Towards
A Sustainable Future

VIKSAT
Nehru Foundation for Development

Annual Report 2013-14
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A Sustainable Future

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2013-14

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Nehru Foundation for Development
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Chairperson's Message

“Vision without action achieves nothing; action without vision just passes time, vision with action can change the world”

- Nelson Mandela

The pre-election year saw landmark bills being passed and new laws being created with an aim to provide safety, security, good governance and growth. India made access to food a legal right through the National Food Security Act, aiming at providing food security to 70% of India's population, which was passed in September 2013. Food and drinking water are the first among the hierarchical needs of a human being. The multiple roles of agriculture in food production, improving nutrition and health, and climate change mitigation are now well recognized scientifically, but are yet be integrated into our coherent national policies and strategies. The inclusion of nutritious millets will help to improve both nutrition and climate resilience.

Since its inception, VIKSAT has been working towards conservation and sustainable use of natural resources through meaningful participation of the stakeholders. I am very happy to note that VIKSAT has started promoting the cultivation of vegetables and fruits, adding to the nutritional dimension in the programmes designed and also promote nutritional literacy in the project area. For most nutritional maladies, there are horticultural remedies.

I am glad that VIKSAT has been repositioning itself as resource centre and training institution, to share its expertise, especially in the area of Water and WASH. The trained water educators from WET program will act as dedicated WASH professionals benefiting the society through innovative, need specific, sustainable and replicable interventions for better water and sanitation. I am happy that the transition from grant based activities to financing NRM based sustainable livelihood activities, was consolidated this year. Also promoting and handholding Farmers Producer Organizations (FPOs) has been a strategic step this year.

This year also remained significant for VIKSAT in terms of recognition and partnerships. VIKSAT has able to build and strengthen partnerships with the Department of Science & Technology, Ministry of Environment, Forests & Climate Change, Govt of India, NABARD, John Deere Foundation, Tata Trusts and several other institutions, which have been growing stronger year after year.

VIKSAT should address in an integrated manner, issues of access to clean drinking water, environmental sanitation, hygiene and better quality of life. In coming years, VIKSAT could focus on sharing its experiences and developing a cadre of young professionals for achieving sustainable development.

I acknowledge the role of the members of the VIKSAT Council of Management, the Director and the entire staff for the achievements made by organization during the year 2013-14, with great dedication and distinction, which has enabled VIKSAT to grow to greater heights of excellence and social relevance. My best wishes to the team VIKSAT for continuing the good work and reaching out to more people and areas.

M. S. Swaminathan
Chairperson
VIKSAT Council of Management
From the Director’s Desk

We are happy to share that at the end of the year 2013-14, we have been able to achieve more milestones. This year, we focused more on consolidating and strengthening the existing ongoing programmes and successfully added a few new activities, innovations and partnerships for enhancing impact on the communities we are working with. Our efforts and teamwork has helped us to gain recognition at national level through programs like access to finance under UPNRM, NEAC, water educators training and watershed development.

VIKSAT believes in promoting and strengthening people’s institutions with active involvement of community for sustainable development and management of natural resources. We are always dedicated towards sustainable development and mainstreaming of our stakeholders. In this year, VIKSAT took up a new initiative for developing 1000 Wadis over 1000 acres of land, in villages of Vijaynagar and Bhiloda blocks of Aravalji district, benefiting 1000 tribal farmers, with support from NABARD. It was a moment of pride for VIKSAT as NABARD felicitated our organization for the best work under UPNRM programme at the Gujarat State Credit Seminar.

This year, though our role as regional resource agency for the NEAC of MoEFCC, Govt. of India; our networking with various NGOs, organizations, trusts, societies, schools, colleges, nature clubs, JFMCs, govt. and non-governmental departments under NEAC programme has further strengthened with 741 implementing partners from Gujarat, Diu and Daman.

VIKSAT has initiated efforts towards its aim of repositioning itself as a resource centre and training institution. With support from Dept. of Science & Technology, Govt. of India; VIKSAT conducted two batches of the Water Educators Training (WET), aimed at developing a cadre of WASH professionals in civil society, receiving participants from eleven states of India.

The Navajbai Ratan Tata Trust (NRTT) has committed resources for the ‘Enhancing Livelihood Resilience of the Tribal Community (ELRT)’ initiative, under the Central India Initiative (ClnI). This has further strengthened our ongoing efforts with ClnI, supported by the Tata Trusts, aimed at enhancing livelihood resilience and improving quality of life of the tribal communities.

The report highlights the progress of activities, physical and financial, during the year. The case studies in the report gives a flavour of improvement in quality of life of the people we are working with. This was possible due to financial support from various funding organizations including NABARD, MoEFCC, ICAR, DST, John Deere Foundation, Navajbai Ratan Tata Trust, ClnI and the government sources.

I must admit that our achievements can be largely attributed to our dedicated staff members, who have been putting persistent efforts in helping the communities in our project areas in most remote regions. It is also a time to acknowledge the support, help and guidance we received from the members of our Council of Management, who have always played important role in the development of the organization. With our supporters, well wishers, mentors, dedicated team of colleagues and local people and network of institutions, we have come this far and have a long way to go. With dedication and passion, we shall continue our efforts and interventions to improve quality of life through sustainable management of the natural resources.

Dilip Surkar
Director, VIKSAT
Introduction

Nestled in a sprawling campus housing a range of biodiversity, VIKSAT was conceived to provide a platform to like-minded individuals and collectives to interact and have discourses and dialogues on issues related to environment. The primary objective of VIKSAT was to promote and strengthen People’s Institutions for sustainable development through Natural Resource Management (NRM).

Over the years VIKSAT has carved its own niche in forestry and water sectors through innovations in water harvesting and bio diversity conservation, joint forest management and community development.

Mission
VIKSAT aims at proactively promoting and strengthening Peoples’ Institutions (PI) through interaction between Government and Non-Government Organizations and people by means of active participation of men and women from all sections of the community for equitable, gender sensitive, sustainable development and management of natural resources.

Strategy and thematic intervention
VIKSAT addresses the issues pertaining to Natural Resource Management by promoting and strengthening participatory resource management systems. Local communities and concerned government agencies form the important stakeholders in the programmes. VIKSAT has four major thrust areas, namely Forestry and Environment, Land and Water, Sustainable Livelihoods and Capacity Building. VIKSAT is pioneer in implementing the historic Joint Forest Management (JFM) programme in the state of Gujarat. VIKSAT’s efforts changed the face of forest areas in more than hundred villages in Bhiloda, Saliasana and Khavda taluka. This includes both, development and protection of forests and affirmation of economic activities from them. Appreciating and empathizing the symbiotic relationship of people with forests, VIKSAT has groomed forest based PIs for sustainable livelihood through forest management.

Working towards food and nutrition security, VIKSAT has been making efforts for land and water management for sustainable productivity enhancement and drinking water security by, with and for the community.

VIKSAT has worked at grassroots level with communities in their local regions towards developing models which ensure sustainability of livelihoods through natural resource management.
VIKSAT has mobilized financial resources to fund community initiated entrepreneurial actions. Currently, VIKSAT facilitates creation of a favorable economic environment by increasing access to customized, easy & cheaper loans to the community.

The core strategy in the sustainable development and management of natural resources is people’s participation that cuts across all the thematic areas of interventions. Due to the persistent efforts, nurturing and capacity building of the PIs, they are capable of function independently with minimum external support. VIKSAT has changed the lives of 24,609 people directly through more than 1500 PIs formed and facilitated at the village level.

**VIKSAT as a Resource Centre**

VIKSAT has positioned itself as a Resource Centre in participatory natural resource management. Capacity building of NGOs, government agencies, communities on technical, social and institutional aspects of NRM is becoming its forte. VIKSAT also engages in disseminating information through publications, newsletters and by participating in public forums. The organization also provides a learning platform for other agencies including educational institutions, thus, facilitating sharing of experiences and best practices.

**VIKSAT at the grassroots**

VIKSAT believes in organizing people and building their capacities to take ownership and address issues related to NRM. VIKSAT equips people with information, making them aware of their role as a responsible stakeholder.

Over the last three decades, VIKSAT has progressed from being a platform for intellectual discourse, to an agency advocating for people’s rights vis-à-vis the forests. In the initial years, VIKSAT worked on promotion of afforestation programme with government and NGO participation. During the late eighties, VIKSAT was recognized as the nodal agency for the National Environment Awareness Campaign (NEAC) by the Ministry of Environment & Forests (MoEF). The educational material on drought and land degradation received acclaim. VIKSAT also gained grounds in research, conducting seminars and workshops on various themes of forestry programme. During early nineties, VIKSAT set the benchmark for institution building and community mobilization.

The Tree Growers Cooperative Societies (TGCSs) developed in Kubada village became a model for development practitioners.

The Joint Forest Management programme of the Govt. of India made the path for VIKSAT to reposition itself as an agency providing professional support to the Government of Gujarat. VIKSAT started developing training modules for NGOs and forest department. VIKSAT was gaining prominence for its community building work towards promotion and protection of the forests. The pioneering work of institution building continued during the response of the organization to address natural calamities like drought and earthquake. Capacity building of the PIs for efficient and sustainable management of groundwater, physical interventions for soil treatment, land management and water conservation were initiated by partnering with the local communities. By the turn of the millennium, on one hand, VIKSAT was developing acumen in planning and installing Rain Water Harvesting Systems in urban locations, while on the other, the need to address issues related to sustaining NRM based livelihoods was increasingly gaining grounds. VIKSAT had already organized women into SHGs and operating revolving funds and financing micro enterprises in the villages. By the end of the first decade of the new millennium, VIKSAT had started a more structured system of facilitating access to livelihood based finance through peoples’ institutions like SHGs and Farmers’ Clubs (FC).

