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Right to Food and Climate Resilient Agriculture

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* The views expressed in this paper are those of the author and do not necessarily represent those of the United Nations.

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I. Abstract

A critical requirement which has emerged in the past two decades in the agriculture sector - where more than 80 percent agriculturists are small-holder farmers - is the need for a climate resilient approach

Mahatma Gandhi's Swadeshi campaign revolved around the principle of economic self sufficiency. SEWA follows the Gandhian philosophy and works to ensure that its members have full employment and self reliance. This means that the members have work security, income security, food security and social security.

With a view to tackle the issue of food security at the global level, UN agencies have been addressing this issue through their Zero Hunger Challenge, Save Food Campaign, etc. According to the Food and Agriculture Organization (FAO), strengthening family farming is crucial to address the global issue of food security. In this context, 2014 was declared as the International Year of Family Farming, which has subsequently been declared as a decade of Family Farming, IYFF +10. The aim is to raise the profile of family farming and smallholder farming by focusing world attention on its significant role in eradicating hunger and poverty, providing food security and nutrition, improving livelihoods, managing natural resources, protecting the environment, and achieving sustainable development, in particular in rural areas. The goal of the IYFF +10 is to reposition family farming at the centre of agricultural, environmental and social policies in the national agendas by identifying gaps and opportunities to promote a shift towards a more equal and balanced development. SEWA works as the national lead organization for family farming.

At the national level, there has been a decline in the cultivation of food crops and an increase in cash crops...Resulting in the farmer remaining hungry in spite of being a cultivator. In order to ensure that the small and marginal farmers gain access to a sustainable livelihood, in addition to providing support services to the farmers, SEWA works on addressing the three major crises viz. land ordinance, climate change and minimum support price.

Despite extremely commendable advancement in services and other sectors, India continues to be a largely agrarian economy as around 60% of her population is still dependant on agriculture...yet agriculture has much less recognition as a potential industry.



Indian agriculture today faces a multipronged set of challenges pressured simultaneously by several sectoral and non-sectoral demands. All this is further aggravated by the extreme weather variations that are being experienced. Majority farmers are small and marginal landowners who are resource-poor making them worst affected – the need of the hour is incorporating various measures in the agriculture system to increase the resilience and adaptive capacity of these small and marginal farmers.

Agriculture in a climate change context requires a multi-sectoral and multi-agency approach. Government policies, and the various departments and development agencies need to synchronize their efforts towards achieving sustainable agriculture productivity and food and nutrition security, particularly for the small and marginal farmer.

Based on SEWA's experience of organizing farmers and running the Agriculture Campaign to address the issue of "Why does a farmer remain hungry?", this document attempts to capture all elements of SEWA's approach of ensuring women farmers' right to food through inculcating climate resilient agricultural practices. In this paper, we attempt to-

- elaborate SEWA's climate resilient initiatives with small and marginal farmers
- share SEWA's positive experiences in ensuring women farmers' right to food
- bring out a working model based on SEWA's experience, which has proved effective over time

II. Introduction

SEWA

The Self Employed Women's Association (SEWA) is a member-based organization of poor self employed women workers. It has a growing membership of 1.95 million women across 14 states, a majority of which is from rural Gujarat. Approximately 8, 37,941 SEWA members are from the rural areas and of these 7, 75,050 hail from the agriculture sector. For over 4 decades, SEWA has been working with its rural members to help them improve their livelihood through various initiatives in technical training, microfinance, market linkages and natural resource management, across a number of trades.



Most of the SEWA members depend upon agriculture for their livelihood. These members include not only small and marginal farmers, but landless agricultural sharecroppers and casual laborers as well – who are among the most vulnerable and needy groups in agriculture sector.

According to SEWA, women are the backbone of marginal farmer households in India. They work as hard as the men of the household in field, prepare meals, raise children, tend to animals and maintain the household premises. While their effort is critical to the well-being of the household and the farm, they are also the most affected during crises – given that they typically put the family before themselves.

SEWA's Agriculture Campaign

Being an unorganized sector of the economy, the agriculture sector is replete with problems - the farmers have to face issues like irregularity of work, low and unequal wages (based on season, gender etc.), unskilled labor force, lack of employment opportunities, lack of skill development, degradation of the soil and other natural resources, and no income and food security even after working for long hours. Despite most of the rural households relying on agriculture for their livelihoods, farmers have no direct market access and many a times can barely manage one decent meal a day for their families.

