



DAPSC Annual Report

2021-22



भाकृअनुप-राष्ट्रीय अजैविक स्ट्रेस प्रबंधन संस्थान

ICAR-National Institute of Abiotic Stress Management



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Integrated approach towards livelihood improvement of scheduled caste farmers through improved technology interventions in crops, livestock, poultry and fisheries.

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Foreword

Scheduled castes notified as per provisions contained in Clause 1 of Article 341 of the Constitution are those castes/races in the country that suffer from extreme social, educational, and economic backwardness. The important causes for this are the age-old practice of untouchability and want of infrastructure facilities as well as geographical isolation. Despite the deep concern in the Constitution for the Upliftment of the Scheduled Castes, Scheduled Tribes and Other Backward Classes are reflected in the elaborate constitutional mechanism these communities are still socioeconomically backward and need special consideration for safeguarding their interests and for their accelerated socio-economic development. As per 'Article 16' of the Constitution of India, all citizens should be treated equally in matters of employment. No citizen shall be discriminated against based on race, caste, religion, creed, descent, or place of birth in respect of any employment or office under the State. However, despite concerted efforts by different government and nongovernment organizations and individuals the social and economic status of scheduled caste families in rural areas is not satisfactory. Therefore, the Government of India channelizes the flow of outlays and the benefits from the general sectors in the plan for the development of scheduled castes in the form of the Developmental Action Plan for scheduled caste (DAPSC) which was previously known as Scheduled Caste Sub-Plan (SCSP).



Ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our ecosystems. Development plans need to be chalked out considering the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015 with the 17 Sustainable Development Goals (SDGs) set by the United Nations. In continuation of work done during last year, a multidisciplinary team of ICAR-NIASM implemented the DAPSC scheme (2021-22) for more than 1100 below-poverty-line SC families from 63 villages in nearby districts of the Institute. A preliminary survey defining livelihood profile was carried out to prepare a list of beneficiaries and plan suitable interventions. The year 2021-2022 was marked due to the COVID lockdown/restrictions situation. I congratulate the SCSP implementation team for successfully conducting all the activities related to field crops, orchards, livestock, poultry, and fisheries following COVID-appropriate behavior. Most of the activities have a strong influence on the SC beneficiary families for enhancing their livelihood besides improving the liaison of the institute with nearby rural farming communities.

(K Sammi Reddy)
Director ICAR-NIASM

Preface

At the time of independence, 15% of the country's total population was Scheduled Caste (SC), and approximately 95% of the SC population was below the poverty line. The Government has held special concern and commitment to the well-being of the Scheduled Castes who suffer from social and economic backwardness and relative isolation. According to the Socio-Economic and Caste Census 2011, nearly 73% cent of Dalit households and 79% of Adivasi households were the most deprived among rural households in India. It was a great opportunity for the members of the DAPSC implementation committee to help those in need and below the poverty line population of the SC community for overall support to their livelihood. With the successful scheme implementation during 2020-21, our team proactively identified beneficiaries, selecting suitable interventions and its implementation. As per the objective of Scheduled Caste Sub-Plan programme of Government of India, to promote socio-economic development of poor scheduled caste families a holistic plan was envisaged and different activities such as providing various inputs/resources, increasing awareness, creating assets, and enhancing skills for improving living standard were carried out. Identification of beneficiaries, their needs, procurement of inputs, its demonstration and distribution were carried out by a multidisciplinary team of ICAR-NIASM. The committee appreciates the whole hearted support and help rendered by Assistant Administrative officer -Mr. Dayanand Kharat, Finance & accounts Officer -Mr. Anilkumar Siddharth and Director of the Institute Dr Himanshu Pathak. The support of village panchayat members/Sarapanch is also acknowledged. The efforts of the team were well appreciated by the beneficiary scheduled caste families as well as local gram-panchayat members.

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Executive Summary

A multidisciplinary team of ICAR NIASM carried out the Scheduled caste (SC) subplan activities for the year 2021-22 for the below poverty line (BPL) SC families from four districts of Maharashtra i.e. Pune, Ahmednagar, Solapur and Satara. Two types of interventions were carried out as follows 1. For SC individual beneficiaries' families and 2. For SC self-help groups (SHGs). The selection of beneficiaries was made based on SC caste certificate, Aadhar card and ration card (either yellow or saffron). Very few beneficiaries were having agricultural land, and most of the beneficiaries were landless, some of them owned livestock resources such as dairy animals, small ruminants and poultry. The majority of the beneficiaries were landless casual labourers.

