

PREFACE

We are happy to present the progress for the 2019-2020. The agriculture development which continues to be the largest programme, has made significant headway with the infusion of modern technologies towards improvement in quality and coverage. With the support under the ICAR Krishi Vigyan Kendra at Raisen has been working well. The programmed has also adopted an innovative step to mobilize, farmers, women, dairy farmers to form producer groups for developing the value chain.

The watershed development programmed covering 3280 ha has been successful in promoting soil and water conservation, recharging the ground water table enhancing the crop production by 20-25 % benefitted 0.5 lac families, a majority being small and marginal farmers. We have also been successful in integrating this programmed with other sectoral developments to mitigate the ill-effect of global warming. The learning from the landscape approach, a novel methodology for holistic watershed development through convergence and participatory village development process has been included in our natural resource management programmed. DKVAAS has also been functioning as a Resource Organization for building the capacities of various development organizations.

Women empowerment has been an integral part of all the development programmes as they have been taking greater interest in various development activities. Research has been an integral part of DKVAAS development programmes and we have been successful in promoting on farm research involving farmers, apart from undertaking problem-oriented research. Special emphasis has been given to develop climate resilient agricultural practices to address the problems in arid regions.

We have take up genetic conservation of native plant species and livestock breeds in Madhya Pradesh and engaged in transfer for appropriate technologies for improving the productivity in agriculture, livestock, water resources and energy.

With a view to understand the challenges of the weaker sections of the society in interior rural areas and to evolve suitable methodologies to develop suitable solutions, innovation and knowledge hubs, each covering 12 - 15 villages, have been identified serve as field laboratories to test new technologies and approaches to promote sustainable development.

With overwhelming response from rural families, who are contributing over crores of Rs. Per annum to the national economy and support from our donors, particularly, the government of India , State Governments, we feel empowered and encourage to pursue our mission of evolving replicable models of development to bring prosperity to our rural communities.

Mission

“Ensuring livelihoods of poor people by providing development services, particularly through natural resource management”

Approach

Deendayal Krishi Vikas Avam Anusandhan Samiti DKVAAS is a non-profit organization established by



Focus Area

- Field level interventions in community based natural resources management, including community mobilization; implementation of land and water resources development, participatory irrigation management, agriculture productivity enhancement, agribusiness promotion for small farmers, financial inclusion and capacity building and institutional development of community institutions including Panchayat Raj Institutions.
- Development support to NGOs Government departments/projects and donor organizations in the above areas.
- Action research and policy advocacy through documentation and dissemination.

MISSION VISION PROGRAMS AND ACTIVITIES

Our mission is to have largest penetration in rural masses for their socioeconomic and cultural development through Agriculture research, financial inclusion, self employment, awareness towards various Government Schemes and extended support from other agencies.

VISION

Our Vision is to provide a golden opportunity in business to each and every citizen moreover to help each individual in their overall positive development to achieve their aims and give information to rural peasants regarding art of cultivation to increase their yield capacity and to make rural employment available to rural industries.

SOIL TESTING

Soil Testing is developed for extension purpose. The result can be used advantageously for soil fertility evaluation and fertilizer recommendation. The sole idea of Soil testing is based on the efficient use of fertilizers and adopting better farming practices. The efficient use of fertilizers is directly related to the knowledge of what nutrients, the soil lacks.

Parameters : 1. pH 2. Organic Carbon 3. Nitrate- Nitrogen 4. Ammonical Nitrogen 5. Phosphorus 6. Potassium 7. Calcium 8. Magnesium 9. Sulphur Soil testing is the base for management decisions about fertilizer requirements. It involves the estimation and evaluation of the available nutrient status and acidic reaction of a sample of soil. After testing, a fertility map is prepared where the available nitrogen, phosphorous and potassium is marked as low, medium or high. Areas of sufficient and insufficient nutrients are marked out and nutritional requirements are determined. Fertilizers such as NPK, lime or gypsum are recommended to improve soil fertility. Fertilizer addition, which is based on soil testing, usually leads to an increase in yields and profits by providing the correct amounts of needed nutrients.

