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CLIMATE PANCHAYAT







Climate Panchayat

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Uttar Pradesh Climate Change Authority (UPCA) and Directorate of Environment (DOE), Government of Uttar Pradesh

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FOREWORD

In 2021, our team organized a groundbreaking 'Climate Conclave', which brought together experts, policymakers, and civil society members to discuss the pressing issue of climate change and devise an action plan for Uttar Pradesh. During the course of developing a framework for the solution to this global problem, it became apparent that we needed to work at the local level, especially with the Panchayats, to effectively tackle this complex challenge.

Therefore, in 2022, we partnered with the Panchayati Raj Department to organize a 'Conference of Panchayats' aimed at building capacity among local leaders to address the impacts of climate change. Given that climate change is occurring at a slow pace and has significant implications for water availability and agriculture across multiple eco-regions in the state, it is critical that we work in collaboration with the district administration and Panchayats to address this challenge.

Our goal is to ensure that all rural development schemes prioritize and mainstream climate-friendly initiatives, and to that end, the Department of Environment, Forest, and Climate Change is committed to continued collaboration with the Panchayati Raj Department to combat climate change and mobilize resources for adaptation.

As we prepare to face extreme weather conditions, it is imperative that we work closely with disaster management and risk reduction experts and authorities to establish an effective early warning system that can help save lives and protect property.

To make our climate action efforts more localized, we must remain open to dialogue with the global community, which will allow us to stay up-to-date on the latest information and build technical capacity. We also recognize that we must work with bilateral or multilateral organizations to mobilize the necessary financial resources to address this pressing issue.

Our team has undertaken a comprehensive exercise to not only identify various departmental projects that can be customized to address climate change, but to identify budgets as well. We hope to fill the remaining shortfall, if any, either through private enterprises spending under Corporate Social Responsibility or by means of partnering with Panchayats to promote climate adaptation at the local level.

As of now, we are thrilled to share a glimpse of the discussions held during the 'Conference of Panchayat', which are bound to serve as guiding principles for future climate change-related initiatives.

Manoj Singh Additional Chief Secretary, Environment, Forest and Climate Change Department, Uttar Pradesh

PREFACE

The United Nations Framework Convention on Climate Change's Conference of the Parties (COP) provides global direction for reducing the impact of climate change.

However, these measures are mostly theoretical and need to be implemented at the grassroots level. For Uttar Pradesh, a state with a population of 240 million, the challenge is to help the 77% rural population whose livelihoods depend on agriculture and other nature-based economies, and are directly impacted by climate change. Under such circumstances, collaborating with village panchayats is crucial to managing climate change adaptation efforts at the grassroots level.

However, the challenge is to work with over 58,000-gram panchayats in Uttar Pradesh. But on World Environment Day 2022, the Uttar Pradesh government rose to this challenge by connecting all 58,000 panchayats in a conference for climate action at the grassroots level.

The conference, aptly named, the Conference of Panchayats, aimed to create awareness among gram panchayats to enable them to formulate and implement an effective adaptation plan independently. Discussions focused on the modalities for the implementation of climate action through the Gram Panchayat Development Scheme and the mobilization of resources.

This book is a compilation of glimpses of discussions about such activities of the state government at the Conference of Panchayats.

We hope this book will provide a basic insight into climate-resilient rural development in Uttar Pradesh and inspire other state governments to follow suit.

Ashish Tiwari Secretary, Environment, Forest and Climate Change Department, Uttar Pradesh

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Combating Climate Change at panchayat-level

YOGI ADITYANATH

CHIEF MINISTER, UTTAR PRADESH

A healthy environment is crucial for a happy life and sustainable development. Therefore, the role of panchayats in combating climate change is vital. The gram panchayat, the fundamental unit of our democratic system, can resolve many issues when strengthened. However, when higher administrative levels make plans without involving panchayats, it hinders the effectiveness of these schemes.

Uttar Pradesh has the highest number of gram panchayats in India. The state is home to 58,189 panchayats and 70% of its population lives in rural areas. Consequently, panchayats play a significant role in environmental protection. Acknowledging this, the state government has taken several steps in this direction over the past five years.

The state government believes that every plant is rich in medicinal properties. However, the modern human race, which goes after material possessions, is playing with its own existence by not acknowledging the gifts of nature.

Further, human-induced climate change has led to untimely and excessive rainfall and drought, which not only adversely impact the crop cycle but also lead to several health problems.

Farmers, especially small farmers, are the most affected by climate change. Therefore, the government is promoting zero budget, zero chemical, zero fertilizer, and zero pesticide farming to encourage natural and cow-based farming.

Along with introducing natural farming in Bundelkhand, the government is giving subsidies to promote natural farming. Testing labs too have been set up in every division to determine the quality.

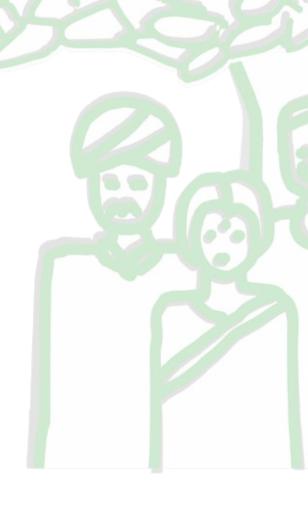
THE UTTAR PRADESH **GOVERNMENT IS** PROMOTING ZERO BUDGET, ZERO CHEMICAL, ZERO FERTILIZER, AND ZERO **PESTICIDE FARMING TO ENCOURAGE NATURAL AND** COW-BASED FARMING.

The Panchayati raj department had ordered to dig a pit away from the populated area in the gram panchayat and put all the wet waste coming out of the village in the pit. The compost prepared after a year can be used in the village's own field and the remaining can be packaged and sold in the market. Similarly, it was suggested that every village should have a nursery of local and traditional trees and plants.

In fact, the Uttar Pradesh government has planted 100 crore trees in the last five years, and now the priority of the government is to save those trees. The state government has also stepped up the 'Heritage Tree' campaign to save local and traditional trees, which needs to be further accelerated.

That said, there is a need to connect all the gram panchayats of the country to realize Mahatma Gandhi's vision of Gram Swaraj. The Government of Uttar Pradesh is committed to this goal.

I firmly believe that if local climate action is linked with the idea of Gram Swaraj under the mission statement of "My Village, My Heritage", we can surely succeed in controlling a lot of man-made causes of climate change. As a result, several natural side effects can also be gradually reduced.



Save nature to put an end to destruction of earth

GIRIRAJ SINGH

MINISTER, PANCHAYATI RAJ, GOVERNMENT OF INDIA

It goes without saying that the participation of everyone is required to tackle climate change. So, the question arises, why was there a need to talk about it today? It was necessary because human beings have exploited and captured nature. Just as every person has a budget and their own bank account, there is a budget for this earth, nature, and climate. If we continue to exploit natural resources in this way, we will not be able to meet our development targets in the future.

