa

Name of the Blocks		Total NHH*	Total NM*	M	F	CH* (0-6 yrs)
Gobardhana (Part)	Total	28,275	139149	71,168	67,981	21,913
	Rural	27000	132,538	67,749	64,789	20,946
	Urban	1275	6,611	3419	3,192	967
Jalah (Part)	Total	27922	134325	67092	67233	15308
	Rural	27922	134325	67092	67233	15308
	Urban	_	_	_	_	_
Tihu (Part) Tihu (Part)	Total	443	2006	989	1017	251
	Rural	443	2006	989	1017	251
	Urban	_	_	_	_	_
Tihu-Barama	Total	3895	18496	9373	9123	1918
	Rural	3895	18496	9373	9123	1918
	Urban	_	_	_	_	_
Baska	Total	24308	118572	59835	58737	14062
	Rural	24308	118572	59835	58737	14062
	Urban	_	_	_	_	_
Goreswar	Total	31563	159383	80733	78650	20151
	Rural	30386	153752	77849	75903	19578
	Urban	1177	5631	2884	2747	573
Tamulpur	Total	30118	152851	77792	75059	20544
	Rural	30118	152851	77792	75059	20544
	Urban	_	_	_	_	_
Barama	Total	10238	49715	25201	24514	5382
	Rural	10238	49715	25201	24514	5382
	Urban	_	_	_	_	_
Dhamdhama	Total	16073	81441	41324	40117	9898
	Rural	16073	81441	41324	40117	9898
	Urban	_	_	_	_	_
Nagrijuli	Total	18866	94137	47823	46314	13445
	Rural	18866	94137	47823	46314	13445
	Urban	_	_	_	_	_
Total		**1,91,701**	**9,50,075**	**4,81,330**	**4,68,745**	**1,22,872**

Source: Census of India, Baksa, 2011

**M- Male, F- Female, CH- Children 0-6 years, NHH- No. of households, NM- No. of members*

1.3 Biomass and Livestock:

Livestock is the integral part of the mixed-farming system that characterizes agriculture in Assam. Besides contributing to food and crop production, livestock and poultry are as important as savings. For many poor households, livestock is a daily source of earning and is an insurance against adversity. Animal traction is still significant in the State because of the increasing miniaturization of landholdings and high fuel cost that limits use of

machinery. Tractor density per hectare of cultivated area is 1/6 the India average. Being a State with limited benefits of green revolution technologies and climatic uncertainties, livestock has the potential to contribute to farm diversification and intensification. Livestock products are integral parts of local diet as more than 95 percent of the population is non-vegetarian.

Livestock production in Assam is characterized by rural smallholder production using indigenous cattle, buffalo, pigs, goats and chicken. There are pockets of nomadic systems of rearing, mostly in the fringes of the forests. In recent years, more specialized and commercially intensive production areas have emerged where farmers are using improved livestock and commercial poultry strains. Livestock in the State is largely fed on crop residues, food waste, while high-producing animals are supplemented with concentrated grain-based feed. Unlike in rest of India, where cooperative farming has revolutionized livestock sector, investment in cooperative farming has remained largely unsuccessful.

Table 1.3: Biomass and Livestock Status of Baksa

Blocks	Name of the State: Assam (18)							
	Name of the District: Baksa							
	Small Animals					Large Animals		Draft Animal
	Poultry (No.)	Ducks (No.)	Pigs (Nos.)	Goats (Nos.)	Sheep (Nos.)	Cow (Nos.)	Buffalo (Nos.)	
Goreswar	83202	51552	10312	24794	789	43807	12	17666
Nagrijuliu	40390	4224	2625	11109	199	22334	56	8880
Tamulpur	186126	51487	17840	47233	4257	87588	637	37534
Dhamdhama	86352	16751	11980	33324	227	52618	78	22513
Baksa	54716	21059	7457	14527	143	34216	46	14001
Barama	17808	9049	2354	6824	167	11240	2	3635
Gobardhana	101209	18127	12708	28288	6712	64501	986	21895
Jalah	86615	21758	8440	17832	580	36224	369	16449
Total	**656418**	**194007**	**73716**	**183931**	**13074**	**352528**	**2186**	**142573**

Source: Livestock Census 2012

As per the latest census (2012), the district has a total livestock population of 14.75 lakhs out of which there are 8532 crossbred cows, 343996 indigenous cows and 2186 buffaloes.Tumulpur Block contributes with 88225 cows and buffaloes which is 25% of the totalpopulation of cows and buffaloes in the district. In case of buffaloes alone, the population is maximum in Gobardhana Block.

1.4 Agro - Ecology, Climate, Hydrology and Topography:

On the basis of information on physiography, soils, farming system, crop and cropping systems and hydrological information, the District Baksa has been classified in to 3 (three) Agro - ecological situations, which are as follows: -

1. Humid foot hills.
2. Humid flood free old alluvial plain
3. Humid flood prone alluvial plain

Table 1.4: Description of Major Agro - ecological situation (based on soil and topography)

Sl. No.	Agro - ecological situations	Characteristics
1	Humid foot hill	The northern part of the district comprising this situation contains old mountain valley alluvial soils (Inceptisol). It is build-up of alluvial materials washed down from the hill slopes. Deep well drained coarse loamy soil occurring on very gently sloping piedmont plains having loamy surface with moderate erosion and slight flood hazard. The elevation is higher towards foot hills which gradually slope towards south.
2	Humid flood free old alluvial plain	It is a major situation. Land situation is upland and flood free. Soil texture varies from sandy loam to clay loam and soils are mostly old alluvium.
3	Humid flood prone alluvial plain	The area is mostly low to medium and frequently affected by flood. Soil type is new alluvium and soil texture is light to medium.

Source: Soil Conservation Department, Baksa

The climate of the district is sub - tropical in nature with warm and humid summer followed by dry and cool winter. The average annual rainfall is about 2,200 mm per annum of which 70parcent is received during monsoon season (June to September). The rainfall is not uniform rather erratic. The mean maximum and minimum temperature varies from 33 to 38° C and 8 to 10°C respectively. The relative humidity varies from 65 - 90 per cent. The sky remains cloudy during June to September. The light and sun shine hour is the highest during March - April.

1.5 Soil Profile

The district forms a part of the vast alluvial plains of Brahmaputra River system and sub-basin of River Manas. Physiographically, it is characterized by the different land forms resulting from a) denudation structural hill and b) alluvial plain. The low mounds/hillocks are covered by a thick lateritic mantle and these are occupied by evergreen mixed forests. The alluvial plains comprise of Older and Newer alluvium. The Older alluvium occupies the piedmont zone towards the north of the district bordering Bhutan. The narrow zone at the Himalayan foothill is known as the Bhabar zone and it supports grow of dense forests. To the south of the Bhabar zone and parallel to it, the flat Terai zone lays where the ground remains damp and sometimes, spring oozes out. The Terai zone is covered by tall grass. The Newer alluvium includes sand, gravel, pebble with silt and clay. Soil in greater parts of the district is sandy and silty loam, or clayey loam. The variation in composition is mainly due to the varying composition of the river borne 2 materials deposited at different times and under different conditions. The younger alluvial soil has a high phosphorous content whereas, in Older Alluvial soils, it is very low. In general, the soil is acidic to slightly alkaline in nature and is moderately permeable and characterized by the presence of low organic carbon and low soluble salts. Soils restricted to inselberg areas are more clayey, lateritic and less permeable and are highly acidic in nature. From agricultural point of view, the soils in major parts of the district are suitable for all sorts of crops

Overall the soil of the district has been classified into two orders namely (i) Entisols (new alluvium) and (ii) Inceptisols (Old alluvium). The soil of this zone is mostly acidic in nature and p^H increases towards south direction. The Organic carbon and available Nitrogen of the soil mostly varies from medium to high, low to medium in available P_2O_5 and medium K_2O status.The district has a more or less plain topography, some hillocks are found elsewhere. It has a gentle slope from northern side towards south direction.

1.6 Soil Erosion and Runoff Status

Soil erosion is a naturally occurring process that affects all landforms. In agriculture,soil erosion refers to the wearing away of a field's topsoil by the natural physical forces ofweather and wind or through forces associated with farming activities such as tillage.

In the Baksa district, soil movement by rainfall (raindrop splash) is usually greatest and most noticeable during short-duration. Floods accompanied with soil erosion and sand deposition causes maximum damage to standing crops of the agricultural lands in the district and as a result the soils are subjected to severe soil erosion during rainy season. Due to topographical factors, the soil is subject to splash, sheet and gully erosion resulting into degradation of the soil. Besides this, there is biotic pressure on the lands to the curb this menace particularly on the agricultural lands. The block wise soil erosion and run off status has been given in Annexure-1.

1.7 Land use pattern:

The total geographical area (TGA) of Baksa is 2.07 lakh hectare. The largest Block of the district is Gobardhanawhich comprises of a TGA of 42,787 hectare i.e. about 20.6% of the TGA of the district.

Table 1.7(a): Land use pattern in Baksa District

Name of the Taluka	TGA	Area under Agriculture				Area under forest	Area under wasteland	Area under other uses
		GCA	NSA	AST	CI (%)			
Goreswar	28747	23074	18861	4411	140	-	-	-
Nagrijuliu	20277	16152	13990	3560	120	4400	1257	629
Tamulpur	27155	22855	18698	10690	119	6843	1955	978
Dhamdhama	18777	21146	19620	9974	117	3943	1127	563
Baska	27102	21085	19587	4499	118	6504	1301	867
Barama	13427	21162	19619	13595	121	-	989	477
Gobardhana	42787	18595	16095	-5280	118	11381	3252	1626
Jalah	29456	20793	19402	3031	118	6804	1944	972
Total	**207727**	**164862**	**145872**	**44480**	**121**	**39876**	**11825**	**6112**

Source: Department of Agriculture, Baksa
TGA- Total Geographical Area, GCA- Gross Cropped Area, NSA- Net Sown Area, AST- Area Sown more than once, CI- Cropping Intensity

Land use pattern of Baksa District comprising with 8 (eight) Nos. C. D. Blocks are given below:

Table 1.7(b): Land use pattern in Baksa District

1.	**Total Geographical Area**	**-**	**207727 ha.**
2.	Total Area under Forest	-	39876 ha.
3.	Total Cultivable Area	-	164862 ha.
4.	Total Area under Waste Land	-	11825 ha.
5.	Total Area under other uses	-	6112 ha.

Source: Department of Agriculture, Baksa

Chapter 2: District water Profile

2.1 Area wise, Crop wise Irrigation Status:

A large portion of the area in Baksa District is mostly rainfed as the District has been blessed with heavy rainfall during Kharif season. However there is need and scope to improve irrigation facility during Rabi season to increase Cropping intensity.

Table 2.1: Area wise, crop wise irrigation status

Crop Type		Kharif (Area in ha)			Rabi (Area in ha)		
		Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A)	Cereals	2536	106940	109476	1301	122	1423
B)	Coarse Cereals	0	1347	1347	261	160	421
C)	Pulses	0	3215	3215	301	8701	9002
D)	Oil Seeds	0	0	0	98	8393	8491
E)	Fibre	0	539	539	0	0	0
F)	Any other crops	0	1789	1789	0	1830	1830
G)	Horticultural & Plantation Crops	1069	5688	6757	12219	1633	13852
Total		**3605**	**119518**	**123123**	**14180**	**20839**	**35019**

Source: Department of Agriculture, Baksa

In Baksa, around 13.37% of the cultivated land i.e. 22043hectare is irrigated out of a total of 164862 hectare of cultivable land. Out of this irrigated area, cereals crops are cultivated in 2536 hectare in Kharif while 1301 hectare of cereals is cultivated under irrigated land during Rabi. In summer a total of 6720 hectare area is cultivated with 4258 hectare under irrigated category.

2.2 Production and Productivity of Major Crops:

Paddy is the main cereal crop of the District during Kharif and summer season while maize is grown in both Kharif and summer season. Pulse crops like arahar, black gram are grown as secondary crop during Kharifwhile pulse crops like pea and lentil and oil seed crops such as mustard, sesame and linseed are major Rabi crops of the District. Major area in the Baksa district is under rainfed condition. During summer some area is covered with summer paddy in irrigated condition. About 15,000 ha area are covered with horticultural crops like aqrecanut, coconut, banana, pine apple, ginger, orange, turmeric and vegetables.

Table No. 2.2: Production and Productivity of Major Crops

Sl. No.	Season	Crop Sown	Rainfed			Irrigated		
			Production (MT)	Productivity (Kg)	Cost of cultivation (Rs/ha)	Production (MT)	Productivity (Kg)	Cost of cultivation (Rs./ha)
1	Kharif	Paddy	196000	2800	41000/ha	43500	2900	42500/ha.
		Maize	1140	3800	31500/ha			
		Black gram	415	830	19000/ha			
2	Rabi	Pea	1365	910	27000/ha			
		Lentil	1950	780	26500/ha			
		Maize				1520	3800	33000/ha.
		Black gram	249	830	19000/ha			
		Mustard	8100	900	28000/ha	2375	950	30000/ha.
3	Summer	Paddy				18600	3100	43000/ha
4	Kharif& Rabi	Horticu-ltural Crops	72900	8100	61000/ha.	50400	8400	65000/ha

Source: Department of Agriculture, Baksa

2.3 Irrigation Based Classification:

As discussed earlier in table 2.1, the district is primarily rainfed. Out of the gross cropped area of **164862** ha, the extent of irrigated land is only **22,043** ha, i.e. 13.37% of total cropped area. Considering the block-wise data, percentage of gross irrigated land to gross cropped area is maximum in Goreswar block, followed by Tamulpur block, i.e 21.0% and 20.8% respectively.

A total of **1,42,819** ha of area is under rainfed cultivation. While comparing the ratio of area under rainfed cultivation to gross cropped area in each block, Dhamdhama block comes at the top position with 90.35% (gross cropped area of 21146 ha) under rainfed irrigation, followed closely by Baska block with 90.34% area under rainfed cultivation (gross cropped area of 21085 ha). The area under partial irrigation has been reported to be zero across all the blocks the district.

Table No. 2.3: Irrigation Based Classification

Block	Irrigated (Area in Ha)		Rainfed (Area in Ha)	
	Gross Irrigated Area	Net Irrigated Area	Partially Irrigated / Protective Irrigation	Un-Irrigated or Totally Rainfed
Baksa	2,037.00	1,767.00	-	19,048.00
Tihu-Barama	2,096.00	1,812.00	-	19,066.00
Tamulpur	4,756.00	3,388.00	-	18,099.00
Nagrijuli	1,580.00	1,580.00	-	14,572.00
Goreswar	4848	3477	-	18,226.00
Jalah	2,065.00	1,843.00	-	18,728.00
Gobardhana	2,620.00	2,390.00	-	15,975.00
Dhamdhama	2,041.00	1,771.00	-	19,105.00
Total	**22,043.00**	**18,028.00**	**-**	**1,42,819.00**

Source: Irrigation Department, Baksa

Chapter 3: District Water Availability

Assam state comprises of two main river valleys. The northern valley is known as the Brahmaputra valley and the southern valley is known as Barak valley. Baksa district falls in the Brahmaputra valley which is an alluvial plain in between the foot hills of Bhutan ranges and other hill tracts, on North and central ranges of Naga, Karbi, Khasi, Jaintia, Garo hills etc. This valley approximately covers 56339 sqkm. of riverine area within the strip of both bank of the river, stretching from Sadiya on the east up to Dhubri on the West.

The district contains a network of 3 major rivers namely Beki, Pagladia, and Barnadi and around 10 small rivers which are very active during the summer season. There are numerous springs and streams which are a good source of water for household use and small scale irrigation. The district is endowed with large number of Dongs (Natural Depressions) where water remains stagnant for a large part (around 8 months) of the year. Farming community is using dong water for irrigation of their crops since long. The ground water is good and remains at about 25 to 45 feet during winter. Utilization of this water resource in the foothill region during winter is a problem since soil is shallow.

3.1 Status of Water Availability

As reported by the IPH Baksa, mostly surface irrigation systems prevail in the district. With the facility of irrigation through canals, a total area of 11763 hectare is being irrigated in the district.

Table 3.1: Water availability in Baksa

BCM per Ha	3.1 Status of Water Availability				
S.No.	Sources	Kharif	Rabi	Summer	Total
1	**Surface Irrigation**				
(i)	Canal(Major & Medium Irrigation)	0.259	.0065	0.175	0.440
(ii)	Minor Irrigation tanks	1.80	0.451	1.10	3.351
(iii)	Lift Irrigation/Diversion	-	-	-	-
(iv)	Various Water Bodies including Rain Water Harvesting	0.0068	0.0015	0.0040	0.0123
(v)	Treated Effluent Received from STP	-	-	-	-
(vi)	Untreated Effluent	-	-	-	-
(vii)	Perennial sources of water	5.484	1.260	3.25	9.994
2	**Ground Water**				
(i)	Open Well	-	-	-	-
(ii)	Deep Tube Well	-	-	-	-
(iii)	Medium Tube Well	-	-	-	-
(iv)	Shallow Tube Wells	-	-	-	-

Source: Irrigation department, Baksa,

3.2 Status of Ground Water Availability

Existing hydro geological setup and availability of huge ground water resources indicate that there is a lot of scope for development of ground water in a phased and systematic way. Most of the blocks under the district are classified as safe by the CGWB as per their status of ground water availability with the exceptions of Nagrijuli, Baksa and Gobardhana which are classified under the semi critical head.

Table 3.2: Ground water availability in Baksa

Name of the State: Assam		
Name of the District: Baksa		
Status of Block as per Central Ground Water Board Notification		
Critical	**Semi-Critical**	**Safe**
_	_	Goreswar
	Nagrijuli	_
_	_	Tamulpur
_	_	Dhamdhama
	Baksa	_
_	_	Barama
	Gobordhana	_
_	_	Jalah

Source: CGWB

Hydrogeology

The ground water conditions in the district can be described under two distinct hydro geological units, i.e. conditions prevailing in the semi-consolidated formations and conditions prevailing in the unconsolidated formations.

i) Semi-Consolidated Formations: A very narrow belt of Upper Tertiary semi-consolidated rock formation engulf the northern fringe area of the district with Bhutan consisting mainly claystone/siltstone/sandstone and form low to moderate altitude denudation structural hills. The trend of hills is generally in E-W direction. These are characterized by high run off, low infiltration to groundwater and experience secondary porosity development through cracks/joints/bedding planes. Springs are developed in this belt.

ii) Unconsolidated Formations: Major parts of the district are underlain by unconsolidated formations represented by the alluvial deposits of recent age. Bhabar formation comprises of the alluvial sediments at the foothill belt in the north and the valley covering the central and southern part. The behaviour of ground water in the piedmont sediments is naturally different from that in the alluvial areas occurring further south.