It also leads to uniform application of nutrients in a field. As nutrient availability becomes less variable, the crop growth is more uniform. Regular soil testing also contributes to environmental laboratories in some States of India. A method of fertility evaluation - to understand the capacity of the soil for crop production - helps for the efficient and economic use of fertilizers - helps for increased production of crops - to maintain the soil health in a sustainable manner - helps for adopting integrated nutrient management system for increased crop production and soil health - soil test values are of little value if they are not calibrated against nutrient rate experiments conducted in green houses.

Health and Sanitation

Drinking water supply and sanitation in India continue to be inadequate, despite longstanding efforts by the various levels of government and communities at improving coverage. The level of investment in water and sanitation, albeit low by international standards, has increased in size during the 2000s. Access has also increased significantly. For example, in 1980 rural sanitation coverage was estimated at 1% and reached 21% in 2008. Also, the share of Indians with access to improved sources of water has increased significantly from 72% in 1990 to 88% in 2008. At the time, local government institutions in charge of operating and maintaining the infrastructure are seen as weak and lack the financial resources to carry out their functions. In addition, only two Indian cities have continuous water supply and according to an estimate from 2008 about 69% of Indians still lack access to improved sanitation facilities.

Challenges in Health and Sanitation System

1. Prevention of contamination of water in distribution systems.
2. Growing water scarcity and the potential for water reuse and conservation.
3. Implementing innovative low- cost sanitation system.
4. Providing sustainable water supplies and sanitation for rural and semiurban areas.
5. Reducing disparities within the regions in the country.



6. Sustainability of water and sanitation services.

DKVAAS Intervention

Implementation of low-cost sanitation system with lower subsidies, greater household involvement, range of technology choices, options for sanitary complexes for women, rural drainage system, IEC and awareness building, involvement of local groups, availability of finance, human resource development, and emphasis on school sanitation were the important areas considered. Also appropriate forms of private participation and public private partnership, evolution of a sound sector policy in Indian context, and emphasis on sustainability with political commitment are prerequisites to bring the change were worked out this year in this context. M.P. Council of Science and Technology entrusted DKVAAS with Malnutrition programme in Sehore district Madhya Pradesh and mass campaign on malnutrition, health and hygiene were carried out in Panchayats covering 12 villages.

EDUCATIONAL PROGRAMME

Successful projects go beyond the traditional models of delivering aid and services. Many effective programmes are conducted outside of formal institutions or conventional formats. This allows DKVAAS to reach a broader range of participants, and have a larger impact. Successful programmes provide services in interesting, interactive, or unique ways. Often this means moving away from preconceived ideas has prior to working with a community, and for NGOs to be flexible and willing to change or supplement their programming when necessary. One large area of recent innovation is the integration of technology for more effective and engaging programming.

In order to run effective projects, NGOs must help build the infrastructure and capacity of governments, institutions and communities to support these projects. Capacity building can be done in many forms; including institutional, physical or



intellectual-depending on the needs of the community. Sometimes this means increasing physical infrastructure- building roads, building, telecommunication etc that will ease the implementation of projects. Other projects focus on building intellectual capacity; passing on institutional capacity of governments, institutions and other civil society groups to take on and administer the services NGOs are providing. Countries must develop their infrastructure in order to provide the service NGOs are currently providing to their citizens in the future. Our success is because of focus on building capacity in order to implement programs efficiently, and enhance communities' ability to provide services by themselves in the future.

Successful projects are designed around the specific needs of the community they are being implemented in. This requires doing assessments and talking with the community when planning a program. Each community faces different obstacles, and designing programs around these unique needs makes programs more effective and efficient. This specialized design also attracts greater involvement and support from the community. Involving the community in the planning and decision making of programs strengthens the relationship between us, the communities and projects. Community members feel more ownership and responsibility for the project, and are more likely to be invested in a project's success and effectiveness. Community involvement can also help with funding and staffing of programs, and increase the likelihood of a successful handover from DKVAAS to the community.

