

CASA in Action

Q U A R T E R L Y N E W S L E T T E R



THE GREEN GUARDIANS

Climate adaptation
in the far-flung
villages of Rajasthan

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The Green Guardians
Climate adaptation in the far-flung villages of Rajasthan

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EDITORIAL

The global society is suffering each day due to the indisputable climate crisis situation vitiating the planet. The state of emergency is accelerating at a pace which can be met only if immediate action is taken.

CASA's initiative in the remote villages of Rajasthan engage in dealing with climate change by expanding green covers and relying on environment friendly farming methods. The northern state is a victim of constant dry spells due to it's proximity to desert in the west, lack of water availability and erratic rainfall patterns.

This edition **THE GREEN GUARDIANS** takes you on a journey to the far-flung villages of Rajasthan, revealing the livelihood patterns of the village communities. Our programmes in these villages commenced in 2011 which aimed to convert arid lands to pasturelands with the construction of earthen structures to replenish soil moisture and recharge ground water level.

As Rajasthan is an agricultural state, we have encouraged farmers to discontinue the usage of chemical fertilizers and rely on sustainable agricultural practices in order to create a balance for the preservation of the environment.

Our endeavour to acknowledge the indigenous communities by visualizing their self-sufficiency with environment friendly initiatives have assisted in dealing with climate emergency.



Majuli is a river island in Assam. For some part of the year the island is submerged underwater. The Hummingbird School is also affected. However, the curriculum focuses on practical learning which comes handy in times of distress.

HYMN TO THE RIVER MAJULI IS UNDERWATER

In the middle of the Brahmaputra River on a small island in Assam, The Hummingbird School has trouble staying afloat. Floods in Majuli island are "inevitable". People expect floods in July and the school announces summer vacations in advance. The staff and students are now accustomed to this condition. The school supplies shift to the second floor to be protected from damage. "A week before the school re-opens, teachers clean the school. The hostel is completely submerged under water." says Digangana about the two-year-old establishment.

The island has flood markings everywhere - shops, houses etc. People live in fear. The only way to reach Majuli is through a ferry from Jorhat city. During the flood, people are re-located to the city. They keep everything in stock, from food to relief material. Digangana has adjusted to the protocol and says, "We prepare ourselves. We have to come out to the town." They are prepared mentally year after year for these floods. The practical teachings at school come in handy in times of distress.

"The school believes in making the children self sufficient and independent", according to her this is what helps the teachers form a



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PICKLE TO SUPPORT A LIFE

Preparing pickles from locally available products can lend a helping hand to outlying communities in Meghalaya by providing an additional income



Photo: Women preparing Aachaar (pickle)

better relationship with the children as well. Those who are new to the island learn how to adapt from the children itself. From learning about wildlife to plantation, everyone is well informed about the place. This knowledge helps them prepare for unfavourable situations.

Every year they expect floods in July, they prepare accordingly and everyone is taken care of. Compassion is one of the core values of the school and is instilled in the students. It teaches them to care during a crisis and helps them cope. Even during the floods, the children make sure that the animals at the school are taken care of. Digangana believes that, "It teaches them life skills". These life skills help them survive when they are forced to evacuate year after year due to the submersion of the island underwater. It helps give them the required strength. The focus of the school is on overall development.

Despite the grave conditions the school is a popular choice among the parents. Students are not discouraged from attending and some even travel miles as it offers a practical and critical learning experience. The children voice out their opinions in the student council meetings. The parents are equally involved in the decision making process of the school. It is because of this coordination and curriculum that the school has a zero drop out rate despite the adverse conditions in Majuli. ■



The school believes in making the children self sufficient and independent



Female entrepreneurship in rural India can help a woman fulfill her dreams and improve her standard of living. A one day Aachaar (Pickle) making workshop was organized by CASA partner Garo Baptist Convention (GBC) in West Garo Hills, Meghalaya.

Thirty women came together to learn a new skill in order to sustain their livelihood. Each woman represented a Self Help Group (SHG) which is present in 30 villages across the GBC project area. The motive of the workshop was that first they would learn and incorporate the skills then pass on the knowledge to their fellow villagers, especially women.

Moreover, the participants have planned to organize training sessions on their own. The workshop was held at the GBC headquarters in Tura, and the training was given by Indian Training Institute (ITI). Different variety of pickles were taught to be made with the locally available products. Jackfruit, Indian gooseberries and tamarind are easily obtainable in the region.

“CASA has definitely played a big role to create a positive impact in the society”, shared Project Coordinator -Mallika Marak



Photo: women participating in one day achar making training workshop



“The thought of using this technique to earn an income had never crossed our minds before. We can use these skills and sell pickles in the weekly markets held in our villages”, discussed a participant.

“CASA has definitely played a big role to create a positive impact in the society”, shared Project Coordinator Mallika Marak.

The GBC is a well established organization that works for the upliftment of women in rural communities. It has been running since 1897 that speaks of Garo history. It aims to cover 3 blocks and 30 villages across the state of Meghalaya and lives up to it's motto, 'By Love Serve One Another'. ■



A seed of hope



The importance of safeguarding forest covers has become an important aspect in the wake of climate crisis

Rajat Chaudhary
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Global warming has already taken a toll on the environment resulting in a major climate change crisis with increased temperature on an average level. Glaciers are melting at an alarming rate, global sea level is rising and the ocean heat content is increasing. Conservation of our forests has become a crucial part of our livelihood especially since the uproar of the climate strikes.