With the ever increasing challenges faced in sustaining the natural resources and the livelihoods, VIKSAT is constantly in the process of change, adapting the strategies and interventions to help the communities help themselves in the best possible manner.
I. National Environment Awareness Campaign (NEAC)

National Environment Awareness Campaign was launched by Ministry of Environment & Forests (MoEF), New Delhi in 1986 with the objective of creating environmental awareness at the national level. 34 Regional Resource Agencies (RRAs) are appointed in the country for the implementation and monitoring of programme at the national level. Every year, the campaign activities focus around a theme, announced by MoEF for that particular year.

VIKSAT has been serving as the Regional Resource Agency for Gujarat, Diu and Daman since 1986. NGOs, schools, colleges, nature clubs as well as education and training institutions actively involved in environment education and awareness, participate in the campaign every year and contribute to spreading awareness through various participatory activities like seminars, workshops, rallies, padyatra, Jatha, competitions, street plays, puppet shows, meetings, folk media and folk dance.

The national theme for 2013-14 being ‘Biodiversity Conservation’, the NEAC focused on conserving biodiversity-the wealth of India. India is recognized as a mega-diverse country, rich in biodiversity and associated traditional knowledge. India has a long history of conservation and sustainable use of natural resources and is a party to many international environmental conventions including UN Convention on Biological Diversity (CBD). The current decade has been declared as the ‘UN Decade on Biodiversity’ and India hosted the eleventh meeting of the Conference of the Parties (CoP 11) to the CBD, held at Hyderabad in 2012.

The campaign targeted Biodiversity Conservation in all its dimensions through sub themes such as conservation of critical, endangered and endemic species, conservation of critical and fragile habitats and corridors, forest conservation, wetlands conservation, conservation of mangroves & coral reefs, land degradation & biodiversity, conservation and promotion of medicinal plants, renewable energy-solar, wind, biogas, etc., vermi composting & organic farming, agro forestry, cultivation of fruit trees, germplasm conservation, restoration of grasslands, livestock - indigenous breed conservation, biodiversity conservation in urban and peri-urban areas, Maintaining people’s biodiversity registers, biodiversity & traditional knowledge and equitable benefit sharing, biodiversity based traditional crafts, biodiversity and sustainable practices (rainwater harvesting, use of eco-friendly bags, etc), sustainable tourism and gender in biodiversity conservation.

Various NGOs, organizations, trusts, societies, schools, colleges, nature clubs, JFMCs, governmental and non-governmental departments participated in the campaign activities conducted by VIKSAT. 741 proposals were sanctioned by MoEF out of the 907 proposals received from Gujarat, Diu and Daman through the VIKSAT RRA. Project grant figures are given in the following table:

<table>
<thead>
<tr>
<th>Details</th>
<th>Gujarat</th>
<th>Diu</th>
<th>Daman</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of proposals sanctioned</td>
<td>735</td>
<td>5</td>
<td>1</td>
<td>741</td>
</tr>
<tr>
<td>Total amount of sanctioned grant by MoEF (Rs.)</td>
<td>Awareness Programme</td>
<td>4600500</td>
<td>40000</td>
<td>7000</td>
</tr>
<tr>
<td></td>
<td>Action Programme</td>
<td>2970500</td>
<td>18000</td>
<td>5000</td>
</tr>
<tr>
<td>Total Grant Amount Received (Rs.)</td>
<td>7571000</td>
<td>58000</td>
<td>12000</td>
<td>7641000</td>
</tr>
<tr>
<td>Total Grant Disbursed (Rs.)</td>
<td>7571000</td>
<td>58000</td>
<td>12000</td>
<td>7641000</td>
</tr>
</tbody>
</table>
VIKSAT contributed to the campaign by organizing state-level orientation workshops for participating organizations in collaboration with Gujarat Biodiversity Board, Gandhinagar. These were aimed at providing in-depth knowledge on the given theme to the partner organizations, which in turn would spread further the message of biodiversity conservation amongst individuals and society at large, in their respective regions. In this regard, three interactive workshops were organized for the participating organizations of the programme. The first workshop was organized during the ‘Green Haat 2014’ event at Ahmedabad on 7 February 2014 wherein 90 participants were received. The second and third workshops were organized at VIKSAT on 19 and 20 February 2014 respectively in which 325 participants were received.

II. National Agriculture Innovation Programme
The objective of National Agriculture Innovation Programme (NAIP) is to facilitate an accelerated and sustainable transformation of the Indian Agriculture so that it can support poverty alleviation and income generation through collaborative development and application of agricultural innovations by public organizations in partnership with the farmers groups, the private sector and other stakeholders. In collaboration with the World Bank and Government of India, Indian Council of Agriculture Research (ICAR) supported two projects, one each under the NAIP component II & III respectively. Both projects have been implemented by the collaborative efforts of VIKSAT and Sardarkrushinagar Dantiwada Agriculture University (SDAU).

i. A value chain in major seed spices for Domestic and Export Promotion (project under NAIP Component II)

The objective of the component II is Production to Consumption System (PCS). A value chain system is a system which involves the entire set of actors, materials, activities, technologies, services and institutions involved from the stage of supply of inputs to harvesting of a particular commodity and transforming it into a usable product, and storing/marketing of the final product. It also aims at quality maintenance and confirmation to the ASTA, ESA and ISO standards.

The project duration was from April 2008 to June 2012. However, the project was extended till March 2014. VIKSAT in collaboration with SDAU carried out activities like seed multiplication and distribution for large scale cultivation, extension activities such as farmers’ workshop, trainings, demonstrations on farmers’ field and formation of SHGs. The Project villages designated comprised Gochnad (Taluka: Sami, Dist.: Patan) for Cumin crop and Piludra (Taluka & Dist.: Mehsana) for Fennel crop. The following activities were undertaken:

a. Seed multiplication and distribution for large scale cultivation

Under seed multiplication and distribution activity, seed demonstration of GF 12 seed variety was undertaken in Piludra. GF 12 is the latest variety of fennel crop introduced to the farmers. This variety is suitable for both Kharif and Rabi seasons. These crops were also provided by the SDAU for demonstration.

The special feature of GF 12 variety is that it can be sown in both seasons as compared to the GF 11 which can be sown only during winter. Also,
The production of GF 12 variety is more than that of GF 11 variety. 20 demonstrations of this variety were conducted during the year by the Centre for Research on Seed Spices, Jagudan.

In Gochnad, seed demonstration of GC 4 variety of cumin was made. 10 demonstrations were conducted and inputs were provided to farmers for better production. Some figures regarding seed demonstration are given in the following table:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village</th>
<th>No. of Farmers</th>
<th>Seed Variety demonstrated</th>
<th>Total Sowing Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Piludara</td>
<td>10</td>
<td>Fennel (GF 12)</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Gochnad</td>
<td>10</td>
<td>Cumin (GC 4)</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Piludara</td>
<td>10</td>
<td>Fennel (GF 12)</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>30</strong></td>
<td></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

**b. Extension Activities**

VIKSAT carried out several capacity building activities in association with Centre for Research on Seed Spices, Jagudan. Monthly meetings were organized at village level in which members of 11 farmer clubs and 30 SHGs of the project villages participated. In the meetings, several points such as the seed production programme, marketing strategy of cumin seed and similar issues for capacity building of participant farmers were discussed. This forum was also used to disseminate information to the farmers on newly introduced varieties of cumin, agronomical practices, pests, diseases, their control and other post-harvest technologies related to fennel and cumin crops. Brochures highlighting topics such as value addition in seed spices crop; cleaning, grading and packaging through value addition; Micro Irrigation System; organic farming; advanced agricultural technology of cumin and fennel were distributed during the meeting. Two trainings on the theme ‘Good Agricultural Practice of Fennel (GAP)’ were organized for farmers of Piludra and Jaspur villages of Sattasana taluka of Mehsana district. In these trainings, technical information like newly introduced variety (GF 12), agronomical practices, pests and diseases and their control and other post-harvest technologies, was provided to participants. Data regarding participation in training is given in the following table:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village</th>
<th>No. of Participants (Farmers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42</td>
<td>14</td>
</tr>
</tbody>
</table>

**ii. Integrated Project for Research on Development Process and Sustainability of Livelihood in Selected Disadvantage Districts of Gujarat State (project under NAIP Component III)**

The objective of the Component III is to improve livelihood security of rural people living in the selected disadvantaged regions through technology-led innovation systems, encompassing the wider process of social and economic change covering all stakeholders.

The duration of the project was from April 2008 to June 2012. The project was extended till March 2014. VIKSAT in collaboration with SDAU carried out activities like farming, propagation of vermicompost technology, MIS-Drip irrigation, micro sprinkler, improvement of water harvesting and conservation structure. The project beneficiaries included 18 villages of Danta taluka in Banaskantha district grouped under six clusters, including the Sanali Cluster which comprised Sanali, Hathipagla...
and Chhotabamodra villages. The activities carried out under this component of the project include:

**a. Seed Village Concept**

Seed village concept was implemented under this project with the purpose that the farmers get sufficient and timely availability of good quality seeds at the local level.

