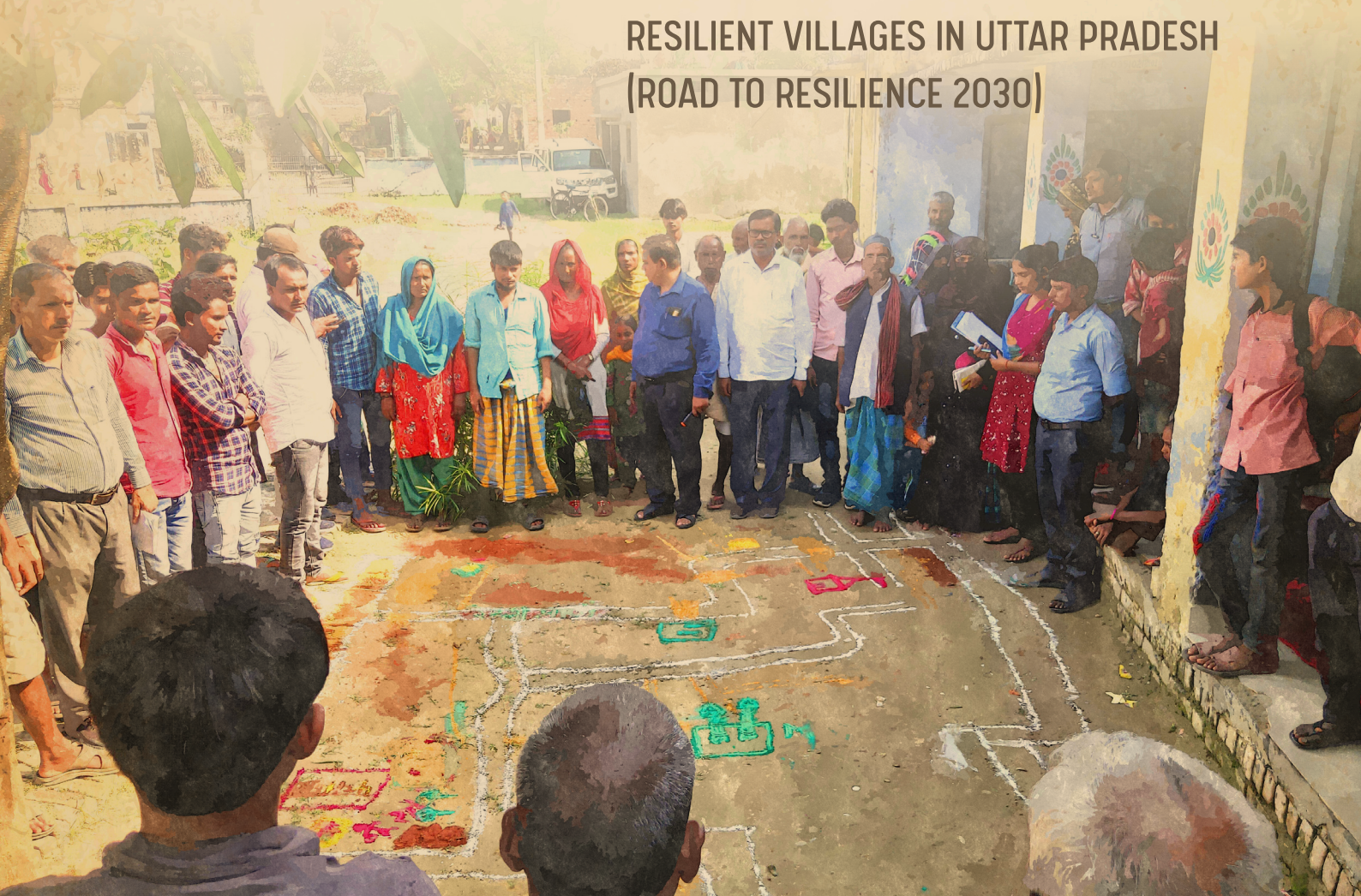




# Empowering Panchayats Enhancing Resilience

DEVELOPING CLIMATE AND DISASTER  
RESILIENT VILLAGES IN UTTAR PRADESH  
(ROAD TO RESILIENCE 2030)



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The impacts of climate change is increasingly being observed in the form of increasing temperature and humidity and rainfall aberrations. Increasing climate variability further results in the advent of extreme weather events such as droughts, floods and other disasters, hugely impacting the lives and livelihoods of poor and vulnerable communities. It is being observed that all essentials that we depend upon and value for development and livelihood – water, energy, wildlife, agriculture, ecosystems, transportation and human health, are experiencing the first hand, direct effects of this changing climate.