In the wake of the crisis, 7.6 million people participated in the recent climate strikes which took place in September all across the globe. CASA has undertaken certain steps in order to meet the crisis and increase awareness regarding the same. The seed ball vegetation programme in Chhattisgarh acts as a protector to the environment. It aims to conserve forests and the indigenous communities of the area.

Active engagement in forestry activities by the people is a constructive approach to protect the earth. Seed bombing or seed ball vegetation is an activity which has been initiated in 16 villages of Chhattisgarh. The motive behind this is to promote vegetation for forest animals and increase forest covers.

The seed balls are made of a variety of seeds mixed with cow dung, cow urine and clay which are then dried for 15 to 20 days. This project will help to combat the ill-effects of global warming.

Although, this practice has not gained much popularity in India, it has been implemented internationally. This move will also safeguard villages and preserve the native forest communities. It has strengthened the relationship of nature with man. ■

EARLY MARRIAGE AFFLICTS CHILDHOOD

What seemed to be a series of gloom-ridden events, Sukanya found hope when she got a chance to go back to school

Despite getting married at the tender age of 13, Sukanya, now a mother to a baby boy, had to drop out of school due to hardships in her family. She still strives to complete her formal education by attending CASA's Bridge Course Centre, where several other children who are victims of similar circumstances come in order to receive education.

Unfavourable set of conditions in families have led to early marriages among girls and confound them from receiving formal education. Sukanya's story falls on the same lines as she had to drop out of school in 7th grade. Her father was a farmer who committed suicide due to financial stress in the family. Owing to her father's unexpected death, her mother considered remarriage as the only alternative left in order to make ends meet.

"My stepfather used to beat me up consistently. Because of that my mother got me married to a close relative when I was 13 years old." She had a son at the age of 15. Her family hails from the Chatrai Mandal region in Krishna District of Andhra Pradesh.

"I work at the brick kiln in our village and pluck chillies in the fields during the season as my husband's income is not sufficient to serve our needs", she discussed.

Sukanya's story didn't get any better as she shared,

Photo: Sukanya with her child in CASA's Bridge Course Centre, a hope for her again.

"One day CASA volunteers came to my house. They informed me about the Bridge Course Centre that had opened in my village. I was eager to resume my studies. The volunteers convinced my husband about the benefits of education and I was allowed to join the centre."

Sukanya has resumed with her studies at CASA's Bridge Course Centre. In spite of her daily household chores she makes sure to not miss a single class which depicts her sheer inquisitiveness and dedication in learning. "I want to learn today so that I will be in a position to teach my child tomorrow", she said with hopeful eyes.

Notwithstanding the many laws passed by the Government of India, child marriages are still prevalent in the country. According to reports, poverty is the main cause of children dropping out of schools.

CASA took up Child Labour Free Zone Project (CLFZP) initiative to create an environment and opportunity for children to propagate their rights and restore their childhood. Under CLFZP, CASA opened Bridge Course Centres particularly for school drop outs. The main objective of the programme is to encourage children like Sukanya to continue education by creating a positive channel. ■



India ranks **6th** among the top 10 countries with high rates of child marriage among women



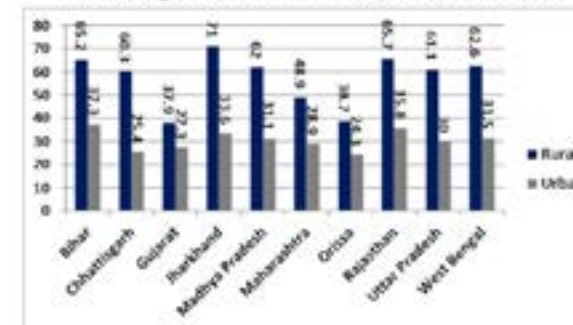
3% girls in the age group of 10-14 were married



Rajasthan has the highest number of child marriages and Kerala has the lowest

Source- A Statistical Analysis of Child Marriage in India based on 2011 Census, National Commission for Protection of Child Rights.

Percentage of Women Married before 18 Years



Source: International Institute of Population Science (2006), NFHS-3.



One day CASA volunteers came to my house. They informed me about the Bridge Course Centre that had opened in my village. I was eager to resume my studies. The volunteers convinced my husband about the benefits of education and I was allowed to join the centre."

- Sukanya





COVER STORY

THE GREEN GUARDIANS



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Rajasthan

The land of Kings

COVER STORY



RISING TOWARDS SUSTAINABLE DEVELOPMENT

CASA and Apna Sansthan have been working jointly to combat the ill-effects of Climate Change

CASA along with local partner Apna Sansthan have worked on reducing run-off through soil and water conservation structures since 2011 to expand pasturelands in order to help various village communities.



Photo (above): Dinesh Vyas alongwith Chief functionary - Chandra Prakash Choubisa of Apna Sansthan in conversation with farmers

COVER STORY

'The Land of Kings', Rajasthan, is the largest state in India, known for its diverse cultures, colour coded cities and magnificent palaces. Ironically, the bittersweet reality of the state comes to picture as the ongoing climate crisis situation has inflicted harm on the residents of the northern state. Global warming has affected the region with drought several times leading to widespread impoverishment. CASA along with local partner Apna Sansthan have put in joint efforts to reduce run-off through soil and water conservation structures since 2011 to improve pasturelands in order to help various village communities. The project's main goal is climate resilience, as it expanded forestation and built structures with naturally available resources.