India's energy generation capacity in 2022 is 4,00,000 MW, of which 2,36,000 MW is being generated from thermal power, which contributes significantly to carbon emissions and subsequent global warming. The average high temperature in March 2022 was 33.1 degrees, breaking the record for the hottest month in 122 years.

Further, if sea levels continue to rise due to global warming, many islands will be submerged in due course. The situation in other coastal states, including West Bengal, will become very frightening. It will also impact agriculture. Floods and droughts are taking place everywhere in the world. With the increase in the average temperature, the world economy is also facing the possibility of a negative impact. It is no secret that developed nations have caused the maximum damage to the environment. However, small countries are paying the highest price for it.

To do our bit, among other things, we have set a target of taking non-fossil fuel energy generation to 500 gigawatts by 2030. This is not just a goal, the government is also giving production-linked incentives for manufacturing the equipment. It may be noted that the government wants India to use 65 percent renewable energy by 2030. In the context of renewable energy, our villages are doing wonders.

Almost 70 percent of the country's population lives in villages and we come across some extremely encouraging stories from there. The pradhan of Odanthurai, a panchayat in the Coimbatore district of Tamil Nadu, took a loan from the Central Bank of India (CBI) to install renewable energy in the entire village.

Today, the entire panchayat has become a sustainable energy panchayat. The central government has also honored the Odanthurai panchayat. Besides, the government also felicitated the bank manager who gave loans for renewable energy.

Natural and organic farming has a positive impact on the ecological system. For this, the Government of India has not only taken the Panchamrit Pledge but is also working closely with the International Solar Alliance and has signed several MoUs on the resistant basic blueprint.

India is committed to achieving the United Nations' goal of sustainable development. To make it a reality, an action plan was formulated, which also included poverty-free advanced livelihood villages, healthy villages, villages with adequate water, and those who will become part of the ecological system.

There are about 2.5 lakh panchayats in the country. The Government of India honors panchayats every year. There are many factors that decide which Panchayat emerges at the top, but from now on, the first prize will go to the panchayat that keeps its carbon footprint the lowest.

Carbon emissions are increasing due to various economic activities. Per person, about 400 kg of carbon dioxide is emitted every year. We have a sahajan tree, which provides health and nutritional benefits besides absorbing carbon. A plant of Sahajan absorbs 80 kg of carbon per year. It has been directed to plant this tree in MGNREGA, as well as Anganwadi centers, which will also free children from malnutrition and prevent carbon emissions.

Panchayati raj, the environment ministry, and rural development ministries are working jointly to prevent climate change, which will provide a good environment, food, medicine, as well as economic benefits to rural India.

HUMAN BEINGS HAVE EXPLOITED AND CAPTURED NATURE. JUST AS EVERY PERSON HAS A BUDGET AND THEIR OWN BANK ACCOUNT, THERE IS A BUDGET FOR THIS EARTH, NATURE, AND **CLIMATE. IF WE CONTINUE** TO EXPLOIT NATURAL RESOURCES IN THIS WAY, WE WILL NOT BE ABLE TO MEET OUR DEVELOPMENT TARGETS IN THE FUTURE.

Protecting environment, protecting ourselves

DURGA SHANKAR MISHRA

CHIEF SECRETARY, GOVERNMENT OF UTTAR PRADESH

We all know that our lives depend on the environment. Farming yields and everything else rely on the environment. If we think that harming the environment does not affect us, then we are mistaken. Have you ever noticed the wheat ears fluttering? How have the size of the wheat and its grains become smaller? Our farmer brothers know this better than anyone. Therefore, we need to build their capacities and nurture them as a knowledge pool in order to protect the environment, not just for others, but for ourselves, our children, and future generations. We need to learn how to save the environment.

To avoid environmental degradation, we should produce as little waste as possible and convert the waste we do produce into compost. The Swachh Bharat Mission program is being implemented in every village, and people are no longer defecating in the open. Under the program, polluted water will no longer be wasted.

Water conservation is essential. There are many ponds in the village, and we should strive to create Amrit Sarovars in our village. If two or three such Amrit Sarovars are built in every panchayat, then 1,00,000 Amrit Sarovars will be built in our state. This will not only conserve water but also provide water to birds, plants, animals, and all of us.

The population of Uttar Pradesh is 25 crores. If each person plants just one sapling, there will be 25 crore trees. If they plant two saplings, there will be 50 crore trees, and if they plant four trees, there could be 100 crore trees in just one year. Suppose you do not have land; in that case, you can at least plant a basil plant in a small pot or you can plant just any other sapling or plant. By doing so, every human being is contributing to preserving nature.

We plant saplings because they grow up to become trees that are necessary for us and nature. Trees provide water, clean the air, and beautify our surroundings. Trees can save us, our families, and future generations.

THE POPULATION OF UTTAR PRADESH IS 25 CRORES.
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BE 100 CRORE TREES IN
JUST ONE YEAR.

Resource mobilisation needs to be creative

MANOJ SINGH

ADDITIONAL CHIEF SECRETARY, ENVIRONMENT, FOREST AND CLIMATE CHANGE DEPARTMENT, UTTAR PRADESH

If we look at the recent realities in our state, there was scorching heat around February and March last year. This heat wave adversely affected the production of grains resulting in a tremendous decline in the productivity and income of our farmers. The eastern part of the state witnessed devastating floods, which also caused damage to crops there. Our main objective is to ensure regular income for small farmers.

One way to save them is to shift a certain number of farmers from agriculture to another means of livelihood by imparting them new skills.

We are also encouraging farmers to adopt agroforestry on farm fences so that they can double their income. We are also linking agroforestry to carbon credits for organic sequestration of carbon, which will triple their income.

But the resources at large must come from our own departments through the finance department. We have found ways and means to mark green components in the budgets of various departments. We have carried out a comprehensive exercise, in which we have listed each plan and analyzed the components of climate change inherent in those plans. If we look at our resource needs for the next five years to manage climate change, we have about 80 percent of the funds available.

The rest needs to come from other sources such as the central government or international finance for climate change.

Here also we have shown creativity. We want a larger panchayatprivate partnership to adapt to climate change, private entrepreneurs working in the state to fulfill their corporate social responsibility or spend money for otherwise.

We want this expenditure to be done through consultation with the panchayat so that the project can be linked in a way that helps the local population deal with the effects of climate change. If this partnership becomes successful, then some works can be further extended with the joint expenditure of the panchayat and private entrepreneur.

WE HAVE DONE AN EXTENSIVE EXERCISE, IN WHICH WE HAVE LISTED **EACH PLAN AND ANALYZED** THE COMPONENTS OF **CLIMATE CHANGE INHERENT** IN THOSE PLANS, IF WE LOOK AT OUR RESOURCE **NEEDS FOR THE NEXT FIVE** YEARS TO MANAGE CLIMATE CHANGE, WE HAVE ABOUT 80 PERCENT OF THE FUNDS AVAILABLE.