SEWA's agriculture campaign is spread across 7 Countries (India, Afghanistan, Sri Lanka, Nepal, Bhutan, Maldives and Myanmar); 14 States of India (Gujarat, Bihar, Delhi, West Bengal, Rajasthan, Kerala, Uttaranchal, Madhya Pradesh, Uttar Pradesh, Maharashtra, Assam, Meghalaya, Kashmir and Nagaland); and 14 Districts of Gujarat (Ahmedabad, Mehsana, Banaskantha, Surendranagar, Kutch, Kheda, Vadodara, Sabarkantha, Gandhinagar, Rajkot, Panchmahal, Surat, Silvassa and Tapi)

Understanding this, SEWA initiated agriculture campaigns, nationally and regionally and based on its extensive experience of working with small and marginal farmers, etched out a working model of agriculture development for them which emphasizes on – developing the farm as an enterprise and shifts the focus from mere subsistence to viability and profitability. Climate resilient practices have been gradually interwoven in this model over the past couple of decades.

SEWA's agriculture campaign undertook several activities through an integrated approach which included **organizing**, access to technical trainings, access to agricultural inputs, access to tools and equipments, access to finance and credit,

market support, among others.



III. Background

Sustainable agricultural growth in a developing country like India, where 86% of the agriculture is conducted by small and marginal farmers, can largely be secured through transformation of subsistence agricultural production into a market oriented agricultural economy. Various routes to achieve the same have been proposed and efforts are being directed towards the same, mostly related to use of financial resources. Such efforts fall under the ambit of Agriculture Development. Alongside making the agriculture sector financially sturdy, preparedness for weather variations is also critical. To better equip farmers to respond appropriately to climate variations and minimize risks - locale-specific crop-weather advisories; together with Contingent Crop Plans specific to the agro-climatic zone are essential to serve the ultimate objective of protecting rural women farmer's right to accessing nutritious food.

There is an urgent need to promote/revive **indigenous** crop varieties and reverse the loss of agrobiodiversity caused due to market drivers. Indigenous crops are more resilient to climate variations, farmers have better knowledge of handling them, and traditional crops generally meet the food preferences of communities, making it all the more important to create measures to promote and revive them.

The constant changes in climates have imbalanced seasons and in turn badly affected agriculture. Productivity of food grains has also decreased. Majority of the rural workforce earns its bread and butter from agriculture. Livelihood and food security are becoming critical issues. In such a scenario policy level systems need to be identified to combat the issue.

Reduction of waste of agriculture produce at all stages – from farm to plate – is essential, especially during the post-harvest stage.

Adaptation is always a local phenomenon. Hence, there is a need to integrate traditional knowledge with the scientific to develop locally suited climate resilient strategies for agriculture.



IV. Climate Change and Right to Food: Issues and SEWA's Response

Since the past three decades global warming has badly hit the agriculture sector. Farmers are losing entire crops to unseasonal rains; fields are being rendered unproductive due to pesticides and bad cropping patterns; soil health and plant health are rapidly deteriorating; and erratic water supply is adversely affecting the irrigation pattern. Despite the government introducing many schemes to protect the right to food of rural women farmers, they are unable to achieve this objective due to loopholes in the policies and implementation strategies. Natural calamities add to the woes of the rural woman farmer – someone typically betting her household's basic subsistence needs on climate-fed agriculture

While all the aforementioned issues might appear as topics suitable for discussion on a global platform, the real challenge lies in dealing with them at the farmer level...and this is where the experience of SEWA in the field of adopting climate resilient agricultural tools becomes vital. SEWA has dealt with these issues at the grassroots level and has shown how training and a coordinated approach can help a small and marginal farmer become the driver of sustainable agriculture.

Given that it is the women agricultural workers who will play a leading role in designing climate mitigation strategies for rural India – SEWA, as a green union, is striving to build a cadre of “Green Technicians” who are imparting green skills to 1 million households and creating “Green Livelihoods”. However these green livelihoods need to be quantified, aggregated and brought to carbon trading to convert them into “Green Enterprises”. By building green skills through its extensive network of members, SEWA has taken up several initiatives to make the soil, water and air in its area of work cleaner and greener.

Since SEWA works mostly with women farmers our integrated approach to Agriculture Development has definitely highlighted the major role played by women in agriculture. It has brought recognition to women as Farmers. Now, the official cards and *Khedut Pothis* (farmer's land book) dealt out by the government are issued in the name of women or in joint names.