Bhabar-Terai Belt: This zone consists of the terrace deposits in the foot hill regions of the Himalayas composed of talus fans. The material is a heterogeneous admixture of boulders, pebbles, cobbles with the interstices filled by sand and silt. These sediments are highly permeable with low retentive capacity. Thus, the streams in this region are devoid of any appreciable surface flow, although, there are evidences of sub-surface flow. Behaviour of ground water in the further south is less erratic. Here, ground water occurs under water table conditions. The depth to water level is rather high.

Older Alluvium: Ground water occurs under water table conditions in the elevated flat-topped areas of Older alluvial sediments. These areas are usually forested. It comprises of sand, gravel and silt with higher proportion of clay. Ground water occurs under unconfined to confined conditions.

Newer Alluvium: The district is mostly covered by newer alluvium and the formation comprises of sand, gravel and pebble with silt and clay. Ground water in this zone occurs under unconfined condition.

Based on the behaviour and occurrence of ground water, the regional ground water flow system of district has been described under following categories.

i. Shallow Aquifer Group (occurring within 50 m depth):

It consists of a mixture of boulder, gravel, sand, silt and clay. The thickness of the aquifer varies from 15 to 40 m. Ground water in this aquifer generally occurs under water table to semi-confined conditions. The pebbles, boulders are restricted mostly to the northern parts of the district. They occur at the depth between ground level to 50 m below ground level. The development of ground water from this aquifer is done by open well and shallow tube well for both the domestic and irrigation purposes. The water level in the major parts of the district generally lies between 2 to 4 m below ground level. The northern most parts occupied by the piedmont zones and the areas adjoining to the border area are having deeper water level. The movement of ground water is southerly towards Brahmaputra River. The water table contour follows the topography of the area and lies more or less parallel to the Brahmaputra River. The hydraulic gradient becomes gentler towards south.

ii. Deeper Aquifer Group (beyond the depth of 50 m and down to 200 m below ground level):

It consists of coarse to medium sand with intercalation of clay. Ground water occurs under water table to confined conditions. Detailed hydrogeological surveys aided by exploratory drilling revealed the existence of two to three promising aquifer zones down to the depth of maximum 200 m below ground level. Aquifer displays various degree of lateral and vertical variation of aquifer indicating various degree of depositional environment both in space and time. The piezometric surface is highly variable and the movement of ground water is towards the south.

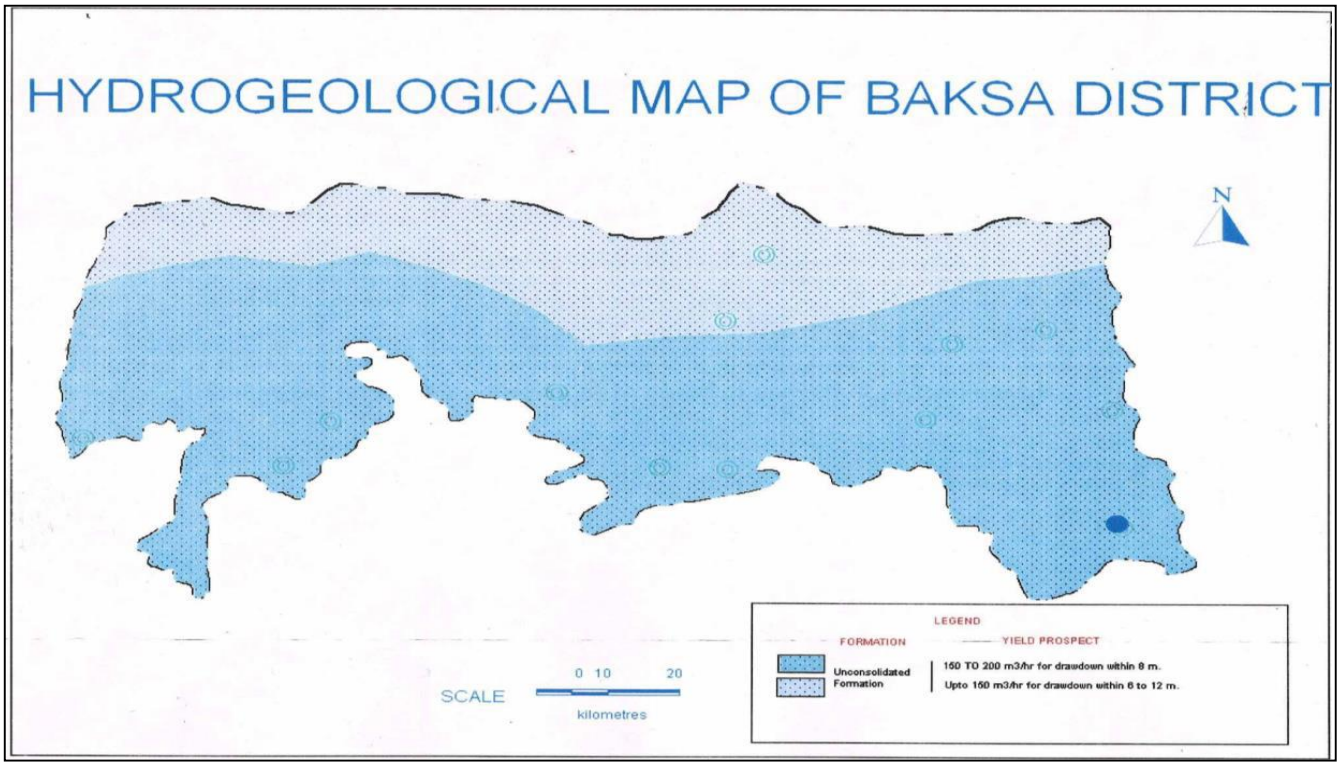


Figure 3.1: Hydrogeology of Baksa

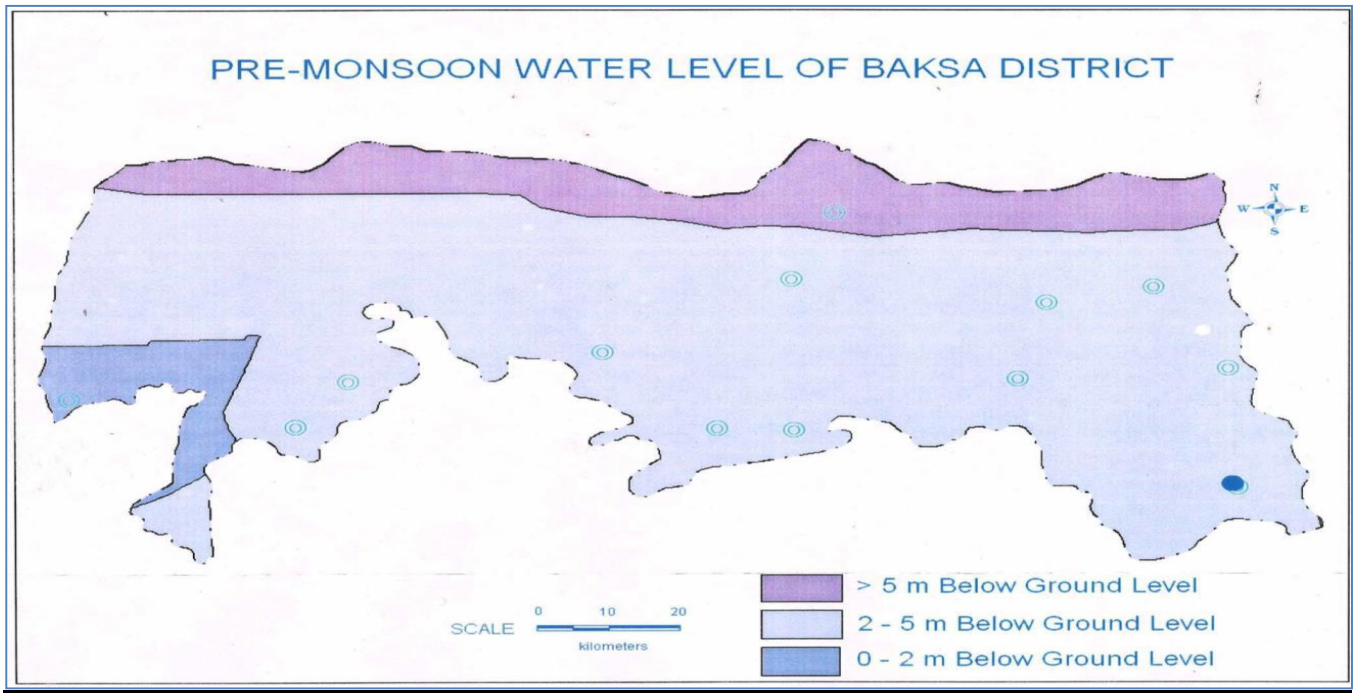


Figure3.2 (a): Pre Monsoon Water Level

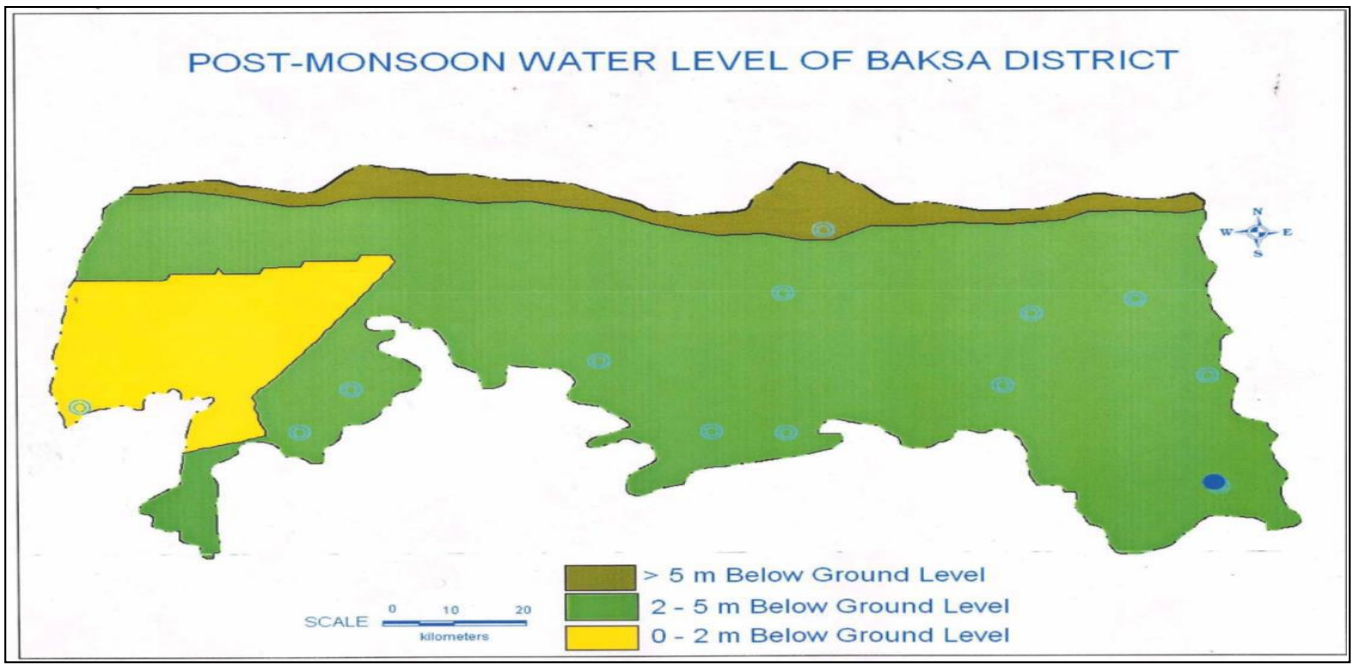


Figure 3.2 (b): Post Monsoon Water Level

Ground water of both shallow and deeper aquifers is suitable for irrigational and industrial purposes. Ground water having a little higher concentration of iron can be used after treatment.

Shallow ground water structures are congenial for construction in the district, as water resource and aquifer material are laterally persistent throughout the district. Dug wells and dug-cum-bore wells especially near the border area are beneficial. Deep tube well can be constructed preferably below the depth of 50 m tapping aquifer zone with an expected discharge of about 100 m3/hr.

3.3 Status of Command Area

Table 3.3 summarizes the status of command area in the district for each block. As depicted therein, whole command area in the district is irrigated through canal system. A majority of the command area, i.e., **37612** ha or 75% out of a total command area of **50147** ha has been reported to be undeveloped.

Table 3.3: Status of command area

Name of the Block	Information of canal command			Information on the other services command*			Total Area	
	Total Area	Developed Area	Undeveloped Area	Total Area	Developed Area	Undeveloped Area	Developed Command	Undeveloped Command
Baska	4188	1700	2488	0	0	0	1700	2488
Tihu- Barama	1901	35	1866	0	0	0	35	1866
Tamulpur	3515	545	2970	0	0	0	545	2970
Nagrijuli	7426	1846	5580	0	0	0	1846	5580
Goreswar	23264	4389	18875	0	0	0	4389	18875
Jalah	6603	2290	4313	0	0	0	2290	4313
Gobardhana	1770	250	1,520	0	0	0	250	1770
Dhamdhama	1480	1480	0	0	0	0	1480	0
Total	**50147**	**12535**	**37612**	**0**	**0**	**0**	**12535**	**37862**

Source: Irrigation department, Baksa

3.4 Existing Type of Irrigation

As informed by District Agriculture Department, a total of 72 irrigation canals are operating in the district. As indicated in table 3.4 and 3.5, Dhamdhama and Goreswar blocks have maximum number of sources of irrigation, i.e. 42 out of 72 canals in the district. In terms of the command area, Goreswar block has the largest canal command area with 23264 ha out of a total command area of **50147** ha followed by Nagrijuli block with a canal command area of 7426 ha.

Table 3.4(a): Existing type of surface irrigation sources and their numbers

Block	Surface Irrigation (Number)				
	Canal Based		Tanks/Ponds/ Reservoirs		
	Govt. Canal	Community/Pvt. Canal	Community Ponds Including Small	Individual/Pvt. Ponds	Govt. Reservoirs/ Dams
Baska	7	-	-	-	-
Tihu Barama	1	-	-	-	-
Tamulpur	5	-	-	-	-
Nagrijuli	6	-	-	-	-
Jalah	10	-	-	-	-
Gobardhana	1	-	-	-	-
Dhamdhama	22	-	-	-	-
Goreswar	20	-	-	-	-
Total	**72**	-	-	-	-

Source: Irrigation department, Baksa

Table 3.4(b): Existing type of surface irrigation sources and command area

Block	Surface Irrigation (Command Area in ha)				
	Canal Based		Tanks/Ponds/ Reservoirs		
	Govt. Canal	Community/Pvt. Canal	Community Ponds Including Small	Individual/Pvt. Ponds	Govt. Reservoirs/ Dams
Baska	4188	-	-	-	-
Tihu- Barama	1901	-	-	-	-
Tamulpur	3515	-	-	-	-
Nagrijuli	7426	-	-	-	-
Goreswar	23264	-	-	-	-
Jalah	6603	-	-	-	-
Gobardhana	1770	-	-	-	-
Dhamdhama	1480	-	-	-	-
Total	**50147**	**0**	**0**	**0**	**0**

Source: Irrigation department, Baksa

Chapter 4: Water Requirement/Demand

The earlier chapters dealt with the general profile, water profile and water availabilityof Baksa district. The present chapter deals with the current (2016) and projected (2020) demand of water for various sectors. The demand for water has been assessed on the basis of data obtained from different departments.

4.1 Domestic Water Demand

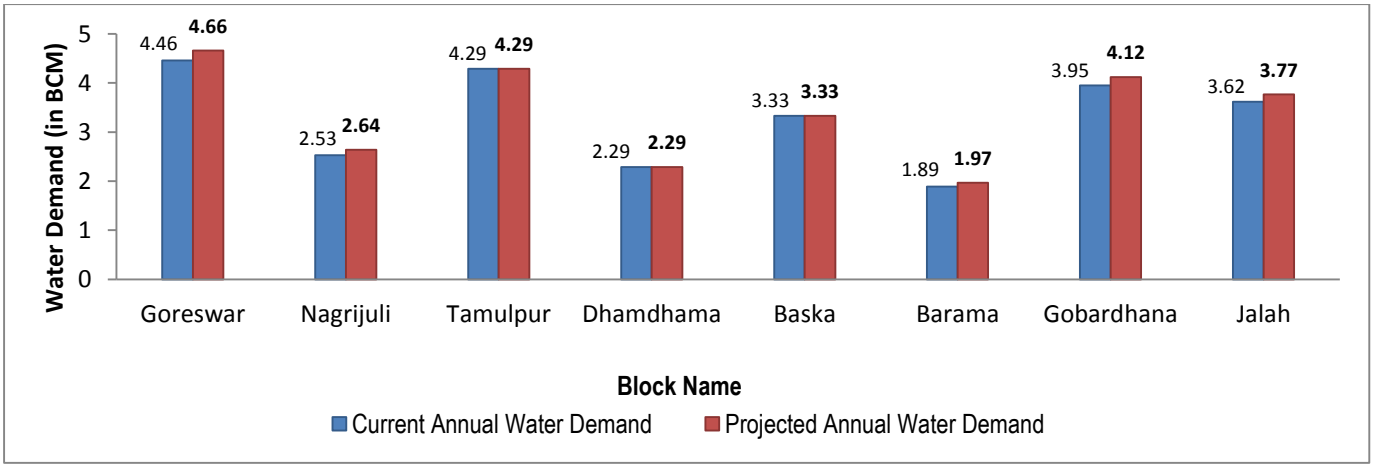
Data of Census 2011 and 2001 has been considered to arrive at the growth rate of population of the district. As per Cesus 2011, the district has shown an annual growth rate of 1.074%. Table 4.1 below indicates the block-wise population of the district. Current population (in 2016) has been calculated by assuming a growth rate of 5.37% over a period of five years (from 2011-2016). Projected population has been calculated in similar way by assuming a growth rate of 4.296% over the period of four years (from 2016-2020).

It has been assumed that per capita daily water requirement of people residing in urban areas of the district is 150 Litres and for population in rural areas, the daily per capita daily water requirement is 70 Litres.Using the same norms, annual domestic water supply demand has been worked out and given in table 4.1 below.

Table 4.1: Domestic Water Demand

Blocks	Population in 2015	Current Annual Water Demand (MCM)	Projected Population 2020	Projected AnnualWater Demand (MCM)	Gap (MCM)
Goreswar	167942	4.46	175157	4.66	0.19
Nagrijuli	99192	2.53	103453	2.64	0.11
Tamulpur	161059	4.29	167978	4.29	0.00
Dhamdhama	85814	2.29	89501	2.29	0.00
Baska	124939	3.33	130307	3.33	0.00
Barama	73988	1.89	77166	1.97	0.08
Gobardhana	146621	3.95	152920	4.12	0.17
Jalah	141538	3.62	147619	3.77	0.16
Total	**1001094**	**26.36**	**1044101**	**27.07**	**0.71**

Figure4.1: Domestic Water Demand



It can be inferred from the table that considering the growth rate of population of the district, the quantity of water required in 2020 for domestic consumption shall be approximately 27.07MCM which is 0.71MCM more than the present water requirement.