Under DAPSC program various interventions were planned which includes crop, orchards, livestock, fisheries besides these some of interventions were targeted for improving living standard, promoting health and nutrition etc. A total of 1153 farmers and 23 self-help groups (SHG) from about 48 villages (from 8 tehsils viz Baramati, Daund, Purandar, Indapur, Malashiras, Karjat, Jamkhed and Phaltan) were included based on survey of their status and requirements for upliftment of livelihood. Other inputs namely, poultry cages (93), poultry bird units (170), utensil kits with stainless steel water filter (100), sewing machines (100), flour mills (100), dairy kits consisting of milk can, SS bucket, milk measure, baskets, mineral mixture, deworming tablets (100) were provided. Also, tool kit (100) which included khurpi, sickle, koyta, pick axe with chisel and spade along with dragon fruit poles with cuttings/light trap (150), Bicycles (100), bamboo's (50), push carts (30), COVID kits (300) were distributed to SC landless beneficiaries. A total of 16 SHGs were provided with capital inputs/livelihood support for income generation viz. tractors (2), power tiller (4), chilli powder making machines (8), Silage making unit (2) and support was also provided to additional seven SC women SHGs for setting up food stalls during Krushik Agri-Exhibition 2022.

About the SCSP plan:

The 1950 Constitution of India, introduced after the country gained independence, included measures to improve the socioeconomic conditions of Dalits. Aside from banning untouchability, these included the reservation system, that created the classifications of Scheduled Castes, Scheduled Tribes for Dalits. The Constitution of India define as to who would be Scheduled Castes and Scheduled Tribes with respect to any State or Union Territory. The GOI has been formulating several programs for upliftment of the scheduled caste and schedule tribes and DAPSC/SCSP is one of those programs. In Maharashtra, out of total population (124904071 projected population in 2022), 54.78% of population lives in rural area and 45.22% lives in urban area. There are 11.81% Scheduled Caste (SC) and 9.35% Scheduled Tribe (ST) of total population in Maharashtra. Through the Scheduled Caste Sub Plan (SCSP) and the Tribal Sub Plan (TSP), the Government of India is channeling funds from the Planning Commission for the development of SCs and STs respectively. According to the Socio Economic and Caste Census 2011, nearly 79 per cent of Adivasi households and 73 per cent of Dalit households were the most deprived among rural households in India. While 45 per cent of SC households are landless and earn a living by manual casual labour, the figure is 30 per cent for Adivasis. A multidisciplinary team of

scientists and technical officers implemented the SCSP scheme in nearby districts of institute. A preliminary survey defining livelihood profile was carried out for preparing list of beneficiaries and planning suitable intervention.

Scheduled Caste Sub-Plan is a programme of Government of India, with the objective to promote economic development of scheduled caste families living below the poverty by providing various resources to them. The basic objective of SCSP has been to channelize the flow of outlays and the benefits from the general sectors in the plan for the development of scheduled castes at least in proportion to their population.

Objectives of the Scheme

1. The main objective of the scheme is to increase the income of the target population by way of various income generating schemes, skill development and infrastructure development.
2. To reduce the poverty and uplift living standard of the target population by helping them to bring above the poverty line.

Socio-economic profile of work area

Target area:

A total of 1153 beneficiaries' consisting of individual farmers and 23 self-help groups (SHG) from 8 tehsils of four districts were included for the activities carried out under SCSP 2020-21. About 48 villages from 8 tehsils viz. Baramati, Daund, Purandar, Indapur, (Pune district), Malashiras (Solapur district), Karjat, Jamkhed (Ahmednagar district) and Phaltan (Satara district) were included based on survey of beneficiaries for their status and requirements for upliftment of livelihood status.



Baseline survey:

To get proper understanding of status of SC population in nearby villages, a baseline survey was carried out regarding beneficiary profile, family details, educational status, land holding, livestock holding and livelihood sources. Scheduled Caste Sub-Plan is a programme of Government of India, with the objective to promote economic development of scheduled caste families living below the poverty line, by providing various resources to them as livelihood support. The preliminary survey revealed that the system of identification of below poverty line individuals has not been updated since 2002. A list of BPL families was collected from grampachayat as well as Government/authorized rationing shop. Following three documents were collected from all the individual families before finalizing the beneficiary list by the Development action plan for Scheduled caste (DAPSC) implementation committee.