Under the seed village concept, improved GT 103 variety seeds of Pigeon Pea were distributed to farmers of the project village. This lead to the farmers earning around 40% more profit in pigeon pea crop; the greatest advantage of this variety being that the seeds were locally available. The following table shows relevant data regarding this activity:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village</th>
<th>No. of Farmers</th>
<th>Sowing Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanali</td>
<td>10</td>
<td>2.66</td>
</tr>
<tr>
<td>2</td>
<td>Hathipagla</td>
<td>15</td>
<td>4.00</td>
</tr>
<tr>
<td>3</td>
<td>Chhotabamodra</td>
<td>10</td>
<td>2.66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td></td>
<td><strong>9.32</strong></td>
</tr>
</tbody>
</table>

**b. Crop Diversification (Vegetable Farming)**

Traditionally farmers were cultivating pulses crops (green gram) before shifting to vegetable cultivation. Under crop diversification, hybrid variety seeds of Okra (Guj. Anand Okra-5) were distributed to farmers of the project village. Information related to crops and their suitability in low water condition was also provided. The following table shows relevant data regarding this activity:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village</th>
<th>No. of Farmers</th>
<th>Vegetable Seed (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanali</td>
<td>5</td>
<td>2.00</td>
</tr>
<tr>
<td>2</td>
<td>Hathipagla</td>
<td>5</td>
<td>2.00</td>
</tr>
<tr>
<td>3</td>
<td>Chhotabamodra</td>
<td>1</td>
<td>4.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td></td>
<td><strong>8.00</strong></td>
</tr>
</tbody>
</table>

**c. Kitchen Garden**

Under the introduction of kitchen gardening concept, kits containing hybrid variety seeds of Brinjal, Tomato, Spinach (Palak), Coriander, Radish and Carrot were distributed in the project villages (area suitable crop). Due to the introduction of these seeds, farmers earned up to 50% more income. Some data regarding this activity is shown in the following table:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village</th>
<th>No. of Farmers</th>
<th>Vegetable Seed (gm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanali</td>
<td>40</td>
<td>450 gm each of Brinjal, Tomato, Spinach, Coriander, Radish, Carrot</td>
</tr>
<tr>
<td>2</td>
<td>Hathipagla</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Chhotabamodra</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>121</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
d. Animal Husbandry

Under animal husbandry activity, three cattle camps were organized, one each at Sanali, Hathipagla and Chhotabamodra villages wherein 855 cattle were given various services. During the camp, 325 kg of mineral mixture was distributed to 325 farmers of the villages of the Project area. The cattle were also provided surgical and gynecological treatment as well as medicines of deworming and artificial insemination, as per requirement. The details regarding turnout at the cattle camps are given in the following table:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Village Livestock Service</th>
<th>Sanali</th>
<th>Hathipagla</th>
<th>Chhotabamodra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cow</td>
<td>Buffalo</td>
<td>Others</td>
</tr>
<tr>
<td>1</td>
<td>Surgery</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Medicine</td>
<td>8</td>
<td>6</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>Gynecology</td>
<td>2</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>Deworming</td>
<td>14</td>
<td>2</td>
<td>67</td>
</tr>
<tr>
<td>5</td>
<td>Artificial insemination</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Tick</td>
<td>15</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>39</td>
<td>29</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48</td>
<td>49</td>
<td>164</td>
</tr>
</tbody>
</table>

e. Extension Activities

Under the extension activity, trainings were organized on the theme 'Rabi and Summer Vegetables Crop' for the farmers from Sanali, Hathipagla and Chhotabamodra villages. A total of 54 farmers participated; 26 being from Sanali and Hathipagla whereas 28 from Chhotabamodra. Information related to new, improved agriculture technology and agroforestry was provided during the training. Various demonstrations of good agriculture practices were organized for the farmers of the project area. These demonstrations helped in increased agriculture production resulting in increased income of the farmers. They were also provided the practical knowledge of growing fruit trees along the farm boundary.

III. People’s Biodiversity Register

In accordance with the Biological Diversity Act, 2002; national, state and local level mechanisms have been provided for implementation of the Act. At the national level, National Biodiversity Authority has been established by Govt. of India whereas at the state level, State Biodiversity Boards have been established by the State Government. Biodiversity Management Committees (BMCs) are constituted at the village level by the local bodies.

BMCs are formed with the purpose of promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breed of
animals and microorganisms and chronicling of knowledge relating to biological diversity.

The preparation of People’s Biodiversity Register (PBR) involved the active support and cooperation of a large number of people who need to share their common as well as specialized knowledge. One of the first steps for preparing a PBR is to organize a group meeting to explain the objectives and purpose of the exercise. Different social groups in the village need to be identified for purpose of data collection from those groups. In an urban situation, spots where biodiversity are important, need to be identified for the purpose of the study and documentation. The documentation process includes information gathered from individuals through detailed questionnaire, focus group discussion with persons having knowledge and published secondary information.

As a pilot project, Gujarat Biodiversity Board has appointed VIKSAT as Technical Support Group for helping local bodies in constituting BMCs and to facilitate the process of preparation of PBR by the BMCs. VIKSAT facilitated BMCs in preparing 5 PBRs each in Satlasana taluka of Mehsana district and Bhiloda taluka of Aravalli district.

During the year, 10 BMCs (one in each panchayat) were formed, which further prepared the PBR of their respective village. During the preparation of the PBR it was observed that some of the local species like Mahuda-Madhuca indica, Dhav-Anogeissus latifolia, Goghrku-Tribulus terreteris, T. lenuginosus, Kadayo-Sterculia urens, Safed musli-Chlorophytm borivilliam, etc. are getting endangered which needs to be conserved and regenerated. The action plan for their regeneration has been prepared and submitted to State Biodiversity Board.

The following table gives details of the BMCs formed:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Panchayat</th>
<th>Satlasana Block</th>
<th>Bhiloda Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bhanavas</td>
<td>Vagheswari</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Samrapur</td>
<td>Kishangadh</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Vajapur</td>
<td>Vansli</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Nendardi</td>
<td>Vejpur</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Bedsma</td>
<td>Bhutavad</td>
<td></td>
</tr>
</tbody>
</table>

IV. District Level Awareness Workshop on Biodiversity Conservation

For sharing of knowledge on biodiversity and preparing PBR, a district-level workshop titled ‘Strengthening the Biodiversity Act and Sensitization of BMC’ was organized at Satlasana by VIKSAT in collaboration with Gujarat Biodiversity Board (GBB), Gandhinagar on 27 September 2013. 120 BMC members from Satlasana and Bhiloda blocks participated. The workshop was inaugurated by Dr. A. P. Singh, Member Secretary, GBB. The workshop also focused on the conservation and protection of local species.
V. Joint Forest Management Programme
With the intervention of the VIKSAT Bhiloda field office, the work of regeneration is being done through Tree Growers Cooperative Societies (TGCS) of Bhiloda taluka of Sabarkantha district. 77 TGCS have been formed out of which 56 TGCS are registered under the Cooperative Societies Act. Under this endeavor, 15000 hectare of forest land has been protected. Moreover, the local community has benefited by getting Non-timber Forest Produce (NTFP) like fodder, fuel, Timru leaves, etc. obtained through regeneration of the degraded forests.

VI. Green Haat-2014
VIKSAT, in collaboration with MoEF, organized Green Haat - 2014, an exhibition-cum-sale event during 7-11 February 2014 at Ahmedabad Haat. The activity was co-sponsored by Gujarat Biodiversity Board, Gandhinagar.

The aim of organizing this event was to promote and showcase NTFP sourced by SHGs, Tribals, members of TGCS and that of Farmer Clubs of Gujarat. It provided a ready market to Community-based Organizations (CBO) to sell their NTFP, handicrafts, best-out-of-waste products, herbal medicines, organic products and food to the people. To promote environment awareness, nurseries were set up, where endangered and indigenous species were available for sale. More than 95 stalls came up at the Haat which exhibited 325 products including NTFP, best-out-of-waste products and household decoration items. The event witnessed footfall of over 15,000 people and the participating CBOs achieved an aggregate sale of over Rs. 25 lakhs.

Besides the exhibition and sale, a number of activities were organized targeting both the general public as well as school students so as to bring awareness on environment conservation and to promote the idea of Reduce, Reuse & Recycle as a means to reduce the carbon footprint of an individual. These activities included lectures, AV shows, exhibitions, demonstrations, street play, quiz, tattoo making, face painting and mehndi application. Various competitions, with biodiversity as the central theme, were organized for school students. These included preparing an article from waste material, drawing competition, fancy dress competition, preparing bird nest from natural material, slogan competition and making greeting cards, using ecofriendly material. Cultural programme was organized during the evenings, which was enjoyed by visitors to the Green Haat.

“Great opportunity for us to learn the VIKSAT’s mechanism & approach of planning, implementation of natural resources and management programme and use of people learning in management of programme. VIKSAT has been doing wonderful job with commitment for upliftment rural people”.

- Ms. Premajothi D.
Lecturer, Goutham College of Science
Bangalore
Natural Resource Management (NRM) and its role in land-based livelihoods have to be given high level of importance and an active commitment in international policy, especially in a globalized world. This will provide all countries the freedom to securely adopt nature-inclusive policies, the need of the hour for addressing climate change concerns and its anticipated impact on food security of poor and marginal communities.

The importance of watershed as a unit of land, water and resource management has increased in the context of climate change. Watershed provides a micro level tool at grassroot level for negotiating the impacts of climate change through sustainable and equitable management of land and water resources and use of appropriate technology and practices.

I. Watershed Development Programme
In 2005, VIKSAT initiated watershed based interventions with Semballya Watershed Project in Poshina tribal area with support from NABARD under WDF programme and further extended it to three more watersheds projects, with support of IGWDP-NABARD. The Project Area includes 17 villages of Khedbrahma block of Sabarkantha district in Gujarat and one village of Kotda block of Udaipur district in Rajasthan. The consistent efforts by VIKSAT have resulted in completion of the several phases of projects and currently all projects are under Full Implementation Phase (FIP) stage.

• During the year 2013-14, total 559.41 hectare land area was treated while cumulatively since project initiation, about 2469.08 hectare of land has been treated under the watershed development projects. The community members participated actively and offered Shramdaan (contribution of voluntary labour) worth Rs. 11.41 lakh under the watershed projects.

• The Semballya Watershed Project is in its completion phase. So far, treatment measures have been undertaken in 1138.89 ha of land, of which 51.13 ha was covered in the current year.

• The Navamota watershed project has entered into fourth year of the FIP. So far, watershed treatment measures have been undertaken in 645.46 ha of land, of which 147.41 ha was covered in this year.