When women farmers are **organized into farmers' collectives** (Farmer Groups), they have timely access to credit. This enables the small and marginal farmer to avail of agriculture inputs – seeds, fertilizers on time and increases the farm yield and productivity by almost 30% to 40%.



Before SEWA started her agriculture campaign which focused on access to technology and technical services , the small and marginal woman farmer had to rely for tools and equipments either on big farmers or had to borrow from the traders. She was able to access it, only once the big farmers have used it, which meant that she lost vital time, which directly affected the yield. This happened at the time of ploughing the field, resulting in late sowing, and late germination.

SEWA's experience also shows that, often the small and marginal farmer did not avail of technical advice or guidance on which medicines to use, in what proportions, at what stage of maturity. As a result, the farmer ended up using wrong proportion of medicine or wrong medicine itself, leading to crop damage.

Another issue being faced by women farmers is with the **National Food Security Act, 2013** which aims to provide subsidized food to the people. Under the provision of the bill, beneficiaries of the **Public Distribution System (PDS)** are entitled to 5 kilograms per person per month of cereals at the following prices - Rice at INR 3 per kg, Wheat at INR 2 per kg, coarse grains (millet) at INR 1 per kg. The loopholes in the PDS are – lack of availability of the basic supplies of food grains like coarse grains which are the staple diet of the community at the local level; pilferage of food crops; non-provision of lentils leading to lack of nutritional security with lentils being a rich protein source.

With regards to **mid day meal schemes** of the Government and the food being provided to the children at the Integrated Child Development Services, these food items need to be according to the staple diet of the local communities and must be procured at the local level thereby ensuring lesser food loss and loss of nutritional value in the entire process.

Often **gender based discrimination** is observed within the families when it comes to certain basic aspects like food, education, etc. Girls are often not sent to study and also the quantity and type of food that they eat is dependent on the food available **after** the other members have completed their meal. The woman is often the last person to eat her food. Women work hard at the household level and also in the field. In spite of this, they do not get an equal share of food in the house. This results in malnutrition among the women and other health related issues in the long run.

With **rapid urbanization** and rising living standards, **significant dietary diversifications** are observed. The rural labor force is also declining, and more food travels over longer distances to markets in



order to feed growing populations. Land resources for agriculture are declining and the looming threat of climate change negatively impacts food security.

Post-harvest losses particularly in the traditional chains that supply the food requirements of mass markets are high. By far the largest share of food losses in developing countries across the region occur during harvesting, handling, drying, transportation and storage, i.e. between harvest and the market. These losses range from 15% to 50% for fruits and vegetables; and from 12% to 37% for rice, and largely result from poor functioning and inefficient food supply chains and systems. This ultimately impacts food security as well.

The area available for cultivation is gradually disappearing as it is being sacrificed at the altar of **industrial development**. Issues such as land selling, land grabbing, etc. are coming up and as women do not have any say they are totally unaware of the land being sold away by the family.

Another burning need is to incorporate those other communities who live in forests since many years but are not recognized as tribe in the 'Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006' which provides the rights of forest-dwelling communities to land and other resources.

Then again, **inflationary trends** have blown up expenditures over and above the incomes of many marginal farmer households. With most of these households having little or no savings to fall back upon, compromises have inevitably been made on nutrition. Farmers have cut down the number of meals per day, reduced or eliminated the intake of proteins (pulses, eggs and meat) and vegetables (- over 70% of households – as established by a recent SEWA survey).

Clearly the marginal farmer is one of the most vulnerable sections of the society – blatantly exposed to risks (manmade and natural) and utterly vulnerable to crises – a fact corroborated by the increasing trend of farmer suicides across India. A majority of farmers do not eat the food they produce, and do not produce the food they eat. Hunger encompasses all countries – regardless of size and prosperity. This deplorable situation calls for fresh thinking and innovative approaches.

Having realized the issues and constraints of farmers and identified their needs, SEWA - sets up seed banks; conducts trainings on soil health and vermicompost preparation; establishes plant clinics;



offers farmers customized products and services like rainfall insurance, solar pumps for irrigation and agro advisory services; launches agricultural tools and equipment libraries to facilitate easy and quick access to tools; has put in place a rural retail value chain (RUDI) to enable farmers to sell their agri produce at fair prices without having to travel long distances; is pushing for the PDS to look at the nutritional requirement of a human being and accordingly provide food grains to the families; counsels women and girls to increase their nutritional intake and break the inter-generational malnutrition cycle; encourages communities to add the names of the women in the household in the land titles; etc.