A number of communities in the region rely on farming and livestock to earn a living. As a result of dry spells, the mode of income of these communities had been hampered. Migration became a predicament in several villages as the men of the families had to leave their homes in order to look for work in urban areas while the women would have to stay back to look after their families. They would also have to walk several kilometers to fetch water and collect grass for their livestock. What further exacerbated the conditions was that the sloped lands in the villages could not retain water, leading to dried up wells and water bodies. Lack of moisture in the soil led to less plantation and soil erosion. Dearth of pasturelands had doomed these villages as they are an important component of livelihood in Rajasthan. A proper organization of the land was required to produce the best results that could aid the residents.

FOOD FOR COMMUNITY DEVELOPMENT (FFCD) PROGRAMME

CASA and Apna Sansthan have worked jointly on developing pasturelands and private lands by reducing run-off through soil and water conservation practices. Food for Community Development (FFCD) was a programme run from 2011, until 2014 covering 18 villages of Udaipur, Rajasthan. It aimed at converting arid lands to pasturelands in order to ease the daily hardships of the villagers by aiding their sustainable economic growth. As the programme concluded, a drastic difference was noticed in the period of three years through which the local communities had benefitted. CASA Senior Programme

Coordinator of Rajasthan, Dinesh Vyas shared "The villages did not have enough underground water to serve the families until 2011, leading to much distress. The sloped agricultural fields could not retain moisture in the soil. Imbalance in the climatic conditions led to disrupted rainfall patterns which had damaging impacts on farming practices. Presently, we can observe the progress to mitigate the climate change impacts. More greenery in pasturelands and better water retention capacity in the soil is observed. Now, the villagers themselves put an effort to keep up their community pasturelands as it yielded positive impacts."

PASTURELAND DEVELOPMENT PROGRAMME

Every village in Rajasthan are provided with common property resources including pastures to serve its economy. 2/3rd of the population is dependent on agriculture but the climatic conditions in the region add to the risk of degradation of vegetation cover and soil erosion. The inhabitants were afflicted by droughts, poor grass quality, open grazing and unclassified land. CASA and Apna Sansthan surveyed the drought hit area along with an agricultural expert and came up with a plan of action. The evaluation deduced that pastureland development was an important aspect to be worked upon. The process of the project included setting up of fences, continuous contour trenches, gully plugs and check dams which accomplished the mission to help the communities by becoming self-sufficient.

FENCING

Certain land is marked for grazing in every village. Good grazing management is an important factor to maintain the quality of the grass. Fencing helps in conservation of the area with better supervision in order to prevent open grazing.

CONTINUOUS CONTOUR TRENCH (CCT)

The sloped lands in the region act as a hindrance in retaining water, hence, the soil does not have enough moisture to cultivate grass. CCT's are built at regular intervals of 15 metres on sloped lands to decrease the velocity of water during heavy rainfall and help in spreading water evenly. Contours are outlines formed on the slopes on which trenches are built. Trenches are narrow ditches that help to boost moisture retention.



Photo: Dinesh Vyas explaining the Continuous Contour Trenches (CCT).



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Photo: Gully plugs to treat small water streams.



Photo: Chandra Prakash Choubisa explaining the use of Check Dam.

GULLY PLUGS

Gully plugs are built to treat small water streams on sloped lands which in turn help in ground water retention. A number of nitrogen fixing trees were planted at the areas where gully plugs were built. The water coming from CCT's is led into gully plugs which is treated and used by the soil, eventually heading toward check dams.

(below) Anicut to store water which is useful for village communities.

CHECK DAMS

These are built at a relatively larger scale on the edge of sloped lands with large stones and naturally available resources acting as embankments. The objective is the same- soil and water conservation. This is the final step of the process and the remaining water from the above mentioned steps is then conserved.

ANICUT

These are water bodies built by the government for water storage used for ground water recharge. Prior to the pastureland development project, these anicuts could not retain much water. As of now, these anicuts preserve water throughout the year and serve the village communities.

Although the project ended in 2014, the impacts of it are still serving as an



asset to the villages. It is now observed that even if rainfall occurs only for a few months, water level is recharged throughout the year. Wells and other water bodies have sufficient water to supply the families. CASA Core Programme Coordinator of Rajasthan, Gopi Lal Rao discussed, "Earlier the people did not have enough water for irrigation or even household needs. This project is important for climate adaptation as it increased grasslands in over 162 hectares of land."

PRIVATE LAND DEVELOPMENT PROGRAMME

Private land development programme was implemented on the personal land of the villagers. This programme was carried out on private farmlands to assist in irrigation practices. We chose the families that were relatively more vulnerable. Certain aspects of private land include:

Land Bunding

These are earthen embankments built at comparatively lower levels to withstand the force of water. This is done in order to improve the agricultural economy of the villages to yield better crops.

Seed sowing methods

Under the private land development programme, the villagers were educated on seed sowing methods of various fruits and vegetables that can be easily grown in the region such as custard apples, lemons, chillies etc. Workshops were also conducted to teach new farming methods and propagate organic farming.