• The Ratanpur and Matarwada watershed projects have completed the Capacity Building Phase (CBP) work in 88.37 ha and 98.65 ha respectively. Both projects (spread over three years) entered in second year of FIP covering 1073.26 ha and 1164.63 ha watershed area respectively. Since project beginning, treatment measures have been undertaken in 163.98 ha and 183.83 ha of land of which 148.50 ha and 182.55 ha were covered in Ratanpur and Matarwada respectively in the current year. The following table shows Physical achievement in agriculture land under watershed development programme in 2013-14:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Area Treatment Activity</th>
<th>Unit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Farm Bund (FB)</td>
<td>Cu mt</td>
<td>51404.80</td>
</tr>
<tr>
<td>2</td>
<td>Stone Outlets (SO)</td>
<td>No.</td>
<td>589</td>
</tr>
<tr>
<td>3</td>
<td>Stone Bund (SB)</td>
<td>Cu mt</td>
<td>6561.60</td>
</tr>
<tr>
<td>4</td>
<td>Water Absorption Trench (WAT)</td>
<td>Cu mt</td>
<td>260.38</td>
</tr>
<tr>
<td>5</td>
<td>Stone Gully Plugs (SGP)</td>
<td>R mt</td>
<td>945.18</td>
</tr>
<tr>
<td>6</td>
<td>Farm Pond (FP)</td>
<td>Cu mt</td>
<td>380.89</td>
</tr>
</tbody>
</table>

Drainage Line Treatment (DLT): Under the watershed projects, 9 nala plugs, 7 check dams and 1 pond were built as part of DLT work and 67.18 ha command area was developed through these structures in project villages. These structures help in increasing water level in nearby wells and brings additional area under irrigation during Rabi and Summer seasons.

Afforestation Work: 4500 plants of Eucalyptus, Bamboo, Teak, etc. and 1000 plants of Agave were planted on bunds and individual private land under watershed development programmes. Grass seeding and seed sowing have been done in 4.75 ha area. The project has recorded 60 - 65 % survival rate of the plants.
Community processes for watershed development:
Over the last few decades, research on community development has increasingly shown that involving community members in their own development through participatory approaches is crucial for sustainable development. The success of watershed development projects depend on a great extent on the level of participation of each stakeholder.

Participation, Capacity building & Transparency: VIKSAT has formed three distinct forms of institutional spaces during interactions with the community for increasing the participation and involvement of each stakeholder. 4 Village Watershed Committees (VWC) comprising 52 members, 64 SHGs comprising 825 women members, 17 Farmers Clubs (FC) comprising 901 members and 3 Women Federations including 64 SHGs have been formed.

During the year 2013-14, 47 VWC meetings and 4 general body meetings were conducted for involvement of the local community in planning and implementation of watershed project activities in relation to the peoples' development priorities. In these meetings, 732 people (610 males and 122 females) from 18 villages participated.

Agriculture Development: Natural resources are very crucial for livelihood of poor and marginal farmers in tribal area and can be perceived as their 'wealth'. It is a need for them to be provided with adequate capacity building on appropriate knowledge and skills and initial support to adopt new technology for improving their potential of generating livelihoods from their natural resources.

VIKSAT has given emphasis on capacity building related to appropriate knowledge and skills for improving the farmers' potential livelihood and has promoted agriculture development through providing them with horticulture, vegetable cultivation, fodder demonstration and irrigation resource development through well deepening and strengthening. Promotion of horticulture plants through creation of fruit orchards was carried out under the watershed development programme supported by IGWDP. Saplings of pomegranate, sapota (chiku), mango and lemon were provided to farmers for developing the orchards. These orchard demonstrations were useful in promoting sustainable agriculture production. The irrigation resource development through 6 instances of well deepening and one of well strengthening helped in increasing area under irrigation.

Livelihood Support and Drudgery Reduction Activities: Over 85% of rural families are dependent on agriculture for their livelihood. However, due to denudation of natural resources, bifurcation of their land holdings and fluctuations in climatic conditions, the income from agriculture has been dwindling steadily. Therefore, introduction of livelihood support and drudgery reduction activities for women empowerment should be an important and integral component of the sustainable livelihood programme. The activities under Livelihood Support and Drudgery Reduction Activities were provided and created with supported of NABARD-IGWDP, Gujarat.

The activity includes 2 hand carts, 1 mobile vegetable vendor, 6 bucks for breed improvement, 6 ladies' bathrooms, 30 solar lanterns and 7 hawada (water trough for cattle). Income generation activities for landless women included 1 grocery shop, 1 buffalo rearing, 1 flour mill, 1 cold drink shop and 1 free land from mortgage.
2 rain gauges were installed under Ratanpur and Matarwada watershed projects for collection of rainfall data under the respective watershed. The rainfall data helps to understand the pattern of climate data and planning of cropping pattern in project area.

**Visit of CGM, NABARD, Gujarat**
Shri M. K. Mudgal, CGM, NABARD, Gujarat visited the VIKSAT field area on 4 October 2013 at Navamota watershed project. During his visit, he interacted with Village Watershed Committee members, farmers and SHG members. Shri Bharat Patel, DDM, NABARD, Sabarkantha was also present during the CGM’s visit.

Shri Mudgal appreciated the work done by VIKSAT under watershed development programme. He also interacted with the farmers and received demands of project area, project benefits and gaps to be filled in this area. He emphasized on capacity building of farmers and women members, irrigation resource development and financial support in development of animal husbandry programmes in project area.

### Impact of Vegetable Cultivation

Cultivation of ladies’ finger (11 farmers), cluster beans (9 farmers) and kitchen garden (30 farmers) were demonstrated under watershed development project to increase access to fruits and vegetables and inclusion of vegetables in regular diet, which helps to enhance the food and nutritional security at household level. The farmers of Poshina tribal belt of Khedbarama taluka in Sabarkantha district of Gujarat are moving towards sustainable future by adopting the idea of vegetable cultivation in field. With the improvement and availability of ground water due to watershed treatments in project villages, farmers adopted profitable diversification in agriculture crops; shifting to cultivation of vegetables such as ladies’ finger (bhinda) and cluster beans (guvar), etc. under the watershed programme, supported by IGWDP-NABARD. In the year 2013-14, average production was 7.43 qtl ladies’ finger and 6.07 qtl cluster beans. In one season, each farmer earned average net income of Rs. 11,629 from ladies’ finger cultivation and Rs. 9430 from cluster beans cultivation from a small parcel of land (0.10 ha).
II. Micro Irrigation System for Sustainable Agriculture Livelihood (MISSAL) Programme

The MISSAL Project aims to develop sustainable livelihood options through provision of micro irrigation technology and agronomy support services in Poshina tribal area of Khedbrahma taluka of Sabarkantha district. The MISSAL project will target more than 300 farmers and 110 ha land area under drip irrigation system in project villages. Irrigation solution created by this project would support farmers in diversifying from single cropping pattern to double cropping pattern since micro irrigation system would enable farmers to optimize usage of irrigation water. Micro irrigation system along with agronomical services would support farmers in increasing productivity and sustain farming as a livelihood option.

- During 2013-14, six drip irrigation systems were installed in farms covering 6.15 ha land area and benefiting 12 farmers whereas since project beginning, cumulatively 13 Micro Irrigation Systems (MIS) were installed in 12.2 ha land area benefiting 32 farmers. In this year, nine farmer groups of 3rd year (2012-13) MIS beneficiaries have made a contribution of Rs. 72,000. Under MISSAL project, each farmer group makes cash contribution of Rs. 12,000 & in kind contribution of average Rs. 15,770 by making trenches & platforms for MIS installation in their respective fields. 25 farmer groups were selected for providing drip irrigation system.

- Support was also provided for agronomy support by providing 3900 seedlings of chili, 500 gm vegetable seeds of cluster bean and okra, pesticide, insecticide and liquid fertilizer to six beneficiaries of first and second year MIS.

- Two awareness training programmes and one exposure-cum-learning visit on vegetable cultivation were organized for farmers and beneficiaries of MIS of project area. 64 farmers participated in the programmes. This activity was helpful to the farmers in knowing about MIS and its benefits, vegetable crop cultivation practices and also included interaction of participants with a progressive farmer.

Drip irrigation - Key to assured crop & income

This year, 10 beneficiaries cultivated summer vegetables and 20 beneficiaries cultivated cash and cereal crops with the help of drip irrigation system. The impact data of 20 MIS beneficiaries shows an average of 0.38 ha net sown area under crop cultivation and an average 7.11 quintal production from crops. From the crop cultivation, each beneficiary got average net income of Rs. 44099. The first and second year beneficiaries saw average 122% increase in their net income per hectare. The MIS programme has benefited families in several ways like bringing about increase in their consumption of nutritious food from their weekly food basket to daily, change in cropping pattern from pulses to vegetable cultivation, additional and assured summer crop, 8-10 man days reduction in fertigation, weeding and irrigation, early sowing of cotton crop as compared to other farmers and increase in purchasing capacity.
Lessons Learnt (during three years’ experience of implementing MISSAL programme)
- With financial support to the tribal farmers, they are able to adopt new technology
- Demonstration of vegetable cultivation helps farmers to improve nutritional security and standard of living
- Participation in farmer training, on-site hand holding support by the field staff, sharing of experiences have led to increased acceptance of vegetable cultivation and is showing exceptionally good results
- With drip irrigation system, beneficiaries are shifting to growing more cash crops like vegetables, cotton and cotton seed plots
- Requirement of concrete and long term planning for area
- Food security is the main concern for the farmers

Young farmer make agriculture profitable

Bubdiya Laxmanbhai Bhurbhail, a tribal farmer of Dantiya village, Khedbramha, Sabarkantha, Gujarat, with the help of drip irrigation system under the MISSAL programme, supported by John Deere Foundation and John Deere Water, adopted profitable diversification shifting from pulses crop to vegetable cultivation such as that of Okra and Cluster Bean.

Within four months, a production of 750 kg of vegetables and gum guar was yielded and he earned net income of Rs. 19050 from small parcel of land (0.25 ha). Before this development, his net income was Rs. 5550 from the same quantum of land. Adoption of this technique helped him in getting additional income (average increase of 243.24 %), reduction in the cost of cultivation and labour and increased nutritious food consumption from weekly to daily of the food basket.

III. Multipurpose Agriculture Resource Centre for Holistic Development (MARCH) Project

The MARCH project aims at enhancing productivity, food security and income through sustainable use of natural resources by making commercial and specialized services available to the project area. VIKSAT has formed Aravali Agriculture Resource and Training Centre (AART) as core people institution for all the people institutions formed in the project area under MARCH programme. AART aims at filling the gap of continuous scientific interventions and accessibility of the farmers to agriculture related knowledge and providing inputs in over 20 surrounding villages and to more than 4000 farmers.