Scheme implementation should be at ground level

ASHISH TIWARI

SECRETARY, DEPARTMENT OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, UTTAR PRADESH

The state government has developed an action plan for climate change with a vision of creating an implementable plan at the ground level. Developing a coherent and easily implementable action plan for climate change is a challenging task as the subject has diverse dimensions and requires the cooperation of various departments.

Therefore, after extensive consultations with various departments, the entire strategy was presented to senior officers, and a constructive plan incorporating everyone's views was prepared, which is easy to implement.

Government departments are often accused of not working in close coordination with other departments. But the case is not so in Uttar Pradesh. The cooperation and alliance of various departments and institutions have been made possible due to the visionary leadership of the Chief Minister and the careful observation of every nuance of the Climate Action Plan by the Chief Secretary.

Apart from the cooperation between departments, the focus has been on implementing the climate action plan at the local level as well. The ill effects of climate change have been visible in various ways at the district and village levels, which is why an action plan for climate change that is implementable at the district level has been developed.

Today, all multilateral and bilateral institutions are ready to work closely with the state government because of its vision of interdepartmental cooperation and localization of the Climate Action Plan. The state government has also received important technical support from the German Development Cooperation through their 'Climate Adoption and Finance for Rural India' project, of which Uttar Pradesh is a partner.

THE FOCUS HAS BEEN
ON IMPLEMENTING THE
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OUR ACTION PLAN
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DISTRICT LEVEL.

Indo-German cooperation on climate change is worth emulation

JULIE REVIERE

COUNTRY DIRECTOR, GIZ INDIA

From 2020 to 2022, the world witnessed an unprecedented crisis in the form of the COVID-19 pandemic and the crisis continues. Tackling this challenge required collective activities at the international, national, sub-national, community, and individual levels. One such global crisis is climate change, which poses a far greater threat to communities. Climate change is now a threat to the achievement of Sustainable Development Goals.

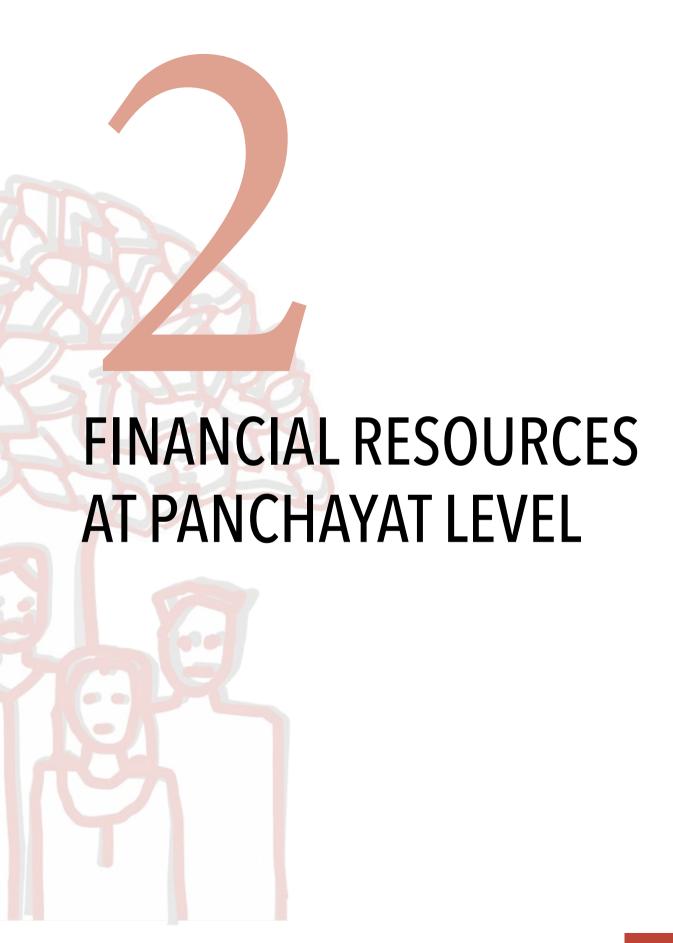
Addressing climate change requires collective action at the international, national, sub-national, community, and individual levels. The Paris Agreement signed in 2015 is a mirror of the resolutions taken by countries around the world in this direction. It aims to strengthen global responses to climate change. For this, sustainable and minimum carbon-based development has to be promoted.

All countries have set limits on their carbon emissions in the form of their contributions - Nationally Determined Contributions (NDCs) at the national and international level. This basically aims to minimize the impact of a changing climate and reduce the emission of greenhouse gases.

Germany and India have shared their priorities on climate change and sustainable development issues. The Indo-German Green and Sustainable Development Partnership (GSDP) agreement was signed as part of the sixth international consultation held in Berlin in May 2022, reflecting the excellent cooperation between the two countries.

Policies to combat climate change may be made at the international and national levels, but they must be implemented at the grassroots level. State strategies are crucial in implementing and responding to such agreements and policies.

In this context, the Uttar Pradesh State Climate Strategy has been amended which is a welcome step.



The tree you plant belongs to you, not the government

MAMTA SANJEEV DUBEY

PRINCIPAL CHIEF CONSERVATOR OF FORESTS, UTTAR PRADESH

Planting trees is a great way to contribute to the environment and the economy. Many people believe that the trees they plant automatically become the property of the forest department, but that is a misconception. In fact, you have complete ownership of the trees you plant. So, do not hesitate to plant as many trees as you can on your own land, including agricultural land.

Setting up a nursery in your village or gram panchayat can have economic and environmental benefits for everyone. You have the right to do so under the Panchayati Raj Act, and your panchayat may have financial resources under MGNREGA. Consider planting fruitbearing trees like indigenous mango, jackfruit, tamarind, amla, vine, bamboo, and drumstick on community land. Drumstick, in particular, can help combat malnutrition.

A great initiative to follow is the Amrit Van program, which involves planting 75 fruit trees in each village, with five trees of banyan, peepal, and pakud. These trees can be planted on the banks of Amrit Sarovar, in your fields, or on community land. By planting trees, you can help make a positive impact on the environment and provide numerous benefits to your community. Remember, the trees you plant are yours, and you can be proud of your contribution to a greener planet.

SETTING UP A NURSERY IN YOUR VILLAGE OR **GRAM PANCHAYAT CAN** HAVE ECONOMIC AND **ENVIRONMENTAL BENEFITS** FOR EVERYONE.

Use of solar energy and afforestation can check carbon emission

ALOK PREM NAGAR

JOINT SECRETARY, MINISTRY OF PANCHAYATI RAJ, **GOVERNMENT OF INDIA**

Utilizing renewable energy sources like solar power can make a huge difference in reducing our carbon footprint. We do not need a large piece of land to install a solar power plant - even small plots of land or rooftops can be utilized effectively.