1. Aadhar No.
2. Caste certificate
3. Ration card

Planning of interventions

Understanding the status and basic needs of the beneficiaries was important for planning suitable interventions which would directly help in improving income, education, health, nutrition and thus reducing the inequality, besides inducing economic growth. The committee organized meetings at village level for need assessment of beneficiaries. Out of the 17 Sustainable Development Goals (SDGs) of United nations, four SDGs, namely 'No poverty' (SDG 1), 'Zero hunger' (SDG 2), 'Climate action' (SDG 13), and 'Life on land' (SDG 15) are most relevant to Agriculture sector. Good Health and Well-being (SDG 3), Gender Equality (SDG 5), Responsible Consumption and Production (SDG 12), Partnerships to achieve the goal (SDG 17) are also relevant to agriculture. All the interventions planned were on similar line of the following developmental goals. "IDEAL TECHS DEMO" approach was followed while planning the intervention in holistic manner.

Improved technologies

Diversification

Exposure

Advanced practices

Livelihood support

Training & skill development

Entrepreneurship development

Climate resilience/ Covid awareness

Health & Nutrition

Support to women

Demonstrations

Employment generation

Monitoring and evaluation

Organization building

The interventions planned and executed were mostly based on above principles.

Improved technology interventions

In India, agriculture is the major provider of livelihood to the poor, especially in the rural areas. However, the agricultural sector is facing big challenges like diminishing size of landholdings, deteriorating natural resources (especially soil and water), and adverse impact of climate change, declining productivity, escalating input costs, inconsistent markets, and declining farm income. All these factors make agriculture a riskier means of livelihood especially to resource poor SC farmers. It was observed that most of the beneficiaries were landless labours. Various activities were planned and executed considering the prevailing COVID situation in the target area and State Government advisories.

Field days/Trainings organized:

Field Day-cum- COVID-19 Awareness and need assessment programme

A "Field Day-cum- COVID-19 Awareness Programme" was organized on 28th December 2021 under the Scheduled Caste Sub Plan (SCSP) at Kasaba area of Baramati. During this programme in his welcome address, Dr. Nitin P. Kurade, Chairman, Schedules Caste Sub-Plan (SCSP) implementation committee of ICAR-NIASM, briefed the participants about the ICAR-NIASM and its different activities besides DAPSC scheme of Government of India. He stressed upon choosing proper benefit for proper utilization of the inputs given under DAPSC programme. Dr. Avinash V. Nirmale explained about other inputs provided under the DAPSC programme. Dr. Sachin S. Pawar addressed the participants on COVID-19 situation and care to be taken to improve the awareness of participants. He explained COVID-19 appropriate behaviour and its importance in preventing the spread of the disease under the threat of upcoming omicron variant. Dr. Bhaskar B. Gaikwad described the DAPSC programme in detail. He encouraged the participants to come forward for forming self-help groups for livelihood upliftment. The interaction was helpful for understanding the needs of beneficiaries. Furthermore, the COVID Kits comprising N95 masks, hand sanitizer, hand wash, and soaps were distributed to the participants on the occasion of COVID-19 Awareness Programme. A group of 180 SCSP beneficiaries mainly women, attended the programme. The programme was co-ordinated by Dr. Nitin P. Kurade, Dr. Avinash V. Nirmale, Dr. Sachin S. Pawar and Dr. Bhaskar B. Gaikwad.





Field Day-cum- Upliftment of livelihood /input distribution programme at Visapur

The ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, organized a Training Programme on "Upliftment of livelihood of SC Beneficiaries" on 31st May 2022 under the Development Action Plan for Scheduled Castes (DAPSC) at Visapur village of Satara District, Maharashtra. In the inaugural session, Mr. Rajkumar welcomed all beneficiaries and trainees for the programme. Dr. NP Kurade briefed about the institute and DAPSC programme carried out by the Government of India and its implementation in ICAR-NIASM. Lectures were delivered during the technical session: 'Nutritional management in livestock, silage making and importance of backyard poultry' by Dr. AV Nirmale. Dr. AV Nirmale emphasized importance of balanced diet and the importance of nutritional technologies for management of livestock during scarcity periods. Mr. Rajkumar and Dr. B B Gaikwad delivered lectures on Safety measures to be taken during plant protection operations and Mechanization in agriculture respectively. About 80 beneficiaries benefitted from this training programme. Grampanchayat sarpanch and the members/social workers from the village actively participated in the training programme. The training programme was followed by the distribution of inputs like sewing machine, domestic flour mill, bicycles, utensil kit and Covid-19 kit to the identified beneficiaries' of Visapur village. At the end, the Grampanchayat sarpanch appreciated the efforts made by the team of scientists for their wonderful work in improving the socio-economic condition of the scheduled caste people. The training programme was conducted and coordinated by the SCSP Implementation Committee members, namely, Mr. Rajkumar (Convenor) and Dr. NP Kurade, Dr. AV Nirmale, Dr. SS Pawar, Dr. BB Gaikwad, Mr. Ravi Kure, Dr. DD Nangare, and Dr. Aliza Pradhan (Co-convenors).