AART has been providing trainings, technical guidance and facilitates farmers’ interactions with agriculture and animal husbandry scientists and provides agriculture inputs like seeds, bioculture, insecticide and pesticide as well as other inputs and at reasonable price. It strives to work as a useful linkage between government and the people so that tribal community can take best advantage of the government schemes promoted for their development and welfare.
AART has its own governing body to manage its activities. The management committee has representatives from PIs of project area.

a. Capacity building and empowerment of individuals/PIs
During the year 2013-14, 9 awareness meetings were organized to discuss about the agriculture input prices and distribution, motivate community to join as members, enroll new members, future strategy of AART centre and registration of AART centre under the Cooperative Societies Act/ Farmers Producer Company. 374 farmers participated in these meetings.

b. Meeting of Management Committee of AART
During the year, 14 meetings of management committee were organized at AART centre in Delwada and Kheroj for review, planning of the work, registration and future strategy for AART centre. In these meetings, 189 management committee members participated. It was decided that two cooperatives will be formed for better implementation and access to all villages in project area. The Kheroj cooperative committee comprises 298 members whereas Delwada cooperative committee comprises 201 members.

c. Information Education & Communication Material
During the year, VIKSAT was able to take benefit of IFFCO Kisan Call service and RML service for the tribal people of project area. VIKSAT used this information to advise farmers during meetings and farmers’ field visit. The leaflets of package of practices of various crops were distributed among the farmers, with support from Central India Initiative (Cini), Ahmedabad & KVK, Khedbrahma. AART continued to display the market rates of different agriculture produce on blackboard of centre. This information helped farmers in making decisions regarding whether to store or sell out their produce.

d. Agriculture Inputs at Affordable Rates
AART provided materials like seeds, bioculture, insecticide and pesticide to 1197 farmers of the project area at affordable rates. The farmers saved a total of Rs. 62,152 (average Rs. 52 per farmer) in the current year and cumulatively Rs.1,20,938 compared to local market price. The turnover of AART centre was Rs. 6.75 lakh through services provided to farmers. AART centre also provided chilly and brinjal saplings as well as tomato, okra and cluster bean seeds to 37 farmers on their request. This indicated that the farmers had started the process to diversify their crop from cereals to vegetable cultivation.
IV. Watershed Plus

i. Kharif Maize Stabilization (KMS) Programme

VIKSAT continued its efforts to reach out to more farmers in the third year of KMS programme as an approach to address food security in tribal villages through community based action on Maize Seed sufficiency and productivity enhancement, supported by CII. During the Kharif 2013, VIKSAT extended KMS programme from six to twelve villages of project area. 915 farmers were selected for improving cropping practices under KMS. Critical inputs such as seed treatment and micro nutrient material were provided to each farmer.

a. Capacity Building of stakeholders

• During the year, 24 awareness meetings were organized in the project area to create awareness among the local community on project objectives, programme activities & process of implementation and good agriculture practices. In these meetings, 1222 farmers comprising 1027 male and 195 female members participated. Selection of beneficiaries was done during these meetings through farmer clubs.

• 12 training programmes were organized on Package of Practices (PoP) of Maize crop, in which 727 farmers participated. Under the PoP training programmes, scientific knowledge was imparted on topics such as deep ploughing, supplementary dose for land preparation, FYM application, seed selection, seed rate, seed treatment, sowing distance, fertilizer management, pest and diseases management, irrigation and harvesting, etc.

• 21 Farmers Field School (FFS) programmes were conducted at farmers' fields, in which 911 farmers participated. Follow-up of treatment, seed rate, spacing of plants with individual farmer and technical knowledge on weeding operations, fertilizer application, pest and disease management, etc. were discussed.

b. Outcome

The KMS interventions helped in obtaining excellent result in enhancing the yield of maize crop in project area. This year, farmers have used eight varieties of maize and they have preferred the hybrid maize crop due to high yield as compared to the composite variety. The average yield enhancement was almost 45% as compared to yield from the traditional practices. The yields of maize varieties are shown in the following graph with their average yield (qtl/ha) in project area.

![Graph showing average yield (qtl/ha) of Maize Variety](image)

ii. Enhancing Food and Seed Security (EFSS)

VIKSAT made efforts to reach out to more farmers in the second year of EFSS programme, as an approach to enhance food security, ensure the preservation of traditional cultural practices & values and to increase seed security, with support from CII.

Under the project, VIKSAT promotes the use of diverse seed types and introduced new variety of wheat HI-1418 from IARI, Indore to test the adoptability in project area of Khedbrahma block of Sabarkantha district. Under the introduction of new variety, 8 farmers demonstrated HI-1418 wheat variety in 4.5 acre land area. The wheat variety (HD 2987) of IARI, New Delhi from last year production was stored, used and replicated by 20 farmers under 10 acre land area in their fields.

Under EFSS programme, 732 beneficiaries and 366 acre land area was selected for wheat, 54 beneficiaries and 28.5 acre land area was selected for gram and 37 beneficiaries covering 7.4 acre land area was selected for vegetable cultivation. Critical inputs such as seed treatment and micro nutrient material were provided to each farmer.

a. Training and Capacity Building

• 24 awareness meetings were organized in the project area to create awareness in the community on project objectives, activities and process of implementation and good agriculture practices. 834 farmers participated in these meetings. Project beneficiaries were selected through farmer clubs, during these meetings.

• To increase the adoption of scientific agriculture practices in wheat crop in project villages, 13 training
programmes were organized in which 471 farmers participated. 3 technical training programmes were conducted for community leaders which received participation of 88 people. A technical training programme was conducted for programme staff and service providers in which 35 people participated. Information on scientific package of practices of wheat, gram and vegetable cultivation like seed treatment and sowing methods were given during these trainings.

- 72 Farmers Field School (FFS) were conducted, in which 2106 farmers participated. During these programmes, technical knowledge was imparted on topics such as irrigation management, supplementary dose of urea, weed control, etc. The major issues of KMS and EFSS programmes like data collection of farmers, follow up and monitoring of crops were discussed.

b. Outcomes

HD-1418 wheat variety from IARI, Indore was introduced in the project area through Clnl, Ahmedabad. The variety has shown average yield of 23.50 qtl/ha which is 76% increase in the average yield of this variety. The results of wheat varieties in project villages are shown in the following graph with their average yield (qtl/ha).

![Wheat Variety Graph]

Meetings under KMS & EFSS

25 review and planning meetings were conducted under KMS and EFSS programme for programme staff and Village Extension Workers (VEW). 183 programme staff and VEW participated.

Monitoring visits for KMS & EFSS Projects

- Six monitoring visits were made by Clnl, Ahmedabad and SRTT, Mumbai to review the KMS and Rabi programmes.

- Dr. N.S. Malhi, Agriculture Advisor, Tata Trust, Mumbai and Mr. Sujit G. Kumar, Team Leader, Clnl, Ahmedabad visited the project area on 18 October 2013 for review of KMS and ongoing programmes.

- Dr. Varma and Dr. Dixit, Expert Resource Persons (ERP) from Clnl visited the field plots, conducted field schools and provided technical guidance and support to farmers and programme staff.

Farmer’s views on KMS & EFSS programme

- The adoption of package of practices like spacing, seed treatment, micro nutrient, etc. helps to enhance the yield of Kharif and Rabi crops as compared to traditional practices

- The improvement and introduction of new seed varieties yields higher production as compared to local seeds

- The handholding support provided by village extension worker helped to adopt the practices at field level

- The programme helps to establish linkage with government institutions like KVK, SDAU, etc. and interaction with the experts

V. Integrated Watershed Plus

Enhancing Livelihood Resilience of the Tribal Community (ELRT) Phase-II

This project is being implemented towards enhancing livelihood resilience and improving quality of life of 6953 families in 21 tribal dominated villages of Khedbrahma and Poshina talukas of Sabarkantha district, under the Central India initiative with the support of Navajbai Ratan Tata Trust (NRTT) since February 2014. The aim of project is the ‘Upliftment and sustainable development of tribal community through building community institutions, conservation, agriculture development and optimum utilization of the available natural resources’.

The activities proposed under this project are (i) Agriculture demonstration and scaling up of improved cropping practices, (ii) Vegetable cluster development and kitchen garden, (iii) Irrigation resource development activities, and (iv) Formation and strengthening People’s Institutions (including VWCs, Farmers’ Clubs, SHGs).
The following activities were carried out under ELRT Phase-II project:

a. Monthly Planning and Review Meetings
During the year, 2 meetings were organized for discussion and finalization of Annual Work Plan and for planning of programme activities with the programme staff. 24 staff members and resource persons participated in these meetings.

b. Staff Development Programme
Two training programmes were conducted on ‘Standard Operating Procedures (SoP) and Capacity Building Plan for SHG programme’ and ‘Planning and implementation of programme activities for programme staff’ as a part of ELRT Phase-II project. In these training programmes, 54 staff members participated.

VI. Convergence with Government
VIKSAT has associated with the government not only as an implementing partner but also as a responsible collaborator to carry forward the development process in the region. In this year, VIKSAT was able to converge some government programmes into project areas for betterment of poor and tribal farmers. The details of these are given as follows:

a. Kitchen Garden
Under the Rashtriya Krishi Vikas Yojana (RKVY) Stream-1 programme, 450 kitchen garden kits were provided to women members of 7 villages of project area to enhance food and nutritional security at household level. This programme was supported by Horticulture Dept, GoG, Sabarkantha. Under the programme, 10 training programmes on ‘Importance and implementation of kitchen garden’ were conducted for all beneficiaries of the programme.

b. Under the grading, sorting and implementing of HRT-3 scheme of horticulture department, 800 tarpaulin sheets were given to 267 farmers of project area for collection of grain during threshing and drying of agricultural produce.

c. Crop Demonstrations
During the year, 50 crop demonstrations of T9 variety of black gram and pigeon pea, 37 crop demonstrations of GW 366 variety of wheat and Dantiwada-1 variety of pea and 15 crop demonstrations of GG 4 variety of green gram were made for the farmers in the project area. This activity was supported by KVK Khedbrahma.

