

# DEENDAYAL KRISHI VIKAS AVAM ANUSANDHAN SAMITI

## DKVAAS

Annual Report | 2021–2022

### Aim of the Society

Deendayal Krishi Vikas Avam Anusandhan Samiti (DKVAAS) is committed to the holistic development of weaker and marginalized sections of India's rural communities. The Society pursues sustainable development by systematically enhancing the knowledge, skills, and capabilities of rural households in domains that directly and measurably improve their standard and quality of life. Central to this mission is an unwavering belief that communities, when adequately empowered, can drive their own transformation.

### Mission Statement

DKVAAS acts as a catalyst, enabling the rural poor to improve and diversify their livelihoods by championing productivity-enhancement programmes across agriculture and allied rural non-farm sectors. The programmes are guided by four core principles:

- ◆ Co-design and joint evaluation with beneficiaries, ensuring relevance and community ownership at every stage.
- ◆ Affirmative inclusion of women and other systematically disadvantaged groups, mainstreaming equity into all interventions.
- ◆ Strategic convergence with government departments, non-governmental organisations, and other development actors for multiplied impact.
- ◆ Long-term sustainability without dependence on external agencies, building durable community institutions and capacities.

### Organisational Vision

DKVAAS envisions becoming a leading knowledge and implementation partner for rural transformation across India, anchored in three strategic pillars:

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- ◆ Design and roll out evidence-based rural livelihood programmes, adapting models to diverse agro-ecological and socioeconomic contexts across the country.
  - ◆ Develop participatory, gender-responsive agricultural technologies that are appropriate for rain-fed and climate-vulnerable areas, ensuring adoption by the most resource-poor farmers.
  - ◆ Provide high-quality research, consulting, and capacity-building services to governments, NGOs, and community-based organisations in participatory technology development, project management, and rural appraisals.

## Strategic Objectives

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During the reporting period 2021–2022, DKVAAS pursued the following interconnected objectives:

- ◆ Sustainable livelihood improvement for tribal communities, small and marginal farmers, and other rural households.
- ◆ Application and scaling of gender-sensitive, poverty-focused participatory approaches across programme areas.
- ◆ Formation and strengthening of village-level institutions such as Self Help Groups (SHGs), Farmer Field Schools (FFS), and Producer Groups.
- ◆ Community capacity building through structured training programmes, exposure visits, and skill-development centres.
- ◆ Provision of rural development consulting services to governmental and non-governmental organisations.
- ◆ Applied research and field demonstration on sustainable and organic agriculture practices.
- ◆ Forging and deepening linkages with government bodies, research institutions, academic organisations, and civil society networks.

## Organisational Approach and Core Strengths

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### Our Working Approach

DKVAAS operates through an integrated, community-first approach built on three foundational pillars: deep community engagement, participatory methodologies, and collaborative teamwork. These are complemented by a culture of innovation and creativity, unwavering dedication, and rigorous professionalism in all programmatic and administrative functions.

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## Key Institutional Strengths

- ◆ A well-tested Project Planning, Monitoring, and Review System based on the Logical Framework Approach (Logframe), with consistent emphasis on quantity, quality, and timely delivery.
- ◆ High levels of community contribution across all project activities, reinforcing long-term sustainability of development interventions beyond the project lifecycle.
- ◆ A flexible, demand-responsive operational model that adapts programmes to the evolving priorities of target communities.
- ◆ Close collaboration with a network of experienced international and national consultants, as well as leading research and academic institutions.
- ◆ Strong institutional backing from bodies including ICAR (Indian Council for Agricultural Research), NABARD, and the Government of India.
- ◆ Over two decades of ground-level experience working with rural communities using bottom-up, gender-sensitive, and poverty-focused approaches.
- ◆ A portfolio of proven field strategies for rapid poverty reduction, including dissemination and extension mechanisms, empowerment processes, community institution building, hand-holding support, responsible exit strategies, and post-project sustainability management.

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## Programme Overview

Over its operational history, DKVAAS has built a substantive record of impact across rural Madhya Pradesh and beyond. The Society has directly reached nearly 10,000 rural households through integrated project interventions spanning water and sanitation, watershed management, food and livelihood security, and natural resource management. These efforts have led to measurable improvement in the land condition of over 4,000 hectares and significantly strengthened the capacities of Community Based Organisations (CBOs) and Panchayati Raj Institutions (PRIs) in resource conservation and asset management.

DKVAAS has served as consortium lead for key initiatives under ICAR, the State Agriculture Department, DBT, DRDA, and NABARD, with sustained engagement in the Raisen District of Madhya Pradesh since the year 2000. Integrated farming systems, horticulture promotion, and climate-adaptive agricultural practices have formed the core of its work, enabling households to withstand both pre- and post-monsoon agrarian challenges.