Organic Nutrient Management for Sustainable Crop Production" and distribution of Vermicomposting Units and Cement poles for Dragon fruit cultivation.

The ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, organized a Training Programme on "Organic nutrient management for sustainable crop production" on 23rd April 2022 under the Development Action Plan for Scheduled Castes (DAPSC) at: Kadamwadi Village of Malshiras tehsil under Solapur district. In the inaugural session, Mr K Ravi welcomed all beneficiaries and trainees for the programme. Dr NP Kurade briefed about the DAPSC programme carried out by the Government of India. Three lectures were delivered during the technical session: 'Vemicomposting for sustainable crop production', 'Compost: a critical component of organic farming' and 'Dragon fruit cultivation and demonstration' by Dr Paritosh Kumar, Dr Aliza Pradhan and Dr DD Nangare, respectively. During this session, Dr Paritosh Kumar also demonstrated the beneficiaries about use of vermicomposting units for preparation of vermicompost. Dr DD Nangare demonstrated the farmers about cultivation of dragon fruit in degraded lands or as backyard activity. Dr SS Pawar proposed the vote of thanks. About 75 beneficiaries were benefitted from this training programme. A few Grampanchayat members/social workers also participated in the event. On behalf of trainees/beneficiaries, Mr Madhukar Dhobale from Kadamwadi thanked the organizers and the Institute for successfully organizing the training programme and providing livelihood support to beneficiaries. The training programme was followed by the distribution of Vemocomposting units, cement poles along with dragon fruit cutting for dragon fruit cultivation to the identified beneficiaries in different villages, namely Kadamwadi, Umbare, Medad etc. The training programme was conducted and coordinated by the SCSP Implementation Committee members, namely, Dr Aliza Pradhan (Convenor) and Dr Nitin P Kurade, Dr Dhananjay D Nangare, Dr Paritosh Kumar, Dr Sachin

S Pawar, Mr Ravi Kure, Dr Bhaskar B Gaikwad, Mr Rajkumar and Dr Avinash V Nirmale (Co-convenors)



Technological interventions in horticulture crops

Dragon fruit: Dragon fruit is a promising horticultural crop which may support sustainable income to farmers having shallow basaltic farm lands. Dragon fruit is also having high nutritive value for enhancing immunity and health of individuals. With view to introduce this valuable horticultural crop to large number of SC farmers, small intervention was planned. Two types of interventions planned using dragon fruit cultivation accessories. In first type 4 poles, 4 rings and dragon fruit cutting were provided to each of the 100 farmers along with vermicompost unit. In other type 8 poles and cuttings were provided to 50 farmers along with toolkit.



Training-cum-Demonstration:

"Dragon fruit cultivation in degraded land and kitchen garden" and distribution of inputs for Dragon fruit cultivation under DAPSC

The ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, organized a Training-cum-Demonstration on "Dragon fruit cultivation in degraded land and kitchen garden" on 30th April 2022 under the Development Action Plan for Scheduled Castes (DAPSC) at Rakshaswadi (Bk) Village of Karjat tehsil under Ahmednagar district. In the inaugural session, Mr Rajkumar welcomed all beneficiaries and trainees for the programme. Dr NP Kurade gave a brief account of DAPSC programme carried out by the Government of India. Two lectures were delivered during the technical session: 'Dragon fruit cultivation and its demonstration' and 'Tools and implements used in Agriculture' by Dr DD Nangare and Dr BB Gaikwad, respectively. During this session, Dr D D Nangare also demonstrated the beneficiaries about installing dragon fruit poles, rings, and planting dragon fruit cuttings in degraded lands or as backyard activity. Dr SS Pawar proposed the vote of thanks. About 100 beneficiaries and farmers were benefitted from this training programme. Sarpanch and other dignitaries from Grampanchayat also participated in the event. On behalf of trainees/beneficiaries, they thanked the organizers and the Institute for successfully organizing the training programme and providing livelihood support to beneficiaries. The training programme was followed by the distribution of cement poles along with dragon fruit cuttings for dragon fruit cultivation and tool kit for daily use in agriculture to the identified beneficiaries in two villages, namely Rakshaswadi and Baradgaon. The training programme was conducted and coordinated by the SCSP Implementation Committee members, namely, Dr DD Nangare (Convenor) and Dr NP

Kurade, Dr SS Pawar, Mr Ravi Kure, Dr BB Gaikwad, Mr Rajkumar, Dr Aliza Pradhan and Dr AV Nirmale (Co-convenors).