Non Formal Education is our main focus

Engaging communities in new ways, DKVAAS are implementing projects that either incorporate non tradition methods or operate outside of normal school settings. These types of non-formal friendly education programs are increasingly being utilized to reach underrepresented communities. DKVAAS has realized that we must go to the people if they are not coming to school, simply providing more of the traditional education programs still leave many individuals out of education. Thus we are running farmer's field school and farmer rural women training centre.

Gender and Equity

Gender discrimination continues to be an enormous problem within Indian society. Traditional patriarchal norms have relegated women to secondary status within the household and workplace. This drastically affects women's health, financial status, education, and political involvement. Women are commonly married young, quickly become mothers, and are then burdened by stringent domestic and financial responsibilities. They are frequently malnourished since women typically are the last member of a household to eat and the last to receive medical attention. Additionally, only 54 percent of Indian women are literate as compared to 76 percent of men. Women receive little schooling, and suffer from unfair and biased inheritance and divorce laws. These laws prevent women from accumulating substantial financial assets, making it difficult for women to establish their own security and autonomy.

Gender Equity refer to health, education, economic and political inequalities between men and women in India. Various international gender inequality indices rank our country differently on each of these factors, as well as on a composite basis, and these indices are controversial.

Gender inequalities, and its social causes, impact country's sex ratio, women health over their lifetimes, their educational attainment, and economic conditions. Gender inequality in India is a multifaceted issued that concerns men and women alike. Some argue that some gender equality measures, place men at a disadvantage. However, when India's population is examined as a whole women are at a disadvantage in several important ways.

In recent years the terms- empowerment have become increasingly salient in community enterprise programmes for women. There are various attempts in DKVAAS work is to develop a comprehensive understanding of empowerment. The term- empowerment has been used to represent a wide range to concept and to describe a proliferation of outcomes. The first essential element of empowerment is that it is a process. The second element of empowerment that distinguished it from other concepts is agency- in other words, women themselves must be significant actors in the process of change that is being described or measured.

We at DKVAAS are working on the issue of Gender by providing Trainings and workshop awaring women and girls on their rights and acts this financial year we have conducted 5 programmed covering 250 women's in Raisen District.

Melas and Exhibitions

Melas and Exhibition are a mass communicating methods to spread our voice and information to mass community, we at DKVAAS has organized several melas and participated in many exhibitions of science and technology apart from ICAR exhibitions also.

The main aim behind this is quick convey of information to various class of people at one time, its impressive and we can reach hundreds of people at a time. This year through melas and exhibitions we have reached more than 10000 people in the state.

Biodiversity Conservation work

Biodiversity or biological diversity is a term that describes the variety of living beings on earth. In short, it is described as degree of variation of life. Biological diversity encompasses micro organism, plants, animals and eco systems such as coral reefs, forests rainforests deserts etc.

Biodiversity also refers to the number, or abundance of different species living within a particular region. It represents the wealth of biological resources available to us. It's all about the sustaining the natural area made up of community of plants, animals and other living things that is begin reduced at a steady rate as we plan human activities that is being reduced by habitat destruction.

Biodiversity has three essential elements

- Genetic diversity.
- Eco system diversity and
- Species diversity

Biodiversity has a number of functions as:



- Maintaining balance of the ecosystem: Recycling and storage of nutrients, combating pollution, and stabilizing climate, protecting water resources, forming and protecting soil and maintaining eco balance.
- Provision of biological resources: Provision of medicines and pharmaceuticals, food for the human population and animals, ornamental plants, wood products, breeding stock and diversity of species, ecosystems and genes.
- Social benefit: Recreation and tourism, cultural value and education and research. Thus we can see that biodiversity which is crucial for the well being of life on earth, is coming under the threat of many factors related of human activities. There is an urgent need to take action to protect the magnificent biodiversity of our planet. We must create economic policies in order to maintain the Earth's biodiversity and take appropriate measures to protect habitats and species.