Tree planting is another effective way to impact our carbon footprint at the community level. Planting trees not only increase the number of trees but also contributes to the scaling up of natural resources. We should plant trees on the banks of lakes in gram panchayats to reduce our carbon debt.

Cattle dung is another resource that we can utilize for reducing our carbon footprint. Instead of letting it spread all over the village, we should rather collect it in one place for better use. It can be used for producing biogas, which can then be used to generate a small amount of electricity for domestic use. This would help us to effectively manage our resources and reduce our carbon footprint.

TREE PLANTING IS ANOTHER **EFFECTIVE WAY TO IMPACT OUR CARBON FOOTPRINT** AT THE COMMUNITY LEVEL. PLANTING TREES NOT ONLY INCREASE THE NUMBER OF TREES BUT ALSO CONTRIBUTES TO THE SCALING UP OF NATURAL RESOURCES.

Better resource utilization needed

PROF. ANIL KUMAR GUPTA

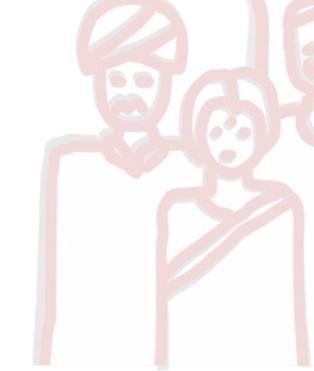
NATIONAL INSTITUTE OF DISASTER MANAGEMENT, **NEW DELHI**

We are discussing climate change adaptation at the gram panchayat level. We need to adjust ourselves to the changes brought about by climate change so that we can continue to thrive.

We are all witnessing firsthand the effects of climate change: droughts, floods, heatstroke, and other natural disasters. Unfortunately, we often do not receive advance warnings of these events, which leads to immediate destruction and loss.

Additionally, it is important to assess the resources available to us, whether through MGNREGA, disaster management, or funds provided for environmental conservation. We need to use these funds effectively to address climate change and disaster risk at the panchayat level.

WE ARE ALL WITNESSING FIRSTHAND THE EFFECTS **OF CLIMATE CHANGE:** DROUGHTS, FLOODS, HEATSTROKE, AND OTHER NATURAL DISASTERS. UNFORTUNATELY, WE OFTEN DO NOT RECEIVE ADVANCE **WARNINGS OF THESE EVENTS, WHICH LEADS TO IMMEDIATE DESTRUCTION** AND LOSS.



No dearth of funds to deal with disaster risks

RANVEER PRASAD

RELIEF COMMISSIONER, UTTAR PRADESH

The State Disaster Relief Fund (SDRF) is the primary source of funds for disaster risk reduction and tackling climate change. The department has significant financial resources at its disposal, which all departments can make good use of by preparing effective action plans.

The relief commissioner's office has issued instructions to all departments and panchayats in this regard.

To effectively tackle climate change, we need to identify the areas that are prone to heavy rains, droughts, heat strokes, and other natural calamities. Getting prior information about such threats will enable us to prepare strategies to deal with them proactively.

Reducing the risk of disasters is of utmost importance. We will work in collaboration with the environment department to prepare a joint action plan to effectively address disaster risks and climate change in the future.

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Panchayat has adequate funds to tackle the crisis

ANUJ KUMAR JHA

DIRECTOR, PANCHAYATI RAJ, GOVERNMENT OF **UTTAR PRADESH**

The forest and environment department plays a critical role in addressing climate change both in the present and the future. However, it is important to note that these efforts are particularly necessary for rural areas and panchayats.

Firstly, tree plantation and other similar initiatives are primarily carried out in rural areas. Moreover, 70% of Uttar Pradesh's population resides in rural areas where the need for afforestation and other climate change mitigation efforts are paramount.

Climate change disproportionately impacts farming, food production, public health, and drinking water sources, particularly in rural areas. Therefore, the role of panchayats becomes even more crucial.

The Panchayati raj department and village heads have significant responsibilities in reducing the adverse impacts of climate change and finding solutions.

Although there are abundant funds available from the central or state government under the 15th Finance Commission to address issues like rainwater harvesting, solid and liquid waste management, and other environmental concerns, international agencies can still fund these programs to supplement government efforts.

70% OF UTTAR PRADESH'S **POPULATION RESIDES IN RURAL AREAS WHERE THE NEED FOR AFFORESTATION** AND OTHER CLIMATE **CHANGE MITIGATION EFFORTS ARE PARAMOUNT.**

Immense benefits from biodiversity conservation

B PRABHAKAR

MEMBER SECRETARY, UP BIODIVERSITY BOARD



In Uttar Pradesh, committees have been established to empower panchayats and conserve local biodiversity. The main objective is to entrust the responsibility of protecting animals in the local areas to the Biodiversity Conservation Committees.

The Biodiversity Conservation Commission was formed in 2017, with many committees affiliated with it, mainly for biodiversity management, planning, and development. At the national level, the central government has established a Biodiversity Research Center under the Biodiversity Authority to handle environmental matters such as biodiversity, forests, animals, agriculture, and horticulture.

All biodiversity resources available in the panchayat will be included in the biodiversity research, with a record of all species existing in the panchayat. If any agency uses your biodiversity for commercial purposes, they will be required to share a portion of the profit with you.

Planning will now be done at the district level, with all district plans being integrated to prepare the state-level action plan in which your participation is crucial.

IF ANY AGENCY USES
YOUR BIODIVERSITY FOR
COMMERCIAL PURPOSES,
THEY WILL BE REQUIRED TO
SHARE A PORTION OF THE
PROFIT WITH YOU.

Pesticides have contaminated groundwater too

GOPAL UPADHYAY

SOCIAL WORKER, LUCKNOW

The modern method of farming has become heavily reliant on chemicals, causing numerous adverse effects on our environment. One major issue is the depletion of groundwater levels, as chemical farming requires a large amount of water. When DAP and Urea are used in fields, they settle in the soil, hindering the process of water recharging. Furthermore, the use of chemicals kills earthworms, which are essential for recharging water. As a result, the groundwater level has been decreasing continuously over the past 50 years due to chemical farming. Another significant issue with chemical farming is the destruction

of biodiversity, causing many species to become extinct. Chemical insecticides not only kill insects but also harm many other species. This has created a biodiversity crisis, affected human and soil health, and polluted the air and water. We are all experiencing the consequences.

However, farmers do not need to rely on chemical fertilizers and pesticides. Instead, they can rear cows and collect cow dung and urine. Using these, they can make indigenous organic seed germination enhancers like beej amrit and jeevamrit, which can be used in the fields. We often overlook many types of vegetation that we consider useless and treat as mere grass, but they can be used to make manure. This method is entirely free of harmful chemicals and should be adopted to mitigate the impact of chemical farming on the environment.