Livestock and Poultry Interventions for upliftment of livelihood of SC farmers

Livestock are considered as one of the important means of adaption to impending challenges imposed due to climate change. The rural poor are the worst affected sector due to climate change impacts. Large numbers of the beneficiaries were landless. Some of the landless and few of the small and marginal farmers owned livestock which was major support for their livelihood earnings. The livestock owned by the farmers were mostly nondescript and less productive and mostly managed in semi-intensive system. The nutritional status of the livestock owned by beneficiaries was very poor. Therefore following livestock interventions were planned for these beneficiaries.

Dairy Kit: Large number of SC beneficiaries owned livestock and few of them were having dairy animals either cattle or buffaloes. Most of them were landless or few of them were

small or marginal landholding farmers. The beneficiaries owned 02-06 numbers of dairy animals. Dairy kits comprised of milk can, Stainless steel bucket, milk measure, baskets, dairy concentrate feed, mineral mixture and deworming tablets. The dairy kits were provided to improve the general health status and productivity of the dairy animals. The milk can, bucket and milk measure are useful for clean milk production. The mineral mixture and deworming medicine are useful for improving general health status and productivity in dairy animals. A total of 100 beneficiaries from different villages were provided with dairy kits along with organization of training programme as detailed below.



Climate Resilient Dairy Production" and Distribution and Demonstration of Dairy kits

The ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, organized a Training Programme on "Climate Resilient Dairy Production" on 6th May 2022 under the Development Action Plan for Scheduled Castes (DAPSC) at Sardar Vallabhbhai Patel Auditorium of ICAR-NIASM. In the inaugural session, Mr K Ravi welcomed all beneficiaries and trainees for the programme. Dr NP Kurade briefed about the DAPSC programme carried out by the Government of India and its implementation in ICAR-NIASM. Dr Himanshu Pathak, Director ICAR NIASM, in his inaugural address, narrated about implications of climate change in agriculture and importance of continued alliance of beneficiaries with institute for further way outs. Three lectures were delivered during the technical session: 'Nutritional management for climate resilient Dairy animal production', 'Important diseases of dairy animals and its control' and 'Management of Dairy animals under heat stress' by Dr AV Nirmale, Dr NP Kurade and Dr SS Pawar, respectively. During this session, Dr AV Nirmale emphasized importance of balanced diet and the importance of nutritional technologies for management of during scarcity periods. Dr NP Kurade briefed the farmers about important diseases of Dairy animals and emphasized importance of hygiene and diet besides vaccination for the control of diseases and associated losses. Dr SS Pawar elaborated about simple practical ways and tricks to manage the production losses in livestock during heat stress/summer. Dr BB Gaikwad proposed the vote of thanks. About 75 were beneficiaries benefitted from this training programme. A few Grampanchayat members/social workers also participated in the training programme. The training programme was followed by the distribution of Dairy kit to the identified beneficiaries in different villages, namely Sansar, Gholapwadi, Mankarwadi, Gojibavi, Nirawagaj, Boribel, Baramati, etc. The training programme was conducted and coordinated by the SCSP Implementation Committee members, namely, Dr NP Kurade (Convenor) and Dr AV Nirmale, Dr SS Pawar, Dr BB Gaikwad, Mr Ravi Kure, Dr DD Nangare, Mr Rajkumar and Dr Aliza Pradhan (Co-convenors).



Backyard poultry: Backyard poultry is one of the additional sources of income for rural poor since ancient times. Most of the poor rural household rear backyard poultry birds as livelihood support. Rural women are mostly involved in these activities. In traditional system the productivity of the backyard poultry birds is very poor in terms of growth rate, egg production and feed efficiency. Recently large no. of improved/upgraded backyard poultry breeds have been developed in India. Vanraja, Srinidhi, Grampriya, Satpura and Kaveri are some of the breeds popularised in recent years. Backyard poultry serve as source of some additional regular income from sell of eggs and birds and it is also source of good quality nutritious protein for family members.

Fabrication of cage: Slightly modified ICAR NIASM design of poultry cage used under TSP programme 2016-17 was used. The two tier design suitable for holding 20 birds is as shown below.



Organization of One Day Training-cum-Demonstration on "Climate-resilient Backyard Poultry Farming" and distribution of Backyard Poultry Cages and Birds.

