

ANNUAL REPORT

2016-17



Contents

.....

| | |
|--|---|
| From the desk of the Executive Trustee | 3 |
| Vision, Mission | 5 |
| Objectives of GREEN Foundation | 3 |
| Key Achievements | 3 |
| Agro-biodiversity Conservation | 3 |
| RVD Stages | 3 |
| DNA Finger Printing | 3 |
| Community Seed Bank (CSB) | 3 |
| Sustainable Agriculture | 3 |
| Certification | 3 |
| Policy Engagement | 3 |
| Research and Communication | 3 |
| Looking Forward | 3 |
| Key Partners | 3 |
| Audited and Financial Report | 3 |



From the desk of the **Executive Trustee**



I am pleased to present the GREEN Foundation annual report for 2016-17. **Genetic Resource Ecology Energy and Nutrition Foundation** (GREEN Foundation) has been working in the state of Karnataka on agro-biodiversity conservation for the last 22 years. GREEN has a vision of a well preserved, diverse ecosystem that will sustain the rural livelihoods of the present generation without eroding the resource base of the future. GREEN Foundation works with small and marginal women farmers and focuses on conservation of agrobiodiversity and sustainable agriculture.

Our work with 2,500 women farmers and their producer company, Janadhanya continued doing excellent work on biodiversity during the year. Seed took the centre stage in the operation of 3 community seed banks and 2 sub-centres, having a range of seed varieties for ragi, paddy, vegetables, pulses and oil seeds.

During the year, we initiated an engagement in Evolutionary Plant Breeding, which helps farmers reduce their risk to the drought conditions that are affecting their yield. In this practice the traditional seeds are selected and saved for future use, carefully multiplied in the right season. Molecular finger mapping is undertaken.

Our team was trained in this technique and we initiated early stage EPB called Rare Variety Demonstration for about 130 varieties of Ragi. It is timely engagement in this practice, given that Evolutionary Plant Breeding is going to be an important practice for sustainable agriculture practice, given that Evolutionary Plant Breeding is going to be an important practice for sustainable agriculture.



Demonstration for about 130 varieties of Ragi. It is timely engagement in this practice, given that Evolutionary Plant Breeding is going to be an important practice for sustainable agriculture.

During the year, we initiated an engagement in Evolutionary Plant Breeding, which helps farmers reduce their risk to the drought conditions that are affecting their yield. In this practice the traditional seeds are selected and saved for future use, carefully multiplied in the right season.

Molecular finger mapping is undertaken. Our team was trained in this technique and we initiated early stage EPB called Rare Variety Demonstration for about 130 varieties of Ragi. It is timely engagement in this practice, given that Evolutionary Plant Breeding is going to be an important practice for sustainable agriculture.

- Other sustainable agriculture practices were in operation. Major products included a variety of cold pressed oils, papad, organic manure and fertilizers and millets and its flours.
- The Participatory Guarantee System (PSG), started in 2006, as a peer appraisal system on quality assurance for organic products was in operation during the year. There are 1000 farmers participated in PGS.
- The Janadhanya Farmer Producer Company with its 350 shareholders was engaged during the year on strengthening market linkages, training and seed testing.

Finally, we are grateful to many organizations and individuals who helped us, stood by us, or have shown interest in our work, motivating us to move ahead with more energy and enthusiasm. We would like to thank Vrutti, Fuzhio and National Rural Livelihoods Mission for being partners who have added value to our work. Our donors during the year, 3M and United Way have allowed us to move forth with many initiatives. Support from Ms. Prathibha and Mr. Doddanna was invaluable. Also we like to thank Exilant ,Bangalore and Macalester- Live It Dream It fund,USA for their help in fostering women entrepreneurship.

As we move to 2017-18, we look forward to much more growth and learning.

N. Raghunathan,
Executive Trustee



Land Preparation



Land Preparation (Ploughing)



Vision

Green foundation works towards a well preserved, diverse ecosystem that will sustain the rural livelihood of the present generation without eroding the resource base of future.

Mission

Conserve local seed diversity, promote an increased reliance on biodiversity-based ecological agriculture and use these as foundations for endogenous growth and development.

Create a gender se sensitive environment that enhances women's leadership skills.

Contribute to livelihoods by creatively marketing 'value added', cultivated and wild agricultural biodiversity. *connect the natural element-Soil, Water, air, sunlight and seed – to ensure an abundance of nutritious food and other basic community seed.

Continue to nature community participation and assist in building robust community institutions.



Objectives of the Green Foundation

- ▲ **GREEN Foundation** aims at making the farming society self-sufficient and self-sustaining by providing end-to-end assistance in their overall development .
- ▲ To enable farming communities to document, conserve and utilize their genetic resource and associated knowledge in a sustainable manner.
- ▲ To strengthen capacity of farmers and farming communities, local institutions and other stakeholders for the conservation and sustainable utilization of genetic resources.
- ▲ To establish institutional mechanisms to organize, protect farmers' rights and secure access and control over their genetic resources.
- ▲ To analyze implication of existing policies and laws for the conservation of genetic resources and promote supportive policy environment.





Agro-biodiversity conservation and sustainable agriculture

Seed Germination Stage



Key Achievements

▲ **Agro-biodiversity conservation**

Rare variety demonstration of 73 varieties of Ragi, 12 varieties of minor millet and 78 varieties of Paddy.

▲ **DNA Fingerprinting**

255 varieties of Ragi seeds conserved in Community Seed Banks.

▲ **Promoting sustainable agriculture**

Creation of 6 new enterprise groups under Janadhanya.
Support provided to existing producer groups in the form of trainings and certification.

▲ **Digitization under Participatory Guarantee System**

1000 new farmers are on their way to joining the PGS
Applied for the PGS India certification.

▲ **Research and communication**

Research on Evolutionary Plant Breeding with Dr.Salvatore Ceccarelli on more than 80 varieties of finger millet.
Finger millets have been sent to ICAR for genetic fingerprinting.
Ongoing efforts with Open University.

▲ **Policy engagement**

Hybrid Seeds
Organic vs Sustainable Agriculture
The Seed Bill



Seed Germination Stage



Agro-biodiversity Conservation

Agro-biodiversity is a broad term that encompasses all components of biological diversity of relevance to food and agriculture as well as the larger agricultural ecosystems that contribute to production. Agro-biodiversity is the source of genetic material that is vital to future generations.

Agro-biodiversity is crucial when it comes to preserving genes that could help improve crops, improving pest resistance, or adapting to climate change. Globally, about 940 species of cultivated plants are threatened.





Agro-biodiversity conservation and sustainable agriculture

Challenges:

Participatory discussions with the farming community in Kanakapura Taluk of Ramanagaram District revealed that there had been extensive loss of biodiversity over the years. Many indigenous crop varieties as well traditional farm management practices had disappeared over time. The root of this problem lay in the increased cultivation of hybrid varieties and disappearance of the traditional practice of seed saving.