4.2 Crop Water Requirement

As discussed in Chapter 2, cereals are cultivated on major part of the gross cropped area in the district. Hence, the crop water requirement for major cereals viz. Paddy, Maize etc as assumed by State Agricultural University has been taken. The assumptions are as under:

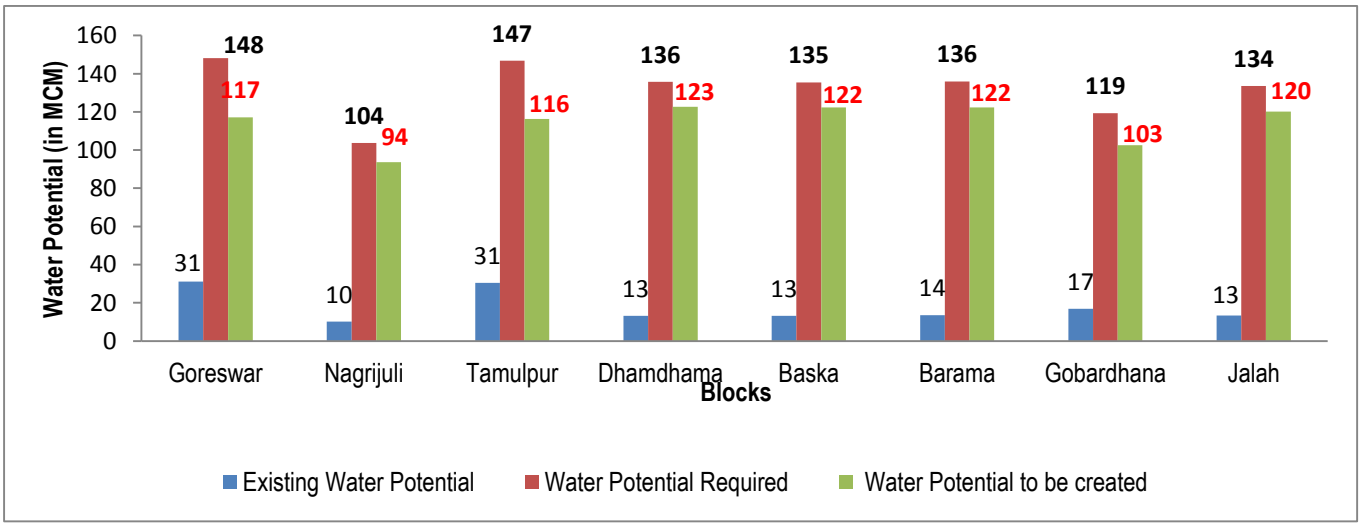
- For paddy: 0.6 m per ha,
- For Maize: 0.06 m per ha,
- For wheat: 0.15mper ha,
- Vegetables: 0.18 m per ha and
- For Horticulture crops: 0.06 m/ha
- The small portion of area under other crops has been taken in category of vegetables and same assumption has been made.

Table 4.2: Crop water requirement

Block	Area sown (Ha)	Irrigated area (ha)	Crop Water Demand (MCM)	Water Potential Required (MCM)	Existing Water Potential (MCM)	Water Potential to be created (MCM)
Goreswar	23074.0	4848.0	148.2	148.2	31.1	117.1
Nagrijuli	16152.0	1580.0	103.7	103.7	10.1	93.6
Tamulpur	22855.0	4756.0	146.8	146.8	30.5	116.2
Dhamdhama	21146.0	2041.0	135.8	135.8	13.1	122.7
Baska	21085.0	2037.0	135.4	135.4	13.1	122.3
Barama	21162.0	2096.0	135.9	135.9	13.5	122.5
Gobardhana	18595.0	2620.0	119.4	119.4	16.8	102.6
Jalah	20793.0	2065.0	133.5	133.5	13.3	120.3
Total	**164862.0**	**22043.0**	**1058.8**	**1058.8**	**141.6**	**917.3**

Source: Department of Agriculture, Baksa

Figure 4.1: Crop water requirement



Water potential required has been derived from water required by crops cultivated under rainfed conditions. Therefore, the existing water potential represents the water requirement of crops cultivated in irrigated areas.

It can be concluded from the table that a total water potential of 917.3 MCM is to be created in the district to fulfill the requirement of crops.

4.3 Livestock Water Requirement

The requirement of water by livestock in the district has been derived from the livestock census 2012. The table below represents the total water requirement of the district for livestock.

Data of Census 2007 and 2012 has been considered to arrive at the growth rate of livestock of the district. As per Census 2007 and 2012, the district has shown the following annual growth rates.

Table 4.2(a): Livestock water requirement

Livestock category	Annual Growth rate
Poultry	-1.3%*
Cattle	0.5%
Sheep	9.3%
Goat	8.6%
Pigs	-3.6%*
Ducks	-1.3%*

Source: Livestock Census 2007 & 2012
**Negative annual growth rates were considered to be 0*

Table 4.3.2 below indicates the block-wise livestock population of the district. Current livestockpopulation (in 2016) has been calculated by assuming the annual growth ratesfrom table 4.3.1 over a period of four years (from 2012-2016). Projected population has been calculated in similar way by same annual growth rates but over a period of four years (from 2016-2020).

Table 4.3(b): Livestock water requirement

Block	Total No. of livestock	Present water demand (MCM)	Water Demand in 2020 (MCM)	Existing water potential (MCM)*	Water potential to be created (MCM)
Goreswar	232134	1.60	1.65	1.60	0.05
Nagrijuli	89817	0.80	0.82	0.80	0.02
Tamulpur	432702	3.25	3.35	3.25	0.10
Dhamdhama	223843	1.95	2.01	1.95	0.06
Baska	146165	1.23	1.27	1.23	0.03
Barama	51079	0.39	0.40	0.39	0.01
Gobardhana	254426	2.26	2.32	2.26	0.07
Jalah	188267	1.37	1.40	1.37	0.04
Total	**1618433**	**12.85**	**13.23**	**12.85**	**0.38**

Source: Livestock Census, 2007 and 2012

**Existing water potential is assumed to be equal to existing water demand.*

Based on the projected water requirement for livestock in 2020, the gap has been assessed. The total potential which has to be created for livestock in 2020 is 0.38 MCM. This has been assessed on the terms of the following:

- Per capital daily water requirement for cows/buffaloes 65 litres, sheep/goats/pigs 6 litres and Poultry 0.25 liters.
- For projecting the water demand of livestock, growth rate as deduced from census has been considered during calculations. In case of livestock with decreasing growth rate of population, the present population has been considered. It is assumed that present water requirement of livestock is met from existing water usage and hence existing potential is equal to existing demand.

As observed above, the potential to be created for meeting the water demand for livestock is slightly more than existing potential.

4.4 Industrial Water Requirement

The requirement of industries has been calculated from data given by District department of Industries. Only three industrial areas exist in the district, namely, Industrial area Bannibari IE, Baganpara Commercial Estate andTamulpur Commercial Estate. As majority of industrial units in the district are small, the consumption of water is quite nominal.

The brief industrial profile of Bilaspur is as under

Table 4.4(a): Industrial unit and employment specifications

Year	Number of Industrial units	Employment
Upto 2006-07	41	280
Upto 2007-08	48	424
Upto 2008-09	69	457
Upto 2009-10	31	299
Upto 2010-11	35	202
Total	**224**	**1662**

Source: DIC Baksa

Table 4.4(b): Industrial Profile of Baksa

Block	Name of the Industry	Land Developed	No. of Units in Production
Gobardhana	Bannibari IE	80 bighas	11
Dhamdhama	Commercial Estate, Baganpara	_	_
Tamulpur	Commercial Estate, Tamulpur	5 bighas	1
Total		**8.8**	**10.56**

Source: DIC Baksa

Table 4.4(c): Industrial water requirement of Baksa

4.4 Industrial Water Demand					
Block	Name of the industry	Water Demand (MCM)	Water demand 2020 (MCM)	Existing Water potential (MCM)	Water potential to be created (MCM)
Goreswar	Brick	1.1	1.4	1.1	0.3
Nagrijuli	Jute	2.2	2.8	2.2	0.6
Tamulpur	Brick	1.8	2.3	1.8	0.5
Dhamdhama	Brick	2.1	2.7	2.1	0.6
Baksa	Brick	1.9	2.4	1.9	0.5
Barama	Food Products	2.7	3.4	2.7	0.7
Gobardhana	Alloy Industry	1.5	1.9	1.5	0.4
Jalah	Wood	1.2	1.5	1.2	0.3
Total		**14.5**	**18.4**	**14.5**	**3.9**

Source: DIC Baksa

Accordingly, the water potential which has to be created to meet industrial water demand in 2020 is 3.9 MCM.

4.5 Water Demand Power Generation

Power is not generated in the district and hence, water requirement has been indicated to be zero. The power requirement of district is met through common grid system of the state. The power requirement in the year 2015 as per the actual consumption on record is 14 MW.

Table 4.5 Water demand for power generation

Block/Electrical Divisions	Power Requirement (MW)	Water Demand (MCM)	Water Demand in 2020 (MCM)	Existing Water Potential (BCM)	Water Potential to be created (MCM)
Goreswar	1.4	Nil	Nil	Nil	Nil
Nagrijuli	1.8	Nil	Nil	Nil	Nil
Tamulpur	1.7	Nil	Nil	Nil	Nil
Baganpara	1.2	Nil	Nil	Nil	Nil
Baksa	2	Nil	Nil	Nil	Nil
Barama	2.3	Nil	Nil	Nil	Nil
Gobardhana	2.2	Nil	Nil	Nil	Nil
Jalah	1.4	Nil	Nil	Nil	Nil
Total	**14**	**Nil**	**Nil**	**Nil**	**Nil**

4.6 Total Water Demand of the district for various sectors

This section presents the total water demand of the district and has been calculated by summing up all major sectors consuming water. The current water demand has been indicated in Table 4.6(a) and the projected water demand has been depicted in Table 4.6 (b).

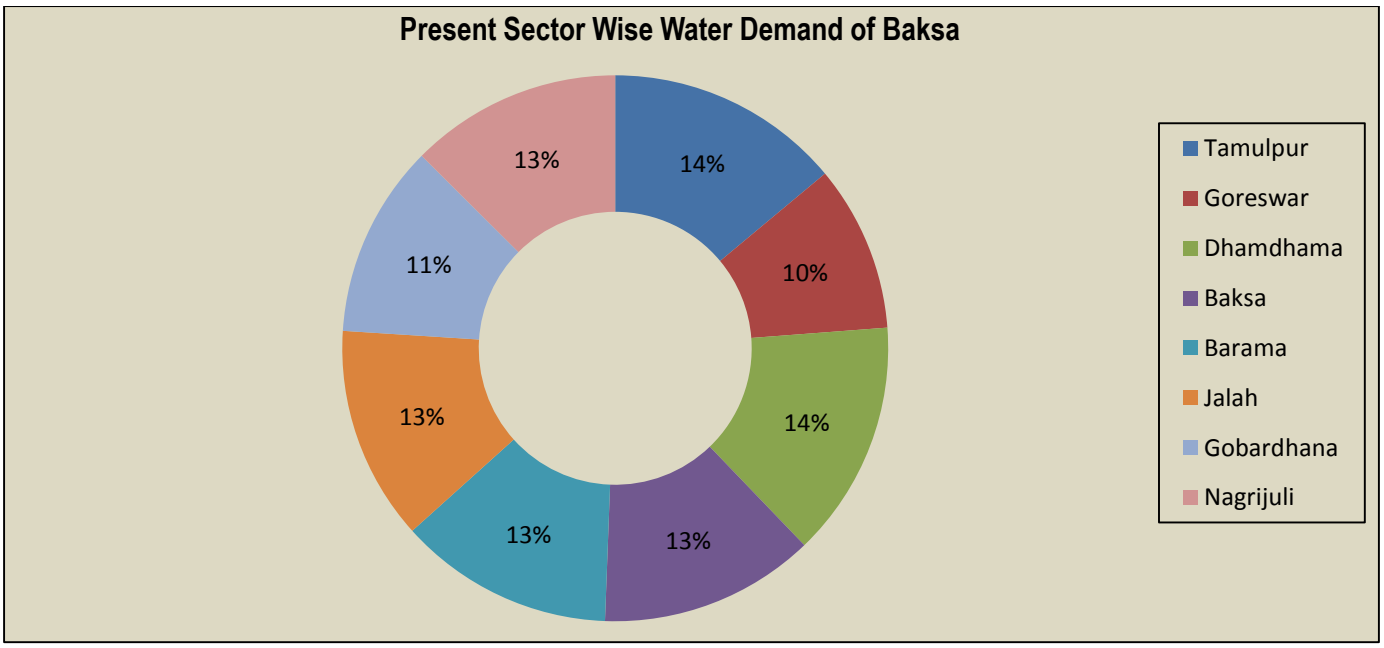
Table 4.6(a): Present Water Demand of the district for various sectors

Blocks	Demand from components (MCM)					Total
	Domestic	Crop	Livestock	Industrial	Power Generation	
Goreswar	4.46	148.19	1.60	1.1	0	155.35
Nagrijuli	2.53	103.74	0.80	2.2	0	109.27
Tamulpur	4.29	146.79	3.25	1.8	0	156.13
Dhamdhama	2.29	135.81	1.95	2.1	0	142.15
Baksa	3.33	135.42	1.23	1.9	0	141.88
Barama	1.89	135.91	0.39	2.7	0	140.89
Gobardhana	3.95	119.43	2.26	1.5	0	127.14
Jalah	3.62	133.54	1.37	1.2	**0**	139.73
Total	**26.36**	**1058.84**	**12.85**	**14.5**	**0**	**1112.55**

Table 4.6(b): Water Demand of the district for various sectors (Projected for 2020)

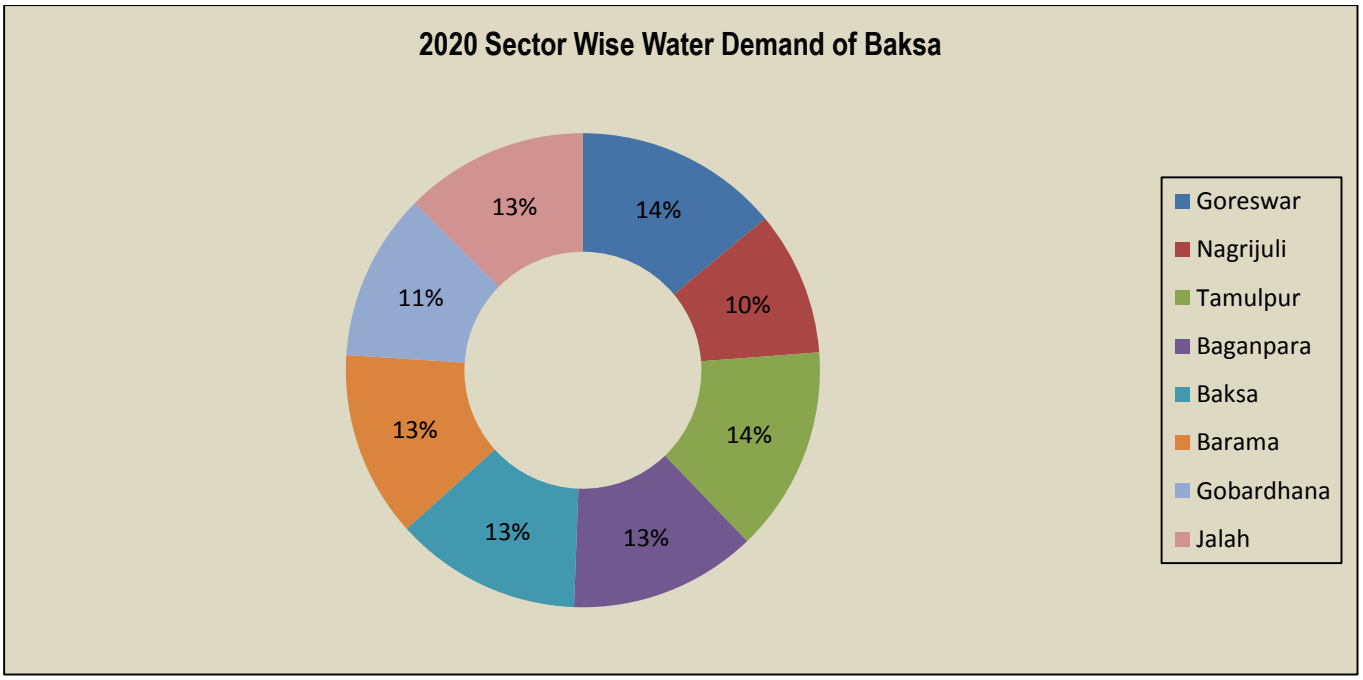
Blocks	Demand from components (MCM)					
	Domestic	Crop	Livestock	Industrial	Power Generation	Total
Goreswar	4.66	148.19	1.65	1.4	0	155.9
Nagrijuli	2.64	103.74	0.82	2.8	0	110
Tamulpur	4.29	146.79	3.35	2.3	0	156.73
Dhamdhama	2.29	135.81	2.01	2.7	0	142.81
Baksa	3.33	135.42	1.27	2.4	0	142.42
Barama	1.97	135.91	0.40	3.4	0	141.68
Gobardhana	4.12	119.43	2.32	1.9	0	127.77
Jalah	3.77	133.54	1.40	1.5	0	140.21
Total	**27.07**	**1058.84**	**13.23**	**18.4**	**0**	**1117.54**

Figure 4.6(a): Present Water Demand of the district



The present water demand of the district has been assessed at 1112.55 MCM annually, with Tamulpur being the block with maximum requirement of water followed closely by Goreswar. Dhamdhama and Baksa stand at the 3rd and 4th position respectively with 12.78% and 12.75% of total water required by district.

Figure 4.6(b): Projected Water Demand of the district



During 2020, the demand shall be proportionate to the current water demand and total water requirement has been assessed at 1117.54 MCM.

4.7 Water budget

As discussed in chapter 3, there are no ground water sources in Bilaspur. Hence, surface water is being used to fulfill the requirement of existing water consumption.

Table 4.7: Water Budget

Name of Blocks	Existing water availability (MCM)	Total (MCM)	Water Demand (MCM)		Water Gap (MCM)	
			Present	Projected (2020)	Present	Projected (2020)
Goreswar	38.3	20	155.4	155.9	117.1	117.6
Nagrijuli	15.7	23	109.3	110	93.6	94.3
Tamulpur	39.9	24	156.1	156.7	116.2	116.8
Dhamdhama	19.5	24	142.2	142.8	122.7	123.4
Baska	19.6	24	141.9	142.4	122.3	122.8
Barama	18.4	24	140.9	141.7	122.5	123.3
Gobardhana	24.5	19	127.1	127.8	102.6	103.2
Jalah	19.4	17	139.7	140.2	120.3	120.8
Total	**195.3**	**174**	**1112.6**	**1117.5**	**917.3**	**922.3**

The total water gap for the district has been estimated at 922.3 MCM during 2020. The gap is maximum in case of Dhamdhama block with 123.4 MCM followed closely by Barama (123.3 MCM) and Baska (122.8 MCM).