Post delivering initial capacity building trainings, SEWA develops a sturdy cadre of grassroots Master Trainers through Farmers' Field Schools to cascade these learning/s to a larger farmer audience alongside creating an alternate source of livelihood for them. To keep pace with the swiftly evolving digital economy, a number of digital products and applications are being developed to ease the work of farmers and relevant trainings are being provided to use them.

V. Climate Resilient Agriculture Initiatives by SEWA to ensure Right to Food

Scientifically it is stated that a normal human being needs nutrition intake that provides at least up to 2200 kcal per day. In general terms, we at SEWA define food security as when the members and their household consume at least 3 basic meals daily and have access to basic nutrition intake and Public Distribution System.

SEWA believes that food security cannot be viewed in isolation. There is a need to view food security in entirety which includes nutrition security through sustainable agriculture, which can be ensured by access to agricultural inputs, access to latest available technology, access to information, among others. SEWA has taken several simple yet innovative initiatives to facilitate access to climate resilient agriculture and ensure nutritious food for our members. These initiatives are:



VI a Setting up Seed Banks

SEWA encourages its members to preserve seeds from their harvests so as to reduce input costs for subsequent cycles of planting, and thereby secure greater margins. To facilitate this, SEWA with support from the Seed Corporation of India has been identifying seed plots wherein farmers can store their seeds. Such seed plots have been earmarked in approximately 220 acres land and are in use by 7500+ farmers currently. Seeds of crops such as wheat, cumin, chickpea, sesame, green gram and groundnuts are stored in these plots.

During the crop season when grain is abundance, people in the community store excess grains in the Bank. During droughts or low harvest periods or any natural calamities, the grain is made available in the form of loans for households in need. Members return grain borrowed with interest so that the reserves in the grain bank are constantly increasing enabling higher amounts of borrowing over time. These seed banks ensure that communities have access to food grains throughout the year.

VI b Improving Soil Health

Under the Agriculture Campaign one of the major issues which SEWA faced was that farmers have absolutely no knowledge about the quality, kind of soil or proportion of nutrient contents their land possesses. They are therefore not aware about the right kind of crop apt for their land and soil health condition that would be most suitable and yield higher productivity. Hence they end up producing those crops which are high in demand but lack desired quality and quantity of output and thus cannot withstand the pressure of the competitive market.

SEWA, with the help of IFFCO (Indian Farmers' Fertilizer Cooperative Limited), local KVKs (Krishi Vikas Kendras) and FTCs (Farmer Training Centres) delivered trainings for 6455 farmers on 'How to take soil sample for testing'.

Vadodara: Sukhi Mahila SEWA Mandal

In order to improve the quality of produces, SEWA Gram Mahila Haat trained the farmers in the correct usage of fertilizers and conveyed the benefits of vermicompost. Experts from IIM (Indian Institute of Management) Ahmedabad explained to the SEWA members the costs and benefits of the use of vermicompost in a typical farm, which was then disseminated to the farmers.

SEWA has also coordinated with the Farmer Training Center (FTC) of Agricultural Department-Government of Gujarat to train farmers in the correct methods and practices of irrigation. SEWA involved agriculture scientists to help farmers find solutions to their challenges.

Since the year 2000, farmers are being imparted training in soil testing. They are taught to analyze the soil structure of their land, and then decide the crops that should be cultivated and the extent of fertilizers to be used.



Consequently farmers are now able to know the deficiency of NPK and other elements in the soil. Moreover, marginal farmers with the help of the Soil Health Cards allotted to them are well versed with the type of soil and kind of crop that can be grown.

VI c Launching Plant Clinics

Usage of costly pesticides negatively affects the health of the plant and the nutritional value of the crop. Understanding this, SEWA set up 119 Plant Clinics in 2 districts which cover around 7-10 villages. These are run by 'Plant Doctors' (Master Trainers). The services offered include – soil testing, crop advisory, proportion of organic fertilizers, timely information regarding bio-pesticides etc.

The following impacts have been observed –

- 98% farmers are now able to cure the diseases which infect their crops
- Increase in sustainability due to reduction in agricultural expenses
- Crucial objectives of - soil safety, crop quality and environment protection are retained
- Healthy and rich yield

VI d Implementing Organic Farming (Manure – Vermicompost)

SEWA has been actively promoting the use of vermicompost and organic fertilizers among its farmer members as an effective means of enriching the soil. Apart from this, SEWA has also been organizing women to produce and sell vermicompost as a business activity, thereby creating an additional stream of income for several women.