ONE MAJOR ISSUE IS THE DEPLETION OF **GROUNDWATER LEVELS.** AS CHEMICAL FARMING **REOUIRES A LARGE AMOUNT** OF WATER, WHEN DAP AND UREA ARE USED IN FIELDS, THEY SETTLE IN THE SOIL, **HINDERING THE PROCESS** OF WATER RECHARGING.

Coordination between governance, development and panchayat is a must

SHIRAZ WAJIH

GORAKHPUR ENVIRONMENTAL ACTION GROUP, UTTAR PRADESH

The effects of climate change have impacted the entire state of Uttar Pradesh, with 22 districts being particularly vulnerable. The Bundelkhand region, Vindhya region, and Terai plain, which fall under three of the nine agro-climatic zones of Uttar Pradesh, are experiencing floods or drought. In short, we are all suffering from some form of disaster or problem due to climate change.

Therefore, it is crucial that we focus on how we can align the development plans of gram panchayats to reduce or address the effects of climate change.

Climate change can lead to floods, droughts, and other challenges, impacting our infrastructure and buildings. However, if we develop strategies that can effectively tackle climate change and disasters, we can achieve a balance between governance, development, and the gram panchayat. The gram panchayat is the most important unit in this regard.

We must develop a plan that safeguards us against climate change and disasters. Our gram panchayat disaster plan has five components, which can be effectively used to tackle climate change and disaster. Preparing a plan for every gram panchayat will ensure that we use our resources efficiently to tackle these issues.

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We must adopt a sustainable lifestyle

RUCHIKA DRAL

DEPUTY SECRETARY, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, GOVERNMENT OF INDIA

AS INDIANS, IT IS ESSENTIAL FOR US TO PRESERVE OUR TRADITIONAL WAYS OF LIFE AND COMMUNICATE THEM TO THE WORLD.

Climate change is an undeniable reality that we experience in our daily lives. The weather patterns have become increasingly unpredictable throughout the year. As Indians, it is essential for us to preserve our traditional ways of life and communicate them to the world. We need to let go of the expensive and inconvenient lifestyle and opt for sustainable and eco-friendly living practices.

To facilitate this transition, we have a scheme named UJALA, which provides domestic consumers with LED bulbs, LED tube lights, and energy-efficient fans that reduce energy consumption compared to traditional equipment. The Street Lighting National Programme scheme has converted around 1.27 crore streetlights to LED, saving 8500 million units of electricity annually.

Our forest cover schemes also play a significant role in mitigating the impact of climate change. It is crucial for every unit, big or small, to contribute to this campaign and continue working with dedication and responsibility in their respective fields to ensure a sustainable future.

In 2007, the idea of a tree plantation program with public participation came to my mind, and we launched it near Lucknow. The plan was to undertake the work without any government resources or assistance, and we focused on saving peepal and banyan trees. Initially, I was worried about whether trees like desi mango, mahua, and khirni could ever be saved. However, today I am thrilled to see that native mango and mahua trees are growing strong and sycamore trees are full of fruits. I am proud that all of the plants in the program have been successfully saved, and it brings me immense joy to see the impact of our efforts. Planting trees is a noble cause, and it is heartening to see how public participation can make a significant difference in creating a better and greener environment for everyone.

- Mahendra Pratap Singh (Retired Indian Forest Service officer)

Crops insurance will be helpful for farmers

CORINNE DEMENGE

SWISS AGENCY FOR DEVELOPMENT

I BELIEVE THAT INVOLVING **VARIOUS STAKEHOLDERS** AND COUNTRIES IS **ESSENTIAL TO CREATE A** SUSTAINABLE AND ROBUST **INSURANCE SYSTEM.**

Switzerland and India have been partners in various fields of technology, agro-technology, and insurance for more than six decades. However, the increasing threat of crop failure due to climate change has made it essential to prioritize crop insurance. I am pleased to see that India has taken significant steps towards this goal by implementing the Pradhan Mantri Fasal Bima Yojana.

The Swiss government has been working closely with India through the RITES project, and I have learned two crucial lessons from this collaboration. Firstly, the involvement of trained young men and women who know how to stake claims for relief under insurance has been instrumental in convincing farmers to participate in the scheme. Secondly, remote sensing technology has proven to be useful in assessing losses, especially during the recent Covid-affected period.

By sending satellite images and conducting interviews with affected farmers, insurance companies were able to assess losses and provide payments to affected farmers. This innovative technology has made the assessment process more affordable and instilled more confidence in the insurance sector.

I believe that involving various stakeholders and countries is essential to create a sustainable and robust insurance system. Switzerland is committed to working with India and sharing its experiences and expertise to achieve this goal. Together, we can create a greener and more prosperous future for all.



Improve the environment to save your community

BRIJESH PATHAK

DEPUTY CHIEF MINISTER, UTTAR PRADESH

IT IS IMPORTANT THAT WE FIRST IMPROVE **OUR ENVIRONMENT BY** PLANTING TREES, AVOIDING LITTERING, AND REDUCING THE USE OF THINGS THAT ARE HARMFUL TO THE **ENVIRONMENT. THIS WAY,** WE CAN SAVE OUR STATE AND OUR SOCIETY.

The Uttar Pradesh government recently organized the Conference of Panchayats (UPCOP2022), modeled after the United Nations' annual climate change conference - Conference of Parties. This event involved the 58,189 gram panchayats in Uttar Pradesh directly.

Humans have interfered with the environment to shape progress in their own way. Despite high temperatures of 48, 45, or 40 degrees Celsius outside, we have resorted to air-conditioning to make the climate comfortable for us. However, this has led to dangerous environmental conditions. Similarly, ongoing construction activities threaten the environment at an alarming pace.

Thousands of new cars enter our society each day, and Carbon dioxide levels continue to rise. We are now facing new diseases. It is important that we first improve our environment by planting trees, avoiding littering, and reducing the use of things that are harmful to the environment. This way, we can save our state and our society.

If we do it in Uttar Pradesh, we can do it in one-fifth of India. A program that is successful in one-fifth of India will be deemed successful across the country.

Work with farmers for Climate Smart Village

SHUBHENDU DAS

PROGRAM MANAGER, ITC LIMITED

One area that requires attention is the conservation of biodiversity. Biodiversity encompasses all trees and plants in a village, making every village carbon-positive, ensuring access to water for drinking and agriculture, proper drainage for water, and keeping every village free from garbage. These steps are essential to creating biodiversity in the village.

We also need to contribute towards increasing the income of farmers and making the village smarter. This means ensuring that farmers receive some benefits as if their income does not increase, they may not work. Therefore, we have taken care to ensure that farmers also receive some benefits.