Figure 4.7(a): Present Water Demand & Gap Present (in MCM)

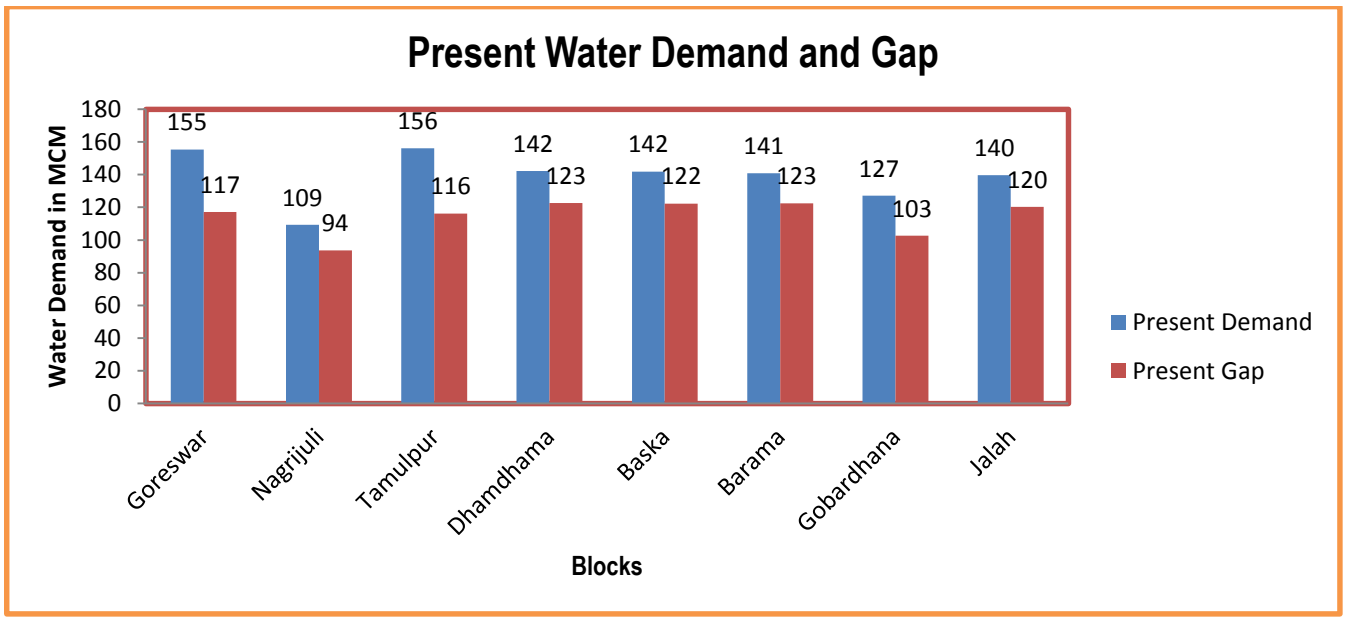
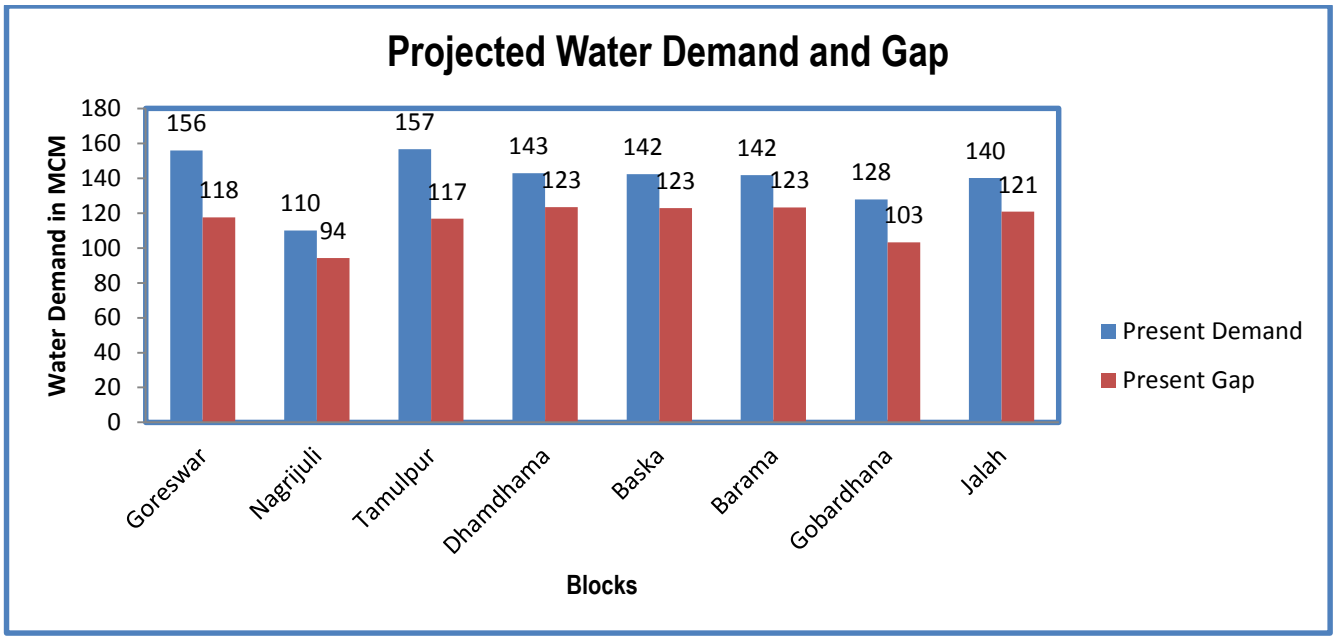


Figure 4.7(b): Projected (2020) Water Demand & Gap Present (in MCM)



Chapter 5 : Strategic Action Plan for Irrigation

The vision of the scheme PMKSY is to ensure access to some means of protective irrigation to all agricultural farms in the country, to increase water use efficiency by its 'per drop more crop' subcomponent, thus bringing much desired rural prosperity. The need of the hour is to have well managed watershed resources which not only enhances the ecological resource base of a rural economy but will also create sustainable livelihood opportunity.

5.1 Strategic Plan for irrigation in PMKSY.

At present, the schemes implemented by all the departments are broadlybased and are required to be specific and location/ problem based. A systematic integrated approach having full participation of the users in the planning process is the need of the hour and extension facilitation should be inter-disciplinary. On the basis of methodology described above, a strategic plan for four years has been prepared starting from 2016-17 to 2019-20.

The schemes have been prepared by the proper consultation with the actual beneficiaries. The plan in brief is detailed below.

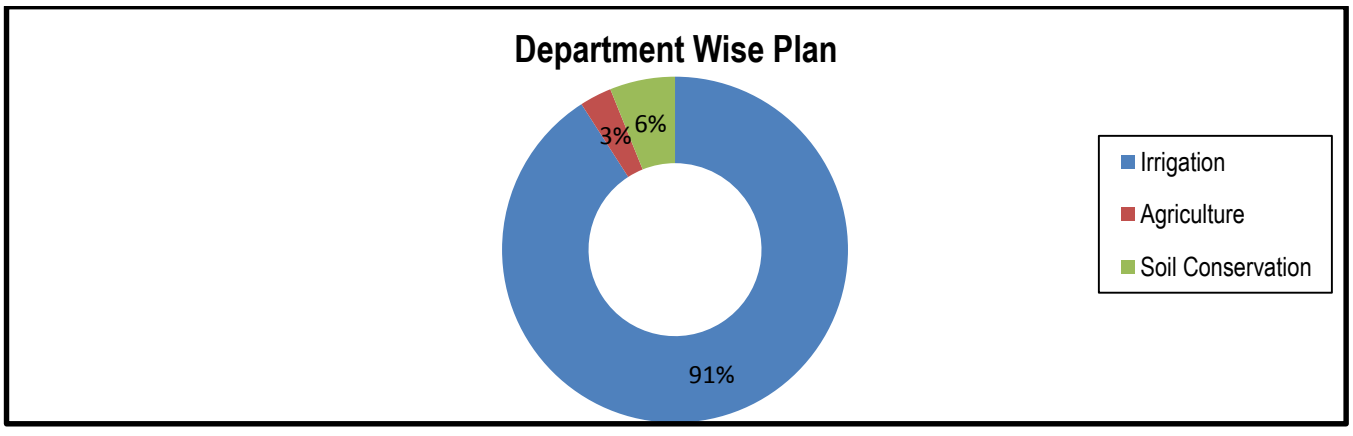
5.2 Department wise total Plan of the district

Estimated plan for whole district under the scheme for five years works out to be Rs. 2824.53 crores. Irrigation Department accounts for the maximum share of about Rs. 2566.91 crores (90.9%) and is followed by Soil Conservation with a budget of Rs. 172.97 crores (6.1%) while Agriculture Department has a share of 3.0% with a budget of Rs. 84.65 crores. While working out the plan, phasing of ongoing irrigation projects has been considered. However, from the proposal of departments, eligible activities under RIDF will be covered as per the funds requirement of the State. Capacity building, extension and training are important components for successful execution of the plan. Department wise plan for 2016-17, 2017-18, 2018-19 and 2019-20 has been proposed

Table 5.2: Department-wise plan

Department wise estimation (Amount in INR Crores)				
	Irrigation	Agri/Horti	Soil Conservation	Total
Total	2566.91	84.65	172.97	2824.53

Figure 5.2: Department-wise plan



5.3 Component-wise Plan

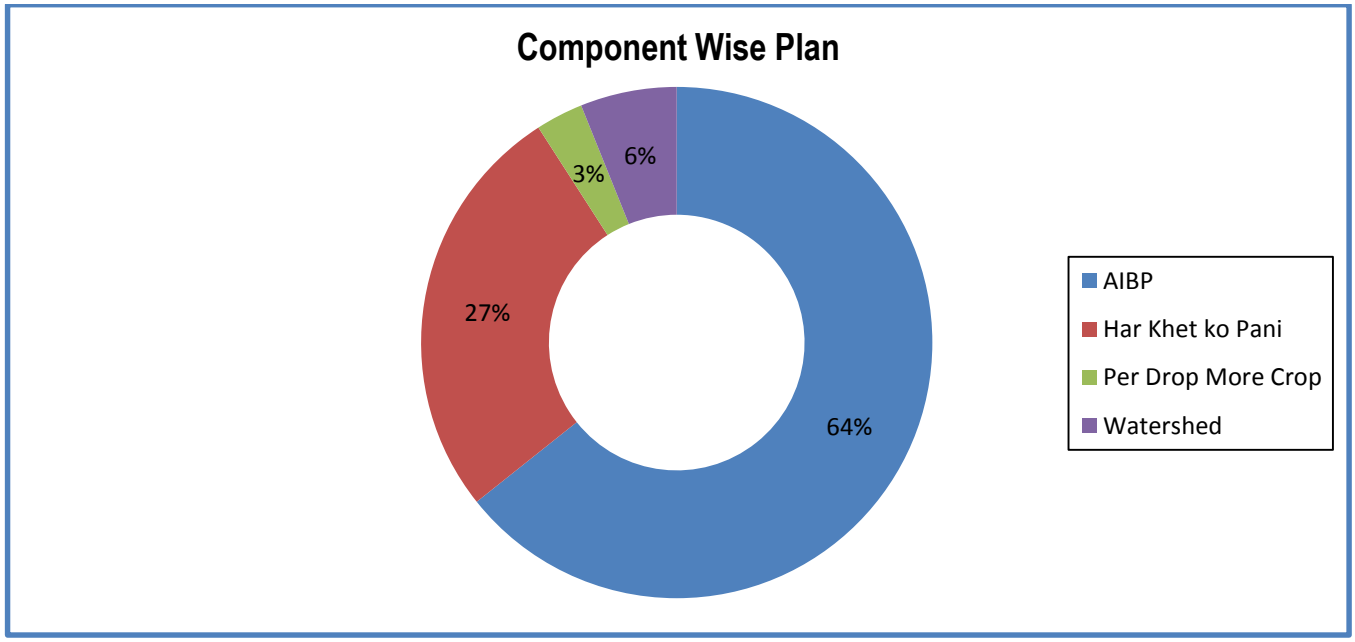
The plan is prepared component wise also. Table 5.3 shows component wise plan for 4 years starting from 2016-17 to 2019-20. AIBP component has to be executed mainly by Irrigation Department. Her Khet ko Pani and Per Drop More Crop components will be executed by Horticulture department mainly. Watershed component will be taken care of by the Agriculture Department and Rural Development Department. Extension & training component will be executed by ATMA. Since Agriculture Department has also proposed plan under PMKSY watershed, it has to coordinate with the Rural Development Department. However, all the stakeholders need to have coordination among themselves to have the maximum irrigation efficiency and to avoid duplicity. Figure 5.2 is the graphical representation of various components of PMKSY. It is observed that maximum share of 64.3% is for AIBP followed by Har Khet ko Pani 26.6%, Watershed (6.1%) and Per drop More Crop (3.0%).

Table 5.3: Component-wise plan (Amount in INR Crores)

Block	AIBP	Har Khet ko Pani	Per Drop More Crop	Watershed	Total
Baska	316.61	102.56	43.17	21.63	**483.97**
Tihu Barama	53.37	52.00	8.45	16.00	**129.82**
Gobardhana	50.51	72.47	5.40	13.69	**142.07**
Tamulpur	202.56	145.52	8.95	28.73	**385.76**
Nagrijuli	457.39	74.81	1.53	20.31	**554.04**
Jalah	197.72	100.295	12.68	16.61	**327.30**
Dhamdhama	176.47	84.58	3.64	33.41	**298.10**
Goreswar	360.15	119.9	0.83	22.59	**503.47**
Total	**1814.77**	**752.13**	**84.65**	**172.97**	**2824.53**

Source: Department of Agriculture, Baksa

Figure 5.3: Component-wise plan



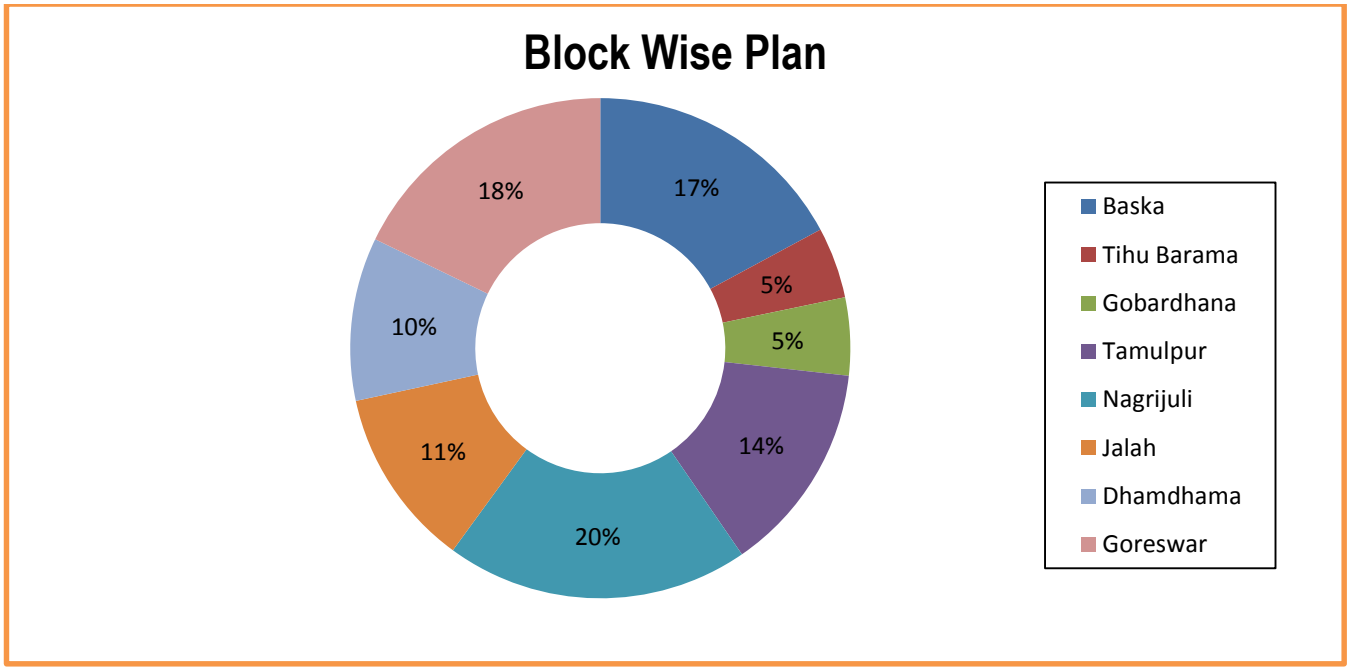
5.4 Block-wise Plan under PMKSY

Out of the total plan of 2824.53crores, 19.6% is pertaining to Nagrijuli while Goreswar has a share of 17.8%. The share of Baksa block is to the tune of 17.1% in total plan. Table below describes block and department wise share in plan.

Table 5.1: Block wise plan under PMKSY

Department wise Block level estimation (Amount in INR Crores)				
Block	**Irrigation**	**Agri/Horti**	**Soil Conservation**	**Total**
Baska	419.17	43.17	21.63	483.97
Tihu Barama	105.37	8.45	16.00	129.82
Gobardhana	122.98	5.40	13.69	142.07
Tamulpur	348.08	8.95	28.73	385.76
Nagrijuli	532.2	1.53	20.31	554.04
Jalah	298.01	12.68	16.61	327.3
Dhamdhama	261.05	3.64	33.41	298.1
Goreswar	480.05	0.83	22.59	503.47
Total	**2566.91**	**84.65**	**172.97**	**2824.53**

Figure 5.4: Block-wise share in plan



5.5 Suggestions

For successful implementation of PMKSY plan it is suggested that:

- All the stakeholders should convene meeting of Panchayat Samities and then finalize the village plan and prepare DPR.
- There should not be any duplicity of project.
- The Department should supplement each other so that the maximum irrigation efficiency is achieved.
- Agriculture and Horticulture Department should take micro irrigation projects in the command of minor irrigation projects which are either completed or likely to be completed in near future.
- All the irrigation projects should have a component of water conveyance so that the each drop of water is judiciously utilized.
- Where ever feasible, solar pumpsets should be installed.
- All the structures planned should be geo tagged and marked on map, so that social monitoring of the projects can be conducted. This will also avoid the duplicity.
- Priority should be given to projects to minimize the gap in potential created and potential utilized.
- Wherever sites with low head LIS have already been exhausted, higher per hectare norms should be allowed.
- Execution of the scheme should be expeditiously completed.
- There should be smooth fund flow for timely completion of the project and to avoid cost escalation.