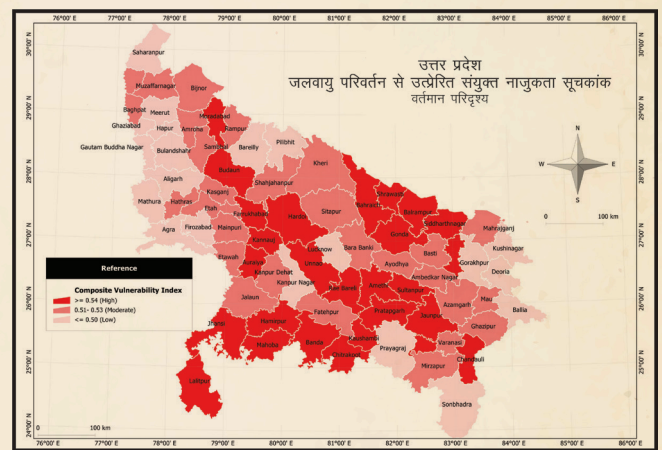
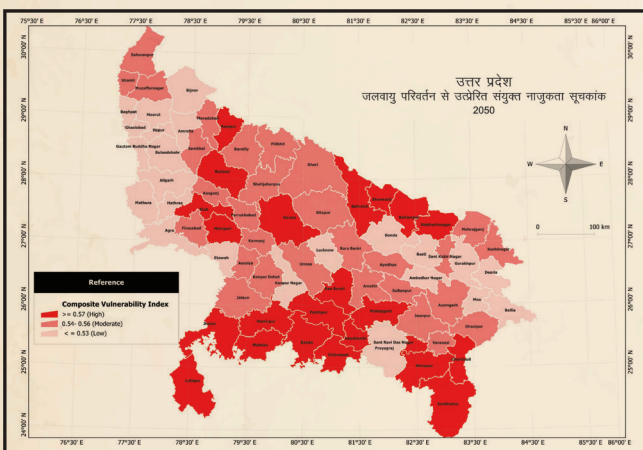
58,189 Gram Panchayats across the 9 Agro-Climatic Zones in Uttar Pradesh are on the path to strengthen their climate and disaster resilience.



# Climate Change and Uttar Pradesh

Increasing vulnerabilities due to climate change are multi-dimensional and interlinked. They vary across location, sectors, communities, households and individuals (gender). The state of Uttar Pradesh has not been left untouched by this emerging problem. Over the past decades, Uttar Pradesh has witnessed recurrent hydro-meteorological hazards like floods, droughts, heat waves, cold waves and extreme rainfall, that has not only affected the people but also the development indices of the state.

Climate change is a major challenge for agriculture, water availability, food security and rural livelihoods for millions of people including the poor in India. The adverse impact of this is felt more keenly by the small-marginal and women farmers. Rural communities, particularly those living in an already fragile environment, face an immediate and ever-growing risk of increased crop failure, loss of livestock and forest products. Agriculture adaptation and mitigation can provide benefits for these small-marginal and women farmers. Inclusion of coping strategies at the local level will be useful for the formation and effectiveness of long-term adaptation strategies. There is a significant potential for small farmers to sequester soil carbon if such strategies are implemented.



## Climate Change Challenges



Flood



Drought



Increase in Temperature



Cold Wave/Frost



Hurricane/Thunder Storm

- Since the last 68 years (1951-2018), Bundelkhand and approximately half of the Vindhyan region has experienced a decrease in rainfall. By 2050, the average rainfall here may further see a reduced trend.
- Although the temperature and number of hot days show an increasing trend all over the state, Bundelkhand may experience a 30% increase in the number of hot days annually.
- The number of days without rainfall have increased in drought prone districts of Bundelkhand and Vidhyan regions.
- The number of days with heavy rainfall are greater in number in the North-Eastern plain

regions. In the absence of effective drainage mechanisms and natural buffers such as waterbodies and green areas, this leads to waterlogging issues.