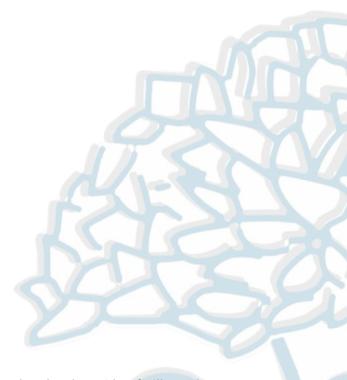
To this end, we initiated an agreement with the urban development department on solid waste management in Gorakhpur, Saharanpur, and Gonda. Under this agreement, we are working in 40 city corporations. We also work in the panchayat to manage garbage there. Garbage is collected in one place and then processed.

Another important task is the conservation of water. Natural sources of water and drainage systems are getting closed. We are trying to save them. Ponds in Saharanpur and Gorakhpur are being renovated and revived. We are working closely with farmers to create climate-smart villages.

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Biodiversity in waterbodies should be promoted

RAMVEER TANWAR POND MAN OF INDIA



THE LOCAL **ADMINISTRATION MUST** TAKE RESPONSIBILITY **FOR REMOVING ENCROACHMENTS FROM PONDS AND PRIORITIZE WORDS RELATED TO ENVIRONMENTAL** PROTECTION.

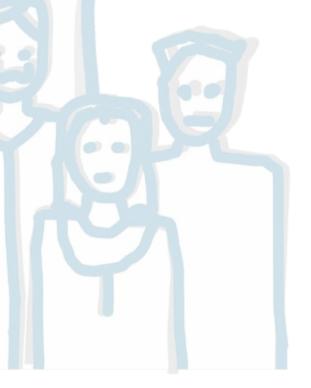
The ponds that once used to be the pride of villages have now turned into garbage dumps. Cows and buffaloes no longer bathe in these ponds and instead get trapped and die. However, our work to conserve these ponds began during our student days, and we have since renovated and revived many ponds in eight states. We are continuing this work and believe that good work can be done for ponds and the environment under the Public-Private Model (PPP). Currently, our work is ongoing in Hardoi.

Unfortunately, either garbage fills the ponds, or people have encroached upon them to construct houses. The local administration must take responsibility for removing encroachments from ponds and prioritize words related to environmental protection.

In Ghazipur, Delhi, where a vast pond once existed about forty years ago, there is now a mountain of garbage. However, the government has recently realized the importance of water conservation, and work has begun to convert the park built on the pond into a pond once again. This is essential to promote biodiversity in ponds and attract migratory birds. We have also initiated a process to plant 10,000 trees in the Ghaziabad district with the active cooperation of the municipal corporation and CSR.

"We don't just share ideas and knowledge. We work with the private sector and try to find more and more practical solutions. In the context of unity and mutual cooperation, we need to utilize their expertise and sense of social responsibility. Along with that steps will have to be taken for devising procedures related to good governance, and good insurance policies besides risk management."

- Jochen Ramcke (Project Leader, GIZ India)



Need to focus on technical capacity building

SHANTANU BASU

PROJECT MANAGER, HCL FOUNDATION

TREES NOT ONLY PROVIDE **OXYGEN, BUT ALSO SHADE.** FRUIT, AND FLOWERS. SIMILARLY, PONDS ARE NOT **ONLY SOURCES OF WATER BUT ALSO SYMBOLS OF AN ECO-FRIENDLY LIFESTYLE.**

During the 1992 conference in Rio de Janeiro, the conservation of biodiversity was identified as a significant issue, and India signed the declaration. Today, HCL Foundation's environmental projects prioritize the improvement of biodiversity. This includes tree plantation, pond revival, and other related initiatives. Trees not only provide oxygen, but also shade, fruit, and flowers. Similarly, ponds are not only sources of water but also symbols of an eco-friendly lifestyle. HCL Foundation is working with 284gram panchayats in Uttar Pradesh to promote organic farming, sanitation, and livelihood. Their aim is to combine these efforts for maximum impact. Over 60 ecosystem facilities are being developed to further these eco-friendly projects. HCL Foundation is committed to staying up-to-date with modern technologies and providing effective training and capacity building in the field of environment.

One day our panchayats will become carbon neutral

ANIRBAN GHOSH

CHIEF SUSTAINABILITY OFFICER, MAHINDRA GROUP

I am confident that one day our panchayats will become carbonneutral. While it's a challenging task to make factories carbon-neutral, we know that the majority of pollution comes from them. Mahindra Group has already initiated work towards making their factories carbon neutral. Through my experience working on this project, I am confident that our villages can also become carbon-neutral.

Under the Integrated Watershed Programme, we have launched 68 villages, and we have turned villages towards becoming carbon neutral. This five-year integrated watershed management program has shown promising results, and when all villages and panchayats become carbon neutral, it will bring tremendous benefits to everyone.

The Mahindra Group has also contributed towards environmental conservation by planting nearly two crore trees in the last fifteen years. Nearly 90% of these trees remain intact, and the credit goes to the tribal families on whose land they have been planted. We have also started a new program that aims to provide livelihoods to at least 10 lakh women every year. I believe this program can be emulated in villages across the state and the entire country.

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"We have taken the initiative to adopt three villages in Gorakhpur and have successfully developed one of them. We have ensured the provision of basic facilities such as roads, drains, and toilets. However, to ensure the long-term benefits of these programs, it is important to establish a committee at the gram panchayat level and encourage active participation from the villagers. The village community should also contribute financially, even if it is only 5%, as our experience shows that without financial involvement, society may not understand the significance of the project."

- Mayank Agarwal (CEO, Veer Ispat, Gorakhpur)

Give nature back what you get from it

A. V. SINGH

CHIEF SUSTAINABILITY OFFICER, LALITPUR POWER GENERATION

The 2,000 MW power plant in Lalitpur consumes 1.25 lakh cubic meters of water daily, but it is not sourced from any river or dam. We collaborated with the irrigation department to operate the plant with water that is surplus after irrigation requirements. The Government of India has awarded us the first prize twice for our achievement, making us the only water-positive plant in the country. Our approach to nature is to give back what we take from it. A village advisory committee has been established to aid us in adopting five villages and transforming them into modernized ones. Educational facilities for their children, water taps, toilets, and biogas plants have all been provided to them.

In Lalitpur, we have planted around 4.5 lakh saplings in five years to combat the drought-prone area. We have dug many wells and boreholes, constructed many check dams, and stored water, resulting in a 50-foot increase in the water level. Our rural brothers now get three crops, and we have planted fruit trees in the middle of agricultural fields, ensuring good income.