5.6 Expected Outcome

As stated above in earlier chapters gross sown area of the district is **164862** hectare of which **22043** hectare is irrigated. Thus there is a gap of **142819** hectare which can be converted from rainfed to area under assured irrigation. As the water requirement of crops for the existing cropping pattern works out to be **1058.84** MCM and if the gross cropped area is to be brought under irrigated area, **917.27** MCM water is required. Though the water (surface and ground water) is available in the district yet it will not be feasible to create irrigation potential to the extent of 100% as the construction of irrigation project may not be economically viable even if it is technically feasible. In hilly area due to tough terrain, high head, small and fragmented land holdings, per hectare cost may be very high. Moreover it may not be feasible to develop all the sources within a short spell of four years for which the plan is being prepared.

ANNEXURES

ANNEXURE – 1: BLOCK WISE SOIL EROSION & RUNOFF STATUS

1) Name of Block: Goreswar

1.6 Soil Erosion and Runoff Status*											Source: ICAR Regional Centre and sediment monitoring Stations
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Goreswar											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
JiaborSuklai MWS 1	JiaborSuklai	91°39'46.75"E	26°35'31.79"N	3.2	1.7	3	16	1	0	0	Nil
JiaborSuklai MWS 2	JiaborSuklai	91°35'40.70"E	26°30'29.02"N	3.05	1.5	5	15	0	1	0	Nil
JiaborSuklai MWS 3	JiaborSukla	91°30'38.65"E	26°28'20.01"N	2.8	1.8	6	12	0	0	1	Nil
L-Bor MWS 1	L-Bor	91°28'30.60"E	26°25'58.01"N	3.7	1.4	8	13	0	1	0	Nil
L-Bor MWS 2	L-Bor	91°25'28.63"E	26°26'22.01"N	2.9	1.6	7	20	0	0	1	Nil
L-Bor MWS 3	L-Bor	91°20'22.60"E	26°35'20.01"N	4	1.7	1	21	0	1	0	Nil
L-Bor MWS 4	L-Bor	91°46'50.77"E	26°32'19.05"N	2.2	1.3	5	22	1	0	0	Nil

2) Name of Block: Nagrijuli

1.6 Soil Erosion and Runoff Status*											Source: ICAR Regional Centre and sediment monitoring Stations
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Nagrijuli											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Balti	Balti	91°26'17.63"E	26°46'52.96"N	3.5	1.5	5	17	1	0	0	Nil
Borolia	Borolia	91°32'22.58"E	26°44'30.32"N	2.3	1.7	7	19	0	0	1	Nil
Motonga MWS 1	Motonga	91°35'25.58"E	26°30'25.32"N	3.2	1.2	4	22	0	1	0	Nil
Motonga MWS 2	Motonga	91°40'59.56"E	26°35'23.22"N	3.4	1.6	6	20	0	0	1	Nil

3) Name of Block: Tamulpur

1.6 Soil Erosion and Runoff Status*					Source: ICAR Regional Centre and sediment monitoring Stations						
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Tamulpur											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Motonga MWS 1	Motonga	91°26'17.263"E	26°39'56.967"N	3.7	1.9	6	19	0	1	0	Nil
Motonga MWS 2	Motonga	91°40'59.567"E	26°35'23.229"N	3.1	1.2	5	22	0	0	1	Nil
Motonga MWS 3	Motonga	91°35'08.623"E	26°48'17.23"N	3.5	1.5	8	25	1	0	0	Nil
Motonga MWS 4	Motonga	91°44'16.563"E	26°29'17.261"N	2.9	1.4	4	23	1	0	0	Nil

4) Name of Block: Dhamdhama

1.6 Soil Erosion and Runoff Status*					Source: ICAR Regional Centre and sediment monitoring Stations						
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Dhamdhama											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Diring MWS 1	Diring	91°22'38.829"E	26°44'48.589"N	3.95	1.6	6	14	1		0	Nil
Diring MWS 2	Diring	91°25'21.584"E	26°30'49.115"N	3.25	1.5	5	19	0	1	0	Nil
Diring MWS 3	Diring	91°29'17.206"E	26°35'46.257"N	2.9	1.9	8	17	0	0	1	Nil
Diring MWS 4	Diring	91°32'44.902"E	26°47'26.97"N	3.6	1.1	4	20	1	0	0	Nil

5) Name of Block: Tihu Barama

1.6 Soil Erosion and Runoff Status*				Source: ICAR Regional Centre and sediment monitoring Stations							
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: TihuBarama											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Mora Pagaldia MWS-1	Mora Pagaldia	91°21'30.3"E	26°35'6.097"N	4	1.5	5	16	1	0	0	Nil
Mora Pagaldia MWS-2	Mora Pagaldia	91°24'47.319"E	26°30'27.7"N	3.8	1.3	7	17	0	1	0	Nil

6) Name of Block: Baska

1.6 Soil Erosion and Runoff Status*				Source: ICAR Regional Centre and sediment monitoring Stations							
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Baska											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Mora Pagaldia MWS-3	Mora Pagaldia	91°16'39.054"E	26°47'52.759"N	2.9	1.1	6	20	0	0	1	Nil

7) Name of Block: Jalah

1.6 Soil Erosion and Runoff Status*		Source: ICAR Regional Centre and sediment monitoring Stations									
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Jalah											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Kaldia MWS-1	Kaldia	91°8'35.072"E	26°48'31.307"N	3	1.8	7	16	0	0	1	Nil
Kaldia MWS-2	Kaldia	91°14'17.714"E	26°38'10.267"N	2.5	1.4	5	18	1	0	0	Nil
Kaldia MWS-3	Kaldia	91°12'39.54"E	26°42'52.79"N	3.5	1.3	4	15	0	1	0	Nil
Kaldia MWS-4	Kaldia	91°20'29.415"E	26°47'2.59"N	2.7	1.9	6	22	0	0	0	Nil
Kaldia MWS-5	Kaldia	91°16'9.014"E	26°45'50.25"N	3.2	1.5	3	21	0	1	0	Nil

Name of Block: Gobardhana

1.6 Soil Erosion and Runoff Status*		Source: ICAR Regional Centre and sediment monitoring Stations									
Name of the State: Assam											
Name of District: Baksa											
Name of the Block: Gobardhana											
Name of the Micro Watershed	Name of the Sediment Monitoring Station	Longitude	Latitude	Soil Erosion (Tone/ha)	Runoff						Drought Frequency
					Peak Rate (cum/hr)	Frequency of Peak (No in Months)	Total Runoff Volume of Rainy Season (ha-m)	Time of return of Maximum flood			
								5 Years	10 Years	In Years	
Polla MWS-1	Polla	90°54'39.881"E	26°46'27.099"N	2.5	1.5	8	15	0	1	0	Nil
Polla MWS-2	Polla	91°4'35.222"E	26°32'10.493"N	3	1.7	5	17	1	0	0	Nil
Polla MWS-3	Polla	91°8'9.014"E	26°45'20.25"N	3.5	1.4	7	20	0	1	0	Nil
Polla MWS-4	Polla	91°6'9.256"E	26°42'25.105"N	2.3	1.1	6	22	0	0	1	Nil

ANNEXURE – 2: BLOCK WISE STRATEGIC ACTION PLAN UNDER PMKSY

1) Name of Block: Baska

Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Baska Development Block	MoWR	AIBP	Major Irrigation				
2		MoWR		Medium Irrigation				
3		MoWR		Surface Minor Irrigation	114 (List enclosed)	8431	3	31661.09
4		MoWR	Har khet ko pani	Lift Irrigation				
5		MoWR		Ground water Development	-	-	-	
6		MoWR		RRR of Water Bodies	5 (List enclosed)	571	2	2856.00
7		MoWR		Construction of Field Channels				
7.1		MoWR		Lined Field Channels	110		2	4400.00
7.2		MoWR		Unlined Field Channels	150		2	3000.00
8		MoWR		Micro Irrigation				
9	Baska Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	127	8515.564	1/2/3/4 yr	2128.891
15				Secondary Storage Structures	142	8753.864	1/2/3/4/5 yr	2188.466
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)	-	-	-	-

Chapter 5. Strategic Action Plan for Irrigation in Baska Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implementation (5/7 Years)**	**Estimated cost (in lakhs)**	
17	Baska	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.1		DoLR - MoRD		Farm Ponds	28/142000m³	75	1st,2nd,3rd,4th and 5th yr	56.00	
17.2		DoLR - MoRD		Check Dams	92/138m³	2018	1st,2nd,3rd and 4th yr	738.30	
		DoLR - MoRD		RTP	92/6100 RM	2315	1st,2nd,3rd and 4th yr	353.80	
		DoLR - MoRD		Earthen Channel	36/9000 RM	619	1st,2nd,3rd and 4th yr	27.00	
		DoLR - MoRD		LDP	71/71000m³	3157	1st,2nd,3rd and 4th yr	725.00	
		DoLR - MoRD		Plantation	8/25 Hac	-	1st yr	40.00	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	9	15	1st,2nd and 3rd yr	17.50	
17.6		DoLR - MoRD		Fishery pond / cattle pond	27/42311m³	42	1st,2nd,3rd,4th and 5th yr	67.00	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	17/73300m³	57	1st,2nd,3rd,4th and 5th yr	34.50	
18.2		DoLR - MoRD		Check Dams	27	394	1st,2nd and 3rd yr	57.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	23	19	1st,2nd and 3rd yr	29.00	
18.6	Baska	DoLR - MoRD	PMKSY Watershed	Fishery pond / cattle pond	13	18	1st,2nd,3rd,4th and 5th yr	17.50	

2) Name of Block: Tihu Barama Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Tihu - Barama Development Block	MoWR	AIBP	Major Irrigation				
2				Medium Irrigation				
3				Surface Minor Irrigation	32 (List enclosed)	2245	3	5336.64
4		MoWR	Har khet ko pani	Lift Irrigation				
5		MoWR		Ground water Development				
6		MoWR		RRR of Water Bodies				
7		MoWR		Construction of Field Channels				
7.1		MoWR		Lined Field Channels	80	1280	2	3200
7.2		MoWR		Unlined Field Channels	100	800	2	2000
8		MoWR		Micro Irrigation				
9	Tihu - Barama Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	13	833.94	1/2 yr	208.485
15				Secondary Storage Structures	46	2547.756	1/2/3 yr	636.939
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Barama Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Tihu - Barama Development Block	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of
17.1		DoLR - MoRD		Farm Ponds	17/8340m³	438	1st,2nd,3rd,4th and 5th yr	51.00	

17.2		DoLR - MoRD		Check Dams	37/555m³	1746	1st,2nd,3rd and 4th yr	296.92	PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
		DoLR - MoRD		RTP	29/5950 RM	3749	1st,2nd,3rd,4th and 5th yr	429.00	
		DoLR - MoRD		Earthen Channel	18/7200 RM	187	1st,2nd,3rd,4th and 5th yr	112.00	
		DoLR - MoRD		LDP	49/9800 RM	467	1st,2nd,3rd,4th and 5th yr	498.00	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	13/235m³	-	1st,2nd and 3rd yr	27.00	
17.6		DoLR - MoRD		Fishery pond / cattle pond	12	29	1st,2nd,3rd,4th and 5th yr	34.35	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	12/53200m³	41	1st,2nd,3rd,4th and 5th yr	24.50	
18.2		DoLR - MoRD		Check Dams	31	412	1st,2nd and 3rd yr	47.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	34	38	1st,2nd and 3rd yr	49.00	
18.6		DoLR - MoRD		Fishery pond / cattle pond	31	39	1st,2nd,3rd,4th and 5th yr	32.20	

3) Name of Block: Gobardhana Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Gobardhana Development Block	MoWR	AIBP	Major Irrigation				
2		MoWR		Medium Irrigation				
3		MoWR		Surface Minor	19	2131	3	5051

				Irrigation	(List enclosed)			
4		MoWR		Lift Irrigation				
5		MoWR		Ground water Development				
6		MoWR		RRR of Water Bodies	1 (List enclosed)	114	2	747
7		MoWR	Har khet ko pani	Construction of Field Channels				
7.1		MoWR		Lined Field Channels	100	1600	2	4000
7.2		MoWR		Unlined Field Channels	125	1000	2	2500
8		MoWR		Micro Irrigation				
9	Gobardhana Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	22	1458.112	1 yr	364.528
15				Secondary Storage Structures	12	702.34	1/2 yr	175.585
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Gobardhana Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	

17	Gobardhana Development Block	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.1		DoLR - MoRD		Farm Ponds	60/135000m³	957	1st,2nd,3rd,4th and 5th yr	114.75	
17.2		DoLR - MoRD		Check Dams	21/1680m³	2041	1st,2nd,3rd and 4th yr	247.31	
		DoLR - MoRD		RTP	34/14571m³	2612	1st,2nd,3rd and 4th yr	305.99	
		DoLR - MoRD		Earthen Channel	151/113250m³	1697	1st,2nd,3rd and 4th yr	203.85	
		DoLR - MoRD		LDP	216/453600m³	3179	1st,2nd,3rd and 4th yr	381.02	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	-	-	-	-	
17.6		DoLR - MoRD		Fishery pond / cattle pond	-	-	-	-	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	14/64000m³	43	1st,2nd,3rd,4th and 5th yr	27.00	
18.2		DoLR - MoRD		Check Dams	14	314	1st,2nd and 3rd yr	41.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	12	16	1st,2nd and 3rd yr	20.00	
18.6		DoLR - MoRD		Fishery pond / cattle pond	19	47	1st,2nd,3rd,4th and 5th yr	28.00	

4) Name of Block: Tamulpur Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Tamulpur	MoWR	AIBP	Major Irrigation				

2	Development Block			Medium Irrigation	1	8907	4	7563
3				Surface Minor Irrigation	48 (List enclosed)	6122	2	12693.07
4		MoWR	Har khet ko pani	Lift Irrigation				
5		MoWR		Ground water Development	40	983	2	4291.87
6		MoWR		RRR of Water Bodies	5 (List enclosed)	631	2	3660
7		MoWR		Construction of Field Channels				
7.1		MoWR		Lined Field Channels	105	1680	2	4200
7.2		MoWR		Unlined Field Channels	120	960	2	2400
8		MoWR		Micro Irrigation				
9	Tamulpur Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	36	2199.28	1/2/3 yr	549.82
15				Secondary Storage Structures	24	1380.716	1/2 yr	345.179
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Tamulpur Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Tamulpur/Tamulpur	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same
17.1		DoLR - MoRD		Farm Ponds	26/94500m³	842	1st,2nd,3rd,4th and 5th yr	143.00	
17.2		DoLR - MoRD		Check Dams	42	2184	1st,2nd,3rd and 4th yr	432.00	
		DoLR - MoRD		RTP	65/53416m³	9347	1st,2nd,3rd,4th and 5th yr	1117.50	
		DoLR - MoRD		Earthen Channel	-	-	-	-	
		DoLR - MoRD		LDP	87/535864m³	6578	1st,2nd,3rd,4th and 5th yr	874.50	
		DoLR - MoRD		Plantation	47	50	1st,2nd,3rd,4th yr	72.00	

17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	19	29	1st,2nd and 3rd yr	32.50	
17.6		DoLR - MoRD		Fishery pond / cattle pond	25/543117m³	34	1st,2nd,3rd,4th and 5th yr	74.00	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	13/73120m³	84	1st,2nd,3rd,4th and 5th yr	27.50	
18.2		DoLR - MoRD		Check Dams	24	384	1st,2nd and 3rd yr	54.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	12	15	1st,2nd and 3rd yr	23.00	
18.6		DoLR - MoRD		Fishery pond / cattle pond	18	27	1st,2nd,3rd,4th and 5th yr	22.50	

5) Name of Block: Nagrijuli Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Nagrijuli Development Block	MoWR	AIBP	Major Irrigation	1	13000	7	37500
2		MoWR		Medium Irrigation	-	-	-	-
3		MoWR		Surface Minor Irrigation	53 (List enclosed)	5528	3	8239.00
4		MoWR	Har khet ko pani	Lift Irrigation				
5		MoWR		Ground water Development	7	133	2	560.00
6		MoWR		RRR of Water Bodies	3 (List enclosed)	246	2	1221.00
7		MoWR		Construction of Field Channels				
7.1		MoWR		Lined Field Channels	90	1440	2	3600.00
7.2		MoWR		Unlined Field	105	840	2	2100.00

				Channels				
8		MoWR		Micro Irrigation				
9	Nagrijuli Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	11	611.592	1/2 yr	152.90
15				Secondary Storage Structures	-	-	-	-
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Nagrijuli Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Nagrijuli Development Block	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.1		DoLR - MoRD		Farm Ponds	26/247500m³	1083	1st,2nd,3rd,4th and 5th yr	130	
17.2		DoLR - MoRD		Check Dams	77/3723m³	5174	1st,2nd,3rd and 4th yr	616	
		DoLR - MoRD		RTP	73/27857m³	4876	1st,2nd,3rd,4th and 5th yr	584	
		DoLR - MoRD		Plantation	12	67	1st,2nd,3rd,4th and 5th yr	72	
		DoLR - MoRD		Earthen Channel	-	-	-	-	
		DoLR - MoRD		LDP	60/377428m³	4127	-	480	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	

17.5		DoLR - MoRD		Other Ground Water Recharge structure	-	-	-	-	
17.6		DoLR - MoRD		Fishery pond / cattle pond	24/237000m³	978	1st,2nd,3rd,4th and 5th yr	120.00	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	7/11467m³	33	1st,2nd,3rd,4th and 5th yr	11.50	
18.2		DoLR - MoRD		Check Dams	3/127m³	176	1st,2nd and 3rd yr	5.87	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	-	-	-	-	
18.6		DoLR - MoRD		Fishery pond / cattle pond	8/13457m³	12	1st,2nd,3rd,4th and 5th yr	11.97	

6) Name of Block: Jalah Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Jalah Development Block	MoWR	AIBP	Major Irrigation				
2				Medium Irrigation				
3				Surface Minor Irrigation	64 (List enclosed)	7860	3	19771.59
4		MoWR	Har khet ko pani	Lift Irrigation				
5				Ground water Development				
6				RRR of Water Bodies	4 (List enclosed)	303	2	2229.5
7				Construction of Field Channels				
7.1				Lined Field Channels	120	1920	2	4800

7.2				Unlined Field Channels	150	1200	2	3000
8				Micro Irrigation				
9	Jalah Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				
12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	40	2571	1/2/3 yr	642.78
15				Secondary Storage Structures	42	2500	1/2/3 yr	625
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Jalah Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Jalah Development Block	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR,
17.1		DoLR - MoRD		Farm Ponds	17/6100m³	97	1st,2nd,3rd,4th and 5th yr	117.00	
17.2		DoLR - MoRD		Check Dams	31	1795	1st,2nd,3rd and 4th yr	347.00	
		DoLR - MoRD		RTP	67/16264m³	4473	1st,2nd,3rd yr	536.00	
		DoLR - MoRD		Earthen Channel	-	-	-	-	
		DoLR - MoRD		LDP	40/25180m³	2673	1st,2nd,3rd yr	320.00	
		DoLR - MoRD		Plantation	18	113	1st,2nd,3rd yr	108.00	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge	27	29	1st,2nd and 3rd yr	37.70	

				structure					MoRD, GOI
17.6		DoLR - MoRD		Fishery pond / cattle pond	31/62531m³	74	1st,2nd,3rd,4th and 5th yr	56.00	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	12/58000m³	38	1st,2nd,3rd,4th and 5th yr	21.60	
18.2		DoLR - MoRD		Check Dams	24	424	1st,2nd,3rd yr	54.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	17	19	1st,2nd and 3rd yr	12.00	
18.6		DoLR - MoRD		Fishery pond / cattle pond	25	42	1st,2nd,3rd,4th and 5th yr	52.20	