- By the middle of this century (2050), the number of hot days is estimated to increase by 19-23% in the areas of North-Eastern plains.

Although the entire state of Uttar Pradesh is affected by climate change and induced disasters, however, it is the three agro-climatic regions of Bundelkhand, Vidhyan and North-Eastern Plains that are the most vulnerable regions impacted by climate change.

# Resilient Village

It is us who will have to move forward!

Along with everyone in the village, as per the local conditions!!

A climate resilient village refers to a village and its inhabitants, who are capable of understanding the climate-disaster risks, their cause, and are able to cope with such risks and implement resilient village plans utilising available resources.



Village people are aware and able to deal with small disaster events

Village people adopt safe behaviour

Livelihood of the village people is smooth and sustainable



The village is free of waterlogging, and conserves the water available in their area

Village people (especially deprived communities, women, children, disabled and elders) are involved in developing the Gram Panchayat Development Plan

The quality of basic services is maintained in every season throughout the year.

Natural resources of the village that include ponds and lakes, green areas, forest etc. are protected and their quality maintained

Village adopts non-conventional energy sources.



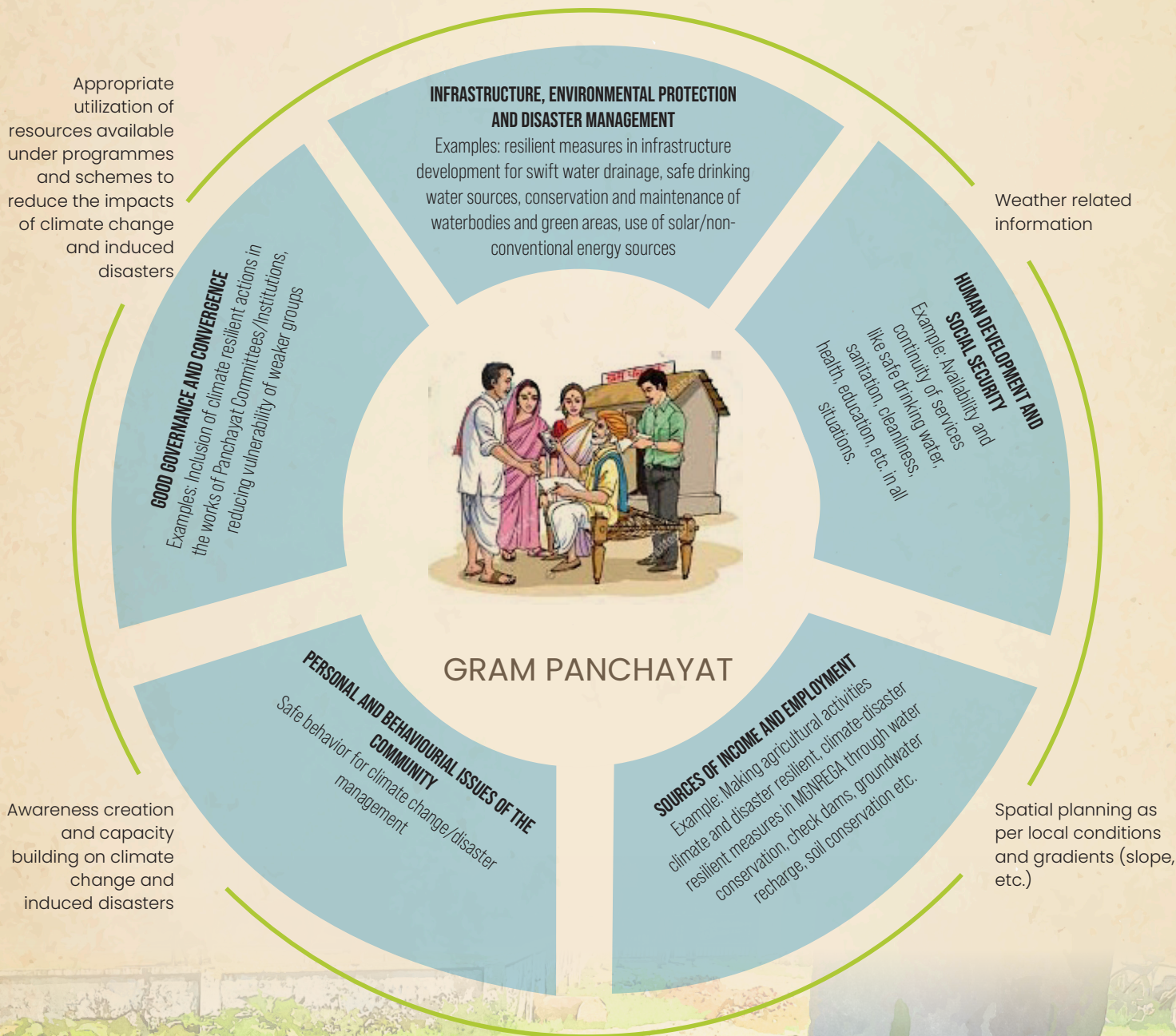
Gram Panchayat committees and other village institutions (Self Help Groups, Farmer Producer Organisations, Water User Committees etc.) are active and integrate the climate change aspects in their development work