VII. Capacity Building of Land and Water Management Group
VIKSAT believes in promoting and strengthening of people institutions with active involvement of community, for sustainable development and management of natural resources. The capacity building of its village partners and others is an integral part of VIKSAT approach. The major focus on training and capacity building of project partners are giving very good result in all its activities and converting the village partners into empowered groups.
Besides conducting training programme for different groups, many institutions made exposure-cum-learning visits to VIKSAT’s field area and organization, details of which are given as follows:

18 students of MSW course from Goutham College of Science, Bangalore, Karnataka made an exposure cum Learning visit to VIKSAT, Ahmedabad on 14 February 2014.

An exposure visit was made to watershed development programme at Navamota village by 57 WDT and MDT members of Gujarat by SIRD-SPIPA, Ahmedabad on 28 June and 31 July 2013.

A lecture on Watershed Management and Rural Development Programme was given by VIKSAT team for 1st year students of B. Plan course of CEPT University, Ahmedabad on 3 February 2014.

“We had good exposure and good learning interaction with the staff as well as community. VIKSAT is really worth and marvelous work at grassroot level. The staffs of organization are very dedicated and committed to their work.”

- Team Members
  SIRD-SPIPA, Ahmedabad

VIKSAT’s work under the UPNRM Programme being recognised by NABARD with certificate of excellence at the State Credit Seminar, of NABARD at Ahmedabad on 13 February 2014.
**Tribal women become successful entrepreneurs**

Mrs. Shantaben Kantibhai, a tribal woman resides in Navamota village of Khedbrahma block with her husband, two daughters and four sons. She has 2 acres of agriculture land and also works as an Anganwadi worker in the village. During the year, she used to cultivate maize, cotton, pigeon pea and wheat crop. The agriculture produce from the land was kept for own consumption and only cotton was sold in nearby market. She earned an income of Rs. 5000/- from sale of cotton. As an Anganwadi worker, she received Rs. 4000/- per month which was an additional income to the household.

This income was insufficient to educate her children and maintain livelihood of her family. She came to know that VIKSAT is promoting SHG for poverty alleviation. She joined Sonal SHG as a member. She regularly attends SHG meetings and makes savings in the group.

With an ambition in her mind to do something for her family, she took a loan of Rs. 25,000/- for grocery shop enterprise. She started a small grocery shop in her house and now sells grocery items of average Rs. 500/- per day. She also earns profit of Rs. 75/- per day from selling of grocery items. The additional income from the grocery shop is utilized for her children's education. Now, she feels proud that she is able to provide for her children. She also encourages other women who come to purchase grocery in her shop, to form SHG and become a member of SHG.

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**Devaliben: Woman vegetable cultivator in tribal area**

Ms. Devaliben Narsabhai Bubadiya is a marginal farmer of Bubadiya Chapara village of Khedbrahma taluka of Sabarkantha District. She was involved in the agriculture development activities under watershed development programme implemented by VIKSAT, with supported by IGWDP-KFW. She has benefited from cultivation of clusterbean (gavar) and field bean (valor papadi) last year.

She cultivated chilly crop in 0.2 ha area in Kharif 2013. Within six months, a production of 3428 kg of chilly yielded and she sold the production at an average rate of Rs. 17.50 in nearby market. From this, she got net income of Rs. 52,000. Now she feels proud that she is doing well for her family.
I. Financing Agricultural Sustainability and Allied Livelihood (FASAL)

FASAL is a loan-based programme started by VIKSAT with the support of NABARD under the UPNRM programme. UPNRM is a development programme of The Republic of India/NABARD, co-financed by the Federal Republic of Germany through KFW/GIZ. The first phase of the programme was implemented during 2009-2012 while the second phase started in October 2012. FASAL is a new approach to conservation of natural resources, through promotion and effective management of natural resources to ensure sustainable source of livelihood. FASAL attempts to enhance livelihood and NRM through a three-prong approach: community capacity building support, loan for NRM based livelihood promotion and project management support. The project is different from conventional banking or micro-finance. In this project, management and capacity building components are supported under grant programme and therefore not dependent on project earning.

So far, more than 500 SHGs and 80 Farmers Clubs accommodating more than 10,000 people have been brought under the umbrella of VIKSAT People’s Institutions. Around 2000 people accessed direct financial services and more than 5000 people received indirect benefits. The physical progress of the project in the year 2013-14 in terms of livelihood support through loan is mentioned in the table given below.

The project attempts to enhance livelihood of the rural poor through strategic interventions in the selected areas. Some of the areas emphasized in the year 2013-14 are described as follows:

a. Increasing credit access to SHG women

It has been experienced over the years that the objectives of SHG bank linkage programmes have not been fully achieved due to various reasons, including low outreach of banks. SHGs were bank linked by VIKSAT after completion of one year of their formation. It was expected that SHG-bank relationship will continue through its natural business relationship between the bank and the client. However, the fact is that less than 10% of the SHGs could access credit from banks after first time linkage.

The project has brought 1722 persons from 326 SHGs and 24 FCs into the credit service provided under the project. The project has covered 65% PI formed by VIKSAT and established a successful service provider-client relationship. The project has

Details of coverage of borrowers availed credit service

<table>
<thead>
<tr>
<th>Institutions</th>
<th>1st time borrowers</th>
<th>2nd time borrowers</th>
<th>3rd time borrowers</th>
<th>More than 3rd time borrowers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>No. of members</td>
<td>No.</td>
<td>No. of members</td>
</tr>
<tr>
<td>SHGs</td>
<td>94</td>
<td>699</td>
<td>90</td>
<td>610</td>
</tr>
<tr>
<td>FCs</td>
<td>9</td>
<td>180</td>
<td>15</td>
<td>225</td>
</tr>
</tbody>
</table>

Annual Report 2013-14
b. Inclusion of women farmers

The traditional approach of agriculture extension and promotion of agriculture programmes excludes women and does not recognize women as farmers. Since its beginning, the project FASAL has been implementing the project with inclusion and recognition of women as farmers. The project focused on strategic capacity building of women farmers, their empowerment at home to take decisions regarding farming, selection of crops, use of fertilizers and selling of the produce. Technical trainings were imparted to the women for improvement of their skills for adoption of improved practices, technologies and use of higher quality inputs. The women are also empowered to own assets and inclusion of their names in land and other family owned properties.

c. Food and nutrition security

The project showed a promise of food and nutrition security to women and poor farmers. The loans are designed in such a way that borrowers can save enough after payment of loan installments. The activities are scrutinized before approval of loans so that it can create food and nutrition security for the women. The women are also educated to keep aside enough food for self-consumption before selling it into market. Production of staple food, milk and vegetables with the support of the projects, helped in achieving food and nutrition security for participating women. Further, for landless and poorest of the poor, specialized loans are given for storing food in the seasons of production for their food security for the entire year, even after fluctuation of wage availability and seasonal variation of demand for labourers.

d. Natural Resource Management

The project helped in creating an environment of conservation and management of natural resources with optimum efficiency for enhancement of livelihood. The project has disseminated the concept of sustainable livelihood to its participants. The concept of sustainable agriculture emphasizes on conservation of scarce resources namely land, water, forest, biodiversity and commonly owned resources like the farm ponds, canals, water streams, grazing land, etc. The project has helped in optimum utilization of resources for integrated livelihood linked with resources and lifestyles. In the current year, the project has promoted use of pipelines for saving water from evaporation and losses due to open trench irrigation, use of vermicompost for land fertility improvement, saving of fodder and water in dairy by constructing cattle shed and fodder storage, use of biogas for reducing stress on forest and energy security, use of bio-pesticides and bio-fertilizers for soil fertility improvement. These activities have helped the women in learning how their income potentialities are linked with these scarce resources.
e. Sustainable Technology Transfer
Livelihood opportunities are expanded and enhanced through improving practices and adoption of new technologies. The project has promoted adoption of technologies like drip irrigation, biogas, pipelines, etc. Attempt has been made to promote technologies that reduce women farmers’ drudgery.

f. Promotion of Organic Farming
The project has organized the farmers under farmers clubs and educated them about benefits of organic farming and ill-effects of chemicals used in traditional farming practices. Through trainings and exposure, the farmers were also educated about growing market demand for organic farming. A contract farming initiative was taken through SURE Producer Company Ltd. for production 50 MT of organic cumin in 200 acre of lands belonging to 76 farmers in Radhanpur area and also selling it. The entire production is meant for export to European countries under agreement with the company to which the cumin is to be supplied. Bio-fertilizers and bio-pesticides were sourced from another reputed company in order to ensure quality production. External services for expert consultation were also hired so that farming could be closely monitored and guided for assured production and quality control. The farmers producing organic cumin were given technical training, exposure tour and on-field hand holding support. Majority of the farmers have received enhanced production.

g. Livelihood Infrastructure and Asset Creation
The project has created a wide range of assets and ensured ownership of the borrowers after completion of loans which includes diesel engines, irrigation wells, dug-wells, bore wells, cattle and cattle sheds, grain storage facilities, threshers, etc. 751 women and farmers have effectively utilized the opportunity created by the project and they have moved towards entrepreneurship with the help of assets they have created by taking repeated loans.

h. Enterprise Development
The project has created opportunities and space for the women to come forward from their survival and consumption needs, to think beyond survival. The women at different places have taken up entrepreneurial activities. The cattle feed enterprises started in the previous years, have expanded to more than 20 villages of Satlasana and Radhanpur project area where 12 women entrepreneurs have been earning Rs. 2500/- to Rs. 6000/- as additional income by selling cattle feeds while other members are getting quality cattle feed at reasonable price at their doorstep. Similarly, women in 20 villages have started activities like producing vermicompost, nursery raising, aggregation and selling of farm produce, etc.
II. Workshop on ‘Gender’ Inclusion in Agriculture Policies and Schemes’

VIKSAT, in collaboration with Action Aid, organized a perspective building workshop on ‘Gender Inclusion in Agriculture Policies and Schemes’ at VIKSAT, Ahmedabad on 26 March 2014. The objective of the workshop was to address, discuss and critically analyze gender issues associated with the agriculture sector. On a global scenario, women are on the periphery of the agriculture sector and have marginal proprietary rights on agricultural lands. Despite multiple activities performed by women at the farmlands, their involvement in decision making process is almost non-existent and their engagement is not considered as economically active employment. They either earn nil or marginal profits, and are being stopped from entering the mainstream agriculture.