Vermicompost as a practice has been introduced in 620 villages so far. 18,462 farmers from the state of Gujarat have begun to use vermicompost to enrich their farms. Farmers have also been trained in green manuring techniques wherein they mix castor and sunlamp stumps in the soil to increase its nitrogen content. Members from over 56 villages in 2 districts have been trained in these techniques.

Mehsana: Vanlaxmi Vruksh Utpaadan Sahakari Mandali

41 women members decided to defy social stereotypes and plough their own land. They leased 10 acres of non-arable, uneven wasteland from the Village Panchayat. From 1986 to 1989 these women toiled to make this fallow land cultivable and they won the battle! Today other farmers in the area have also benefitted after being exposed to practices adopted by Vanlaxmi Cooperative. They learned new concepts like vermiculture and conservation of rainwater for irrigation, apart from witnessing use of modern equipments like power tiller and thresher



Thanks to these organic practices the consumption of chemical fertilizers has decreased by 30% to 100%; the quality of yield has improved by 40% and consumption of water for irrigation has decreased by 30%

VI e Establishing Tools and Equipment Libraries

Small and marginal farmers cannot afford to buy expensive agriculture tools like tractors, threshers etc. During the time of need, they have to rent these equipments from the well-established farmers and pay high rent to them. Sometimes, in spite of willingness to pay high rent, they do not get access to these equipments on timely basis. As a result, they are not able to reap a good yield from their farms.

Understanding this SEWA has implemented an environment – friendly initiative through the practical approach of pooling of agricultural equipment – The Agriculture Tools and Equipment Library. This library is run by the village level farmer development group. As of date, 7 tools and equipment libraries are being run benefitting 15000 farmers from three districts.

Both, agriculture laborers who do not have small equipments for labor work and small farmers can garner benefits by getting the equipments on time and at a reasonable rent.

VI f Setting up Rural Retail Value Chain – RUDI

One of SEWA’s pioneering initiatives is RUDI or the Rural Distribution Network: a rural supply chain that procures agricultural produce from marginal farmers at fair prices, processes and packages the produce through trained grassroots women in various rural processing centers, and takes the affordable and unadulterated branded products to remote households via a large team of trained saleswomen drawn from vulnerable households.

RUDI positively impacts marginalized households at several points: Approximately 15,000 small and marginal farmers sell their produce to RUDI ever year, at their doorsteps for rates that are 20% to 30% better than those offered by traders; Over 300 marginalized women are employed at RUDI processing centers, earning between INR 5000 to INR 8000 per month; Over 3000 saleswomen take RUDI products to rural households, earning a monthly income between INR 2000 to INR 10,000.



RUDI also helps farmers adopt modern agricultural practices, and links them with various other initiatives of SEWA that help farmer's practice sustainable cultivation and realize better yields. RUDI sells over 131 products, and its annual turnover is currently INR 10 crores.

VI g Offering Customized Rainfall Insurance Product

To provide a safety net to small and marginal farmers against the uncertainties of rainfall, SEWA tied up with various insurance companies such as Agricultural Insurance Company and IFFCO-Tokio to provide customized rainfall insurance products to its farmer members. The specially designed policy promises a payout if the measured rainfall falls either outside a specific range. SEWA combined this initiative with a rigorous awareness program where farmers were trained on the importance of insurance and encouraged to calculate their risk exposure and accordingly purchase insurance policies. 5484 small and marginal farmers were covered under this initiative and the payout has been INR 8, 36,430/-. Several of these members received payouts over the years when droughts or unseasonal rainfall hit the state.

VI h Providing Agri-Advisory Services

These are crucial services required by the farmers to do better farming and receive better returns. The farmer looks for immediate help when some pest or disease attacks the crop in order to curb a huge loss of investment. The farmer largely depends on the fellow farmers and input dealers to seek the advice on such problems. Ideally, farmers require immediate advice on such issues to avoid damage to the crop.

SEWA realized that mobile phone technology can be best put to use in such cases. It can help to resolve the problem of distance and at the same time provide the necessary information. SEWA has started using the Voice Message Based Mobile Technology to fill up the gap of Information regarding Weather Prediction, Crop Advisory, Market Price of Commodity, Government Schemes related to Agriculture etc.

SEWA has covered 3100 farmers each from Chota Udaipur and Arvali districts of Gujarat. The success ratio of the pick-up and listening of the message is more than 80% which shows the need and importance of the Information on time.