The ICAR-National Institute of Abiotic Stress Management, Baramati, Pune, organized a Training Programme on "Climate-resilient Backyard Poultry Farming" on 19th April 2022 under the Development Action Plan for Scheduled Castes". In the inaugural session, Mr Rajkumar welcomed all beneficiaries and trainees for the programme. Dr Nangare briefed

about the DAPSC programme carried out by the Government of India. Dr Nirmale gave an account of various activities conducted under DAPSC during the year 2020-21. Three lectures were delivered during the technical session: 'Management of Backyard Poultry birds', 'Diseases of Poultry', and 'Summer management of Poultry' by Dr Nirmale, Dr Kurade and Dr Pawar, respectively. During this session, Dr Nirmale briefed the beneficiaries how best the benefits of backyard poultry farming can be derived besides updating the farmers about the various types of poultry farming. Dr Kurade informed the farmers about different types of common diseases in birds and about prevention methods for minimizing production losses. Dr Pawar narrated about how best the birds can be managed during upcoming summer for deriving optimum benefits of inputs provided. Dr Gaikwad proposed the vote of thanks. About 70 beneficiaries benefitted from this training programme. A few Grampanchayat members/social workers also participated in the training programme. On behalf of trainees/beneficiaries Mr Kharat from Gholapwadi thanked the organizers and the Institute for successfully organizing the training programme and providing livelihood support to beneficiaries. The training programme was followed by the demonstration of backyard poultry rearing wherein the participants were given demonstration on poultry bird rearing under backyard system, the suitable breeds and their management. The training programme was concluded with the distribution of Backyard Poultry Cages and Poultry birds to the identified beneficiaries in different villages, namely Gholapwadi, Visapur, Borivel and Baramati. The training programme was conducted and coordinated by the SCSP Implementation Committee members, namely, Dr Sachin S Pawar (Convenor) and Dr Nitin P Kurade, Dr Dhananjay D Nangare, Dr Avinash V Nirmale, Dr Bhaskar B Gaikwad, Mr Rajkumar, Mr Ravi Kure & Dr Aliza Pradhan (Co-convenors).



Silage making machine: Silage is useful for ensuring availability of good quality green fodder during scarcity period i.e. summer. Silage is important for improving nutrition and availability of green fodder ensuring sustainable livestock production. Sugarcane tops are abundantly available during sugarcane harvesting period (September to April) and preparation of mixed silage of sugarcane tops during winter was emphasized to all the dairy farmer beneficiaries. Two silage making machines were distributed to two SC beneficiary groups along with demonstration of silage preparation.



Livelihood support to artisans and Agricultural labourers

Bamboo has vast potential in contributing to rural poverty reduction. Bamboo artisans belonging to Scheduled Caste community consists mostly of poor marginal families. ICAR-NIASM, Baramati with the aim to provide livelihood support to these families, surveyed the area and identified the beneficiaries. The distribution of inputs in the form of bamboos was carried out under which fifty bamboo artisans' families from Purandhar and Lonand villages were benefitted. The bamboos will be utilized by these artisans to make different finished bamboo products and to generate additional income for their families through the sale.



Bicycles to landless labourers:

Bicycles are the cheaper mode of transport as do not require additional inputs particularly for rural poor families. Bicycles were distributed to the agricultural labourers /daily wages

workers belonging to scheduled caste community. Hundred beneficiary families' whose main source of income is from working as agricultural labourers were benefitted through this programme. The bicycles will provide economical means of daily travel between their homes and workplace besides use in domestic activities. The beneficiaries expressed their appreciation towards the institute for help extended and the livelihood support provided.



Utensil Kits with water filter:

Utensil Kits with water filter were distributed to 90 SC beneficiary families from different villages. Most of the beneficiaries without pucca house and insufficient required utensils for their family were selected for the benefits. The beneficiaries for this intervention were mostly woman from poor casual labour group. These families revealed heartfelt satisfaction while receiving the benefit. The utensil kit comprised of one water filter and other day to day required kitchen utensils. These utensils may help the beneficiaries for improving overall health status of families by providing means for healthy living.



Infrastructure developed/Assets created/General inputs distributed

In any development efforts creation of assets or infrastructure are important for long term positive impacts for the beneficiaries and society. Under this program several assets creation activities were carried for the beneficiaries of the program.

Distribution of vehicles/equipment:

Various agricultural equipment and vehicle are very important part of modern day agriculture. Power tillers, tractors and refrigerated van are important for day today agricultural operations besides transport of farm produce. The self-help groups of SC farmers identified for these interventions were poor with very less land ownership. Power

tillers and Tractors are very important in agricultural operations such as ploughing, rotavating, sowing etc. besides use for transport of agri-inputs or produce.

Power tiller: Since its introduction in 1960s the power tiller is being used for seed bed preparation and inter culture operation for wide spaced row crops like sugarcane, cotton etc. Power tiller is designed mainly for tilling of seedbed in small farms and in hill farming and also for carrying out spraying operations in horticultural crops and food crops. Four power tillers were provided to four self-help groups of SC beneficiaries' mostly agricultural labourer or farmers with very less land holdings.