Building on over 12 years of accumulated learning, DKVAAS is progressively diversifying its programmatic focus to address emerging development challenges — particularly those arising from climate change — by developing replicable models drawn from ongoing and completed projects.

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## Food Security and Livelihood

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India's persistent challenge of food insecurity, malnutrition, and hunger persists despite decades of increasing food grain production. DKVAAS addresses this structural gap through a targeted strategy that combines subsistence farming improvement with agricultural diversification, with particular emphasis on horticulture, animal husbandry, poultry, fisheries, and non-farm income activities.

These interventions aim to not only improve nutritional outcomes — especially among women and children — but also to stabilise and diversify rural household incomes. During the year under review, DKVAAS reached over 5,000 households through one or more of the following programme components:

- ◆ Seed Replacement Technologies — facilitating farmer access to high-yielding, climate-resilient crop varieties.
- ◆ Sustainable Agricultural Practices — promoting low-input, ecologically sound farming methods.
- ◆ Lift and Diversion-Based Irrigation Systems — enhancing water access for smallholder farms.
- ◆ Tree-Based Farming via the WADI Model — introducing integrated orchard-cum-crop systems for year-round income.
- ◆ Integrated Farming System (IFS) — renewing and diversifying existing cropping patterns for improved resilience.
- ◆ Food and Nutritional Security — promoting household-level dietary diversity through kitchen and nutrition gardens.
- ◆ Soil and Water Conservation (SWC) Measures — reducing erosion and improving land productivity.
- ◆ Capacity Building for Small and Marginal Farmers — targeted training on agriculture, food processing, and livelihood management.

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## Livestock Development Programme

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India holds the world's largest cattle population, with nearly every rural household — whether landed or landless — owning some form of livestock. However, average milk yields remain critically low at approximately 300 kg per lactation, largely attributable to genetic erosion and severe fodder scarcity. DKVAAS recognises dairy farming as a high-potential, low-investment pathway to sustainable livelihood for economically vulnerable rural families.

Through its project Krishi Vigyan Kendra (KVK) and partner networks, DKVAAS has been expanding its Livestock Development Programme across project areas. Programme activities include:

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- Training and exposure visits for animal husbandry best practices
  - Demonstration of improved breeding and management techniques
  - Vaccination camps and veterinary health support
  - Information dissemination on goatry, poultry, and mixed livestock systems
  - Feed and fodder management training
  - Artificial Insemination (AI) services for genetic upgradation
  - Guidance on accessing government livestock schemes and subsidies

## Sustainable Agriculture

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In rainfed cropping areas where year-round employment and income remain elusive, DKVAAS promotes suitable cropping systems with a preference for tree-based and perennial farming models. To advance sustainable and organic agriculture, the Society undertakes applied research and field demonstrations on the following:

- Composting and vermicomposting for soil health improvement
- Bio-fertilizers including Rhizobia, Azatobacter, Phosphate Solubilising Bacteria, and Effective Microorganisms (EM)
- Bio-fungicides for integrated pest management
- Low-cost, user-friendly liquid bio-fertilizers and bio-pesticides produced at KVK for community distribution

## Integrated Tribal Development Programme

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In collaboration with NABARD, DKVAAS implemented an Integrated Tribal Development Programme (TDP) introducing the WADI model to 300 tribal households in the Raisen District of Madhya Pradesh. The WADI model — literally meaning 'small orchards' — involves cultivating a combination of horticulture and forestry species on small landholdings, integrated with improved staple crop production.

This holistic approach promotes income generation through horticulture and medicinal plants while simultaneously improving the cultivation of traditional crops such as Soybean, Wheat, and Gram through Soil and Water Conservation (SWC) measures. Key activities undertaken included:

- ◆ Coverage of 300 acres of tribal land under the WADI Model.
- ◆ Crop diversification through mixed cropping, tree-based farming, and livestock integration.
- ◆ SWC measures to restore and enhance natural resource health.
- ◆ Capacity building on Agroforestry, SWC practices, and improved agricultural technologies.

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- ◆ Formation and strengthening of Self Help Groups (SHGs).
  - ◆ Employment generation for youth, women, small and marginal farmers, and landless labourers.

## Watershed Management

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Watershed management constitutes one of DKVAAS's cornerstone programmatic areas. As a landscape-based strategy, it aims to promote the conservation, sustainable use, and integrated management of natural resources for livelihood improvement. The Integrated Watershed Management (IWM) approach pursued by DKVAAS combines natural resource management with community-based livelihood strategies, creating synergies between technology, policy, and institutional support.