The panel made the following recommendations:
- Policy advocacy is required for reform in favour of women farmers
- Promote gender inclusive extension services in agriculture
- Awareness and local level advocacy with government officials for extending benefits of existing schemes and programmes for women farmers

III. Fostering Organic Orchard Development - Project FOOD

Project FOOD is implemented under Wadi Programme of NABARD. In Gujarati language, Wadi means ‘a small fruit orchard’. The Wadi is an alternative system for enhancing agriculture based economy in tribal areas. Due to very low landholding and fast division of lands year by year, it is becoming difficult for tribal families to get food from agriculture lands for the entire year. This has been forcing tribal population to migrate to other areas. Wadi is a concept of diversifying from low yielding cereal crops to high value fruit and vegetable crops. The recurring investment in fruit crop is less and it involves lesser risk of crop failure. The increase in income from wadi is at least three times more than cereal crops in the same area of land.

The workshop was attended by many dignitaries including Shri Kartikeya V. Sarabhai; Shri R. B. Sharma, General Manager, NABARD; Shri Dilip Surkar, Director, VIKSAT; Shri Prem Ranjan, Programme Manager, Action Aid; Shri Chandrashekhar Jambhuilkar, Senior Manager, Bharatiya Mahila Bank and Ms. Jayashri Vyash, MD, Sewa Bank. The participants came from all over Gujarat state and some of them represented non-profit organizations, self-help groups, women's groups, farmers, etc.

There were two panel discussions, viz. ‘Gender Inclusion in Agriculture - Prospects and Perspectives’ and ‘Gender Inclusion in Agriculture: Gaps and Opportunities in Policies and Schemes’. The panelists enlightened the participants on several issues related to gender inclusion in agriculture sector.

Wadi is a proven model and has been implemented for more than two decades in Maharashtra and southern part of Gujarat. NABARD has been promoting the model with financial and technical assistance. The model has successfully brought thousands of tribal families out of poverty and has remained successful in reducing migration. In the last few years the model was revised, with organic farming process in place of conventional chemical input based farming.

In 2013, VIKSAT took up a project for developing wadis in 1000 acres of land of 1000 households in
23 villages in Vijaynagar and Bhiloda blocks of Sabarkantha district. It aims to support the tribal farmers for seven years, right from plantation to market linkage, value addition and achieving the stable period production and income. In the first year of the project, support has been extended to 75 farmers in starting 75 acre of wadi.

a. The Wadi Model
The Wadi Model is based on the economics of fruit and vegetable crops and income generation over a period of time. The model has five components, details of which are given as follows:

(i) Fruit Crops: Out of one acre of land, fruit crop is to be grown on 0.75 acre. Three types of crops were grown in the area: lemon (5), pomegranate (20) and mango (20). Production of lemon starts from the second year, production of pomegranate starts from the third year and production of mango starts from the fourth year. Thus, the production commences from the second year onwards and every successive year adds additional production from other crops. Thus, the model reduces the usual gestation period of 2-3 years required in orchard development.

(ii) Intercrop: While growing fruit crops, the distance between two rows of plants for mango crop is kept 8 x 8 m while that for lemon and pomegranate is 6 x 6 m. This allows the farmers to grow intercrop of staple food which ensures their food security. Intercrops can be cultivated till the time when fruit crops mature and start yielding optimum production. Even after maturity of the fruit crops, some limited quantity of production can be gained from intercrops.

(iii) Vegetable crops: In this technique, out of 1 acre of land, vegetable is grown in 0.15 acre. Vegetables like brinjal, chilly, etc. yield production for 3-5 months and production can be obtained from these for 2-3 years without replanting the crops. Further, the variety of brinjal provided under the project yields production round the year. A farmer can earn Rs. 5000/- to 7500/- in a season from vegetables, depending on the vegetable variety and care provided.

(iv) Creeper and Tubers crops: A double vegetable farming is promoted under the project. Ginger and turmeric are grown on the ground as these crops can grow under shade. Creeper vegetables like bitter gourd, bottle gourd and beans are sown between the rows of ginger and turmeric. A structure called mandap is prepared at height of 2-3 m so that creeper vegetables can easily spread across the mandap. The creeper vegetables provided under the project include low value but high yielding and highly consumed gourd and valve as well as high value, high yielding but less consumed bitter gourd, etc. The creeper vegetables have longer shelf life and can be sold easily in the local market. Through cultivation of creeper vegetables, a farmer can easily earn Rs. 8000/- to 10000/- per month for a period of 3-4 months. The ginger and turmeric need longer time for maturation and only one harvest can be had in a year. A farmer can earn Rs. 3500/- to 5000/- from these crops.

(v) Forest Plants: Forest plants like teak, sevan, bamboo, drumstick are planted along the borders of an orchard to create a live barrier to check wild and domestic animals from entering it. Further, to protect the orchard, fencing can be easily created within 2-3 years by filling the gaps between the forest plants with dry branches, bamboo or babool branches. In the long run, these wood yielding forest plants can also give good economic return.
b. Supplementary Interventions
The project supports the farmers at individual level for crop diversification and improved income. It also supports in improving the natural resource base to do so and some interventions in social issues in order to create a conducive environment. The supplementary interventions of the project include the following:
(i) Water Resources Development
(ii) Soil Conservation Measures
(iii) Health Programme
(iv) Women Development
(v) Support to Landless

c. Processing and Marketing
The programme has been designed to ensure assured market and remunerative prices for the produce from wadis. There is provision of adequate finance in the project for aggregation of produce and to find the appropriate market. The project targets to cumulatively produce 16000 MT of mango, 5000 MT of pomegranate and 1400 MT of lemon every year from the sixth year of the project. These products can be aggregated, sorted, packed and sold in appropriate market for higher margins. The project also has provision for establishing processing units for value addition to the produce.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Actual Borrowers</th>
<th>Disbursement Amount (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milch Animal</td>
<td>481</td>
<td>15499000</td>
</tr>
<tr>
<td>Unproductive animal</td>
<td>13</td>
<td>435000</td>
</tr>
<tr>
<td>Cash crop</td>
<td>386</td>
<td>10906000</td>
</tr>
<tr>
<td>Cereal crop</td>
<td>46</td>
<td>1820000</td>
</tr>
<tr>
<td>Land development</td>
<td>66</td>
<td>2454000</td>
</tr>
<tr>
<td>Irrigation facilities</td>
<td>109</td>
<td>4617000</td>
</tr>
<tr>
<td>Fodder purchasing</td>
<td>20</td>
<td>607000</td>
</tr>
<tr>
<td>Buffalo shed</td>
<td>39</td>
<td>1925000</td>
</tr>
<tr>
<td>Fodder warehouse</td>
<td>7</td>
<td>180000</td>
</tr>
<tr>
<td>Horticulture</td>
<td>1</td>
<td>50000</td>
</tr>
<tr>
<td>Freeing mortgaged land</td>
<td>20</td>
<td>1086000</td>
</tr>
<tr>
<td>Agro processing</td>
<td>1</td>
<td>50000</td>
</tr>
<tr>
<td>Agri-equipments</td>
<td>15</td>
<td>870000</td>
</tr>
<tr>
<td>Collective purchasing</td>
<td>225</td>
<td>3917000</td>
</tr>
<tr>
<td>Food security</td>
<td>92</td>
<td>915000</td>
</tr>
<tr>
<td>Cattle feed enterprise</td>
<td>11</td>
<td>2759000</td>
</tr>
<tr>
<td>Miscellaneous activity</td>
<td>1</td>
<td>150000</td>
</tr>
<tr>
<td>Biogas</td>
<td>62</td>
<td>1219000</td>
</tr>
<tr>
<td>Vermi compost</td>
<td>37</td>
<td>130000</td>
</tr>
<tr>
<td>NRM Based Enterprise</td>
<td>3</td>
<td>480000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1635</strong></td>
<td><strong>50069000</strong></td>
</tr>
</tbody>
</table>
I. People’s Institutions

People’s participation in sustainable development and management of natural resources is the core strategy of VIKSAT. Thus, across all the thematic areas, the interventions pivot around promoting, nurturing and capacitating the People’s Institutions. Due to the consistent efforts, these institutions have gradually acquired the ability to function independently with minimum external support.

The PIs are formed by empowering the local communities on natural resource management to equip them with the necessary knowhow, technical or otherwise, for equitable use of resources for their own economic development. For instance, today people in rural areas have identified their needs and have learnt about the essential processes like planning, book keeping, money management and conflict resolution.