Reformation of water bodies

Nala bunding is a water conservation technique in which either sides of water streams were solidified. Pond deepening, construction of new wells and restoration of the old ones fall under this point. ■



Photo (above) : Land Bunding to withstand the force of water.

(below) : Image depicting the developed pastureland on the left of fence.







Number of
villages covered

18

Families benefited

1891

Pastureland laid
out on

162

hectares

Private land
covered

1190

hectares

The positive impacts were observed in the second year itself. As of now the villagers have themselves taken the responsibility to look after the area. They are very appreciative for this development and put all efforts to keep up with the maintenance. A programme committee- 'CharagaVikas Samiti' was formed that has a representative from each village. As of now, the wells do not dry up anymore and have the capacity to retain water throughout the year.

Chandra Prakash Choubisa - Chief functionary, Apna Sansthan

Apna Sansthan had a modest beginning with a small check dam project in 1993 with the help of young visionaries. Chandra Prakash Choubisa is the Chief functionary of Apna Sansthan who has been heading the organization since its inception.

"CASA and Apna Sansthan have been working together since the drought situation which occurred in 2002. We began the FFCD project in 2011 with CASA, our first step was to select villages and determine their state for implementation. We then came up with the micro plan with the help of agricultural experts. Initially, the pastureland development project was laid out on 25 hectares and land bunding was spread on 280 hectares of private land. Post that, we expanded the programme in 18 villages of this region. Our plan includes construction of fencing to preserve pastures, followed by CCT's, gully plugs and check dams. Nala bunding, pond deepening and land bunding

were built in private lands. The positive impacts were observed in the second year itself. As of now the villagers have themselves taken the responsibility to look after the area. They are very appreciative of this development and put all efforts to keep up with the maintenance. A programme committee- 'Charaga Vikas Samiti' was formed that has a representative from each village. As of now, the wells do not dry up anymore and have the capacity to retain water throughout the year. Migration is not an issue at the moment and farming practices have expanded overtime as the conditions have become stable."

As the programme was concluded, the prime problems of the communities were resolved. Less migration, better economic conditions and less physical labour among women was observed. The entire programme aided the water conservation practices which benefitted the drought hit villages and met the subsistence requirements. ■

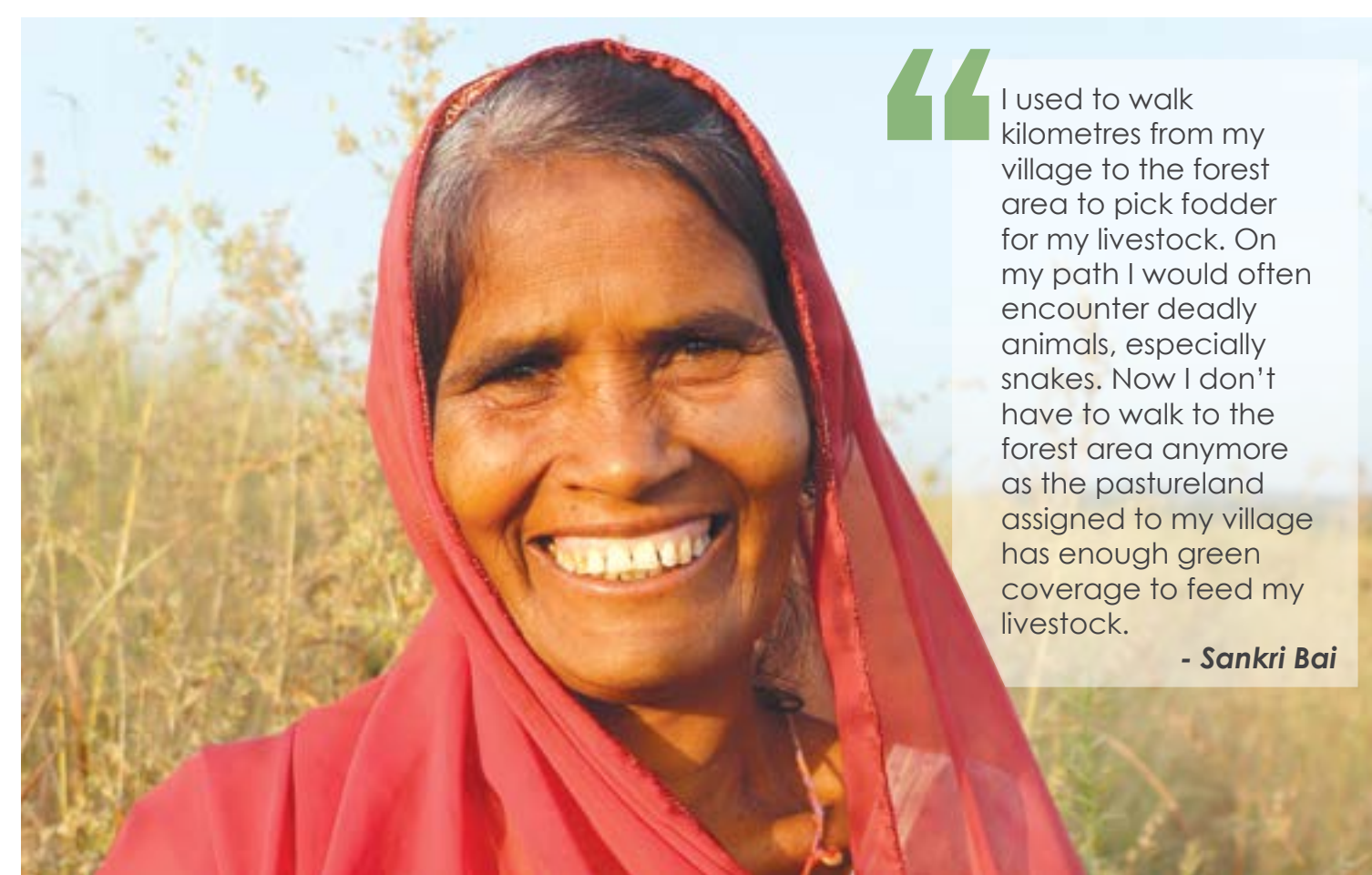
Photo: Chief functionary - Chandra Prakash Choubisa of Apna Sansthan with a farmer.