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Adopting water harvesting methods is a must

SUNIL KUMAR

PLANT HEAD, HEIDELBERG CEMENT INDIA PVT. LIMITED

Heidelberg Cement India Pvt. Ltd. may manufacture cement, but we have also worked tirelessly to control air, water, and soil pollution. We are responsible for looking after nine villages, and we have made efforts to make the small village of Madoha a model village. We have launched environmental and water conservation initiatives in the village, and have promoted organic farming by establishing a competence development center to train locals in organic farming and water harvesting methods. We have also developed greenery around the plant in line with the concept of Amrit Sarovar and Amrit Talabs. Our objective is not only to make cement, but also to serve and protect the animals, trees, and plants that relate to human beings.

As part of our program, we have installed many hand pumps to solve the drinking water problem in the villages, and have also cleaned up the ponds. We have cleaned up the nearby Barwa Sagar as well. The company has also planted trees as part of our social responsibility, so our green belt cover is more than 40 percent. We have planted trees that absorb carbon, and we use 30 percent of solar energy in our plants to reduce the quantity of carbon dioxide. We have also built a duck park to preserve ducks and peacocks.

WE HAVE ALSO DEVELOPED GREENERY AROUND THE PLANT IN LINE WITH THE CONCEPT OF **AMRIT SAROVAR AND AMRIT TALABS.**

"In view of global warming, we have planted two lakh plants in the last two years. We plan to plant 40 thousand more in the coming days."

Santosh CS (Unit Head, Neyveli Lignite Ghatampur)

"We manufacture polymers and liquid hydrocarbons while being committed to environmental protection. Our primary objective is to preserve renewable energy. Over 35% of the area under our ownership is designated as a green belt, where we have planted over 2.30 lakh trees. Additionally, we planted approximately 75,000 trees in the Miyawaki forest last year. We have collaborated with nearby village panchayats to promote environmental sustainability. Our belief is that environmental conservation requires constant effort, and it is a continuous process. Therefore, the environment can be saved through consistent work and dedication."

— Ajay Tripathi (Executive Director, GAIL)

Efforts to harvest rainwater is the need of the hour

RAJENDRA SANKHE

UNIT HEAD, INDO RAMA INDIA PVT. LIMITED

OUR EFFORTS HAVE BEEN DIRECTED AT RAINWATER HARVESTING. WE ALSO **CARRY OUT RAINWATER HARVESTING BY RECONSTRUCTING** OLD PONDS.

Indo Rama India Private Limited collaborates with nearby gram panchayats to implement various programs aimed at improving the environment and the economic conditions of the villagers. One of the initiatives involves renovating old ponds in the villages, which were either filled with waste or soil. The company also carries out rainwater harvesting work in nearby villages, building new ponds and distributing fruit plants like amla, mango, and malihabadi mango.

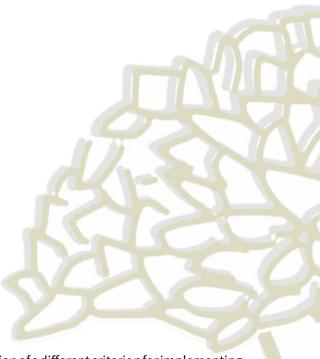
On World Environment Day, the company plants trees that provide double benefits and help reduce environmental damage. They also construct ponds for fish farming to improve the economic situation of the villagers. Additionally, the company promotes mushroom cultivation at the panchayat level and distributed solar plants to encourage the use of renewable energy.



Partnership is not an alternative, it is a necessity!

KIRTIMAN AWASTHI

SENIOR POLICY ADVISOR, CLIMATE CHANGE, GIZ INDIA



We are discussing the creation of a different criterion for implementing ongoing schemes to save different sectors, especially water, land, air, and trees. The criterion can be formulated at the state, district, or village level.

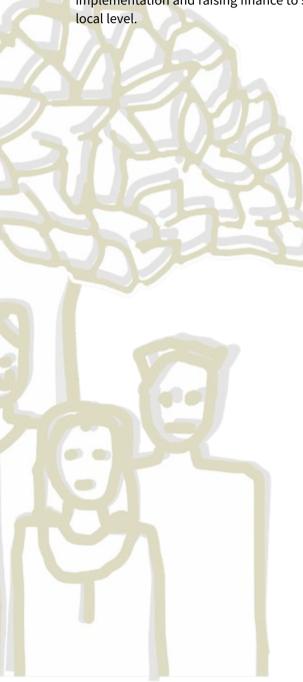
The most important aspect of our discussion is that climate change is affecting our development goals and ultimately impacting the Sustainable Development Goals (SDGs). Hence, an inclusive partnership policy is required to achieve the SDGs.

A partnership is no longer an option but a requirement. It should be implemented not only at the local level but also globally, as climate change is not a local challenge but a global one. Therefore, all kinds of partnerships need to be made at the regional, district, and local levels. The alternative of partnership should be based on certain values and priorities that are effective at the local level and work towards reducing disaster risk.

Partnership in these areas should not only be at the level of governance but also with each other's departments, as working on climate change means working in different areas. Strong partnerships can unlock financing resources, which are essential for implementation. A strong partnership opens doors to financing resources that prove to be very helpful in making it a reality.

A truly strong partnership can also reveal a lot about the possibilities of technological capabilities adapting to climate change. We also need to seriously address air pollution, water pollution, and other problems. A strong partnership can build capacity at various levels of governance and develop the capacity to mobilize necessary resources.

We have a vibrant panel representing bilateral and multilateral organizations, private investment funds, government organizations, and non-governmental organizations. Every individual has a different role at different levels of governance, from rule-making to implementation and raising finance to support climate activity at the local level.



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"No single institution or government can solve big problems, whether at the national or international level. The environment is no different. Its impact is not limited to one region, state, or country but is global. Therefore, partnerships and mutual cooperation with everyone are crucial."

> - Manoj Kumar Singh, Commissioner of Agricultural Production, **Government of Uttar Pradesh**

Indo-German partnership for sustainable development

MOHAMMED EL-KHAWAD

GIZ INDIA

On May 2, 2022, Prime Minister Shri Narendra Modi and German Chancellor Olaf Scholz held a meeting, where they signed an agreement to forge a government partnership on green and sustainable development. While the two leaders have been meeting for a few years, this agreement marks the first formal partnership between the two governments.

In the meeting, all Ministries of Germany collaborated with the Government of India to settargets for the coming years. The partnership will involve working closely with the German Development Agency (GIZ) in India, and progress will be monitored by the heads of state to ensure success.

The partnership aims to achieve global and national goals on climate and sustainable development, by acting at the local level. GIZ is a German government-owned entity operating in over 120 countries worldwide, advising the United Nations and working at the government, sub-national, and local levels on the ground. They also work closely with the private sector and continue to operate even during the Covid pandemic.

The partnership is not only important for achieving environmental and sustainable development goals but also promotes people-to-people connections. Many people from India come to live and work in Germany, contributing to the country's growth and development. The partnership mainly focuses on the fields of energy, urban development, environment, and climate change. GIZ also collaborates closely with various ministries of the Government of India, including the Environment Ministry, Rural Development Ministry, Agriculture Ministry, and National Disaster Management Authority. Moreover, they have been working with different state governments in India for the last 60 years.