VI i Setting up Farmer's Field Schools

SEWA has linked up with agricultural universities for preparing a batch of Master Trainers. Various need-based modules of sustainable farm management trainings have been developed - scientific agro practices; seed multiplication and production; and green house technology etc.

This Master Trainer cadre then manages their own field schools and cascades trainings to other farmers. To deliver these trainings in rural areas Master Trainers deploy Pico Projectors and other relevant technologies.

Till date SEWA has set up 15 Farmers Field Schools and expanded its training reach to 64,555 farmers. Some of the impacts which are a spin-off from these trainings are - improved productivity; 50%-100% jump in yield and income; setting up of five greenhouses in Gujarat and one in Afghanistan

VI j Access to Energy: Farm Top Energy Access

The solar pumps for irrigation comprise of solar panels (which generate electricity), inverters (which convert DC to AC electricity), an electric pump (usually submersible) that runs on the AC electricity, and the supporting structures, connecting wires and pipes. SEWA insists on a drip irrigation system being mapped to the solar pump for the crop being grown.

The above system ensures that the water drawn out of the ground/canal is only what is required by the crop being grown, thus drastically reducing wastage of water. It also saves money otherwise spent on diesel for pumping water (usually @ INR 100 to INR 120 per hour) or on buying water.

VI k Incorporating Digitization

SEWA adhering to its committed to save its carbon footprint has introduced many digital initiatives for its women farmers like –

- PaySe - a peer to peer e-wallet payment solution which digitizes the collection activities
- MPaise - another mobile based digital money solution
- MBachat -a multilingual Android application built to collect member wise savings details of SHGs



- Rudi Sandesha Vyavhar -an affordable simple-to-use, easily accessible mobile tool which enables Rudi Sisters to place orders, track their inventory and sales and even run reports all using just their basic feature handsets

Some of the visible impacts of these digital initiatives are - they are environment friendly; they increase efficiency and cost effectiveness of last mile operations; and improve delivery

VI I Providing Shakti Packets

7000+ rural women and their households from Patan district are provided Shakti Packets which contain food grains like millet and wheat, edible oil, red chilies, tea, soap, iodized salt, turmeric and vegetables. The objectives of Shakti Packet, initiated in 1993, are to reduce food insecurity and malnutrition by empowering rural poor women to help themselves.

VI m Launching Mobile Ration Van Service

In accordance with the demand of SEWA members for timely and sufficient availability of ration to their villages, SEWA along with the Government of Gujarat has launched a mobile ration van service for linking up villages with the food supply department. This van supplies rations like wheat, rice and sugar in 11 far flung villages of Patan covering 6000 households thereby saving travel, money and day wages of poor households.

VI. Impact of SEWA's Framework

The results of SEWA's Climate Resilient Agricultural Practices have been gradual but are long term. Substantial increase in the quality and quantity of yield, fulfilling the nutrition requirement of a greater number of households, retention of soil nutrients, tech savvy farmer women, smart agricultural practices, climate preparedness, hike in agricultural revenue, a well set supply chain, sturdy cropping patterns – these are some of the consequences observed by SEWA in the past few years. The impact on some of our women farmers has been encapsulated below in their own simple words –

Sharing her Seed Bank experience Nanduben (Kukana-Vadodara) says “Thanks to the seed and fertilizer licenses for my Farmer Group and District Association, my agriculture productivity has improved by almost 40%. Earlier, the seeds which I locally bought from traders had a low



germination of only 50%. Today I buy certified seeds from Seed Banks, where the germination is almost 90%. Also, through the Village Resource Centre near my village we attend 'Tele-Agriculture' sessions with scientists and Universities. As a result of all these initiatives, we are able to control diseases and agriculture is more viable"

Describing the difference vermicompost has brought into her farming and her life, Surajben Shankarbai Rathwa (Vanki-Vadodara) shares, "I was only 21 years old when I got married and I started a family the following year itself. Born, raised and married into poverty, I tried to make a living as a casual laborer, but failed miserably. There was hardly enough food to go by and I couldn't even afford to send my growing children to school. I became a member of SEWA in 2003, life changed and how! I began to save money within our savings group, and got involved in its administrative activities and was promoted as group leader. Soon, SEWA introduced us to other livelihood options such as forestry and vermicompost manufacturing. We now earn over INR 15,000 per season, an amount we had never dreamed of earning in a lifetime also..."