Gopi Lal Rao
CASA Core Programme Coordinator,
Rajasthan,

Our strategic research on adaptation for villages to become climate resilient started in 2011. When I held meetings with the villagers at that time, I could sense the anguish in their tone. They would lament over their flailing economic conditions due to prolonged dry spells. The villagers would have to buy fodder from outside. Migration, economic crisis, lack of awareness were the hurdles the villages faced at an extreme level. As we came up with the micro plan of the FFCD project, I saw immense support among the villagers. The project has sustained even today because of their persistent contribution to maintain it. Earlier the villagers would assume that the uneven climatic changes occurred according to God's will, but now they have come to terms with reality and have accepted the disastrous effects of climate change. Irrespective of the climate crisis, uneven rainfall patterns do not hamper the water retention capacity of the ground anymore. The villages that fall under the FFCD programme serve as a model for others to follow as the innovative institutional mechanism has enabled communities to respond to climate stresses.

- Gopi Lal Rao



“ I used to walk kilometres from my village to the forest area to pick fodder for my livestock. On my path I would often encounter deadly animals, especially snakes. Now I don't have to walk to the forest area anymore as the pastureland assigned to my village has enough green coverage to feed my livestock.

- Sankri Bai



“ My husband left the village to look for work in urban areas as our farmlands were dried up and could not produce sufficient crops for our sustenance. Migration was a major issue in our village. We didn't even have sufficient water for our consumption, put farming aside. I would have to traverse a long path to fetch water for our daily needs. Now, I do not have to go through that strain anymore as the wells and hand pumps are always recharged. Presently, the men in the village are not leaving their households and the level of migration has decreased.

- Dogri Bai



“ We had already suffered enough due to the infertility of the land in our region. When Apna Sansthan approached our village, we gave our entire support to the organisation as we were in a dire need of advancement of resources. After this programme bore positive results, the women in our village also became empowered as the betterment in the societal needs gave access to assets.

- Tulsi Bai

ARID LAND TO GREEN COVERS

Uday Lal Rawat is a representative of the Kachcher ki Dhani village in 'Charaga Vikas Samiti', the programme committee formed with the help of Apna Sansthan.

"The people of my village now live peacefully without any worries because of the efficiency of this project. Earlier, the pasture assigned to my community was arid. The wells and hand pumps in my village would dry up after the rainy season. As of now we have adequate water for my village throughout the year."

Presently 113 families of Kachcher ki Dhani village are benefitting from the programme. "We have taken the responsibility to maintain this pastureland as it is balancing our village economy. It helps in yielding better quality crops such as corn, pearl millet and wheat grains."

The weather changing patterns has drastically impacted the agricultural sector of Rajasthan. These practices helped in adapting to the climatic conditions. Villages such as Kachcher ki Dhani have set a standard for others to follow in terms of tackling climate crisis.



REJUVENATING WATER BODIES



"My family makes a living by working in the farmlands. I am not a native of this village but shifted here due to a family dispute with my in-laws. My husband somehow managed to buy this land where we currently reside. That very same year this village was struck with drought and we had to bear heavy losses", shared Motri Bai who is a resident of Veripura village in Udaipur, Rajasthan.

Chandra Prakash Choubisa of Apna Sansthan approached Veripura village in order to help the community residents after the dry spells halted the irrigation practices.

"The soil erosion in my farm fields has diminished to a great extent. The well in my farmland is about 70 ft deep, it used to be full only during monsoon season and after a single irrigation use it would dry up and not get recuperated until the next season. Now as a result of pasture land development in my village, the well has enough water for agriculture as well as drinking purpose."

Apart from regular farming, Motri Bai also grows fruit trees and has developed a kitchen garden. "Now, even if I throw seeds on my land, the plants naturally grow", she shared with a confident smile.

Although, the FFCD programme only aimed at pastureland and private land development, it served the welfare of the villagers in various other aspects, acting as a boon the communities. ■

NUKKAD NATAK – AN AVENUE FOR RAISING AWARENESS



Kala Jata group of Mewar, Rajasthan performed various skits on climate adaptation in Kachcher ki Dhani village on 22nd October 2019. Their performance showcased three musical plays in local languages depicting the past and present situations of the climatic conditions



Photo: (above) Gulab Kha Merasi, the founder of Kala Jata group. (below) Kala Jata artists performing a street play 'Nukkad Natak' explaining about the Climate Change situation and its impacts.