Interventions:

Conservation of indigenous seed varieties has been at the core of the Foundation's work since it first began in 1994. Today, scores of indigenous crop and vegetable varieties have been reintroduced in farming areas where they had all but disappeared. Increasing numbers of farmers are now reverting to the cultivation of these varieties and the low-input sustainable agriculture they require. GREEN's strategies involve raising awareness on the importance of biodiversity conservation, building platforms for conservation and community led efforts for restoration and maintenance of agro-biodiversity. GREEN Foundation's work in agro-biodiversity conservation can be broadly categorized into In-Situ Conservation and Ex-Situ Conservation.

In-Situ Conservation

Refers to on-farm conservation, where farmers themselves conserve seeds for cultivation in their farms. Advantages of In-situ conservation are that it allows for evolutionary process of crop adaption and gives farmers control over genetic resources.



Ex-situ conservation:

Refers to off-farm conservation, where indigenous varieties are stored in repositories outside the farm. GREEN Foundation helped to set up kitchen garden by farmers. 40 to 45 farmers have set up kitchen gardens

Progress:

Rare variety demonstration(RVD) : RVD is an In situ conservation practice in which selected farmers are given seeds of rare indigenous varieties for cultivation. These seeds are then collected and distributed for other interested farmers to grow in their own fields. Collected seeds are also stored in Community Seed Banks as repositories for future use. Over the 2016-17 financial year, GREEN has engaged in RV demonstration of 73 varieties of Ragi, 12 varieties

of minor millet and 78 varieties of Paddy. We also received 87 varieties of Ragi from The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) which were germinated through RVD.

RVD Stage 1: Land Preparation





Stage 2: Seeding

Stage 3: Germination



Stage 4: Flowering



Stage 5: Matured Flower 1



Stage 6: Matured Flower

DNA Fingerprinting:

DNA Fingerprinting is a technique used to evaluate genetic information, called DNA (Deoxyribonucleic - acid). In the past year, indigenous varieties of Ragi from Kanakapura Taluk have been sent to Indian Council of Agricultural Research (ICAR) for DNA fingerprint mapping to match the genotype of millets with local farmer knowledge.

Community seed banks:

Community seed banks (CSBs) are community-managed sites where indigenous variety seeds are stored. They provide the community with free and easy access to a variety of seeds. CSBs enable community led biodiversity conservation initiatives.

There are currently three CSBs in Kanakapura Taluk which have combinedly 19 varieties of Paddy, 7 varieties of vegetables, 142 varieties of Ragi and minor millet, 78 varieties of pulses and 9 varieties of oilseeds.



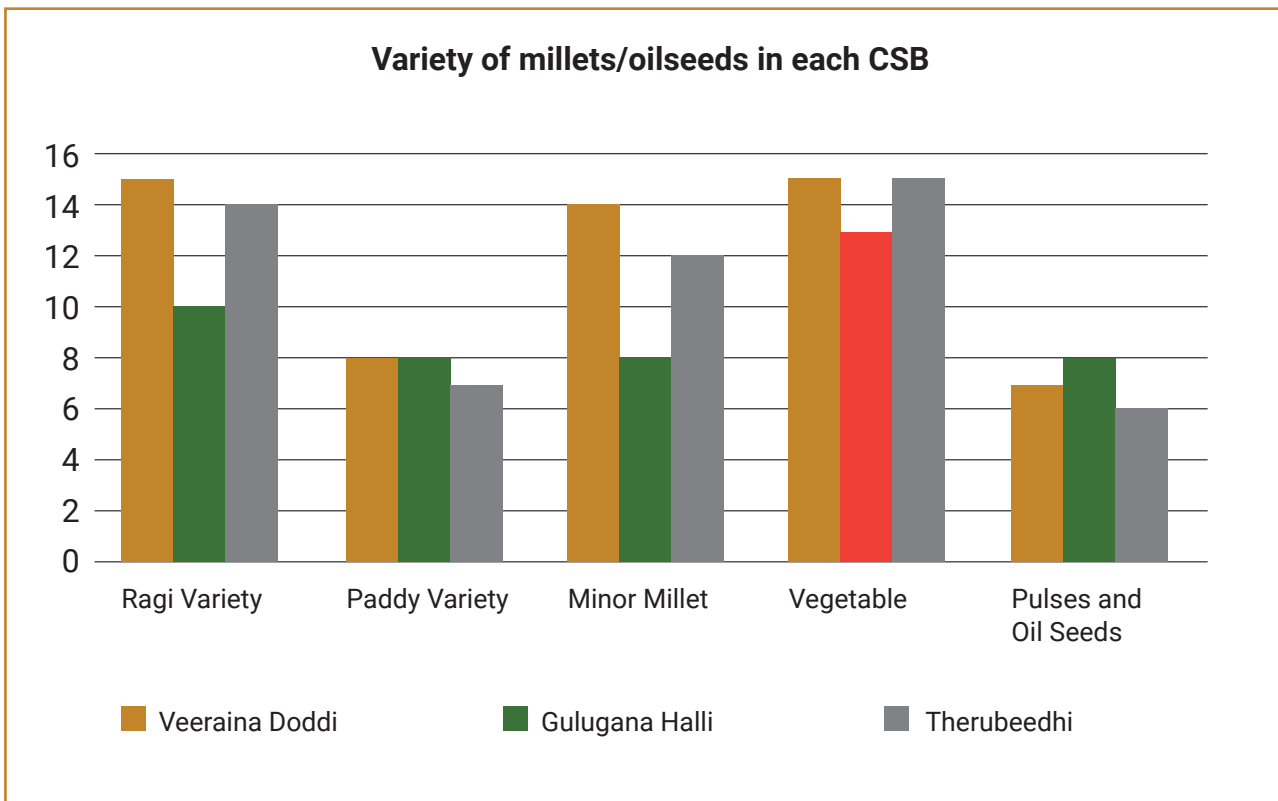
Community Seed Bank



| Seed Varieties available in three CSBs | Total number of seeds available |
|---|--|
| Ragi | 39 |
| Paddy | 21 |
| Minor Millet | 34 |
| Vegetable | 43 |
| Pulses and Oil Seeds | 19 |

Total number of Seeds conserved in the seed bank during the year 2016-17





Seeds conserved in each millet at 3 villages during the year 2016-17





Sustainable Agriculture

Sustainable agriculture is the production of plant and animal products in a way that uses farming techniques to protect the environment, ensure social and economic equity as well as gain economic profitability.