Gangaben (Sakhvaniya-Bayad) elaborates on her experience with the collaboration between agriculture and technology, "Thanks to the Voice Message Based Mobile Technology introduced by SEWA, we come to know the weather forecast from the messages. If rains are predicted for that day then we do not use fertilizer to ensure that it does not get washed away"

It is lucidity which attracts Phuliben (Anand) to SEWA's Rainfall Insurance, "I prefer using SEWA's Rainfall Insurance due to a greater degree of transparency as I know exactly what I am spending my money on"

Participant of Organic Farming Training, Vanitaben Kudecha (New Anjar – Kutch) avers, "The soil testing report of our land proved that land becomes infertile due to excess use of un-required chemical fertilizers. We also came to know that comparative farming leads to wastage of money. Organic farming training made us aware of climate resilient practices which can also reduce effort, time and money and multiply production and yield."

Thus SEWA's experience shows that agriculture can develop and become sustainable by inculcating climate resilient practices. But for this the need of the hour is a holistic view in planning and an integrated approach in execution. Randomly imparting trainings or setting up seed banks, plant



clinics and tool libraries is not sufficient. After conducting a need based analysis specific trainings, products and services need to be provided with the perspective of fulfilling the 3 objectives of Climate Resilient Agriculture.

VII. Lessons from SEWA's Approach to Right to Food and Climate Resilient Agriculture

Through years of experience, SEWA has demonstrated that women are the best agents to engineer change and address new aspects of development in a society. With Indian agriculture getting feminized and the problems of a farmer being closely intertwined with the challenges her family faces, women are best placed to tackle such problems and work towards economic and social security of their families.

A very important factor that has helped SEWA successfully implement its framework of exercising women farmers' right to food through climate resilient agriculture is the fact that it has not seen climate change as a problem that can be solved only through employment of financial resources or as specific to an individual or a family - it has deployed a community driven approach.

Some of the key attributes of the strategy adopted by SEWA while implementing climate resilient practices in agriculture to facilitate women farmers' right to food, which can be kept in mind and followed elsewhere, are enumerated below. These attributes can serve as guiding principles for interested NGOs, Financial Institutions, Government Agencies, and Policy Makers:

- The offerings of services and activities have revolved around five main categories - Organizing, Capacity Building, Financial Services, Support Services and Building Linkages e.g. Marketing Services. Hence the package needs to be designed to encompass all of these.
- The original motive behind offering the first product or undertaking the first activity in any area is to build credibility and establish a trustworthy relationship with local communities by focusing on maximizing workers' income security. Thus building farmers' organizations is the key.
- To nurture this relationship of trust and credibility, invariably SEWA has addressed the most immediate need of the local communities, either by offering them a vital support service or



organizing them against any exploitative force/situation. Such as providing Agriculture Inputs – seeds, fertilizers, setting up tools and equipments libraries.

- Such immediate needs of a community are sometimes apparent, but most of the times they have been analyzed and brought forward by SEWA through an active and conversational involvement of the local communities thus fostering a sense of ownership.
- Once this relationship is built, SEWA has institutionalized the relationship through organizing activities i.e. by providing a formal shape to the relationship as Farmers Collective or Farmers Associations.
- Organizing has to be area specific and issue specific and usually is based on the first service offered or activity undertaken. But the mandate of the organization goes beyond this, and it aims at taking a holistic and integrated approach to climate resilient agriculture.
- SEWA has specifically focused on delivering training on climate resilient agricultural practices and introducing appropriate technology among the farmer groups.
- Farmers have been freshly conditioned to believe that farming goes beyond subsistence and it has the potential of earning a handsome livelihood for them.
- Savings habit are inculcated and deeply entrenched and linkages with local banks have been established before offering micro-credit services and other financial services like rainfall insurance. Farmers are encouraged to build their own work security fund.
- A sense of collective responsibility and community membership is ingrained among farmers.
- Farmers are educated about dynamics of modern agricultural markets and their skills are developed to enable them to compete in the changed scenario such as linking up with futures markets, NCDEX. SEWA has also focused on developing skills for generating non-agricultural livelihood means.
- Capacities and capabilities are always built to a comfortable level before building market linkages.
- Efforts (like RUDI) have been made to secure a dynamic rural market where consumption needs of a farmer are taken care of.
- And lastly, and most importantly, SEWA has always structured and implemented its campaigns around women and made women the champions and leaders of the cause.



VIII. Recommendations and Way Forward

SEWA's focus is to upscale those initiatives that have shown promise in promoting sustainable agriculture and helping the small and marginal woman farmer access her right to nutritious food, increase her income and extract herself from poverty in the current scenario of climate change.