7) Name of Block: Dhamdhama Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Dhamdhama Development Block	MoWR	AIBP	Major Irrigation				
2				Medium Irrigation				
3				Surface Minor Irrigation	159 (List enclosed)	5238	5	17647.18
4		MoWR	Har khet ko pani	Lift Irrigation				
5				Ground water Development				
6				RRR of Water Bodies	3 (List enclosed)	269	5	1958
7				Construction of Field Channels				
7.1				Lined Field Channels	100	1600	5	4000
7.2				Unlined Field Channels	125	1000	5	2500
8				Micro Irrigation				
9	Dhamdhama Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				

12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	2	128.46	1/2 yr	32.12
15				Secondary Storage Structures	22	1326.676	1/2/3/4 yr	331.67
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Dhamdhama Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Dhamdhama	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.1		DoLR - MoRD		Farm Ponds	35/187000m³	312	1st,2nd,3rd,4th and 5th yr	175.00	
		DoLR - MoRD		RTP	57/51674m³	8492	1st,2nd,3rd,4th yr	1,080.00	
		DoLR - MoRD		Earthen Channel	47/512300 RM	3548	1st,2nd,3rd,4th yr	394.50	
		DoLR - MoRD		LDP	58/704759m³	7543	1st,2nd,3rd,4th yr	896.00	
17.2		DoLR - MoRD		Check Dams	56/112435m³	521	1st,2nd,3rd and 4th yr	560	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	15	25	1st,2nd and 3rd yr	31.00	
17.6		DoLR - MoRD		Fishery pond / cattle pond	22/52142m³	37	1st,2nd,3rd,4th and 5th yr	67.00	
18		DoLR - MoRD		Renovated					

				WHS					
18.1		DoLR - MoRD		Farm Ponds	17/73300m³	57	1st,2nd,3rd,4th and 5th yr	34.50	
18.2		DoLR - MoRD		Check Dams	27	394	1st,2nd and 3rd yr	57.00	
18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	23	19	1st,2nd and 3rd yr	29.00	
18.6		DoLR - MoRD		Fishery pond / cattle pond	13	18	1st,2nd,3rd,4th and 5th yr	17.50	

7) Name of Block: Goreswar Block

5 Strategic Action Plan for Irrigation in District under PMKSY :								
Sl. No.	**Name of the Blocks/Sub Districts**	**Concerned Ministry/ Department**	**Component**	**Activity**	**Total Number/Capacity (Cum)**	**Command Area/Irrigation Potential (Ha)**	**Period of Impementation (5 / 7 years)**	**Estimated Cost (` in Lacs)**
1	Goreswar Development Block	MoWR	AIBP	Major Irrigation	1	6944	5	7738.5
2				Medium Irrigation				
3				Surface Minor Irrigation	50 (List enclosed)	10263.66	5	28276.88
4		MoWR	Har khet ko pani	Lift Irrigation				
5				Ground water Development	12	2018	5	5045
6				RRR of Water Bodies	9 (List enclosed)	2778	5	6945
7				Construction of Field Channels				
7.1				Lined Field Channels				
7.2				Unlined Field Channels				
8				Micro Irrigation				
9	Goreswar Development Block	MOA & FWDAC & FW	Per drop more crop (Micro Irrigation)	DPAP Drip				
10				DPAP Sprinkler				
11				Non - DPAP Drip				

12				Non - DPAP Sprinkler				
13		MOA & FWDAC & FW	Per drop more crop (Supplementary water management activities)	Topping up of MGNREGA				
14				Drought Proofing through check Dams/Water Harvesting Structures	2	105.796	1 yr	26.449
15				Secondary Storage Structures	4	225.716	1/2 yr	56.429
16				On Farm Development (distribution pipe / raised bed and furrow system etc.)				

Chapter 5. Strategic Action Plan for Irrigation in Goreswar Block Under PMKSY									Remarks
Sl. No.	**Name of the Blocks/ Sub Division**	**Concerned Ministry / Department**	**Component**	**Activity**	**Total Number / Capacity (Cum)**	**Command Area / Irrigation Potential (Ha)**	**Period of Implemantation (5/7 Years)**	**Estimated cost (in lakhs))**	
17	Goreswar Development Block	DoLR - MoRD	PMKSY Watershed	Newly created WHS					The activities that are not listed in the prescribed format being included as per the advice of PMKSY Coordination Committee, BTC since the same have been approved already under DPRs of IWMP from DoLR, MoRD, GOI
17.1		DoLR - MoRD		Farm Ponds	121/272250m³	1033	1st,2nd,3rd,4th and 5th yr	231.41	
17.2		DoLR - MoRD		Check Dams	98/4900m³	6015	1st,2nd,3rd and 4th yr	721.32	
		DoLR - MoRD		RTP	78/21840m³	3822	1st,2nd,3rd and 4th yr	458.64	
		DoLR - MoRD		Earthen Channel	203/152250m³	2287	1st,2nd,3rd yr	274.05	
		DoLR - MoRD		LDP	269/564900m³	3963	1st,2nd,3rd,4th and 5th yr	474.51	
17.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
17.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
17.5		DoLR - MoRD		Other Ground Water Recharge structure	15	25	1st,2nd and 3rd yr	31.00	
17.6		DoLR - MoRD		Fishery pond / cattle pond	9/32142m³	12	1st,2nd,3rd,4th and 5th yr	25.50	
18		DoLR - MoRD		Renovated WHS					
18.1		DoLR - MoRD		Farm Ponds	6/32120m³	19	1st,2nd,3rd,4th and 5th yr	15.00	
18.2		DoLR - MoRD		Check Dams	9	326	1st,2nd and 3rd yr	13.50	

18.3		DoLR - MoRD		Nallah Bunds	-	-	-	-	
18.4		DoLR - MoRD		Percolation Tank	-	-	-	-	
18.5		DoLR - MoRD		Other Ground Water Recharge structure	4	5.5	1st,2nd and 3rd yr	6.70	
18.6		DoLR - MoRD		Fishery pond / cattle pond	8	13	1st,2nd,3rd,4th and 5th yr	7.00	

ANNEXURE – 3: LIST OF SCHEMES (FIS, DTW & RRR)

LIST OF SCHEMES

1) Name of Block : Baska

1	Baska	Construction of Burma Badang FIS at Adalbari	47	200
2	Baska	Construction of Geruapara FIS at Geruapara	59	250
3	Baska	Construction of Spillway bund and excavation of Canal at Pub-Athiabari (Mondol Supa)	36	150
4	Baska	Construction of Spillway bund and excavation of Canal at Pub-Athiabari (Bunbari Supa)	47	200
5	Baska	Construction of Spillway bund for Irrigation at Pamuapathar	36	150
6	Baska	Construction of Ratne FIS at Chunibari, Geruapara	42	175
7	Baska	Construction of Spillway bund and excavation of canal at Natunsripur	24	100
8	Baska	Construction of Sripurdeor FIS at Sripurdeor	59	250
9	Baska	Construction of Irrigation Canal from Adalbari to Bamundaba and Puran Golding	14	60
10	Baska	Construction of Katahbari FIS at Katahbari	54	225
11	Baska	Construction of Mahkharia FIS at Mahkharia	59	250
12	Baska	Construction of Irrigation Canal at village Ambari	24	100
13	Baska	Construction of Sarena FIS at Beluguri	36	150
14	Baska	Construction of Check dam at Bunbari	24	100
15	Baska	Construction of Spillway at Sunderbari Rabha Supa	24	100
16	Baska	Construction of Spillway at Panbari Paddy field	29	120
17	Baska	Construction of Grong-Grong FIS at Brahmapur	71	300
18	Baska	Construction of Mogor FIS at Bedlabari	59	250
19	Baska	Construction of Gereng-Gurung FIS at Lamidara Village	59	250
20	Baska	Construction of Odla bund FIS at Dighaldonga	66	275
21	Baska	Construction of Baodia FIS at Chaibari	59	250
22	Baska	Construction of Belguri Pathar FIS at Belguri Pathar	36	150
23	Baska	Construction of Jiaguri Madhya bund FIS at Jiaguri	47	200
24	Baska	Construction of Hemrangdong FIS at Simlabari	71	300
25	Baska	Construction of Bhaibashi FIS at Amraguri	83	350
26	Baska	Construction of tangaguri FIS at Tangaguri	71	300
27	Baska	No. 2 Kataligaon Thakur Supa FIS	59	250
28	Baska	Satisamukha Bamunpara FIS	71	300
29	Baska	Maharichupa Pamuapathar FIS	59	250
30	Baska	Secha Bund at Charaimari	59	250
31	Baska	Bogapara Laphakuchi Bund	47	200
32	Baska	Athiabari Bhebari Bund	59	250

33	Baska	Trishankar Bandh with Canal cutting at Kolbari	24	100
34	Baska	Sundari Bandh at No. 1 Dihira	36	150
35	Baska	Dhansri Mini Irrigation Bandh at No. 1 Dihira	47	200
36	Baska	Sidhu Bandh at Doomni	71	300
37	Baska	Tihu Nodi Jora Bandh at B Block	71	300
38	Baska	Mora Diring with Canal cutting at Daragaon	36	150
39	Baska	Borghuli Bandh at Katligaon	36	150
40	Baska	Gwithwibari Bandh at Swibari	24	100
41	Baska	Mwithabari jora Bandh at Dhanbil	36	150
42	Baska	Bowdia Bandh at No.1 Swibari	59	250
43	Baska	Nizara Bandh at Tinkonia	47	200
44	Baska	Urang Bandh with Canal cutting at Boromchari	47	200
45	Baska	Milan Bandh at Bishnupur	71	300
46	Baska	Khagrabari Nara Bandh at Subanshri	47	200
47	Baska	Simliguri Bandh at Simliguri	47	200
48	Baska	Ladhu Bandh at Doomni	66	275
49	Baska	Parputa Bandh with Canal cutting at Bhogpara	71	300
50	Baska	Palashguri Goraimari Bandh	59	250
51	Baska	Sesa Irrigation Bandh with Distribution Canal at Saraimari	47	200
52	Baska	Salibari Irrigation Bandh at Saraimari	59	250
53	Baska	Rangijuli Irrigation Bandh at Monkor	47	200
54	Baska	Lakhimipatar irrigation Bandh at Lakhimipatar	59	250
55	Baska	Besamari Irrigation Bandh at Totlapara	47	200
56	Baska	Gede Bandh at Bhogpara	36	150
57	Baska	Medhi Bandh at Polashguri	36	150
58	Baska	Hakor Bandh at Bhogpara	24	100
59	Baska	Bhalaguri Bandh with Canal Cutting at Lafakuchi	24	100
60	Baska	Garamdew Bandh with Canal Cutting at Garamdew	59	250
61	Baska	Uttar Lafakuchi Bandh at Lafakuchi	47	200
62	Baska	Uzirbari Pathar Bandh at Uzir Bari	59	250
63	Baska	Tangabari Bandh at Ulubari	47	200
64	Baska	Amrawati Bandh at Amrawati	59	250
65	Baska	Kahibari bund FIS	66	275
66	Baska	Salijan bund FIS	59	250
67	Baska	Natheri FIS	59	250
68	Baska	Manikpur Chemthiapara FIS	71	300
69	Baska	Bakhladoha FIS at Pachim bangnabari	59	250
70	Baska	Renovation of Goraimari FIS at Goraimari	59	250
71	Baska	Baudia FIS	179	750
72	Baska	DIGALDONGA FIS	114	150

73	Baska	MAISUNDRI FIS	428	103.79
74	Baska	POLASHGURI FIS at Polashguri	57	10.06
75	Baska	BHANGRIKHUCHI, HABRANGURI, ABRA AND DURGAPER FIS	143	50.36
76	Baska	JIAGURI FIS at Jiaguri	200	74.87
77	Baska	JABARSALI(SADERI) FIS	143	149.86
78	Baska	TOTLAPARA FIS at Totlapar	57	36.52
79	Baska	GHOGA(LAPHAKUCHI) FIS	114	16.23
80	Baska	BHOGPARA JORTHAN FIS	200	33.96
81	Baska	DIRING FIS AT Mukuti	257	183.35
82	Baska	BUNBARI FIS at Bunbari	86	27.38
83	Baska	DEOJARA FIS at Mushalpur	143	64.75
84	Baska	Bahbaridong F.I.S.	61	117
85	Baska	Bathowpuri Swibari F.I.S. at Borbori	61	81
86	Baska	Ahopa FIS	114	205
87	Baska	Sirisbari FIS	86	140
88	Baska	Bonchola FIS	95	145
89	Baska	DEOJARA FIS at Mushalpur	91	125
90	Baska	Dighaldonga FIS	114	135
91	Baska	Uzirbari FIS	114	140
92	Baska	Tihunadi	91	100
93	Baska	Santaparasilarbund Pub Ahopa FIS	483	964
94	Baska	Karemura Purangoldingtihunadi FIS	463	869
95	Baska	Panbari Omajanoi FIS	303	574
96	Baska	Ambari Belguri FIS	6	9.16
97	Baksa	Jiaguri FIS	23	86.03
98	Baksa	Khoirabari FIS	126	450
99	Baksa	Irrigation in cultivating field under Dhulirguri F.I.S.	6	2.43
100	Baksa	Irrigation in cultivating field under Garamdew F.I.S.	9	22.85
101	Baksa	Irrigation in cultivating field under Ban-Ahopa F.I.S.	7	19.86
102	Baksa	Irrigation in cultivating field under Hatitari F.I.S.	9	32.88
103	Baksa	Irrigation in cultivating field under Shimlaguri F.I.S.	6	13.74
104	Baksa	Irrigation in cultivating field under Bhalaguri F.I.S.	34	129.01
105	Baksa	Irrigation in cultivating field under Dekadong FIS (REVIVAL)		8664
106	Baksa	Irrigation in cultivating field under Ahopa Palashguri DTWIS 4 Points	69	300
107	Baksa	Irrigation in cultivating field under Shimlaguri F.I.S.	9	30
108	Baksa	Irrigation in cultivating field under Ban-Ahopa DTWIS 1 Points	17	75
109	Baksa	Chemtiapara FIS	69	300
110	Baksa	Fulguri FIS	114	500
111	Baksa	Irrigation in cultivating field under Kataligaon DTWIS 5 Points	86	375
112	Baksa	Irrigation in cultivating field under Belguri Pathar DTWIS 3 Points	51	225

113	Baksa	Irrigation in cultivating field under Purana Mushalpur DTWIS 2 Points	34	150
114	Baksa	Irrigation in cultivating field under Ambari DTWIS 3 Points	51	225
		TOTAL	**8431**	**31661.09**
Sl. No.	**Name of Block**	**Name of Scheme**	**Command Area/Irrigation Potential (Ha)**	**Estimated Cost (Rs. In Lakh)**
1	Baksa	Repair, Renovation and Restoration of Jiaguribeel at Jiaguri	114	545
2	Baksa	Repair, Renovation and Restoration of Lambidharabund at Belguri	114	535
3	Baksa	Repair, Renovation and Restoration of Rugung Bhumuk at Amrabati	103	434
4	Baksa	Repair, Renovation and Restoration of Sarenbil at Katligaon.	114	617
5	Baksa	Repair, Renovation and Restoration of Sidhubund at Bhamkatol B block	126	725
		TOTAL	**571**	**2856**

2) Name of Block: Tihu Barama

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Tihu Barama	Construction of Canal of Barimakha Dirring Irrigation Scheme	47	200
2	Tihu Barama	Construction of Canal to Gormara via Dalbari-Kakalabari	59	250
3	Tihu Barama	Construction of Canal from Pub Barimakha to Agchia Paddy field via Dongpar, Pachim Anandapar	24	100
4	Tihu Barama	Construction of Canal from Dolbari to Kadamtal via Ekalabya Model School, Kakalabari	14	60
5	Tihu Barama	Construction of Canal from Murkuchiapar High School to Gormara via Khoirabari	19	80
6	Tihu Barama	Construction of Canal from Sarania Kachari Office to Barimakha Bathou Mandir	12	50
7	Tihu Barama	Construction of Canal from Khutirpathar Irrigation Scheme to Dongpar Paddy field via Pub- Barimakha	24	100
8	Tihu Barama	Construction of Sluice Gate at Paddy Field at Pub-Barimakha	59	250
9	Tihu Barama	Construction of Sluice Gate at Gormara and Canal from Kishan M.E. School to Jarripar village	59	250
10	Tihu Barama	Construction of Sluice gate at Barimakha	71	300
11	Tihu Barama	Construction of Takankata FIS	66	275
12	Tihu Barama	Construction of Lakshipar FIS including protection work.	47	200
13	Tihu Barama	Construction of Lakshinadi FIS at Bogulamari	71	300
14	Tihu Barama	Construction of Debchara FIS including protection work.	71	300
15	Tihu Barama	Construction of Irrigation Scheme at Pachim Debchara	47	200

16	Tihu Barama	Construction of Irrigation Scheme at Anandapur	59	250
17	Tihu Barama	Construction of Irrigation Scheme at Bangalipara	59	250
18	Tihu Barama	Thanguri Lakhibund Ph-II	59	250
19	Tihu Barama	Silaputhi Abra Bund	47	200
20	Tihu Barama	DIRING FIS	514	169.71
21	Tihu Barama	MURMELA FIS at Madhabpur	114	41.64
22	Tihu Barama	KHUCHIJAR FIS	114	41.67
23	Tihu Barama	BAR KHUCHIJAR FIS	114	25.93
24	Tihu Barama	Thanguri Lakhibund	41	77.08
25	Tihu Barama	Alagjar FIS	69	120
26	Tihu Barama	Kamalakur FIS	72	125
27	Tihu Barama	Pallapum FIS	86	130
28	Tihu Barama	Juluki ELIS	3	10.9
29	Tihu Barama	Barama DTW (Mahkhuli Pathar)	11	44.79
30	Tihu Barama	Ajanpur DTW	11	45
31	Tihu Barama	Gelpejhar DTW	11	39.92
32	Tihu Barama	Buradia FIS	171	600
		TOTAL	**2245**	**5336.64**