Challenges:

Over time, new technologies, mechanization, increased chemical use, specialization and government policies that favor maximizing production have enabled fewer farmers with reduced labor to produce majority of the food. These changes have given rise to a host of problems that include topsoil depletion, groundwater contamination and the decline of family farms and traditional farming practices. Thus, sustainable agriculture is important to make use of natural resources and manage them carefully to make them last longer.

Interventions:

GREEN Foundation initiated the formation of Janadhanya, an association of farming community members who are empowered to work collectively to conserve agro biodiversity, provide market linkage for farmer produce and promote organic farming, among many other objectives. Janadhanya provides a common platform for the farming community to strengthen their food and livelihood security while promoting concepts of sustainable agriculture at the grassroot level.

Individual farmers become members of Janadhanya through their respective Self Help Groups. Janadhanya has also worked on enabling women with a means to generate income through the formation of enterprise groups. These alternate income generation programs strengthen the economic security of farming families and increases the agency of women, potentially enabling them to have a voice in the management of their family farms.

Progress:

In the 2016-17 year, we have formed various producer groups.

A.Sri Producer Group Muneshwara Vermicompost and Liquid input:

During the reporting period, we have formed Sri Muneshwara Savayava Parikara Utpadakara Sangha in Bevanamaradadoddi village. This group comprises 10 members. Each member contributed Rs. 2000 and towards production of vermicompost and construction of vermicompost pits. Additionally, Janadhanya has provided monetary support of Rs.35,000. Based on business expansion, members have agreed to contribute some more money towards the venture. Some of the members have also agreed to construct vermicompost pits in their own lands and have shown interest in preparing other organic inputs.



B.Sri Maruthi Oil Producer Group:

A cold pressed oil processing groups has been established in the village of Chikka Maralwadi. To find an appropriate rotary machine, we visited various vendors in Mysore, Salem, Pollachi and Coimbatore. After evaluating the practicality and efficiency of various machines, we finally settled on a 1 HP rotary machine from Coimbatore. This machine can be easily operated by the women members who do not have much experience operating large machinery. Each of the 14 members contributed Rs. 1500 towards the establishment of the enterprise group. The total community contribution was Rs.21,000.

Vermicompost and Liquid Input Pit



Cold Pressed Oil Unit



C.Sri Parvathi Papad making group:

We have facilitated the formation of a papad making group called Sri Parvathi Happa Uthpadakara Sangha in Hunasanahalli. Eleven members from the community have joined this group and have made a total contribution of Rs.50,000. They have also managed to secure a building to set up this producer group. A solar dryer has been installed in this building for the drying of papads. Apart from this, papad pressing machines and grinders have been provided.

Solar dryer for papad making group



D.Sri Durgashree Chandrike Adyothpana Sangha:

We have formed a chandrike rent out group in Bommasandra village. A total of 17 women have become members of this group. Each member contributed around Rs.2300 as member contribution towards running the business. They have opened the bank account at UCO bank kodihalli in the name of the group. They have rented a building to set up the chandrike unit and have purchased 100 nos chandrike to rent out.



Chandrike Rent Out Group



E.Sri Kaveramma vermi compost Producer Group:

We have formed Sri Kaveramma Savayava Parikara Utpadakara Sangha in Banagonadanahalli village. This group comprises 7 members with each member contributing Rs.2000 towards the construction of vermi compost pits. Using the grant we have provided Rs.35,000 for the construction of the vermi compost pit.

Vermi-compost pit Sri Kaveramma vermicompost producer group



F.Sri Ambha Bahvani Cloth bag making Group:

During the reporting period, we have formed Sri Ambha Bhavi Karakusalara Sangha in Chikka Maralawadi village. This group comprises 15 members and each member has contributed Rs.2500 and in total Rs.37500 has been collected to setup a up cloth bag making unit. We have provided Rs.80,000 to support the setup of this organisation. Additionally, most of the members have agreed to purchase their own tailoring machines. They have opened a bank account in the name of the group in Andhra Bank, Harohalli. Most of the members have some experience in basic stitching. The group has taken a room to keep their raw materials and finished products in the village itself. The group plans on making fancier looking bags in the future.



Cloth Bag Making Group



G.Sri Jayalakshmi chandrike rent out group:

We have formed Sri Jayalakshmi chandrike rent out group in Bommasandra village. A total of 11 members have joined this group. Each of them have contributed Rs.5000 as member contribution, totalling Rs.55,000 in community contribution. They have procured 130 chandrike to distribute to the village level market.

H.Support to existing producer groups:

During the period, GREEN has supported 2 existing producer groups, namely, Siridhanya producer group located in Gollaradoddi village which is mainly works towards processing of different millet products and the Sri Uttare turdhal processing group in Veerayyandoddi village. The ongoing United Way project in GREEN has contributed about Rs.100000 to enable the purchase of machinery and licenses for these groups. Additionally GREEN has also conducted various training programs.

Training Program:

Training programs have been conducted for papad making and oil producing group on selecting good quality raw materials, production systems, total budget of the process, community contribution, roles and responsibilities of the members and marketing opportunities. Also training given for the value addition quality assurance on each stage and health and hygiene. Supplied gloves, masks and caps and trained the groups to use it as well. Training given to the groups for book-keeping, financial management and follow up mitigation. Training has been given on supply chain management and quality is assured.

| Group Name | No. Of Participants | Total money(our contribution + money collected from members) |
|------------|---------------------|--|
| A | 10 | 55,000/- |
| B | 14 | 2,21,000/- |
| C | 11 | 1,80,000/- |
| D | 17 | 40,000/- |
| E | 7 | 35,000/- |
| F | 15 | 1,17,000/- |
| G | 11 | 55,000/- |
| H | - | 1,00,000/- |



Certification

The Challenges:

After using chemical fertilisers, pesticides and chemical manure, there has been a lack of knowledge about organic farming system at the field level. To overcome this problem farmers need a group to discuss about organic farming, certifications in organic farming and new enhanced methods to follow. Training in preserving seeds, producing manure, pesticide, vermicompost were needed. Simultaneously we see that there has been an increase in the number of acres under third party organic certifications has grown while the number of farmers with organic certifications has grown at a much slower rate. This shows that barriers to entry for third-party certification, including direct costs and paperwork, mean that many of the smallest and poorest farmers - the ones that have most incentive to participate in organic farming cannot participate, and this hurts the growth of the organic movement as a whole.

Intervention 1:

GREEN Foundation facilitated organic farming certification through Participatory Guaranteed system (PGS). PGS is a quality assurance initiative that is locally relevant emphasize the participation of stakeholders including producers and consumers and operating outside the frame of the third-party certification. In PGS, interested farmers form local groups comprising no less than 5 members. Members are responsible for ensuring that members within their group uphold their pledge and meet the standards of the PGS Organic India Council. This process of conversion takes 3 years and throughout this period regular monitoring is carried out by the group members. Through PGS, we sensitised and educated farmers about the need for certification and the advantages of it.