Interventions to combat climate change and induced disasters are included in Gram Panchayat Development Plans.



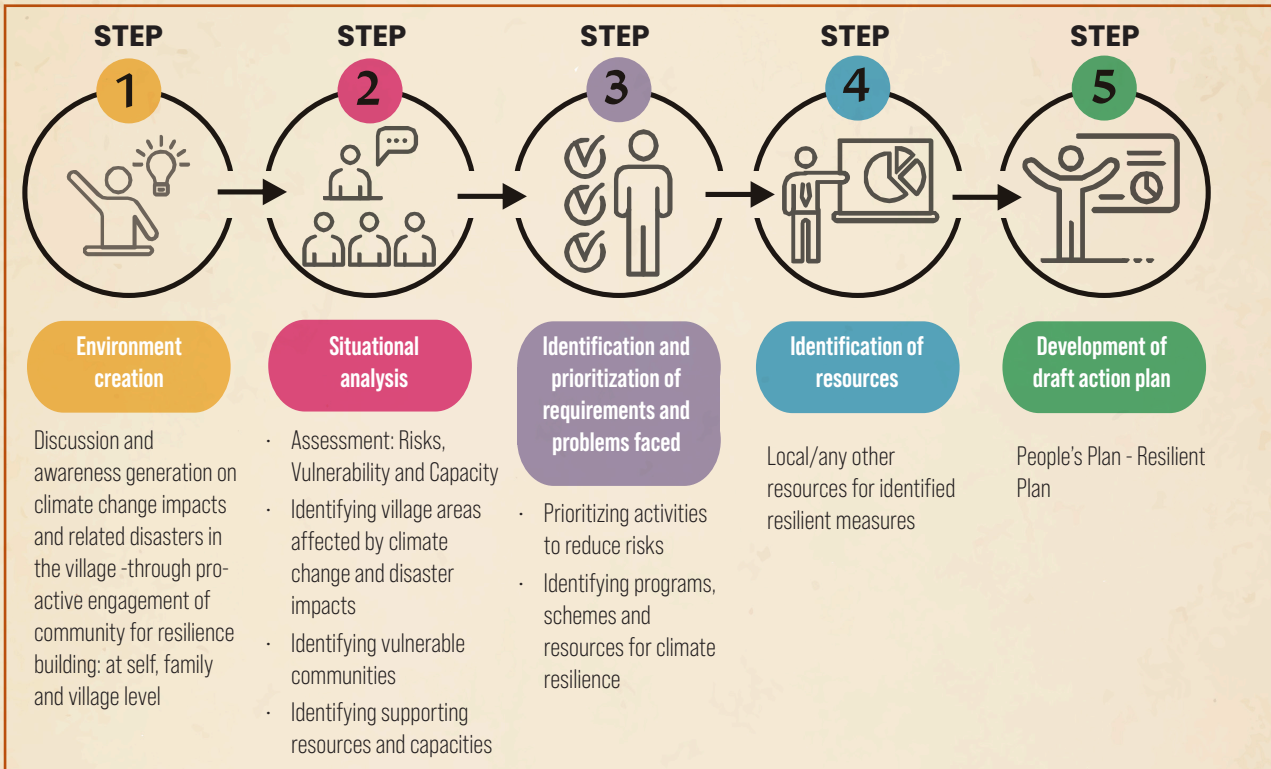
# How to develop a 'Resilient Village'?