We collaborated with the 'Kala Jata' group of artists and actors who regularly perform street plays on social issues.
Chandra Prakash Choubisa

Theatre and India share a long history dating back to about 5000 years. Staging plays is a form of story-telling via artistic means such as acting, dancing and reciting. This mode of entertainment is also used to raise awareness on serious issues such as climate crisis, HIV/AIDS, family planning and female infanticide etc. 'Nukkad natak' i.e. street plays are the best way to connect with the common man as they have the power to share heart wrenching messages on subjects which are not openly talked about.

To strengthen the awareness amongst the communities on climate change and its different aspects; CASA and Apna Sansthan came up with the creative idea of 'nukkad natak'. "Initially we were conflicted on how to generate mass level awareness, we eventually came up with the idea to organise street plays on climate change.

We collaborated with the 'Kala Jata' group of artists and actors who regularly perform street plays on social issues", shared Chandra Prakash Choubisa. Kala Jata is a group of seven people, that goes to different villages across the state to perform musicals. "Nukkad is a passionate performance - loud voices showcasing our thoughts in a satirical yet impactful manner, on some very controversial and taboo related topics, encouraging the society to stand up for what's right and most importantly, raise awareness" discusses Gulab Kha Merasi, the founder of Kala Jata.

The group has performed various plays in their lifetime but discussing on climate change via skits was a new concept for them. They have performed various plays and songs depicting the present climate situation and educated the villagers. Their efforts is an important step towards preserving the nature. ■



The nukkad natak enlightened the villagers, especially the young ones. We enjoyed the enthusiastic performance of the Kala Jata group. These kind of recitals connect us to nature.

- Tulsi Bai





Photo: Dinesh Vyas addressing the community members about Climate Adaptation and its impact.



CASA has been working towards the development of FFCD programme since 2011, with a focus on climate adaptation.

“The desiccated conditions of farmlands in several villages of Udaipur, Rajasthan had adverse effects in yielding good quality crops”, shared CASA Senior Programme Coordinator, Dinesh Vyas who has been working for the organization since 20 years to serve the various needs of the marginalized communities.

“As Rajasthan is an agro based economy, farmlands and pasturelands are an important source of livelihood for several groups of the state. Climate Crisis is a global problem which is the cause of much worry and distress at the moment. CASA has been working towards the development of FFCD programme since 2011, with a focus on climate adaptation. Climate talks had not received much attention when we were implementing this project, but as of now it has yielded positive results towards climate resilience. Various workshops and meetings are held on new agricultural practices and technologies from time to time. We also conduct engaging activities like street plays and musicals which are a good platform to raise awareness.”

Villages are an important part of our economy which are often neglected. “Working with a local partner was very advantageous as they already knew about the basic livelihood patterns of the communities.” In the wake of the climate crisis, CASA is relentlessly working towards the Sustainable Development Goals. ■

Photo: (right) a farmer attending meeting organized by CASA about the Climate Change adaptation.



Arushi Narchal

SUSTAINABLE AGRICULTURAL PRACTICES

CASA, along with local partner Priyathan Samiti have made efforts to explore the different aspects of farming and have drawn inferences that organic farming is the most propitious. The project falls under the umbrella of 'Sustainable Agricultural Practices', covering 2 villages and further aiming to cover 60 remote villages of Rajasthan with the objective to be cognizant of the beneficial effects of chemical-free farming practices.

ORGANIC FARMING

As a consequence of climate crisis, organic farming methods have become a necessity to be inculcated in agricultural fields for the production of better quality crops as well as to maintain soil quality. Liquid manure compost and seed treatment are the aspects which fall under the organic farming project:

LIQUID MANURE COMPOST - This compost is prepared with easily available materials such as cow dung, gram flour, tree leaves, water, urine, jaggery, mud and by products of pulse grains. It is used as an organic fertilizer in farmlands. This traditional fertilizing method has yielded finer results in place of chemical fertilizers.

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Photo: Mohan Dangi explaining the benefits of liquid manure compost.



SEED TREATMENT - The purpose of seed treatment is to augment its capacity to germinate, which will eventually lead to the growth of a quality plant. Under this process, the viability of a seed is first determined by soaking it in water. After this, a cow dung solution is used to enhance the seed performance. This organic method yields better quality crops which are not contaminated by chemicals.

WEATHER MONITORING APPLICATION

The weather changing patterns are the repercussions of the present climate change situation. Irregular rainfall, heat waves, winds speed, excess humidity and various other factors can severely hinder the timely production of crops. AccuWeather is a weather forecasting mobile application, a training of which is given to farmers, especially youth to prepare themselves and take precaution in case of any unforeseen weather events. The training mainly focuses on educating the youth as they are born in the era of media saturation and are more drifted towards technology as compared to the elder ones in the society. This in turn will also secure the agricultural future and promote awareness.