3) Name of Block: Gobardhana

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Gobardhana	Construction of Giati FIS at Bahbari	214	900
2	Gobardhana	Construction of Dhekiajani FIS at Dhekiajani	95	400
3	Gobardhana	Construction of Mainajan FIS at Bahbari	83	350
4	Gobardhana	Construction of Busraojan FIS at Oxiguri	71	300
5	Gobardhana	Construction of Canal at Mayanadi FIS at Labdangguri	47	200
6	Gobardhana	Construction of Canal at Dakua FIS at Kahitama	47	200
7	Gobardhana	Repairing of Canal at Bunmaja and Rangdia	24	100
8	Gobardhana	Construction of Canal from Tilapara to Nalpara at Udugaon and Dolu gaon	24	100
9	Gobardhana	Dharambiljan FIS	71	300
10	Gobardhana	Construction of Magurjani FIS at Magurjani	119	500
11	Gobardhana	Construction of Kalpani FIS at Kalpani	238	1000
12	Gobardhana	KUMBHIRA FIS AT GATHI	143	5.06
13	Gobardhana	KHUSRATARI FIS	286	70.33
14	Gobardhana	KHANGKRAI FIS	86	9.74

15	Gobardhana	BONMAJAR FIS	86	46.06
16	Gobardhana	DAKHUA BUNDH FIS	171	28.48
17	Gobardhana	Dongobimai F.I.S. at Mainamata Pathar	82	154.17
18	Gobardhana	Khanakhurajan F.I.S.	183	291
19	Gobardhana	Mayandi F.I.S. at Labdanguri	61	96
		TOTAL	**2131**	**5051**
Sl. No.	**Name of Block**	**Name of Scheme**		**Estimated Cost (Rs. In Lakh)**
1	Gobardhana	Repair, Renovation and Restoration of Mainamata Beel at Mainamata Pathar	114	747
		TOTAL	**114**	**747**

4) Name of Block: Tamulpur

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Tamulpur	Borolia Irrigation Scheme (Medium)	8907	7563
2	Tamulpur	Construction of Lakhi bund at Tamulpur	83	350
3	Tamulpur	Kalbari Batia Dong FIS	47	200
4	Tamulpur	Kasli Dong FIS at Mazgadi	47	200
5	Tamulpur	Kalani Dong FIS at dwarkuchi	59	250
6	Tamulpur	Chapatol Dong FIS	47	200
7	Tamulpur	Kahibari Ultakhanda Bund	71	300
8	Tamulpur	Digheli FIS	59	250
9	Tamulpur	Karkhela IS	36	150
10	Tamulpur	Kadanga IS	24	100
11	Tamulpur	Dhekiabasti IS	24	100
12	Tamulpur	Sukanjuli IS (under Bhutan)	24	100
13	Tamulpur	Kuhidong IS	54	225
14	Tamulpur	Merugohain dong FIS	71	300
15	Tamulpur	Rangapani IS	59	250
16	Tamulpur	Anandibund IS	71	300
17	Tamulpur	Lahapara FIS at Uttar golbera	71	300
18	Tamulpur	Nankey Angarkata Motanga Kalanadi Anchalic Bund at Jogeshpur	238	1000
19	Tamulpur	Bogajuli Simliguri FIS	238	1000
20	Tamulpur	DIMILA FIS at Tamulpur	371	304.94
21	Tamulpur	PHUHURABARI FIS	29	11.28
22	Tamulpur	RAMECHUBURI FIS at Ramechuburi	314	113.14
23	Tamulpur	HATIGODI BUND FIS	100	11.21
24	Tamulpur	BELKHUTI FIS	86	49.35
25	Tamulpur	Kalanadi I/S at Darranga	234	253

26	Tamulpur	Darranga I/S at Darranga	228	248.9
27	Tamulpur	Ajaladong F.I.S. at Ulubari	81	95
28	Tamulpur	Bhehguridong F.I.S.,Majgari	82	95
29	Tamulpur	Bheterkur F.I.S.	102	176
30	Tamulpur	Bhuidong F.I.S.	122	177
31	Tamulpur	Gessbund F.I.S.at Sesapani	82	131
32	Tamulpur	Howlkadog F.I.S. at Howlika	65	91
33	Tamulpur	Laldong F.I.S. at Kachubari	82	83
34	Tamulpur	Moradong F.I.S. at Barangabari	61	63
35	Tamulpur	Sarendong F.I.S. at Souraguri	82	89
36	Tamulpur	Beaker Bund FIS at Niz Dafeli	204	390
37	Tamulpur	LEBRA FIS at Paharpur	143	76
38	Tamulpur	Laodong Pakriguri FIS	329	615
39	Tamulpur	Kuhumajan FIS	179	328
40	Tamulpur	Sitontolapaltan Dindangparabahbari FIS	463	902
41	Tamulpur	Ketrabkandulimara Lakhidaobobil FIS	413	812
42	Tamulpur	Kuhipar Barkajuli FIS	441	840
43	Tamulpur	Kaliakurnewnai FIS	374	726
44	Tamulpur	Dimla ELIS	9	30.53
45	Tamulpur	Bihapara ELIS	11	35
46	Tamulpur	Dakhin Gandhibari FIS	57	195.23
47	Tamulpur	Gohain Jan FIS	46	146.49
48	Tamulpur	Niz Dhapeli	9	30
		TOTAL	**15029**	**20256.07**
Sl. No.	**name of Block**	**Name of Scheme**	**Command Area/Irrigation Potential (Ha)**	**Estimated Cost (Rs. In Lakh)**
1	Tamulpur	Benoyapur DTW I/S	19	80
2	Tamulpur	NK Daranga DTW IS	19	80
3	Tamulpur	Padmapar DTW IS	36	150
4	Tamulpur	Daogangbari DTW IS	36	150
5	Tamulpur	Dublibari DTW IS	24	100
6	Tamulpur	Daimabari DTW IS	19	80
7	Tamulpur	Batabari DTW IS	19	80
8	Tamulpur	Halodong DTW IS	18	75
9	Tamulpur	Natun Howli DTW IS	19	80
10	Tamulpur	Deolguri DTW IS	18	75
11	Tamulpur	Naobandha DTW IS	18	75
12	Tamulpur	No. 1 Kakila DTW IS	19	80
13	Tamulpur	Kadamguri DTW IS	19	80
14	Tamulpur	Singramari Garuputa DTW IS	18	75
15	Tamulpur	Dhekelipar DTW IS	19	80

16	Tamulpur	Dakhin Rangapara DTW IS	18	75
17	Tamulpur	Hazaragaon DTW IS	14	60
18	Tamulpur	Tinipukhuri DTW IS	14	60
19	Tamulpur	Geruapar DTW IS	19	80
20	Tamulpur	No. 1 Jamuguri Moraputa DTW IS	17	70
21	Tamulpur	Goalbil DTW IS	18	75
22	Tamulpur	Katahbari DTW IS	19	80
23	Tamulpur	Ramdia DTW IS	19	80
24	Tamulpur	Khairabari DTWIS	19	80
25	Tamulpur	Ghogapar DTWIS(Two points)	34	165
26	Tamulpur	Kalakuchi DTWIS(Two points)	34	165
27	Tamulpur	Guwakuchi DTWIS(Two points)	34	166
28	Tamulpur	Barbila DTWIS(Two points)	34	167
29	Tamulpur	Tetliguri DTWIS(Two points)	34	168
30	Tamulpur	Chapatol DTWIS(Two points)	34	168
31	Tamulpur	Amayaur DTWIS(Two points)	34	168
32	Tamulpur	Panbari DTW IS	20	85
33	Tamulpur	Tamang Dotha DTW IS	24	100
34	Tamulpur	Sengh DTW IS	20	85
35	Tamulpur	Amardaisha DTW IS	19	80
36	Tamulpur	Sirishghutu DTW IS	19	80
37	Tamulpur	Lahapara DTWS	6	8.87
38	Tamulpur	Deulkuchi DTWS (6 Pts)	120	528
39	Tamulpur	Dholabari DTWS (Sarangpara)	20	88
40	Tamulpur	Dholkuchi DTWS	20	70
		Total	**983**	**4291.87**
Sl. No.	**Name of Block**	**Name of Scheme**	**Command Area/Irrigation Potential (Ha)**	**Estimated Cost (Rs. In Lakh)**
1	Tamulpur	Repair, Renovation and Restoration of Maiswagarma Beel	126	815
2	Tamulpur	Repair, Renovation and Restoration of Ghogajan at No.2 Chiknibari village	114	671
3	Tamulpur	Repair, Renovation and Restoration of Bobabund at Uttargolbera	114	599
4	Tamulpur	Repair, Renovation and Restoration of Buthisfisha at Buthiamari	49	305
5	Tamulpur	Repair, Renovation and Restoration of Helaigora Beel at Chechapani.	228	1270
		TOTAL	**631**	**3660**

5) Name of Block: Nagrijuli

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)

1	Nagrijuli	Puthimari Irrigation Project (MAJOR)	13000	37500
2	Nagrijuli	Gari Bund at Golbera	36	150
3	Nagrijuli	Niz Defeli Hatigaon Mereigaon Dong FIS	36	150
4	Nagrijuli	Dakhin Golbera Dong FIS	24	100
5	Nagrijuli	Jaruphuri Bund at Niz Defeli	36	150
6	Nagrijuli	Dipti Dong Bund	36	150
7	Nagrijuli	Bolokuchi Dong at Sontola	24	100
8	Nagrijuli	Silghageri Dong FIS	36	150
9	Nagrijuli	Ghamram and Canal cutting at Khandajan and No. 1 Dongargaon	19	80
10	Nagrijuli	Pakha Canal of Ohoma at Oranga	12	50
11	Nagrijuli	Ghamram and Canal cutting at Simlabari	11	45
12	Nagrijuli	Canal cutting at Lakhidong	10	40
13	Nagrijuli	Canal cutting at Sitkjan	11	45
14	Nagrijuli	Canal cutting at Hastinapur	10	40
15	Nagrijuli	Canal cutting at Bishnupur	11	45
16	Nagrijuli	Canal cutting at Kalanadi	10	40
17	Nagrijuli	Canal cutting at Motonga	10	40
18	Nagrijuli	Canal cutting at Balti Stream	10	40
19	Nagrijuli	Canal cutting at Kushumjuli	10	40
20	Nagrijuli	Lakhi Bund at Goybari	11	45
21	Nagrijuli	Kalcheni FIS	47	200
22	Nagrijuli	Pipleni FIS	59	250
37	Nagrijuli	NASRIJULI FIS	143	18.34
38	Nagrijuli	GOHAIDONG FIS at Kachukata	314	106.43
39	Nagrijuli	GUABARI (ORANGA) FIS at Guabari	1028	627.48
40	Nagrijuli	HARINCHARA BALTI FIS	286	203.35
41	Nagrijuli	TARUNGAON FIS	80	21.9
42	Nagrijuli	Barnadi I/S at Guabari	292	303.22
43	Nagrijuli	1 No. Kowli F.I.S.	143	232
44	Nagrijuli	Akaldonga F.I.S. at Guabari	122	251.65
45	Nagrijuli	Ikrabil Pataldondg F.I.S.	122	193
46	Nagrijuli	Barnadi FIS Ph-II	407	954
47	Nagrijuli	Bengsimari FIS at Jokmari	258	450
48	Nagrijuli	Puthimari FIS at Pub Goyabari (part 532/740)	304	500
49	Nagrijuli	Goyabari FIS	383	650
50	Nagrijuli	Barmaguri FIS (part 350/537)	200	350
51	Nagrijuli	Guabari FIS	383	400
52	Nagrijuli	Khatorbori Oronga Anthai Bund FIS	257	295
53	Nagrijuli	Gangadevi Motonga FIS	290	533
54	Nagrijuli	Ghamresend Dong FIS at Gerua	47	200

		TOTAL	18528	45739
sl. No.	name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Nagrijuli	DTW I/S at Uttar Gandhibari Paddy Field	19	80
2	Nagrijuli	DTW I/S at Uttar Gandhibari Paddy Field	19	80
3	Nagrijuli	DTW I/S at Uttar Gandhibari Paddy Field	19	80
4	Nagrijuli	DTW I/S at Dakhin Gandhibari Paddy Field	19	80
5	Nagrijuli	DTW I/S at Dakhin Gandhibari Paddy Field	19	80
6	Nagrijuli	DTW I/S at Janphagla Paddy Field	19	80
7	Nagrijuli	DTW I/S at Thangbili Paddy Field	19	80
		TOTAL	**133**	**560**
Sl. No.	**Name of Block**	**Name of Scheme**	**Command Area/Irrigation Potential (Ha)**	**Estimated Cost (Rs. In Lakh)**
1	Nagrijuli	Repair, Renovation and Restoration of Holabeel at Sorapara Dakhin	114	555
2	Nagrijuli	Repair, Renovation and Restoration of Khandajan at Dongargaon Tongsi	103	466
3	Nagrijuli	R.R.R. of water bodies at Churpara	29	200
		TOTAL	**246**	**1221**

6) Name of Block: Jalah

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Jalah	Construction of Salbari Morajan FIS at Salbari	71	300
2	Jalah	Construction of Patla FIS at Patla	47	200
3	Jalah	Construction of Palchiguri FIS at Palchiguri	59	250
4	Jalah	Construction of Naltaling FIS at Hatkhula	66	275
5	Jalah	Construction of Hastinapur FIS at Hastinapur	59	250
6	Jalah	Construction Baigriguri FIS at Gurumara	71	300
7	Jalah	Construction Kamardwisha FIS over Pota river at Kamardwisha	119	500
8	Jalah	Construction Bhalaguri FIS at Bhalaguri	71	300
9	Jalah	Construction Khungkrajhar FIS at Khungkrajhar	71	300
10	Jalah	Construction Patlajan FIS at Anandabazar	66	275
11	Jalah	Construction Dharambil jan FIS at Ghoramara	71	300
12	Jalah	Construction of Agrangdwisa FIS at Barabazar	83	350
13	Jalah	Construction of Batabari FIS at Batabari (Gerua dong)	71	300
14	Jalah	Construction of Silbari FIS at Silbari NoonKhua	83	350
15	Jalah	Construction of Dihira FIS at Dihira	71	300
16	Jalah	Construction of Morapotajan FIS at Morakata	95	400
17	Jalah	Construction of Gorumara FIS at No.1 Koklabri	71	300
18	Jalah	Revival of Loss potential of Rupahi Irrigation Scheme	167	700
19	Jalah	Construction of Dodora FIS at Dakhin Kaziamati	238	1000

20	Jalah	Construction of Ghoramarajan FIS at Bhuyanpara	83	350
21	Jalah	Khungkrajar IS	83	350
22	Jalah	Dakhinjan FIS	71	300
23	Jalah	Bhatgalijan FIS PH-II	47	200
24	Jalah	Mainaojan FIS	71	300
25	Jalah	Bamwnkhal FIS	59	250
26	Jalah	Dharambiljan FIS	89	375
27	Jalah	Geruadong FIS	77	325
28	Jalah	Agrangriver FIS	71	300
29	Jalah	Thabarmur FIS	71	300
30	Jalah	Giladhari FIS	66	275
31	Jalah	Bhairab FIS	71	300
32	Jalah	Khamardwisa FIS	83	350
33	Jalah	Hapasara FIS	77	325
34	Jalah	Jalagaon Tarabari FIS	71	300
35	Jalah	Kharabari FIS	71	300
36	Jalah	DWIJIMA-KALDIA FIS	557	30.09
37	Jalah	BWIGRIGURI FIS	200	51.55
38	Jalah	LODROMA FIS at Lakhibazar	143	34.77
39	Jalah	POLLA-NADI FIS at Anandabazar	514	706.62
40	Jalah	HUDUKHATA FIS	171	24.34
41	Jalah	GOTHOIBARI FIS	171	123.8
42	Jalah	NASRAIDISA FIS	286	130.26
43	Jalah	KACHUBIL FIS	40	14.7
44	Jalah	BUNGAON FIS Bongaon	171	20.29
45	Jalah	JARABARI FIS at Jarabari	86	13.45
46	Jalah	BEROVENDI(ARKORA) FIS	114	20.29
47	Jalah	CHAPTI(MONKAR) FIS	46	7.71
48	Jalah	Bhumkipar I/s	234	263.02
49	Jalah	Betbari I/S at Betbari	428	196.73
50	Jalah	Goroimari F.I.S.	122	300
51	Jalah	Khurabaha F.I.S. at Simla	61	115
52	Jalah	Mouji F.I.S.at Koklabari	61	128
53	Jalah	Dekadong FIS	143	135
54	Jalah	Jalagaon FIS	180	140
55	Jalah	Harrangpara FIS	240	401
56	Jalah	Samuhathai FIS	230	410
57	Jalah	Teklibhanga FIS	268	500
58	Jalah	Hapakhurajan Kumbhira kamalabari FIS	373	700
59	Jalah	Irrigation in cultivating field under Bhumki FIS (CAD)	0	2208.28

60	Jalah	Irrigation in cultivating field under Moradiya FIS (CAD)	0	362.49
61	Jalah	Irrigation in cultivating field under Geruajan F.I.S.	11	45.99
62	Jalah	Irrigation in cultivating field under Balabari-Barchakadal F.I.S.	51	188.21
63	Jalah	Irrigation in cultivating field under Jalagaon DTWIS Point1	34	150
64	Jalah	Bhairav Jan FIS	114	500
		Total	**7860**	**19771.59**
sl. No.	name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Jalah	Repair, Renovation and Restoration of Dhanbiljan	40	234.5
2	Jalah	Repair, Renovation and Restoration of Morpotajan	46	283
3	Jalah	Repair, Renovation and Restoration of Daodhara Adhikari beel at Daodhara	103	863
4	Jalah	Repair, Renovation and Restoration of Daodharabeel at Daodhara	114	849
		Total	**303**	**2229.5**

7) Name of Block: Dhamdhama

Sl. No.	Name of Block	Name of Scheme	Command Area/Irrigation Potential (Ha)	Estimated Cost (Rs. In Lakh)
1	Dhomdhoma	Construction of Canal from Balakata Agriculture bund to Gourbasti along with 3 nos. Agrilculture bunds	18	75
2	Dhomdhoma	Construction of Mwinakata Agriculture bund with Canal	18	75
3	Dhomdhoma	Construction of Agriculture bund at Satgaon	36	150
4	Dhomdhoma	Construction of Canal from Bago bund	12	50
5	Dhomdhoma	Construction of Tetliguri Agriculture bund at uttar Bogribari	14	60
6	Dhomdhoma	Construction of Check Dam at Dakhinkuchi	71	300
7	Dhomdhoma	Construction of Agriculture bund from Dakhinkuchi to Deghlipam with Canal	18	75
8	Dhomdhoma	Construction of Agriculture bund at Uttar Bogribari	14	60
9	Dhomdhoma	Construction of Agriculture bund at Bizgaon	14	60
10	Dhomdhoma	Construction of Canal from Lumling bund to Daowraibari village	13	55
11	Dhomdhoma	Construction of Agriculture bund at Dakhin Bogriguri	19	80
12	Dhomdhoma	Construction of Agriculture bund at Mwithabari Village	12	50
13	Dhomdhoma	Construction of Canal from Kokrajhar bund to Mwithabari Kali Mandir	12	50
14	Dhomdhoma	Construction of Agriculture Hadan bund at Bhowraguri	19	80
15	Dhomdhoma	Construction of Kathalguri Agriculture bund near Pub Bagribari village	18	75
16	Dhomdhoma	Construction of Canal of Amlaiguri bund	12	50
17	Dhomdhoma	Construction of Dharmendra Goyari Agriculture bund at Mwithabari	17	70
18	Dhomdhoma	Construction of Canal from Nirmal bund to Munda Basti	14	60
19	Dhomdhoma	Construction of Sonaram Agriculture bund at Mwithabari	17	70
20	Dhomdhoma	Construction of Kalver bund at Bagribari	12	50
21	Dhomdhoma	Construction of Agriculture Spillway bund at Udalguri	18	75
22	Dhomdhoma	Construction of Agriculture bund near Forest Boundary at Uttarkuchi	14	60