Tractors: Tractors play vital roles for mechanizing agriculture, resulting in the introduction of multiple-cropping, enhancing the total cropping area by developing non-agricultural land into cultivated land. Two different self-help groups were identified based on their activities for providing tractors. These farmers are using this benefits for their use and for other farmers in village on payment basis.



Mirchi Kandup machine (Chilli powder making machine): Eight different women self help groups from eight different villages were identified for Mirchi Kandup machine. All these groups are using these machines for earning some additional income for their families. All the members of group were very happy to receive this machine and were confident to use it effectively.



Flour mills:

Flour mills can be very good source of additional earnings for rural families. These can be used for their daily use as well as earning some additional income for family. 100 flour mills were distributed to beneficiary families from different villages.



Sewing machines:

Sewing machines are very good means of livelihood support particularly to women. A total of 100 pedal operated sewing machines were distributed to mostly women beneficiary. Most of the beneficiaries are using these machines for their day to day work as well as for earning additional income for their families.



Fish net:

Farm pond based aquaculture and capture fisheries are promising livelihood opportunities for communities engaged in fisheries sector. 45 fishnets were distributed to SC beneficiaries interested in fish capture activities and a few having farm ponds.



Tool kit:

A small multiutility tool kit of handheld equipment comprising of khurpi, sickle, koyta, pick axe with chisel and spade was procured. The beneficiaries for these interventions were mostly landless labourers. A total of 100 beneficiaries were benefitted along with four units of dragon fruit.



Pushcart

A number of beneficiaries demanded pushcart during the need assessment programme carried out at Kasaba area of Baramati. Pushcart is multi-utility tool for number of activities. 30 pushcarts were distributed to needy beneficiaries. The beneficiaries are using it for sale of fruits and vegetables, transport of goods and as shop on wheels. This has become very

good livelihood support for most of the beneficiaries. The pushcarts were distributed to some of the beneficiaries by Dr S.K. Chaudhari, DDG, NRM and Dr. Himanshu Pathak, Director, NIASM.



Entrepreneurship development

Seven SC women self-help groups were identified with help of KVK, Baramati for entrepreneurship development. These groups were encouraged for using their skills, as a source of their income generation activity. These groups were sponsored for hiring the food stall in Bhimthadi Jatra during Krushak/Krishi Mela organized at KVK, Baramati in Feb. 2022. The groups offered snacks and veg-nonveg meal in their stall during the Mela for 5 days. One stall was for sale of hand-crafted items and other was for leather items mainly shoes and chappals.



Monitoring and Evaluation:

Effective monitoring and evaluation system helps in continuous improvement to assure success of the developmental efforts. This not only helps in evaluation of impacts of the efforts but also provides desired motivation to beneficiaries to use the resources optimally. For monitoring and evaluation of each of the intervention a proforma was prepared for collection of information and data for assessing status of use of inputs/resources and socio-economic impact on livelihood of beneficiary.

Bicycle: The beneficiaries used bicycles for varied purpose. Mostly bicycle was used by family members for day today household activities. In few households children used it for going to school (13.6%) and some used for agricultural activities particularly for fodder transport (27.6%).

Flour mill: Flour mill was the most popular item desired by majority of the beneficiaries. Majority of the beneficiaries used flour mill for their household requirement (74.1%) and others (25.9%) used it for commercial purpose, as source of additional income. Flour mills proved to be a good asset for the beneficiaries.



Utensil kit: Utensil kit was most popular among the very poor landless labourers particularly ladies beneficiaries. The beneficiaries used the items for their day today use. Few of beneficiaries used it for wedding purpose particularly during wedding of girl child.



Sewing machine: Sewing machine was popular among the ladies beneficiaries. Some of the beneficiaries (14.3%) learned sewing and using the machine as source of additional income. Most of the beneficiaries are using it for day today repair of household clothes.



Mirchi kandup machine: A total of 12 Mirchi kandup machines were distributed during 2020-21 and 2021-22 to different self-help groups. Almost all of them are using it effectively as source of additional income for them. The recipient groups were very happy and confident to use it effectively for benefit of their families.



Poultry cages: Most of the beneficiaries who received poultry cages are using it as a permanent asset and rearing 15-20 backyard poultry birds. This has proved to be a regular source of eggs and some additional source of income for the households.



Tractors:

A total of 4 tractors (2 during 2020-21 and 2 during 2021-22) were distributed to SC self-help groups from four different villages. The groups are using tractor for field operation on their own farm as well as earning some additional money for their group by using it on hiring basis.