KITCHEN GARDEN

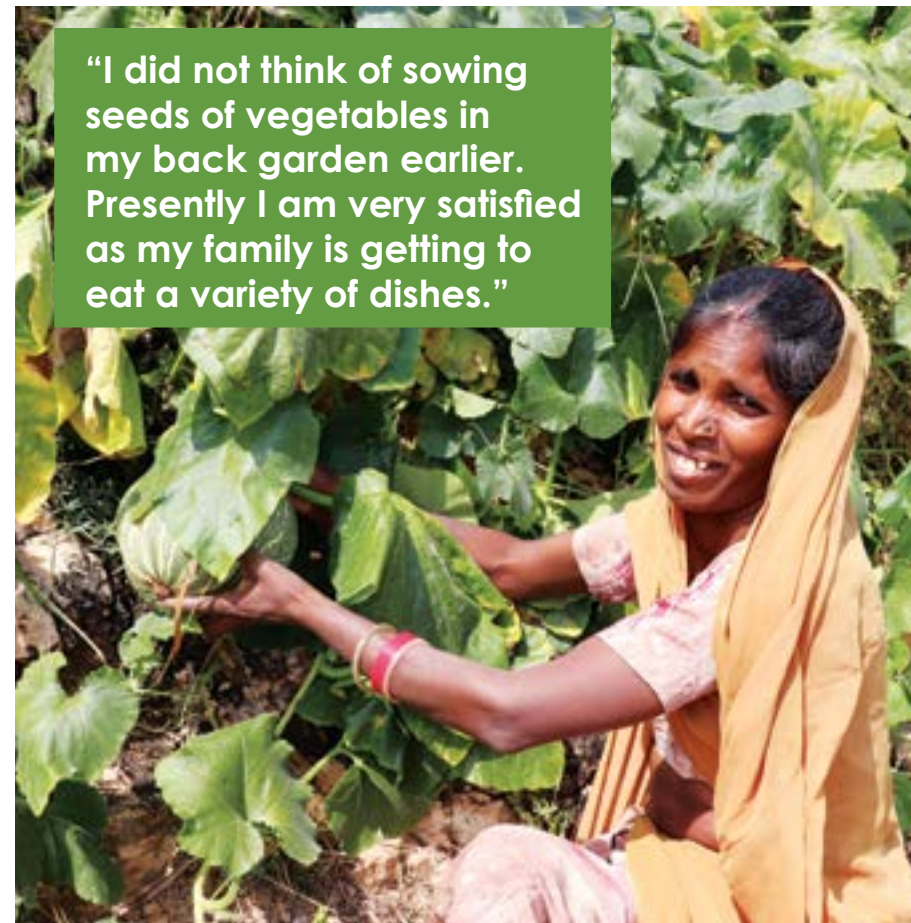
Proper nutrition is imperative for a healthy mind and body. Families that reside in marginalized areas are often subjected to receiving less nutrients in their daily diet. Kitchen garden is a simple concept in which communities are provided with seeds of a variety of vegetables, which they can easily sow in their back gardens and use the final product for their own consumption. This initiative has also succored the economic conditions of communities, as the members do not have to invest in purchasing food from local markets but devour the produce available in their local gardens. ■

Mohan Dangi - Secretary, Priyathan Samiti

"Preservation of environment is the prime objective of our programme with CASA. The agricultural economy is acutely suffering as a result of the present climate crisis conditions. Promoting organic agriculture is an important step towards climate adaptation as it helps in improving soil fertility and structure as well as reduces soil erosion. It also lessens the risks of environmental exposure to toxic materials present in chemical fertilizers. Deviating from the usage of pesticides is a necessity at present.

The training we provide to communities focuses on 'Sustainable Agricultural Practices' in various villages of Rajasthan. We conduct meetings regularly to educate farmers on upcoming farming trends which fall in line with our objective towards climate resilience. Our programmes aim towards self-sufficiency for rural households in the remote villages of the northern state to protect the future of the agricultural economy."

"I did not think of sowing seeds of vegetables in my back garden earlier. Presently I am very satisfied as my family is getting to eat a variety of dishes."



ENHANCING THE SUSTENANCE OF RURAL HOUSEHOLDS

"I do not have to buy vegetables from the local market anymore. The vegetables I grow are very nutritive and easily cultivable. The leftover of the produce also helps me in the preparation of compost which I use in my farmland for crop production", shared Ratni who is a farmer and resides in Rawatpura village of Udaipur, Rajasthan. She is a beneficiary of our Kitchen Garden programme.

The programme has benefitted 30 more families like Ratni in Rawatpura. It has helped in improving the dietary patterns of rural households by providing more nutritious food and proper nourishment altogether.

Photo: CASA Programme Associate of Rajasthan, Shweta Tripathi discussing the benefits of liquid manure compost with Geetu Bai



I have used both chemical as well as organic methods for crop yields in my farmland. At the moment I am only using the liquid manure compost which I prepare myself with naturally available products. The quality of soil in my land has improved after using organic compost. The yield produced is good and has minimized my expenditure on farming.

- **Geetu Bai Rawatpura village, Udaipur - Rajasthan**



A HANDY MODE OF PREPAREDNESS



It is interesting how an application has helped to keep us updated about the weather forecasts everyday. Now with one touch I can easily check the weather for the next 15 days.

-Nilesh Meena, 16 years



One year ago our village was hit by a storm, we had already prepared ourselves 15 days prior because of the AccuWeather mobile application training. The farmers who did not listen to us bore the consequences.

**-Bhawar Das,
Rawatpura village of
Udaipur, Rajasthan**



"I used to rely on ethology and ancient texts to make deductions. I predicted weather on the immediate natural environment conditions which drew accurate results, but I can't implement these practices at present because of the erratic climatic conditions."