IWM goes beyond conventional conservation technology to emphasise the importance of human and social dimensions, integrating crop and livestock-based income strategies with improved market access. Key interventions include:

- ◆ Socio-technical support for feasibility studies, community assessments, and baseline surveys.
- ◆ Stakeholder capacity building with a strong emphasis on User Groups and Panchayati Raj Institutions (PRIs).
- ◆ Construction of water harvesting structures and implementation of Soil and Water Conservation (SWC) measures.
- ◆ Participatory planning, monitoring, and review mechanisms with sustained emphasis on long-term sustainability.

## Water and Sanitation

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DKVAAS's water and sanitation programmes provide socio-technical services to rural communities and local-level organisations to strengthen their capacities to address water access and hygiene challenges. Programme initiatives are aligned with national development priorities and include:

- ◆ Participatory monitoring of water resources to ensure equitable and sustainable access.
- ◆ Urban water supply and sanitation support for peri-urban and newly urbanising communities.
- ◆ Local capacity enhancement for surveillance, early warning, and mitigation of drinking water quality issues.
- ◆ Promotion of water-saving technologies and practices adapted to rural contexts.

- ◆ Behavioural Change Communication (BCC) campaigns promoting improved hygiene and sanitation practices.

## Promotion of Vegetable Gardens

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To advance agricultural diversification and household nutritional security, DKVAAS promotes systematic vegetable garden development among farming households with access to irrigation. Programme support includes provision of improved seed inputs, technical know-how, structured training, and regular follow-up field visits.

During the reporting year, 100 vegetable gardens were successfully established across project areas. Economic assessments indicate that a modest plot of 15–20 decimals under vegetables generates net annual profits of ₹15,000–₹20,000 — making it one of the most cost-effective livelihood interventions in the DKVAAS portfolio — while simultaneously addressing household nutritional needs. DKVAAS is actively mobilising dedicated resources to scale this initiative further, given its high benefit-to-cost ratio and demonstrated impact.

## Community Institutions and Agricultural Training

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DKVAAS fosters a robust ecosystem of village-level community institutions to support agricultural productivity enhancement and technology dissemination. These institutions include Farmer Field Schools (FFS), Producer Groups for responsible soybean cultivation, Cotton Learning Groups, Kisan Clubs for general agricultural technology promotion, and Vegetable Growers Groups.

A central feature of this approach is the Lead Farmer concept, wherein select community members are trained and supported to act as agents for peer-to-peer dissemination of farmer-preferred technologies developed through the FFS methodology. Significant organisational resources and staff time are invested in structured capacity building for farmers across agricultural technology development and dissemination, ensuring programme relevance and community-led continuation.

## Women Empowerment and Gender Equity

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Rural women continue to face intersecting barriers — including poverty, malnutrition, limited healthcare access, low literacy, exclusion from information and technology, and constrained self-confidence — that significantly impede their participation in and benefit from development processes. DKVAAS addresses these barriers through a dedicated women's empowerment component embedded across all its programmes.

Key interventions under this theme include:

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- ◆ Promotion of safe drinking water access and improved sanitation facilities.
  - ◆ Community training programmes on health, nutrition, and hygiene.
  - ◆ Establishment and support of nutrition gardens for improved household dietary outcomes.
  - ◆ Promotion of energy-efficient devices — including improved cooking stoves, biogas units, solar appliances, and energy plantations — to reduce domestic drudgery.
  - ◆ SHG-led awareness campaigns on girls' education, prevention of child marriage, health check-ups, and health insurance uptake.
  - ◆ Gender sensitisation and capacity-building integrated into all programme activities.

Approximately 100 women's Self Help Groups have been promoted and supported through DKVAAS programmes across the project districts, providing platforms for collective voice, savings, and access to credit and social services.

## Community Health

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Poor health outcomes in rural areas are frequently rooted in lack of awareness, limited access to services, and inadequate sanitation infrastructure — factors that both cause and deepen poverty. Recognising this nexus, DKVAAS has prioritised health and nutrition interventions as an integral component of its rural development strategy, with particular focus on women and children.

Programme activities include:

- ◆ Facilitation of access to safe drinking water at household and community levels.
- ◆ Community awareness campaigns on hygiene and sanitation practices.
- ◆ Support for primary medical care access and referral linkages.
- ◆ Addressing malnutrition among tribal and other marginalised communities through kitchen garden promotion and production of locally-sourced nutritious food supplements by women's groups.
- ◆ Promotion of alternate and complementary health therapies in tribal areas by training and supporting traditional health practitioners through capacity-building camps.