Intervention 2:

GREEN facilitates organic farming certification using a civil society led Participatory Guarantee System (PGS). This is a collaborative approach which involves farmers and other stakeholders in verifying the authenticity of organic produce. PGS replaces expensive third-party audits, making organic farming certification possible for the small scale and marginal farmers that make up nearly 70% of India's agricultural sector. It relies on the trust and transparency of community members to certify farmers. Farmers get a higher price for their produce, which enhances their income. It also provides credibility to the consumers who prefer organic produce for their consumption. Around farmers are certified under the PGS system, out of which 700 farmers are women. This year 180 women members joined in PGS system.

During 2016-17, GREEN Foundation submitted application to register itself under the Decentralised Organic Farming Certification System of the Government of India. Once GREEN Foundation receives the certification, more farmers will be able to certify their farming processes.



Policy Engagement

This section highlights the importance for GREEN Foundation to focus on policies on variety of issues, the Foundation's stand on each of those policy areas with reasons, and the work undertaken during the year under this component.

Overall view on Policy Engagement:

GREEN Foundation has been engaging at the policy level to create an enabling environment for ensuring local agro bio-diversity, farmers' resilience and their control over resources and inputs. The Foundation has been working across various levels to contribute to this cause, and has been actively involved in several policy areas such as Seed Act, GMO, Hybrid Seeds, Non-Pesticide Management, Organic Agriculture and sustainable agriculture.

During the year 2016-17, the Foundation has undertaken a number of activities in building perspectives of these stakeholders through field visits, meetings, workshops, sharing materials and experiences and personal meetings.

The Foundation believes strongly in ensuring people's control over resources and promotes local production of seeds, inputs and other key services. The Foundation also looks at policy from many stakeholders' angles, i.e. public policy, policies of the civil societies, producer organisations, scientific organisations, business and CSR, and general public.

GMO:

A genetically modified organism (GMO) is any organism whose genetic material has been altered using genetic engineering techniques. Green Foundation has always taken a stand that genetic engineering is unsafe.

Scientist Erwin's opinion about GMO:

"You can stop splitting the atom; you can stop visiting the moon; you can stop using aerosols you may even decide not to kill entire populations by the use of a few bombs. But you cannot recall anew form of life."

- Erwin Chargaff



Hybrid seed:

Hybrid seed is seed produced by cross pollinated plants.

Dr. Salvatore adviser to the Foundation, the understanding is that even if hybrid seeds are mixed with the local varieties, the next generation of crops can have better yields.

Dr. Salvatore has demonstrated the success in using hybrid seeds in vegetables and farmers have been able to realise good yields and varieties that were welcomed by consumers. Following these suggestions and experiences, the Foundation has been working in evolving new varieties through Evolutionary Plant Breeding (EPB) at one location, with a mix of local and hybrid varieties. The experiences will be shared with stakeholders in the coming seasons.



Matured seed (2016-17) through RVd (Early stage of EPB)

Seed Bill:

The seed bill harmonise the seed law in India with other seed laws around the world.

The Seed law introduces mandatory registration of all seeds. The 1996 act which sought to regulate only a limited number of varieties. Now the registration is for creating a national registration of seeds.

Nothing in this act shall restrict the rights of the farmers to save, use, exchange, share or sell the farm saved seeds and planting materials. Except they shall not sell under a brand name. The impact of privatization and liberalisation of seed sector influenced the agriculture sector in India. The public, private partnership using the state agriculture universities to test the product increased

The seed bill regularize the seed production and marketing. Despite the growth in the private seed sector the farm and farmers saved seed caters to over two third of seed requirement in agriculture in India.



The underlying policy of GREEN Foundation is the essence of seed bill that is producing quality seeds, improving the capacity of farmers and creating awareness of conserving farm seeds.

The concept initiated in the year 2000 by GREEN Foundation and spread as a movement. In the year 2016-17 GREEN Foundation conserved around 130 varieties of seed by cultivating a method called Rare variety Demonstration (RVD).

Dr. Vanaja Ramprasad, Trustee of GREEN Foundation is a member of National Biodiversity Board. She interacts with decision-makers and scientists on issues related to agrobiodiversity conservation and the future of seed in the context of small and marginal farmers.

Research & Communication

Through research we are able to achieve our goal in sustainable agriculture, agro biodiversity conservation. We published our books in many topics few years back and are available in our website www.greenfoundation.in

Still our research is going in our major domain. In forth coming year our research focus is on Evolutionary Plant Breeding. We are in the process of fundraising for our research.

Website updating:

We are in the process of updating our website with the latest information available from our research outcome with the latest software.



Looking Forward

Conservation of agrobiodiversity has assumed a critical significance for food and nutritional security of the world. In the last couple of years, GREEN Foundation has successfully brought together community, science and market for the benefit of the women small-holders and seed savers and their livelihoods. Our search for new science and new technology to achieve the agenda of agrobiodiversity conservation and sustainable farming methods has prompted us to explore the potential of Evolutionary Plant Breeding technique to develop climate-resilient crop varieties.

GREEN Foundation aims to deepen its engagement with urban and rural consumers on the potential benefit of a diverse and organically grown food basket through its enterprise groups and their products.

Key Partners

Implementation Partners:

Vrutti
Fuzio
Janadhanya Federation
Janadhanya FPO
Mindtree
Seva trust Through NABFIN

Funding Partners:

3M-United Way
Macalester-Live It Dream It Fund, USA
Exilant, Bangalore
NABARD

Knowledge Partners:

ICRISAT
CFTRI
RRA Network
Social Venture Partners
UNDP
Dr.Bhat - ICAR
Pristine Organics



Major visitors:

Mr. & Mrs. Azim Premji - WIPRO
Tasqueen Macchiwalla - APPI
Social Venture Partners
SELCO Foundation

APMAS - Mahila Abhiviruthi Society from Andhra Pradesh Delegates from Madagascar
IF & LC India from Hyderabad \Chennai. Trees from Kerala

Advisory:

Dr. Salvatore Ceccarelli, ICRISAT
Dr. Vanaja Ramprasad

Executive Trustee

N. Raghunathan

Trustee

Vanaja Ramprasad
D. Ashok
Ananda Gundu Rao
Shiv Kumar



Audited Financial Report 2106-17

GENETIC RESOURCE, ECOLOGY, ENERGY AND NUTRI- TION FOUNDATION (GREEN FOUNDATION)

36 1st Main, 1st Cross, Ashwath Nagar, RMV 2nd Stage, Behind Government school
Bangalore - 560094

PAN/Ward: **AAATG0710F**

STATUS: **Trust(AOP)**

YEAR OF ACCOUNT: **1.4.2016 to 31.03.2017**

ASSESSMENT YEAR:

DETAILS OF INCOME RETURNED

Total receipts during the year

Less:- Deductions

**Total Expenditure applied for charitable purposes as per Income & Expenditure
Account:**

29,54,706

Income applied for charitable purposes during FY 2016-17:

Income before exemption u/s 11(l)(a):

4,97,581

Exemption U/s 11(l)(a) or balance available (WEL):

4,97,581

Taxable Income:

--

Tax on the above

Cess

Total tax

Less:- TDS **1,712**

Net Tax payable/ (Refundable)

For **GREEN Foundation**

D. Ashok

Doraiswami Ashok
Chairperson

nlash



GREEN Foundation Balance Sheet

| BALANCE SHEET - CONSOLIDATED | | | |
|---|-----|------------------|------------------|
| (AMOUNT IN Z) | | | |
| | Sch | As on 31.03.2017 | As on 31.03.2016 |
| SOURCES OF FUNDS | | | |
| Corpus Fund | 1 | 97,77,278 | 97,77,278 |
| APPLICATION OF FUNDS | | | |
| Fixed Assets | 11 | 26,778 | 32,547 |
| CURRENT ASSETS | 11 | 1,04,55,573 | 86,63,754 |
| Cash and Bank Balance | 2 | 3,66,992 | 3,66,992 |
| Accounts Receivable | 3 | 1,07,689 | 51,500 |
| Advances and Deposits | 4 | 5,53,276 | 5,51,564 |
| Tax Deducted at Source | 5 | 1,14,83,530 | 96,33,810 |
| TOTAL CURRENT ASSETS | | | |
| CURRENT LIABILITIES & PROVISIONS | | | |
| Advance from parties | | | |
| Sundry creditors & expenses payable | | | |
| TOTAL CURRENT LIABILITIES | | | |
| Net Working Capital | | | |
| TOTAL | | 97,77,278 | 96,65,815 |



Genetic Resource, Ecology ,Energy And Nutrition Foundation (GREEN Foundation)

Schedules to Balance Sheet as at - CONSOLIDATED

| Sch No. 1 | Corpus Fund | 31/03/2017 | 31/03/2016 |
|-----------|------------------------------------|------------|------------|
| | Opening Balance | 50,07,100 | 50,07,100 |
| | General Fund | 2,31,127 | 3,006 |
| | Reserves & Surplus | 44,27,588 | 56.42.123 |
| | Transfer to Corpus during the year | 6,09,045 | |
| | Excess of Expenditure over Income | 4,97,581 | 9,86,414 |
| | Total | | |
| Sch No. 2 | Bank Accounts | 31/03/2017 | 31/03/2016 |
| | Green Foundation - Loc 41 | 50,07,100 | 50,07,100 |
| | Canara Bank Acc. - 13922 | 2,31,127 | 3,006 |
| | Canara Bank Acc. - NIKSP4849 | 44,27,588 | 56.42.123 |
| | Cash in hand | 6,09,045 | |
| | Fixed Deposit | 4,97,581 | 9,86,414 |
| | Interest Accrued | | |
| | Green Foundation - FC | | |
| | Canara Bank Acc. 201000605 | | |
| | Cash in hand | | |
| | Fixed Deposit | | |
| | Interest Accrued | | |
| | Total | | |
| Sch No. 3 | | 31/03/2017 | 31/03/2016 |
| | Accounts | | |
| | Receivable Foundation - Local | | |
| | Grant Fund Due From Donors | | |
| | Green Foundation - EC | | |
| | Grant Fund Due from Donors | | |
| | Total | | |



| Sch No. 4 | Corpus Fund | 31/03/2017 | 31/03/2016 |
|-----------|------------------------------------|------------|------------|
| | Opening Balance | 50,07,100 | 50,07,100 |
| | General Fund | 2,31,127 | 3,006 |
| | Reserves & Surplus | 44,27,588 | 56.42.123 |
| | Transfer to Corpus during the year | 6,09,045 | |
| | Excess of Expenditure over Income | 4,97,581 | 9,86,414 |
| | Total | | |
| Sch No. 5 | Bank Accounts | 31/03/2017 | 31/03/2016 |
| | Green Foundation - Loc 41 | 50,07,100 | 50,07,100 |
| | Canara Bank Acc. - 13922 | 2,31,127 | 3,006 |
| | Canara Bank Acc. - NIKSP4849 | 44,27,588 | 56.42.123 |
| | Cash in hand | 6,09,045 | |
| | Fixed Deposit | 4,97,581 | 9,86,414 |
| | Interest Accrued | | |
| | Green Foundation - FC | | |
| | Canara Bank Acc. 201000605 | | |
| | Cash in hand | | |
| | Fixed Deposit | | |
| | Interest Accrued | | |
| | Total | | |
| Sch No. 6 | | 31/03/2017 | 31/03/2016 |
| | Accounts | | |
| | Receivable Foundation - Local | | |
| | Grant Fund Due From Donors | | |
| | Green Foundation - EC | | |
| | Grant Fund Due from Donors | | |
| | Total | | |



| Genetic, Resource, Ecology, Energy and Nutrition Foundation (GREEN Foundation) | | | |
|---|------|--------------------------|--------------------------|
| Amount in O | | | |
| INCOME AND EXPENDITURE ACCOUNT FOR - CONSOLIDATED | | | |
| | Sch. | Year ended 31.03.2017 | Year ended 31.03.2016 |
| INCOME | | | |
| Project Income | | | |
| FD | | | |
| Interest Income | | | |
| SB | | | |
| Interest | | | |
| Income | | | |
| Other Income | | | |
| Total Income | | 24,57,124 | 35,15,683 |
| EXPENDITURE | | | |
| Project Programme Expenses | | | |
| Honararium Charges | | | |
| Implementation Expenses | | | |
| Miscellaneous | | | |
| Administrative Expenses | | | |
| Expenses on employment | | | |
| Depriciation | | | |
| Loss on sale of asset | | | |
| Total Expenditure | | 29,54,706 | 45,02,097 |
| Excess of Income Over Expenditure | | 4,97,581 | 9,86,414 |