Traditional methods of weather prediction were popularly used among farming communities. The colour of the sky, formation of clouds, behaviour of plants and animals as well as direction and strength of the winds, all are historic weather indicators.

"I feel the training has benefitted me and other villagers as climate change has had negative impacts on rainfall patterns which in turn has affected our crop production." As a representative of his village community, Bhawar Das attends regular meetings organised by Priyathan Samiti to keep in pace with the developments taking place in the agricultural sector.

Digitalisation has assisted the farming practices by making it more progressive and efficient. ■

Bhawar Das is a representative of his village community and has received training on how to go about the AccuWeather application, informing the rest of the villagers of high impacting weather events beforehand.

I feel the training has benefitted me and other villagers as climate change has had negative impacts on rainfall patterns which in turn has affected our crop production.

Villages covered
2

Villages planned to be covered
60

Families covered
50

AccuWeather training imparted to
100
youths

INTEGRATED FARMING - AN IMPORTANT APPROACH TOWARDS SUSTAINABLE AGRICULTURAL PRACTICES

CASA partner Grassroot has been working for the welfare of Pnar community in East Jaintia Hills district of Shilong, Meghalaya. The organization is working in 20 villages in the north-eastern state. They started a project for sustainable livelihood for women by introducing a system of integrated farming. Under this project, regular training are held to propagate this organic farming method and its advantages.

The Pnar community halted their agricultural practices and started working in coal mines for their livelihood. "employment in this region was affected after the official discontinuation of coal mining in 2014. As a result the community members had to shift back to their cultivation practices for a better living. Grassroot works with the community to re-establish farming as the primary source of income generation", shared Memorial Khongkai, Programme Associate, Grassroot.

Economic, environmental and social conditions are the main aspects of building a society in order for it to become self-reliable. Integrated farming (mixed farming), is a system with simultaneous activities that involves crop and livestock recycling in which all wastes are used with little residue.

In the entire process, livestock's waste is used for crop cultivation that helps in preparing nutrient rich compost, inversely, farm waste is used as feed for the livestock. Integrated farming emphasizes on organic farming, using local resources by reusing organic waste. Grassroot teach and train the women to minimize the cost and maximize the production.

"Women are more engaging and enterprising as it was observed that 90% of participants in the training are females. We reached out to 20 villages with the help of CASA in order to aid the remote villages of East Jaintia Hills", quoted Mayfereen Rynthanthiang, President, Grassroot.

Apart from integrated farming, Grassroot actively organizes many workshops in order to raise awareness on sustainable development practices, especially for women. ■

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- Mayfereen Rynthanthiang, President, Grassroot



Photo: Women engaged in integrated farming make them self-sufficient.



Teacher's Convention

A Teacher's Convention was organized in Tamil Nadu and Andhra Pradesh in CASA'S Child Labour Free Zone (CLFZ) project area. All the teachers took a vow together to reduce child labour in their respective region and reduce the school drop-out rate.

Local Capacity for Peace (LCP)

A 'non-violent communication workshop' was organized by CASA under the Local Capacities for Peace Programme in Ratanpur, Chhattisgarh from 12th to 14th August, 2019. The workshop helped in lessening the adverse effects caused by conflicts among individuals.



Stakeholder meeting

Dr. Jayant Kumar addressed the two-day Multi-Stakeholder Development Conclave on building a vibrant civil society in Guwahati. He expressed the importance of Civil Society Organizations for social and economic transformation in the North-East region of India.



CASA partnered with UNICEF

CASA partnered with UNICEF to strengthen Disaster Risk Reduction (DRR) of children in susceptible areas of West Bengal. We have targeted to capacitate 400 schools in disaster vulnerable districts of Sundarbans, West Bengal for capacity enhancement of disaster prone communities on various safety measures.



Barpeta, Assam relief

Community members share their stories of loss as CASA conducts a meeting in Barpeta, Assam to address post-disaster recovery needs. Barpeta is the worst hit among 28 districts in Assam. In response, CASA started a community based intervention programme to empower the villagers in 17 villages.



BABUL ECO FILM FESTIVAL

CASA's documentary 'Agro-Tech Hamlet Tipli' was screened at the 3rd Babul Eco Film Festival held in June, 2019. This film festival held in Hyderabad, India is solely dedicated to showcasing environmental films. This documentary depicts how the people of Tipli village in Uttarakhand have adapted to new techniques in order to deal with the climate crisis.



Local Resource Mobilisation

Various fundraising stalls were set-up in Delhi Metro stations, Indian Oil petrol pumps and several malls in Delhi and Bangalore to propagate our projects on social issues.



Local Resource Mobilisation

CASA Director - Dr. Sushant Agrawal alongwith Dr. Jayant Kumar (extreme right), Deepika Sharma (extreme left) and staff of Bread for the World (BfdW) Edda Kirleis, Roswita Kupke, Danuta Sacher and Petra Berner at a Co-operation meet between CASA and DKH (Diakonie katastrophenhilfe) in Berlin, Germany.

CHILDREN'S DAY CELEBRATION

A programme was held to celebrate Children's Day at Chatrai Mandal village of Nuzvidu district in Andhra Pradesh where several games and activities were organised for the Children's Association formed by CASA.





WE BELIEVE IN THE POWER OF STORYTELLING TO BRING CHANGE

First in any charity organisation