It is essential that the village communities are aware of the development needs and priorities for their village, as well as the effects of climate induced disasters that hinder the outcomes of development. If they understand the mechanisms to deal with such adverse effects, they can initiate the integration of the mitigating actions in their developmental activities.



# CLIMATE SENSITIVE GRAM PANCHAYAT DEVELOPMENT PLAN

With active participation of village communities, the step-wise Gram Panchayat Development Plan as per the local climatic situations is described below:

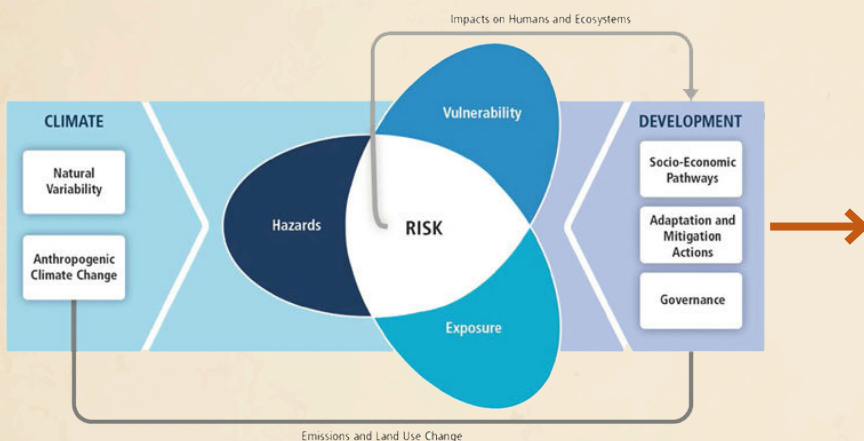


In the 11th Schedule of the Panchayati Raj Act, out of the enlisted 29 subjects, there are 23 subjects in which CCA-DRR interventions pertaining to mitigation and adaptation can be integrated. These are:



# GRAM PANCHAYATS OF UTTAR PRADESH: TOWARDS CLIMATE RESILIENCE AND SUSTAINABLE DEVELOPMENT

Climate change, disasters and development are linked to each other. The development works need to mitigate the impact of climate change and disasters, and also enable and empower the village to deal with these on their own.



Examples	
<b>Hazard</b>	More intense rainfall in fewer days, increase in numbers of no rainfall days, extreme temperature
<b>Vulnerability</b>	Small land holders in agriculture (small-marginal farmers), habitation (near the river, flood affected/dry areas), lack of knowledge on climate resilient techniques
<b>Exposure</b>	Farm based livelihoods: changes in rainfall trends, humidity and temperature, increased floods and droughts

## SUSTAINABLE DEVELOPMENT GOALS AT THE LOCAL LEVEL

It is necessary that efforts should be made at the local level for the achievement of Sustainable Development Goals (SDGs). The Directorate of Panchayati Raj has adopted 9 thematic approaches for achieving the SDG targets. Resilient measures can be integrated in the specified themes and some examples are listed below:

- Poverty free village:** Adopting resilient farming practices and capacities, MNREGA for resilient activities, continuation of basic services during stress situations
- Healthy village:** Improved smokeless cooking and ventilation, health measures: services, communicable diseases, sanitation
- Child friendly villages:** Nutrition, immunization, access to education
- Adequate water village:** Access to safe drinking water, Drainage-groundwater recharge
- Clean and green village:** Environmental standards in development, protection of water bodies and green areas, open defecation free, biodiversity, afforestation



- Self-dependent infrastructure village:** All weather roads and service infrastructure, covered drains
- Socially protected village:** Support services to vulnerable households and weaker groups
- Good governance village:** Participation of community in planning for resilience in villages and fulfilling differential needs, community monitoring
- Women friendly village:** Women's access to services and extension support, participation in planning and implementation, capacity enhancement for resilient actions

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