ANNUAL REPORT

2017-18



CONTENT

| | |
|---|-----------|
| AGROBIODIVERSITY CONSERVATION | 3 |
| Community Seed Banks | 3 |
| Rare Variety Demonstration(RVD) | 5 |
| Kharif Crops and Importance of Millets | 7 |
| Kitchen Garden | 8 |
| Soil and Water Conservation | 9 |
| SUSTAINABLE AGRICULTURE | 9 |
| Cattle Feed Selling Unit | 10 |
| Chandrike Rent Out Unit | 10 |
| Vermicompost Unit | 10 |
| Cloth bag making Unit | 11 |
| Trichoderma Preparation | 11 |
| TRAINING AND CAPACITY BUILDING | 11 |
| Training on Producer Group Bookkeeping and Financial Management | 12 |
| Periodical Project Review and Capacity Building | 12 |
| Supply Chain Management and Quality Assurance Training for Papad Making Group | 12 |
| Training on Trichoderma Preparation | 13 |
| Training on Cloth Bag Making | 14 |
| Training for Cattle Feed Selling Group | 15 |
| Capacity Building and Training For Project Staff | 15 |
| Staff Review Meeting and Project Management Review Meeting: | 16 |
| OTHER EVENTS | 16 |
| Promotion of co-branding | 16 |
| Awareness on World Cancer Day | 16 |
| Exhibition and Sales Event by JFPCL | 17 |
| CERTIFICATION | 17 |
| Enrolment PGS Farmers to RCOF platform | 17 |
| Participatory Guarantee System Organic Council(PGSOC) renewal: | 17 |
| RESEARCH AND COMMUNICATION | 18 |
| CONCLUSION | 18 |

AGROBIODIVERSITY CONSERVATION

Community Seed Banks

The focus of Agrobiodiversity conservation work was on renovation of seed banks, Rare Variety Demonstration, conservation on farmers' field, master seed sample collection and training farmers on seed production and purification.

Community Seed Banks (CSBs) led the biodiversity conservation initiatives. The CSBs conserved Ragi, Paddy, Pulses, vegetable seeds and Oilseeds during 2017-18. In 2017, Community Seed Banks were opened in Karnataka (Kalaburagi), Madhya Pradesh (Sahore) and Tamil Nadu (Pudukkottai). We also began agrobiodiversity conservation work in Bagepalli, Karnataka.

Annapurneshwari Seed Bank was started in Kalaburagi this year. The farmers were trained by GREEN Foundation's Kanakapura farmers in construction and conservation of seeds in the seed bank. Mr. Shivakumar, who has more than 12 years experience in the field, headed this initiative.

The farmers are now conserving Black Paddy, Hamsa Paddy, Yellow and Green Gram, Jewe, Wheat, local Groundnut, Maldhandi Jowar, Foxtail Millet, Pink Dal, Sesame and local Green Gram varieties.



Annapurneshwari Seed Bank, Kalaburagi

In Kanakapura, seeds were conserved in 3 seed banks.

1. Sri Uttare Community Seed Bank Hunasanahalli,
2. Sri Madheshwara Community Seed Bank Theerubidi,
3. Maramma Community Seed Bank Kodihalli

Renovations took place in the Guliganahalli seed bank this year and are in process in two other seed banks.



Guliganahalli Seed Bank, Kanakapura

The seeds conserved in these three seed banks are listed below:

| Seeds Conserved | Conserved seed in kg | Seed Conserved | Conved seed in kg |
|-----------------|----------------------|----------------|-------------------|
| Ragi | 2203 | Little millet | 840 |
| Arka | 350 | Fox millet | 1555 |
| Green gram | 100 | Karle | 465 |
| Red gram | 3656 | Baragu | 17.5 |
| Cow pea | 200 | Niger | 10 |
| Horse gram | 400 | Caster | 50 |
| Paddy | 557 | Sorghum | 100 |
| Ground nut | 42 | Field bean | 455 |
| Amaranthus | 12.5 | Coriander | 6 |

| | | | |
|-------|---|------------|---|
| Palak | 4 | Dil leaves | 5 |
|-------|---|------------|---|

The Makarantham seed bank was inaugurated in Pudukkottai, Tamil Nadu. An orientation program was held for farmers from nearby villages in order to start the seed bank. They also had an exposure visit to Kanakapura. They are currently conserving 10 paddy varieties, 14 varieties of vegetables and 8 millet varieties.



Magarantham Seed Bank, Pudukkottai

In Madhya Pradesh 5 seed banks were started this year. 4 chana varieties (in 4 seed banks at different places) and 4 vegetable varieties and 1 millet variety (in Pat Thalai) are being conserved.

Rare Variety Demonstration(RVD)



RVD is an In situ conservation practice in which selected farmers are given seeds of rare indigenous varieties for cultivation. These seeds are then collected and distributed for other interested farmers to grow in their own fields. Collected seeds are also stored in Community Seed Banks as repositories for future use. RVD was carried out for Ragi, Millets and vegetables.

Following broad processes were adopted for the RVD:

- Seed selection
- Seed collection
- Seed germination test
- Nursery field selection and preparation
- Main field preparation
- Layout preparation
- Transplantation
- Weeding and rouging
- Spraying organic inputs
- Crop analysis like,
 - Height of the plant
 - Number of tiller
 - Productive tiller
 - Date of flowering
 - Number of ear head
 - Number of finger
 - Length of finger
 - Special characters
- Master seed sample collection
- Harvesting of ear-heads

RVD Ragi was grown in Theerubid, Maralwadi cluster. Ragi seeds were collected from various seed banks and 44 varieties of Ragi and 8 varieties of Millets were cultivated.

During 2017-18, we started training farmers in the Rare Variety Demonstration method in Kalaburagi in Karnataka, Pudukkottai in Tamilnadu and Sehore in Madhya Pradesh.

| RVD Seeds (Kanakapura) | Number of varieties |
|-----------------------------------|----------------------------|
| Ragi | 44 |
| Minor Millets | 8 |

| RVD Seeds (Pudukottai) | Number of varieties |
|------------------------|---------------------|
| Paddy | 6 |
| Greens | 14 |

The seeds are distributed to the selected farmers for RVD. The farmers have been trained and have participated in the orientation program. The indigenous varieties are cultivated and seeds are collected for the CSB.

Kharif Crops and Importance of Millets



GREEN Foundation encouraged and supported farmers to carry out Kharif cultivation of various Millets, Pulses, Oilseeds and Paddy. Farmers attended training and orientation programs to learn ways to overcome the adverse weather conditions. We trained the farmers to do a comparison study based on planned yield, estimated yield and reality for each variety of crop and the area required to cultivate them. The

estimated planned yield is more than the estimated acquired yield. Farmers were also trained to use organic manure and organic fertilisers. Some selected crops also required extra organic nourishment. The growth of the crop is checked in each stage and good quality seeds are produced.

The Kharif crops cultivated during 2017-18:

| CROPS | YIELD in Kg |
|-------|-------------|
| Ragi | 14350 |

| | |
|---------------|-------|
| Minor millets | 23576 |
| Pulses | 4355 |
| Oil Seeds | 1785 |
| Paddy | 3875 |

Kitchen Garden



Kitchen gardens greatly enrich the nutrient intake of families and strengthen the food securities, making farmers independent from the rising inflation rates and fluctuating market price.