Ramai Swayamsahayata Bachatgat, Pedgaon Tal. Daund is working in Maharashtra since 2019 and all 12 members are women. This self-help group received a tractor and a rotavator from ICAR- National Institute of Abiotic Stress Management, Baramati under the scheduled caste development sub-scheme. Under the guidance SCSP team, the group members used tractor and implements on rent to group members and for other farmers of nearby villages. They received a substantial economic benefits and inspired by this, they took a loan from the bank and bought three more implements. All the members of the group use the tractor with 50% discounted rates and other farmers pay Rs 2800/- per acre which is Rs. 200/- less than the market price. Due to the GPS system in the tractor, information about the use of the tractor is available to all the members of the group. In the span of six months, the group earned Rs.50,000/- from the work carried out for the members of the group and Rs.70,000 from the work carried out for other farmers. During six months, group got financial profit of two lakh twenty thousand rupees. Apart from this, employment was made available to two tractor drivers.

In future, the group have a plan of using drones for tractors, more farm implements, tanks and sprinklers. Due to which various types of tools and new technology would be made available to the farmers of neighboring villages to reduce their dependence on labours. Apart from this, there is a desire to develop various micro or fruit processing industries under the guidance of ICAR and ATMA.

The work done by ICAR-NIASM is highly appreciated by the beneficiaries. During April 2020 to March 2022, which is the COVID restrictions period, almost 2772 beneficiaries consisting of individual beneficiaries and 45 self help groups received benefits.



Dragon fruit cultivation:

ICAR NIASM is promoting dragon fruit cultivation technology for shallow basaltic soils with scarce water availability. There was very good response to this intervention promoted as backyard activity. 150 farmers were provided with pole, ring and cutting of plant for backyard cultivation. As the dragon fruit is highly nutritious and fetch very good price in the market, it may benefit the poor SC families for getting better nutrition to their families and may act as additional income source also.



Financial achievement/Total Budget (2021-22) received and utilized:**Total Budget received:** Rs. 103,62,000/-**Capital:** Allotted- Rs. 59,93,000 and Utilized Rs. 55,41,055.**General:** Allotted Rs. 43,69,000 and Utilized Rs. 35,32,974.**Expenditure incurred under Capital head (2021-22)**

Sr. No.	Name of capital item	Indenter	Quantity	Amount
1	Mirchi Kandup Machine	AV Nirmale	8	287992
2	Tractors	BB Gaikwad	2	1197000
3	Power tiller	BB Gaikwad	4	948000
4	Domestic Flour mill	BB Gaikwad	100	890000
5	Bicycles	DD Nangare	100	505000
6	Backyard poultry cages	SS Pawar	93	464907
7	Sewing machine	NP Kurade	100	480000
8	Silage making Unit	NP Kurade	2	504000
9	Pushcart	AV Nirmale	30	263970
10	Goat (2020-21)			226
Total Budget under DAPSC (Capital)				55,41,055

Expenditure incurred under General Head (2021-22)

Sr. No.	Name of capital item	Indenter	Quantity/ Beneficiary	Amount
1	SS milk cans	Dr. SS Pawar	100	84600
2	Steel bucket & milk measure	Dr. NP Kurade	100	125412
3	Deworming tablets	Dr AV Nirmale	500	17500
4	Mineral Mixture	Dr AV Nirmale	100	195000
5	Cattle feed	Dr. NP Kurade	100	110500
6	Bamboo	Dr. AV Nirmale	50	391125
7	Hand Tools	Dr BB Gaikwad	100	214500
8	Dragon fruit poles & cuttings	Dr. DD Nangare		131040
9	Poultry birds	Dr. SS Pawar		300000
10	Covid kit	Mr. Rajkumar		210475
11	Utensil Kit	Mr Rajkumar	100	865500
12	Display Banners	Dr. SS Pawar	-	5782
13	Fish Net	Mr. Mukesh	45	267750
14	Manpower + HRD Advances	Dr. NP Kurade	-	118163+ 149676
15	Imprest for DAPSC	Dr. NP Kurade	-	6586
16	KVK Krushak stalls Proposal	Dr. NP Kurade	-	339365
				35,32,974

DAPSC Implementation Committee



Dr Nitin P Kurade
Principal Scientist, Veterinary Pathology
(Chairman)



Dr Sachinkumar S Pawar
Senior Scientist, Animal Biotechnology
(Member Secretary)



Dr Dhananjay D Nangare
Principal Scientist, Soil & Water Conservation Engineering
(Member)



Dr Avinash V Nirmale
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Dr Bhaskar B Gaikwad
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Mr Rajkumar
Scientist, Agri Entomology
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Mr MP Bhendarkar
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