23	Dhomdhoma	Construction of Canal from Thaigirgudi bund Modahisupa to Khantalgudi bund	12	50
24	Dhomdhoma	Construction of Canal at Uttar Jharbasti Magar Supa to Pradhan Baski House	12	50
25	Dhomdhoma	Construction of Agriculture bund near Jharbasti along with Canal through Sonajuli village	14	60
26	Dhomdhoma	Construction of Agriculture bund near Swmkhwrpara village along with Canal	14	60
27	Dhomdhoma	Construction of Agriculture bund at Uttarkuchi	15	65
28	Dhomdhoma	Construction of Agriculture Lakhi bund near I.B. at Uttarkuchi	12	50
29	Dhomdhoma	Construction of Parche Agriculture bund at Uttarkuchi	12	50
30	Dhomdhoma	Construction of Canal from Khantalgudi bund to Udalguri village	13	55
31	Dhomdhoma	Construction of Agriculture bund near Diyapar Village	14	60
32	Dhomdhoma	Construction of Agriculture bund at Serfunguri Village along with Canal	15	65
33	Dhomdhoma	Construction of Agriculture bund at Tamang Basti along with Canal	13	55
34	Dhomdhoma	Construction of Agriculture bund at Sunduripara	15	65
35	Dhomdhoma	Construction of Thatam FIS at Subankhata	262	1100
36	Dhomdhoma	Construction of Kathalguri FIS at Kathalguri	59	250
37	Dhomdhoma	Construction of Jartaluk Flow Irrigation Scheme at Village Jartaluk	59	250
38	Dhomdhoma	Construction of Harharia Flow Irrigation Scheme at Village Harharia	59	250
39	Dhomdhoma	Construction of Goalbil Flow Irrigation Scheme at Village Goalbil	71	300
40	Dhomdhoma	Construction of Ghoramara Flow Irrigation Scheme at Village Ghoramara	59	250
41	Dhomdhoma	Construction of Halapar FIS including protection work.	47	200
42	Dhomdhoma	Construction of Nichalamari Flow Irrigation Scheme at Village Nichalamari	59	250
43	Dhomdhoma	Construction of Khagrabari Flow Irrigation Scheme at Village Khagrabari	71	300
44	Dhomdhoma	Construction of Madaltana Flow Irrigation Scheme at Village Madaltana	47	200
45	Dhomdhoma	Construction of Tin Mukh bund near Chaulkara M.E. School at Chaulkara	36	150
46	Dhomdhoma	Construction of Duimukh Bund at Pub Nikashi	9	35
47	Dhomdhoma	Construction of Katahar Bund at Pub-Nikashi	7	30
48	Dhomdhoma	Construction of Simalguri Bund at No. 1 Nikashi	6	25
49	Dhomdhoma	Construction of Annapurna bund at No. 1 Nikashi	7	30
50	Dhomdhoma	Construction of Bhangrikuchi bund at Pub-Ambari	6	25
51	Dhomdhoma	Construction of Balabari-Hastinapur Duimukh bund at Nayapara Hastinapur	9	35
52	Dhomdhoma	Construction of Dwimukh bund at Bhangrikuchi	6	25
53	Dhomdhoma	Construction of Dhupguri bund at Pachim-Ambari	7	28
54	Dhomdhoma	Construction of Jharani bund at Narenguri (Bhangrikuchi)	5	20
55	Dhomdhoma	Construction of R.C.C. Canal at Lakhi Jan Bala Bangaon	12	50
56	Dhomdhoma	Construction of Head Work (Sluice Gate) at Baganpara dong with R.C.C. Canal	59	250
57	Dhomdhoma	Construction of R.C.C. Canal from Bagulamary Sluice Gate to Benchimary Agriculture Field	14	60
58	Dhomdhoma	Construction of a R.C.C. Drop Structure at Benchimary Dong near Baksa College	14	60
59	Dhomdhoma	Construction of Head Work (Sluice Gate) at Khanthaibari Bahjenia Sup dong with R.C.C. Canal	59	250

60	Dhomdhoma	Improvement of Uttarpara Irrigation Bund with Canal	12	50
61	Dhomdhoma	Construction of Irrigation Canal at Uttarpara Sluice Gate	10	40
62	Dhomdhoma	Construction of Agriculture bund and R.C.C. Canal at No. 1 Uttarpara Adivasi Supa Dong	12	50
63	Dhomdhoma	Construction of R.C.C. Drop structure at Bangaon Dong with Canal at Bala Bangaon	12	50
64	Dhomdhoma	Construction of R.C.C. Drop structure at Bajenia Supa Dong with Canal	13	55
65	Dhomdhoma	Construction of R.C.C. Drop structure at Lebrapara Supa Dong with Canal	13	55
66	Dhomdhoma	Improvement of Drop at Khetri Supa Dong	10	40
67	Dhomdhoma	Construction of Khunthaibari Uttarpara Dong	13	55
68	Dhomdhoma	Construction of R.C.C. Drop structure with R.C.C. Culvert at Dhadomba River at Baganpara Balatari	14	60
69	Dhomdhoma	Construction of R.C.C. Drop structure at Benchimari paddy field at Lakhi Nodi	15	65
70	Dhomdhoma	Construction of R.C.C. Drop structure at Benchimari Dong	12	50
71	Dhomdhoma	Construction of R.C.C. Drop structure at Baganpara Dong	12	50
72	Dhomdhoma	Construction of R.C.C. Spillway and Canal at Uttarpara Chariabasti	15	65
73	Dhomdhoma	Construction of Canal at Bar Simaluguri	10	40
74	Dhomdhoma	Construction of Pub-Merkuchi FIS at Muslim Suba	12	50
75	Dhomdhoma	Construction of Check Dam with Canal at Gelpejar	12	50
76	Dhomdhoma	Construction of Check Dam with Canal at Murkuchiapara	13	55
77	Dhomdhoma	Construction of Check Dam with Canal at Pub Jaripara	14	60
78	Dhomdhoma	Construction of R.C.C. Drop structure with Canal at Adla Bheluabasti	14	60
79	Dhomdhoma	Construction of Barikadanga Satbari FIS	14	60
80	Dhomdhoma	Barikadanga Santipur Agriculture bund with Canal	13	55
81	Dhomdhoma	Construction of Simlabari Deka Supa Kekora bund with Irrigation Canal	12	50
82	Dhomdhoma	Construction of Simlabari Durga bund with Canal up to Bhuyan Supa	12	50
83	Dhomdhoma	Construction of Bhagpur Raikhathi Agriculture bund with Canal up to Simlabari Supa	13	55
84	Dhomdhoma	Repairing of Canal from Hatijan Supa to Simlabari Supa	10	40
85	Dhomdhoma	Construction of Simlabari Railali bund with Canal up to Amtal Supa	14	60
86	Dhomdhoma	Construction of Bhangbari bund with Canal to Madhupur Supa	13	55
87	Dhomdhoma	Construction of Pub-Barikadanga Agriculture bund with Canal to Satbari Krishi Pathar	14	60
88	Dhomdhoma	Construction of Adla Denaguri Jeng Bund with Canal	15	65
89	Dhomdhoma	Construction of Adla Eta Bund with Canal at Adla Bitpara	13	55
90	Dhomdhoma	Construction of Simlabari Santipur bund with Canal to Madhupur Supa	14	60
91	Dhomdhoma	Construction of Khairani Agriculture bund with Canal to Bhuyan Supa	15	65
92	Dhomdhoma	Construction of Khairani Megra bund with Canal to Barikadanga Supa	17	70
93	Dhomdhoma	Construction of Adla Agriculture bund with Canal to Adla Bagaribari Supa	15	65
94	Dhomdhoma	Construction of Bhangbari Nijara Bund with Canal to Bagulamari	17	70

95	Dhomdhoma	Construction of Adla Pakhri Bund with Canal to Adla Krishi Pather	14	60
96	Dhomdhoma	Repairing of Canal from Adla Kolbari to Baganpara Chowk	12	50
97	Dhomdhoma	Construction of Udalguri Check Dam with excavation of Canal to Johorpur (approx. length = 2.00 km)	14	60
98	Dhomdhoma	Construction of Canal from Seora Check Dam to Amingaon Village (approx. length = 5.00 km)	17	70
99	Dhomdhoma	Construction of Canal from Hedayatpur Check Dam to Diringapur	19	80
100	Dhomdhoma	Construction of Canal from Maithabari Main Dong to Kotobari	18	75
101	Dhomdhoma	Construction of Embankment of Irrigation Dong from Udaiyapur to Benchimari	22	90
102	Dhomdhoma	Construction of Canal of Santipur Check Dam	22	90
103	Dhomdhoma	Construction of Subanpur Mainao Bund	59	250
104	Dhomdhoma	Construction of Canal from Pachim Benchimari to Doholpara	17	70
105	Dhomdhoma	Construction of Check Dam with Canal near Bhobanipur L.P. School	19	80
106	Dhomdhoma	Construction of Embankment of Dakhin Bhobanipur Irrigation Dong	12	50
107	Dhomdhoma	Construction of Bagulamari FIS on Lakhinadi at Bagulamari	83	350
108	Dhomdhoma	Construction of Sluice Gate and Irrigation Canal at Batabari	14	60
109	Dhomdhoma	Construction of Sluice Gate with culvert at Roumari Batamari Village Link Road over Lakhijan river	18	75
110	Dhomdhoma	Construction of Sluice Gate and Canal with culvert near Roumari L.P. School	19	80
111	Dhomdhoma	Construction of R.C.C. Drop Structure with culvert at Bangal Bund	18	75
112	Dhomdhoma	Construction of R.C.C. Drop Structure over Lakhijan at Amguri Supa	14	60
113	Dhomdhoma	Construction of Lakhi Bund with Canal at Bagulamari Gramdan	24	100
114	Dhomdhoma	Construction of Sluice Gate and Canal of Mainao Bund at Bagulamari	36	150
115	Dhomdhoma	Repairing of Bagulamari Sluice Gate and Reshapping of Canal near Daonapali Chowk	12	50
116	Dhomdhoma	Construction of Canal at Morapagladia river from Diapara to Goibari Village	10	40
117	Dhomdhoma	Construction of Canal from Bhangbari	14	60
118	Dhomdhoma	Construction of R.C.C. Drop Structure at NC Bagulamari water stream	12	50
119	Dhomdhoma	Construction of Canal from Laldong River at Poklipita Village	10	40
120	Dhomdhoma	Construction of Sluice Gate with culvert at Muktapur Village River along with Earthen Canal	13	55
121	Dhomdhoma	Construction of Check Dam at Lakhijan and Earthen Canal to Paddy Field	14	60
122	Dhomdhoma	Construction of Check Dam at Dirring River at Dodhigaon	18	75
123	Dhomdhoma	Construction of Check Dam with Canal from Daonapali Chowk to Hazarika Supa	15	65
124	Dhomdhoma	Construction of Irrigation Canal at Santipur	17	70
125	Dhomdhoma	Extension of Canal at Angardhowa from Boiti River	13	55
126	Dhomdhoma	Construction of Angardhowa FIS	47	200
127	Dhomdhoma	Extension of Canal at Angardhowa Lakhipather	12	50
128	Dhomdhoma	Construction of Lakhijan FIS at Polokata	47	200
129	Dhomdhoma	Construction of Check Dam and Canal at Pachim Polokata	14	60

130	Dhomdhoma	Construction of Agriculture bund with Canal at Thalkuchi	13	55
131	Dhomdhoma	Construction of Agriculture bund with Canal at Tupalia	14	60
132	Dhomdhoma	Construction of Agriculture bund with Canal at Gerua Bandeoguri	15	65
133	Dhomdhoma	Construction of Lakhidong FIS at Chameriddar	36	150
134	Dhomdhoma	Construction of Canal at Chameriddar to Lebrapathar	12	50
135	Dhomdhoma	Construction of Canal from Tupalia Bura Bund	13	55
136	Dhomdhoma	Construction of Canal at Gerua Khatboini Agriculture Bund	10	40
137	Dhomdhoma	Construction of Agriculture Bund at Gerua Milonpur	15	65
138	Dhomdhoma	Construction of Agriculture Bund at Thalkuchi	13	55
139	Dhomdhoma	Construction of Check Dam at Charan and excavation of Canal from Garbhita Uzirkhat Charan to Uzirkhat Barpathar	15	65
140	Dhomdhoma	Construction of Check dam and protection at Garbhitar Dhamdhoma Paddy Field	18	75
141	Dhomdhoma	Construction of Check dam at Pagladia River with Canal through Nizbarsiral-Uttarbarsiral via Bherbheri Uzirkhat to Gowalbil	19	80
142	Dhomdhoma	Construction of Sluicegate at Garbhitar Barpathar at Garbhitar	19	80
143	Dhomdhoma	Construction of Irrigation Canal from Sonamati to Nizbarsiral PMGSY link Road	10	40
144	Dhomdhoma	Construction of Irrigation bund and Canal at Garbhitar Nimaisupa Sengnoipar	17	70
145	Dhomdhoma	Construction of Pub Bherbheri FIS	36	150
146	Dhomdhoma	PAGLADIA FIS at Chowki	271	63.32
147	Dhomdhoma	Uttarkuchi F.I.S. at Uttarkuchi	61	94
148	Dhomdhoma	Bogulamari Ph-II	41	88.15
149	Dhomdhoma	Niramalmundabasti Dongobima FIS	335	677
150	Dhomdhoma	Mainaoamlaguri Amingaon FIS	409	827
151	Dhomdhoma	Dakhinkuchi Mwithabari FIS	550	1230
152	Dhomdhoma	Simlaguri FIS	3	4
153	Dhomdhoma	Gerua FIS	3	3.5
154	Dhomdhoma	Lakhi Nadi FIS	3	2.97
155	Dhomdhoma	Dewachara FIS	5	15.92
156	Dhomdhoma	Angardhowa FIS	6	19
156	Dhomdhoma	Lebra FIS	171	600
157	Dhomdhoma	Uttar Kuchi FIS (Ph-II)	51	170.74
158	Dhomdhoma	Khaireni FIS	200	698.58
159	Dhomdhoma	Goalbil DTWS (2 Pts)	34	120
		Total	**5238**	**17647.18**
Sl. No.	**Name of Block**	**Name of Scheme**	**N.I.A. (Ha.)**	**Estimated Cost (Rs. In Lakh)**
1	Dhomdhoma	Repair, Renovation and Restoration of Odla Kadong at Odla(Barikadong)	86	559
2	Dhomdhoma	Repair, Renovation and Restoration of Pachim simlabari Milanbund at Santipur	114	927
3	Dhomdhoma	Repair, Renovation and Restoration of Simlabari Bhogpurbeel at Simlabari	69	472
		Total	**269**	**1958**

8) Name of Block: Goreswar Block

S. No	Development Block	Name of Scheme	N.I.A. (Ha.)	Estimated Cost (Rs. In Lakh)
1	Goreswar	Sukla Irrigation Project This Scheme is 60% under Baksa District and 40% under Kamrup District. Total N.I.A. = 11,500 Ha.	6944	7738.50
2	Goreswar	Puthimari FIS at Bagamati	851.9	1704
3	Goreswar	Bonda FIS.	557.76	1116
4	Goreswar	Godhapara FIS	146	292
5	Goreswar	Kachidong FIS	463	926
6	Goreswar	Balahati FIS	265	530
7	Goreswar	Muthra stream FIS at Pub Naokata	160	320
8	Goreswar	Puthimari FIS at Pub Goyabari (part 208/800)	208	416
9	Goreswar	Barnadi FIS at Roumari	180	360
10	Goreswar	Batiamari FIS at Barphukankhat	195	390
11	Goreswar	Rampur FIS over Barnadi	398	796
12	Goreswar	Langtha FIS at Suagpur No.2	195	390
13	Goreswar	Marnadi FIS	292	584
14	Goreswar	Sonjuri FIS	216	432
15	Goreswar	Oubari FIS	140	280
16	Goreswar	Jabradong FIS	315	630
17	Goreswar	Barmaguri FIS (part 187/537)	137	274
18	Goreswar	Dolongdia FIS	144	288
19	Goreswar	Milanpur FIS	356	712
20	Goreswar	Bolidong FIS at Maharipara	88	176
21	Goreswar	Chandajan FIS	98	196
22	Goreswar	Simlibari bund FIS over Barnadi River	170	340
23	Goreswar	Muthra bund FIS at Magurmari	263	526
24	Goreswar	Birbal FIS at Bangalipara	159	318
25	Goreswar	Ramchajhar FIS	175	350
26	Goreswar	Gendra FIS at Bholabatabari	150	300
27	Goreswar	Oubari Balabari Bundh FIS	400	800
28	Goreswar	Suagpur FIS at No.5 Suagpur	200	400
29	Goreswar	R.R.R. of water bodies at Kaurbaha & Barfulchaki	200	400
30	Goreswar	R.R.R. of water bodies at Dhepargaon & Baghduba	160	320
31	Goreswar	R.R.R. of water bodies to the East side of Goreswar	150	300
32	Goreswar	R.R.R. of water bodies at Halongbari	155	310
33	Goreswar	R.R.R. of water bodies at Ouguri & Goreswar No. 4	100	200
34	Goreswar	R.R.R. of water bodies at Gossaigaon	110	220
35	Goreswar	R.R.R. of water bodies at Chintapara	108	216
36	Goreswar	R.R.R. of water bodies at Khatpara	220	440
37	Goreswar	R.R.R. of Sonajan water body at Gurmow	30	60

38	Goreswar	Borigaon DTWS	60	120
39	Goreswar	Chenigaon DTWS	30	60
40	Goreswar	Dhulabari DTWS	255	510
41	Goreswar	Bagribari DTWS	142	284
42	Goreswar	Chenimara DTWS	94	188
43	Goreswar	Bihapara DTWS	116	232
44	Goreswar	Khandikar DTWS	277	554
45	Goreswar	Deulkuchi DTWS	203	406
46	Goreswar	Dholkuchi DTWS	173	346
47	Goreswar	Chirakhundi DTWS	247	494
48	Goreswar	Hatimura DTWS	209	418
49	Goreswar	Lahapara DTWS	212	424
50	Goreswar	Bagdova ELIS	50	100
51	Goreswar	Chirakhundi ELIS (1Pt)	40	90.38
		Total	**17207.66**	**28276.88**