People’s Institutions supported by VIKSAT

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Institutions</th>
<th>Number of Institutions</th>
<th>Membership</th>
<th>Field Offices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>1</td>
<td>Tree Growers Cooperative Society (TGCS)</td>
<td>103</td>
<td>13240</td>
<td>3719</td>
</tr>
<tr>
<td>2</td>
<td>Self Help Groups (SHGs)</td>
<td>605</td>
<td>1644</td>
<td>5442</td>
</tr>
<tr>
<td>3</td>
<td>Farmer Club</td>
<td>75</td>
<td>633</td>
<td>220</td>
</tr>
<tr>
<td>4</td>
<td>Village Development Committee</td>
<td>5</td>
<td>52</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Water Shed Development Committee</td>
<td>4</td>
<td>29</td>
<td>10</td>
</tr>
</tbody>
</table>

Taluka Level Federation

| 6      | Gadhwada Jai Jameen-Sanrakshan Sangh Ltd, Satlasana | Federation of 23 TGCS | 2102      | 1017        | 3119       | 26 villages out of 73 villages in Satlasana taluka, Mehsana District |
| 7      | Bhiloda Taluka Lok Van-Kalyan Sahakari Sangh-Ltd, Bhiloda | Federation of 76 TGCS | 9542      | 2702        | 12244      | 77 villages out of 168 villages in Bhiloda taluka, Sabarkantha District |
| 8      | Shri Gadhwada Mahila-Vikas Sangh, Satlasana        | Federation of 244 SHGs | 0         | 2207        | 2207       | 27 villages out of 73 villages in Satlasana taluka, Mehsana District |
| 9      | Bhiloda Taluka Mahila Bachat Ane-Dhiran Sangh      | Federation of 66 SHGs  | 0         | 727         | 727        | 26 villages out of 168 villages in Bhiloda taluka, Sabarkantha District |

Gujarat State Level Federation

| 10     | Sangathan KSHAmata Manch (SAKSHAM)                 | Federation of 12 taluka level covering 407 TGCS/ JFMCS | 41847     | 17231       | 59078      | 9 Districts out of 11 forest districts of Gujarat |

Annual Report 2013-14
II. Water Educators’ Training

Water is at the core of sustainable development and plays a vital role in economic growth and poverty eradication. Water, Sanitation and Hygiene (WASH) are central to achievement of many developmental goals. However, with increasing demands on limited water resources, universal access to safe drinking and sanitation is a challenge. Therefore, it is necessary to build the capacities of the NGO officials/field workers associated with this area so that they are able to communicate WASH effectively and bring about behaviour change in a sustainable manner.

It was envisaged that if a cadre of water educators, equipped with the understanding of sustainable management of water is created, it can act as a rich resource for the society and benefit the people through innovative, need specific, sustainable and replicable interventions. Thus, the pilot project - Water Educators’ Training (WET) evolved. The training programme was conducted by VIKSAT and supported by NCSTC, Department of Science and Technology, Government of India.

The prime role of water educators was envisaged as to be able to engage community with the issues, to observe methods of science in investigations and to find scope for more dialogue, debate, consensus and dissent.

Details of WET training programmes

<table>
<thead>
<tr>
<th>Training Dates</th>
<th>No. of Participants</th>
<th>No. of Participants from states other than Gujarat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Batch I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 - 21 Dec 2013</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Batch II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 - 12 April 2014</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>21</td>
</tr>
</tbody>
</table>

The WET batches started off with the inauguration of the first training programme on 12 December 2013 by Shri Kartikeya V. Sarabhai, Managing Trustee, NFD; Dr. Pamposh Kumar, Scientist-E, NCSTC, DST and Shri Dilip Surkar, Director, VIKSAT.

Batch I of Water Educators’ Training was conducted during 12-21 December 2013 and received 25 participants. Batch II, conducted during 3-12 April 2014, registered 29 participants. The trainings were conducted at VIKSAT Training and Resource Centre in Ahmedabad. Water educators from Gujarat, Rajasthan, Delhi, Assam, West Bengal, Madhya Pradesh, Odisha, Tamil Nadu, Karnataka UP & Maharashtra participated in the training.
II. Farmers Exposure to Bio-Technologies and Organic Farming

With the assistance from NABARD under its programme Capacity Building and Adoption of Technology (CAT), an exposure tour was organized for the Farmers Clubs members from Patan district in Gujarat in February 2014. In this, 31 participants were received. The exposure tour comprised visit to Camson Biotechnologies Pvt. Ltd at Bangalore; Wayanad Social Service Society and Uravu at Wayanad, Kerala; Agriculture Research Station at Anakkayam, Mallapuram; Coconut Processing Unit of Kadur Farmers Club, Thenhipalum Cooperative Rural Bank and Green Earth Farmers Club.

VIKSAT Library and Resource Centre

VIKSAT has a rich collection of over 3500 books and audio-visuals, along with a computerized database in its library. The space and facilities of the Resource Centre, together with peaceful and scenic natural setting of the campus and easy accessibility adds to the uniqueness of the Resource Centre as a training venue.
Acknowledgement

VIKSAT extends its thanks to all the institutions and individuals who have contributed to and worked with us in development action. We are grateful to the government departments, funding agencies, donors, our NGO and CBO partners for having stayed with us and supporting our efforts. We acknowledge their significant support during the year 2013-14 and hope for their continued cooperation in the coming years. Some of the partners, with whom we have been working, are as follows:

**Major Funding Partners**
- National Bank for Agriculture and Rural Development (NABARD)
- Ford Foundation
- Collectives for Integrated Livelihood Initiatives (CINI)
- Sir Ratan Tata Trust (SRTT)
- Sir Dorabji Tata Trust (SDTT)
- Ministry of Environment and Forests (MoEF), Govt. of India
- District Planning Office (DPO), Patan
- John Deere Foundation (JDF)
- John Deere Water (JDW)
- United Way of Mumbai (UWM)
- United National Development Program (UNDP)
- Indian Council of Agricultural Research (ICAR)
- Gujarat Institute of Desert Ecology (GUIDE)
- Gujarat Forest Department (GFD)
- Gujarat Biodiversity Board (GBB)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Consumer Unity & Trust Society, Jaipur (CUTS)
- KFW- IGWDP (Indo German Watershed Development Programme)
- Global Environment Facility - Small Grant Programmes (GEF-SGP)
- National Council on Science and Technology Communication (NCSTC), Department of Science and Technology (DST), Govt. of India

**Activity Partners**
- DRDA, Banaskantha
- DRDA, Mehsana
- DRDA, Sabarkantha
- DRDA, Kutch
- End Water Poverty (EWP)
- Center for Environment Education (CEE)
- Vikram A Sarabhai Community Science Centre (VASCSC)
- Kachchh Heritage, Art, Music, Information and Resources (KHAMIR)
- Society for Promotion of Wastelands Development (SPWD)
- Paryavaran Edutech
- KVK, Khedbrahma
- Kutch Nav Nirman Abhiyan (KNNA)
- Sardarkrushinagar Dantiwada Agricultural University (SDAU)
- Sustainable Rural Enterprise (SURE)
- Aravalii Agriculture Resource and Training Center (AART)
- AFC, Mumbai
- WES-Net India

**Our Bankers**
- State Bank of India
- Dena Bank
- Indian Overseas Bank
- Bank of India
## Financial Highlights

### Abridged Balance Sheet

<table>
<thead>
<tr>
<th>Funds &amp; Liabilities</th>
<th>31 March 2013</th>
<th>31 March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endowment Fund Account</td>
<td>80.00</td>
<td>60.00</td>
</tr>
<tr>
<td>Reserves &amp; Other Earmarked Funds</td>
<td>670.08</td>
<td>945.38</td>
</tr>
<tr>
<td><em>(Inclusive of accumulated surplus/deficit)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance of Project Grants</td>
<td>120.83</td>
<td>195.42</td>
</tr>
<tr>
<td>Sundries &amp; Suppliers</td>
<td>42.05</td>
<td>47.02</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>912.96</strong></td>
<td><strong>1247.82</strong></td>
</tr>
</tbody>
</table>

### Assets

<table>
<thead>
<tr>
<th>Assets</th>
<th>31 March 2013</th>
<th>31 March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immovable and Movable Properties</td>
<td>197.24</td>
<td>201.37</td>
</tr>
<tr>
<td>Investments in Approved Securities</td>
<td>269.00</td>
<td>269.00</td>
</tr>
<tr>
<td>Bank Account and Cash/Fdr etc.</td>
<td>137.44</td>
<td>241.61</td>
</tr>
<tr>
<td>Advances and Other</td>
<td>309.28</td>
<td>535.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>912.96</strong></td>
<td><strong>1247.82</strong></td>
</tr>
</tbody>
</table>

### Abridged Income and Expenditure Account

#### Income

<table>
<thead>
<tr>
<th>Income</th>
<th>31 March 2013</th>
<th>31 March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects and Programmes Income</td>
<td>213.85</td>
<td>329.98</td>
</tr>
<tr>
<td>Income from Other Sources</td>
<td>122.76</td>
<td>170.36</td>
</tr>
<tr>
<td>Loan receipt</td>
<td>202.47</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>539.08</strong></td>
<td><strong>500.34</strong></td>
</tr>
</tbody>
</table>

#### Expenditure

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>31 March 2013</th>
<th>31 March 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projects and Programmes Expenditure</td>
<td>198.30</td>
<td>328.41</td>
</tr>
<tr>
<td>Staff Salaries</td>
<td>117.58</td>
<td>117.25</td>
</tr>
<tr>
<td>Establishment and Admininative Expenditure</td>
<td>30.68</td>
<td>51.06</td>
</tr>
<tr>
<td>Amount transferred to Other Earmarked Fund</td>
<td>2.23</td>
<td>2.63</td>
</tr>
<tr>
<td>Loan disbursement</td>
<td>202.47</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>551.26</strong></td>
<td><strong>499.35</strong></td>
</tr>
<tr>
<td>Surplus/(Deficit)</td>
<td>-12.18</td>
<td>0.99</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>539.08</strong></td>
<td><strong>500.34</strong></td>
</tr>
</tbody>
</table>

### Expenditure of the last 5 Years (Rs. in lakhs)

<table>
<thead>
<tr>
<th>Year</th>
<th>Rs. in Lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2010-11</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2011-12</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2012-13</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
</tbody>
</table>

### Source of Funds during last 5 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Rs. in Lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2010-11</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2011-12</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2012-13</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td>2013-14</td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
<tr>
<td></td>
<td>Others</td>
</tr>
<tr>
<td></td>
<td>Project/Programmes</td>
</tr>
</tbody>
</table>
VIKSAT Council of Management

Chairperson
Prof. M S Swaminathan
Chairman, M S Swaminathan Research Foundation
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Members
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Executive Director
Vikram A. Sarabhai Community Science Centre
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Ahmedabad - 380 009

Member Secretary
Shri Dilip Surkar
Director, VIKSAT
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VIKSAT Offices

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Annual Report 2013-14