SEWA will continue to focus on policy advocacy to protect the small and marginal farmers and help them move towards sustainable agriculture.

SEWA is also seeking to engage relevant national and international stakeholders to carry forward its work and help its members adopt the latest systems, techniques and technologies that further the three objectives of Climate-Resilient Agriculture i.e. - sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible.

Given below are some specific recommendations –

- Create and implement a minimum support income for the small and marginal women farmers, which suffices their basic food security and support requirements to survive till the next season
- Focus on and strengthen local procurement and local distribution which can address the issue of Food and Nutrition Security and Food Loss and Waste
- Through Farm Planning and Management Training, motivate farmers to discontinue mono cropping patterns and move towards planting multiple crops – cash, traditional, seasonal etc throughout the year to ensure sustained income and retention of soil nutrients
- Give priority to local communities and agricultural development in land ordinance bill
- Where acquiring of land is inevitable, the rehabilitation of the communities should be executed involving the communities and considering their economic and cultural development
- The compensation for land to be given to land owners should be fixed keeping in view the current market price and appreciation over the next 10 – 25 years



If all these issues do not get addressed well in time, then agriculture will not remain viable and the younger generation will not be inclined to work in agriculture or related trades. This will in turn aggravate the two major global issues of food security and climate change.

In the past sections, we have seen the kind of challenges a small and marginal woman farmer faces with regards to basic issues like food and climate change, and how SEWA has helped farmers through agricultural campaigns. We are now in a better position to analyze the situation and draw out steps towards initiating the Proposed Framework of Right to Food and Climate Resilient Agriculture as detailed below -

- As mentioned in the National Food Security Act, it has to promote local staple food. For this it needs to support local procurement and distribution system, which can help to generate agriculture allied enterprises, food and nutrition security and reduce burning issues like food loss and food waste.
- The government intends doubling the farmers' income by next 5 years, for this a database profiling the existing income of farmers needs to be set up as a benchmark and road map towards achieving this objective.
- With regards to mitigating the price risk, there is need to - evaluate the existing mechanism of Minimum Support Price for the Agriculture Commodity and; set up the Minimum Support Income to sustain agriculture as a viable trade.
- As, these small and marginal women farmers are ravaged by climate change issues, they need to be provided with holistic support of agriculture allied trades like animal husbandry, poultry farming etc.
- The Agriculture Stabilization Fund needs to be promoted. The purpose of the Agriculture Stabilization Fund is to help farmers face unforeseen events caused by climate change by promptly providing them soft loans. The Fund aims to provide immediate support in the event of a calamity by helping farmers recover and stabilize, additionally facilitating them to



engage in long term mitigation by receiving the knowledge, technology and resources to cope with the increased risk posed by climate change.

- On the same lines as the Agriculture Stabilization Fund which is a contingency fund for farmers in general; a strong credit and risk mitigation system needs to be put in place for women farmers in particular i.e. the Women's Livelihood Bond.
- Inputs from international stakeholders should be inculcated with regards to latest systems, techniques and technologies that further the three objectives of Climate-Resilient Agriculture.
- Innovations in climate resilient agriculture should be encouraged, patented and shared on global platforms by country governments.
- Small and marginal women farmers need to be regularly updated about relevant government schemes and hand holding support should be provided to this stratum which is relatively less literate

SEWA continues her march towards creating a vibrant agricultural economy through constant innovation and improvement in its approach towards implementation of climate resilient practices in agriculture to serve the woman farmer's right to food...



ANUBANDH - SEWA'S CONCEPT OF 100 MILES

SEWA believes that Food Security should involve local procurement and decentralization – a principle of SEWA's founder Shri Elaben Bhatt which is termed as 'the concept of 100 miles'.

SEWA's founder Shri Elaben Bhatt says "I would urge us to ensure that six basic, primary needs are met from resources within 100 miles around us. I call it the 100 mile principle. If food, shelter, clothing, primary education, primary healthcare and primary banking are locally produced and consumed, we will have the growth of a new holistic economy." The crux is about building local ecologies, local economics and maintaining diversity hence the 100 Mile Principle weaves decentralization, locality, size and scale into livelihood. What we need for livelihood as material, as energy, as knowledge, should stem from areas around us. Seed, soil, water, fuel are forms of knowledge that need to be retained locally. Security stems from local innovations, not distant imports. Essentially, the organic human link with Nature has to be restored. The millennia-old link between production and consumption has to be recovered.