ALL MINISTRIES OF
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WITH THE GOVERNMENT OF
INDIA TO SET TARGETS FOR
THE COMING YEARS.

Everything related to the environment is a global issue

KARIN SHEPARDSON

WORLD BANK

MOST RESEARCH AND PREVENTION PLANS RELATED TO AIR POLLUTION ARE LIMITED TO CITIES, BUT AIR POLLUTION SHOULD BE **SEEN IN THE CONTEXT OF** THE AIR QUALITY OF THE **ENTIRE REGION.**

Climate solutions require a focus on the relationship between global and local actions. I would like to draw your attention to the issue of air pollution, which is generally considered a local issue due to its impact on our daily lives. However, all dimensions of air pollution are international, national, state, and local. Therefore, there is a need for action at the panchayat and village levels.

Air pollution is closely associated with climate change, and India needs to launch a very ambitious Clean Air Action Plan immediately. This can help reduce carbon dioxide emissions by 23%, black carbon by 81%, and methane by 25%. Most research and prevention plans related to air pollution are limited to cities, but air pollution should be seen in the context of the air quality of the entire region. For example, the Indo-Ganges watershed is impacted by various sources of air pollution.

In the vast rural landscape of Uttar Pradesh, biofuels from agricultural and household waste is a significant source of local air pollution. Panchayats at the village level can work together to prevent this. Ammonia, a big problem linked to chemical fertilizers and rooted in agricultural systems, can also be addressed through alternative organic fertilizers, non-chemical pesticides, and climate-friendly farming systems.

By working together with the panchayats and in partnership, significant changes can be made at the local level. The World Bank is partnering with the state government in this direction, and the success or learnings that we have obtained from this could have a huge impact on other neighboring states or countries.

It is essential to recognize that the viability of the Indo-Ganga airshed cannot be controlled by any one state alone. Therefore, collaboration and partnership between various levels of government, communities, and organizations are critical in tackling air pollution and climate change.

Rural economy will provide the solution to the climate crisis

JONATHAN DEMENGE

DIRECTOR, COOPERATION, SDC INDIA

The rural economy has the potential to play a crucial role in solving the climate crisis. While awareness about environmental issues is at an all-time high, unfortunately, action has been delayed, and the effects of climate change cannot be reversed.

To avoid the worst impacts of climate change, it is imperative that everyone works together. Coordinated efforts are needed on a global scale because the future of all is interconnected. Climate change is a global issue, but its impact is local and diverse, which means that solutions will also have to be local and tailored to the unique capabilities of each region.

In rural economies, where resources are often limited, there are valuable lessons to be learned about maximizing their use. The carbon-neutral village of Palli in Jammu and Kashmir is a prime example of what can be achieved through local initiatives.

The Swiss Agency for Development and Cooperation has been working on climate change issues in India for 60 years, and some of its interventions have led to policy-making at national and state levels. Eco-Residency Code and Zig-Zag technology have been made mandatory in some states, and similar initiatives are being adopted in other countries. Good work done at the local level can serve as a model for the rest of the world.

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CHANGE IS A GLOBAL ISSUE,
BUT ITS IMPACT IS LOCAL
AND DIVERSE.

"The best part is that what started in Paris, in Glasgow, happened internationally, today it has reached the village level. This is a huge achievement that we have achieved. Be it the Department of Climate Change, forest department, or any government department, our effort is to somehow talk to rural stakeholders and develop a partnership approach with them."

- Manoj Singh, Additional Chief Secretary, Environment, Forest and Climate Change Department, Government of Uttar Pradesh



PADMASHRI SHYAMSUNDAR PALIWAL

SOCIAL WORKER • PIPALANTARI, RAJASTHAN



After the death of my daughter in 2006, I decided to plant 111 saplings in her memory. Now, trees are planted when a girl is born and some money is collected in the name of every daughter and put in the Sukanya Samriddhi Yojana. We plant trees on government lands, and undertake water conservation work. Then a slogan was coined - "Daughter-water-treegochar"! Pipalantari, our village is now known all over the world. I suggest that every gram panchayat should plant a sapling on government land through government schemes in the name of every person and give a message that no person in the village is getting free oxygen.

PREMSHEELA

FARMER • GORAKHPUR, UTTAR PRADESH



Our village is in a flood-prone zone, and during the last floods, a significant amount of sand filled our two bighas of land. The change in the weather has resulted in reduced yields and increased costs. To address this, we started making our organic manure using compost, pulses, and CPP fertilizers, and applying it to our fields. This reduced costs significantly and improved yields. In addition, during the summer months, we made indigenous pesticides to control pest outbreaks yielding positive results. Currently, there are two groups in our village who have been given native fertilizers and pesticides, leading to good harvests and savings in their fields.

RANDHIR

PANCHAYAT PRADHAN • PALLIGRAM, JAMMU



We resolved in the first meeting of the gram sabha to make our panchayat carbon-resistant and carbon-neutral by reducing the carbon generated in households. To achieve this goal, we have promoted organic farming and recycled water for field irrigation. We installed a 500 KW solar panel in the panchayat and 100 street lights in our village. Additionally, we installed 10 biogas plants and 50 solar pumps to move towards carbon neutrality. The panchayat has also acquired 6 e-rickshaws, which are now in operation. We now plant crops based on favorable weather and have set up soil health cards and resource centers in our panchayat to improve soil fertility.

PADMASHRI SETPAL SINGH

NATURAL FARMER • SAHARANPUR, UTTAR PRADESH



We have adopted agricultural diversification, crop residue management, cow-based farming, and cow protection methods. We use cow urine and cow dung to increase the organic carbon content of the soil. We ensure our food to be of best quality without any harmful chemicals. In the past, we used to celebrate the birth of a calf. But now calves left in the open. If the government provides a 50 percent subsidy on bulls, like the subsidies given by the Central and the State governments on agricultural machinery, then our farmers and cattle rearers would keep calves and indigenous cows with care instead of releasing them into the forest.

BALDEV THAKUR

DHAMOON PANCHAYAT • HIMACHAL PRADESH



Earlier, our panchayat had limited knowledge about environmental issues. Since 2016, we have been including environmental initiatives in our panchayat's work. Mahila Mandals are taking up the responsibility of tree plantation in our panchayat. Women have started practicing organic farming in their fields, and we have revived old crops that had become extinct, such as red rice, which has a high value in the market. We have also started conserving the seeds of these extinct crops. Additionally, we are conserving local biodiversity at the panchayat level. All elected members of Panchayati Raj have a responsibility to further this work.



'CLIMATE RESPONSIVE' GRAM PANCHAYATS