Objectives of Kitchen Garden

- Producing a variety of fresh vegetables by organic methods for their own usage
- Improving the health of their family members
- Reduce and minimise the cost towards purchase of vegetables from outside market
- Resilience of indigenous vegetable seeds

Farmers are trained in different methods of maintaining a kitchen garden. The farmers realised the importance of this process and learnt the method in order to meet the above objectives. For growing kitchen gardens, the following steps are followed:

- Selection of site
- Land preparation
- Procurement of material
- Seed Selection
- Seed treatment
- Selection of crop and distance
- Maintaining crop diversity
- Seed preservation



Training for the maintenance and management of kitchen gardens was given to 38 farmers. Weeding, watering and controlling disease and insects were the major areas covered during the training. Nutrient management was also discussed.

Soil and Water Conservation

GREEN's core objective is agro-biodiversity conservation, and water and soil conservation play a very important role in ensuring that. We mainly use biomass, bio compost, vermicompost and vermiwash in organic farming. As a part of soil conservation, GREEN trained their farmers to make use of vermicompost effectively within their own farm through rigorous training. This 100% organic fertilizer is made by feeding farm waste material to certain species of worms. As the worms eat this biomass and pass it through their bodies, it is converted to vermicompost. Rich in all essential plant nutrients, vermicompost is both cost effective for the farmer and ideally suited for soil enrichment.

We know that soil conservation leads to water conservation. As the biomass and vermicompost are increased, the water requirement will be lesser and therefore the farmers are also trained for land preparation and biodiversity conservation.

SUSTAINABLE AGRICULTURE

Importance of Alternate Income:

- To empower women by increasing their livelihood opportunities
- To strengthen the economic security of their families
- To involve them in major decision making processes
- To potentially enable them to effectuate change in the management of their farms
- To receive a standard income during droughts or at times of natural calamity and offset the potential losses.
- In the year 2017-18, GREEN helped groups of women start 6 new producer groups

Cattle Feed Selling Unit



There are cattle feed selling centers at Kodihalli and Hunasanahalli. End-to-end training was given for the cattle feed selling business. 13 farmers participated in Hunasanahalli and in Kodihalli, 12 farmers took part. Cattle feed groups took part in other activities like renting out agricultural implements and the sale of organic inputs and Janadhanya products.

Chandrike Rent Out Unit



A Chandrike rent-out unit was set up in a building at Bommasandra and named it as Sri Jayalakshmi Chandrike rent-out group. They purchased 130 units of Chandrike with the help of GREEN. 11 members registered and opened 2 units at different places for easy access.

Vermicompost Unit



Vermicompost is the main soil conservation activity. In Hunasanahalli village, with 7 members, a vermicompost unit was started - named the Sri Keveramma Vermicompost Producer Group. Each member built a vermicompost pit in their land. The second vermicompost unit was started in Bevanamaradadoddi. Here, 10 members joined and the group

was named Sri Munishwara Savayava Parikara Uthpadakara Sanga. Janadhanya and GREEN Foundation together helped the farmers with sustainable agriculture work, business development and a number of organic farming inputs.

Cloth bag making Unit



Even though we are focussed primarily on sustainable agriculture, the producer groups are also interested in cloth bag making. So GREEN and Janadhanya encouraged and trained members in cloth bag making. Sri Amba Bhavani cloth bag making unit was started in Chikka Maralawadi village with 15 members. They set up a room with tailoring machines and raw

materials. They have since then tried making cloth bags with different sustainable raw materials.

Trichoderma Preparation

Trichoderma is a biocontrol agent used to control and prevent soil borne diseases. GREEN organized training in Kulumanadoddi for preparing trichoderma in collaboration with the National Bureau of Agriculture Important Insects(NBAII), Hebbal, Bengaluru. 5 officials from the State Department of Sericulture, Bidadi, 8 members from the NGO and about 30 women farmers from 6 producer groups were a part of this.

TRAINING AND CAPACITY BUILDING

- Training on usage of solar cold storage unit
- Training on Producer Group book keeping and financial management
- Periodical project review and capacity building
- Supply chain management and quality assurance training for papad making group
- Training on trichoderma preparation
- Training on cloth bag making
- Orientation training for cattle feed selling group

- Capacity building and training for project staff
- Staff review meeting and project management review meeting

Training on Producer Group Bookkeeping and Financial Management

We organised 6 training sessions on book keeping at the concerned producer group levels for those who are directly handling Producer Group business activities. During the course of PG book updation, the members were trained in writing cash books and stock books and raising different vouchers, etc. The following points were discussed:

- Receipt voucher
- Payment Voucher
- Bill book
- Stock book
- Daily transaction book Cash book
- Minute book

The importance of each document and books of accounts were explained to the 25 farmers who participated. We ensured that they maintained a Minute book to enter the discussions and decisions of each meeting and also to record the date of meeting, number of members in attendance, number of meetings conducted, the agenda and proceedings of each meeting. We trained them to be financially responsible and to maintain books of accounts and documents.

Periodical Project Review and Capacity Building

A staff monthly review meeting was conducted at the Kanakapura office. The discussion was about implementation strategies, challenges, creating business opportunities, setting targets, etc. Apart from these, 3 training programs were conducted.

Supply Chain Management and Quality Assurance Training for Papad Making Group



We organised supply chain management and quality assurance training for the Papad making group at Chikka Mokudlu village. Mrs. Smitha Vidyaramachanran, the main resource person, Mrs. Kavitha, volunteers from 3M Bengaluru and others attended the program. 23 members participated in the

program including members from some of the other producer groups.

The training session was handled by Mrs.Kavitha from the 3M team. PPT and Flex material was used in order to maintain the quality and maintain the hygiene in each stage.

Apart from this, the Papad making group was inaugurated by the volunteer team of 3M, the Panchayath Development Officer (PDO), the United Way team and the leader of Papad Making group.

Training on Trichoderma Preparation

The training program was organized in the house of Mrs. Rajamma, one of the members of organic input producer groups in Kulumedoddi village in collaboration with NBAINBAIR Hebbal, Bengaluru. The meeting was attended by five officials from the State Department of Sericulture, Bidadi, eight members from the NGO and about 30 women farmers from six different Producer Groups - Ragi Producers, Organic Inputs, Traditional Seed Bank, Vermicompost, Oil Producers & Amba Bhavani from Kulumedoddi, Masarahalli, Bairegowdanadoddi, Bevinamaradoddi, Chikkakaballi, and Chikkamaralwadi villages respectively.



Dr. A. N. Shylesha, Program Coordinator explained the importance of the antagonistic fungi *Trichoderma* in the management of plant diseases. The production methods, utility, benefits and application procedures of the biocontrol agents were highlighted.