In this context DKVAAS in the financial year organized two workshops on plant genome material to focus on plant genetic material and its conservation in our working areas from biodiversity international and has got sanction to work in conservation of Kadaknath species in animal biodiversity from M.P. State Biodiversity Board Bhopal

Livelihood Implementation Model

At DKVAAS we realize that the restoration and management of available natural resource offer significant opportunities for the enhancement of rural livelihoods. And accordingly, the DKVAAS strategy is based on this hypothesis-

With over 70% of the population dependent on agriculture directly or indirectly, land, water and vegetation constitute fundamental resources for the rural poor. The only sustainable route to livelihoods enhancement is through improvements in these core resource, supported by a steady flow of institutional credit for agriculture. In this model of livelihood enhancement, local institutional development is instrumental for the management and sustainability of the investments made. Special focus is placed on the poor and the women in this model.

Agri- Horticulture- Forestry Programmed

The Agri-horti- forestry programmed is currently operating in our 500 villages benefitting 25000 families across the district in addition, tribal families have already established their small orchards spread over 68 ha in 48 villages in the district of Raisen. The agri- horti programmed included establishment of drought tolerant fruit



tree species as the main crop while cultivating food and cash crops in the inter-space thereby ensuring food security, right from first year. The programme has introduced various innovative activities to improve the bio-diversity, and employment. Prior to establishment of this most of the families were underemployed, earning Rs. 12,000–15,000 per annum, which has now enhanced to Rs. 40,000-45,000. Many innovative farmers have established high value cash crops, fruit plant nurseries and livestock husbandry to increase the income substantially.

Forward and backward linkages through value chain development for increasing the profitability, through the producer company linkages with financial institutions and tie up with market have been initiated as an integral part of the Agri horti programme.

Support for cattle and goat breeding, de-worming, vaccination have also been provided to generate supplementary income.

Empowerment of participant families, particularly women formation of SHG's and producer groups focus on health particularly malnutrition maternal and child health care and facilitating education facilities for children are the other dimensions of the Agri-Horti programme.

Natural Resource Management

The watershed development programme included a wide range of projects from soil and water conservation to developing clean potable water resource development. During the year, our on-going watershed development projects spread over 3282 ha in 12 villages, benefitted over 8500 families, while improving ground water table, biodiversity and micro climate and motivating farmers to introduce tree based farming on marginal lands. So far, 35 watersheds have been completed covering 5000 ha in 17 villages, benefitting 15000 farmers. These farmers have enhanced their crop production by 15% values at Rs.15 crores per annum.

Livestock Development

Several years of relative neglect, the importance of livestock for livelihoods and



poverty alleviation is once again being recognized. However, there is also an increasing awareness that certain types of livestock system are associated with non-trivial consequences such as environmental degradation, greenhouse gas emissions, zoonotic and emerging infectious disease, or food-borne illnesses. There is a need to balance these positive and negative aspects as is made clear by the title “Livestock in the Balance”. Gender will be central to achieving this balance. Livestock are important in women’s livelihoods and asset portfolios. Women do much of the work in livestock systems whether they own the animals or not, women are differentially exposed to health risk associated with animal production and food processing. A Gender lens to a conceptual framework for understanding livestock pathways out of poverty development by DKVAAS. This framework takes a livelihoods approach that centralizes the importance of assets, markets and other institutions. The framework has been used to explore different aspects of small-scale livestock production and marketing, such as the impact of livestock and animal diseases on poverty and poverty dynamics.

The three hypothesized livestock pathways out of poverty are assessed are (i) Securing current and future assets (ii) sustaining and improving the productivity of agricultural systems in which livestock are important and (iii) facilitating greater participation of the poor in livestock related markets. While these three pathways are distinct, with each requiring particular strategies and interventions to be successful, they are not mutually exclusive. In any particular circumstance, one of these pathways may offer more opportunity than the others for reducing poverty , but livestock keepers, researchers and developers alike must pay attention to all three pathways if they hope to sustain and optimize development of livestock-based enterprises. So keeping in view livestock as enterprise for Rural India all aspects like Dairy, Goatry, Poultry and also Fishery promotion are carried out this financial year.

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The lack of adequate sanitation and safe water has significant negative health impact including diarrhea and most of rural suffer from chronic diseases, respiratory problem, skin disorder, allergies, headaches and eye infections.

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