Procedure

Resource people Dr. K. Srinivasa Murthy, Dr. B. Ramanujam, Dr. R. Rangeswaran, Dr. Y. Lalitha and Mr. Manohar Raju demonstrated the introduction of *Trichoderma* on liquid and solid media using potato dextrose broth and ragi & sorghum grain methods respectively by autoclaving in a pressure cooker. The inoculation of *Trichoderma* spores in autoclaved media was demonstrated. Women farmers were involved in packing the material for autoclaving, preparation of mother culture and inoculation from slants into autoclaved grains and liquid broth. The preparation of talc formulation under sterile conditions was also shown. The farmers were instructed about the precautions to be taken while handling the media and inocula.

Participants demonstrated application methods such as seed treatment, root dip treatment, mixing of FYM with *Trichoderma* talc formulation followed by soil application. Samples of *Trichoderma harzianum* were distributed to the participants and the application and usage of *Pseudomonas fluorescens* was also explained.

Farmers were informed about biocontrol agents like Trichogrammatids, Bethyids, cChrysopids and Coccinellids that are used frequently in the crops for management of pests infesting mulberry and vegetable plants and so on. Employees of Green Foundation were supplied with the nucleus cultures of *T. harzianum* & *P. fluorescens* and culture media for initiation of culturing process.

Training on Cloth Bag Making



We organised two days of practical training for Sri Amba Bhavani Group members on the 27th & 28th of June 2017 at Chikka Maralawadi village. 15 members participated in the program.

The group members identified a well experienced local resource person who also happened to

be the relative of one of the group members in the village. Based on our requirement, the resource person developed different patterns in different sizes of bags. He trained the members in each stage, from cutting the cloth to finishing the final products. The participants made 4 bags with different patterns by using different materials.

Training for Cattle Feed Selling Group



An orientation training program for cattle feed selling centre was organised at Kodihalli village. During the session, we had discussions about the cattle feed business and the total budget required to establish a cattle feed centre in the village level. This also included the need to do a survey or get feedback in terms of

acceptance on quality and affordable prices from members by providing cattle feed products to different companies. The discussion also covered the roles and responsibilities to be taken up by the members in order to carry out the business. The members have taken up the responsibility to make available information about their cattle feed centre and reasonable rates of products.

We also talked about how Janadhanya Farmers Producer Company Ltd can support and facilitate their cattle feed business. In order to do so, the group needed to open the bank account in the name of the cattle feed selling centre at a nationalised bank. The cattle feed group also needed to take up other enterprise activities like renting out agriculture implements, selling organic inputs and JFPCL products in order to enhance their sources of income. Optimum usage of space at the cattle feed centre may result in a higher rent amount as compared to other producer groups.

Capacity Building and Training For Project Staff

Vrutti Livelihood Resource Centre organised a five-day residential training program from the 22-26 May, 2017 at FMC Ramamurthy Nagara, Kanakapura. Mr. Shivakumar, Mr.Kumaraswamy, Mr.Manjunath, Mr.Sridhar and Mr.Shankarappa participated in the training program.

The training mainly covered the present challenges in agriculture, sustainable agriculture practices and the 3-fold model in order to enhance the income of farmers and transform them into wealthy, resilient and responsible farmers.

Staff Review Meeting and Project Management Review Meeting:

During the reporting period, we have conducted monthly review meetings in Bengaluru and Kanakapura offices with project staff members and BDSP. These meetings were conducted for an orientation to the staff members on project outcome, how to achieve the project goals, as well as to review projects. Apart from this we have been fixing targets, reviewing progress, constraints and challenges, remedies and implementation strategies in order to promote new enterprise groups. We also explored business opportunities in our working area. Quality control measures in existing products and carrying out all enterprise activities in a sustainable manner was also discussed.

OTHER EVENTS

Promotion of co-branding



Janadhanya participated in a launch event at **Mindtree** in order to acquire a new marketing channel for our products through their employees. The event was held on 27 February, 2018 and was attended by the Janadhanya Board of Directors. The main objective of this initiative was to create market linkage for Janadhanya products through co-branding via DOT (Design,

Ownership Technology). In the future, other FPOs can use this to sell their products.

Mindtree has taken the lead in providing us space to exhibit our products in their cafeteria area and also developed an app “DOT NEXT” for their employees to buy our products online.

Awareness on World Cancer Day

In this quarter, on the occasion of International Cancer Awareness Day, we participated in an event held at the Kanakapura Rural College grounds on 4th February, 2018. The event's main organiser was Kidwai, Bengaluru.

During the event, different dignitaries addressed the gathering on how cancer has been spreading through the populus, irrespective of area or community. This is due to our changing lifestyle, especially the increase in chemically grown foodstuffs.

GREEN Foundation is actively working with the surrounding rural areas in order to promote organic agriculture in many villages. There is now a growing need to practice organic farming not just for its marketability, but also for a healthy lifestyle.

Exhibition and Sales Event by JFPCL

Janadhanya Farmers Producer Company participated in many sales and exhibitions at Ramanagara and Bengaluru to sell our products.

We have been participating in sales and exhibitions organised by the State Agriculture department. We also took part in the International Millet and Organic Mela at the Bengaluru Palace from 19-21 January, 2018. In addition to this, Janadhanya participated in exhibiton organised by NRLM at Freedom Park in Bengaluru between 17 and 26 February, 2018.

CERTIFICATION

Enrolment PGS Farmers to RCOF platform

This year, we initiated the process of enrolling around 200 farmers associated with GREEN Foundation into the Regional Centre for Organic Farming (RCOF) and the National Centre for Organic Farming (NCOF).

Participatory Guarantee System Organic Council(PGSOC) renewal:

The Participatory Guarantee System (PGS) of farmer certification began in 2007. The PGS is particularly useful for small scale and marginal farmers who cannot afford expensive third party certification. Certification in organic farming greatly strengthens the economic security of farmers as they are able to fetch higher prices for their produce in competitive markets. This PGS certification renewal is in process and is essential for continued security of organic farmers.

RESEARCH AND COMMUNICATION

Open University research Project Overview

The Ferguson Centre for African and Asian Studies at the Open University in the UK worked in collaboration with GREEN Foundation on a research paper titled, "Food security and climatic vulnerability in South Asia: Past, Present and Future."

The academics from the UK presented their study on some aspect of the agreed theme of *'using historical and participatory methods to explore changes in farming lives in the past and the present'*. Under the guidance of Dr. Sandeep Hazharising, the researchers Tsveti and Sara who were involved in the two field pilot projects, have presented their initial ideas and queries about these activities. They will be sharing their findings and videos in a year.

CONCLUSION

GREEN Foundation successfully brought together the community in agrobiodiversity conservation and sustainable agriculture field to develop and share knowledge on the new area in Tamilnadu, Karnataka and Madhyapradesh. This deepens the engagement with urban and rural consumers around these areas. We are trying our best to get good market linkages in the already existing area of karnataka. The initial process of analysis by researchers and community working together in the art and culture to bring out the indigeneous knowledge in the farming community gives more focus on the build in knowledge of the community.