

Developing Monitoring & Evaluation Framework for UPSAPCC 2021-2030: Sustainable Habitat Mission



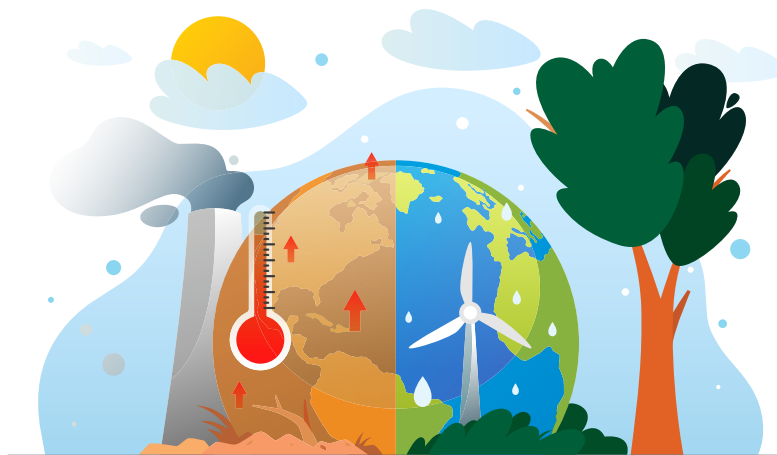
Introduction

The threat of climate change has become more and more real by every passing day. It is a challenge that humanity has to face as one and that is why international treaties like the Paris agreement 2015 and the pathway to sustainable development, as envisaged under Sustainable Development Goals (SDGs)- Agenda 2030 have been shaped.

The Indian government too had framed the the National Action Plan on Climate Change (NAPCC) of India in 2008. Over time each state has adapted these and framed their own State Action Plan on Climate Change (SAPCC) - twice, earlier in 2009 and an updated one in more recent years. In case of the state of Uttar Pradesh, this was done in 2021.

There are eight consolidated missions under the UPSAPCC 2021-2030 namely Green UP Mission, Sustainable Agriculture Mission, Jal Mission, Human Health Mission, Enhanced Energy Efficiency and Green Energy Mission, Sustainable Habitat Mission, Disaster Management Mission and Strategic Knowledge Mission.

But to successfully implement each of these missions, one needs a system to monitor and evaluate the various actions being taken under them.



About the Sustainable Habitat Mission

Anthropogenic activities contributing to climate change have seen a steady rise leading to increase in the number of extreme weather events and slow-onset events such as floods, droughts, and storms. This has taken a toll on the basic services, infrastructure, housing, human livelihoods, and the health of both urban and rural habitats. This mission tries to address these issues by identifying opportunities to provide responsive governance, ease of living, sustainable environment, rapid economic growth, and diverse livelihood opportunities for the citizens. It has a total of nine strategies with 35 action points spread across both rural and urban habitats. The strategies revolve around the following priority areas:

- Investments in the non-motorised transport sector
- Promotion of e-mobility and providing incentives
- Circularity in solid/ liquid waste
- Ensuring thermal comfort in living spaces

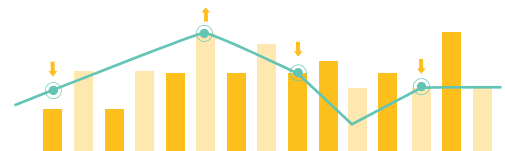


An oversight of the nature of actions and strategies across the eight missions of UPSAPCC 2021-30

No	Mission	Strategies	Action Points	Adaptation	Mitigation	Both
1	Sustainable Agriculture Mission	5	19	18	-	1
2	Jal Mission	5	25	21	-	4
3	Green UP Mission	5	20	6	10	4
4	Enhanced Energy Efficiency and Green Energy Mission	6	37	1	32	4
5	Sustainable Habitat Mission	9	35	15	9	11
6	Human Health Mission	5	31	24	-	1
7	Disaster Management Mission	2	10	10	-	-
8	Strategic Knowledge Mission	4	10	10	-	-
lk	TOTAL	41	187	104	51	25



Why an M&E Framework for the revised UP SAPCC?



Meet the Goals

Monitoring and evaluation (M&E) frameworks are essential for ensuring that climate change action plans are effective in achieving their intended goals.

Keep track of Plans

It is crucial because it guarantees better evidence-based planning and tracking and aids in the identification of pertinent activities through the creation and operationalization of a framework.

Course Correction for the path ahead

Moreover, M&E is critical since gaps identified over time reveal mistakes, offer paths for learning and improvements, and provide opportunities to build on expertise and knowledge. A comprehensive M&E framework also allows policymakers and implementers to identify successes and challenges and make data-driven decisions to adjust their strategies accordingly.

Align with other state plans

With an eye on the goal, the metrics developed in the M&E framework also helps define roles and responsibilities better. The framework also leverages existing monitoring systems under other programmes in the state such as the UP SDG Vision 2030 and UP DEMP.

A foolproof system for the future

Once deployed, it will facilitate the creation of a data collection, flow, and management system through coordinated efforts by all relevant line departments



Vision for a dynamic Management Information System (MIS)

The M&E framework that has been developed should give way to a dynamic Management Information System (MIS) wherein data from various line departments will be collated, leading to effective monitoring of the targets set for various activities in the UP SAPCC 2.0. This system can continue to be adapted and used to for other future programmes.



The Method in brief

The M&E framework was created with the understanding that existing monitoring and data systems should be utilized rather than constructing a separate parallel data gathering mechanism. All relevant documents including the UP DEMP , UP SDG Vision 2030, NITI Aayog SDG index, and the MoSPI documents were studied along with various state and national schemes and programmes that overlap with a particular mission and the indicators within them were collated.

After this the indicators were shortlisted. As a first step only the intermediate- and outcome-level indicators were shortlisted. Another criteria was whether they mapped to the strategies within a certain mission or not. Finally, the indicator or a set of indicators were chosen if they gave a holistic perspective of the strategy. Each criteria had a score attached to it and based on this scoring mechanism, the indicators were ranked and chosen.

To finalize the process, consultative workshops were held with various line departments and the indicators were further refined along with identifying or assigning the data sources for these indicators, the periodicity of their collection, who would be responsible for the job, etc.

What is notable is that some of the indicators are relevant to more than one strategy and based on this and other criteria such as data availability, relevance to strategy/ies, holistic perspective, these indicators have been defined as high-priority or not.



How can one use this book?

This book compiles the different indicators that the various line departments need to gather information about in order to successfully monitor the strategies of UPSAPCC 2021-2030. The finalized list of indicators for the Sustainable Habitat Mission are presented below in Table 1A.

Table 1A: Indicators for the Sustainable Habitat Mission

Blue text: Vulnerability indicators (from SAPCC)

Pink Text: These indicators are not from any current scheme since they are part of an action point, which is a recommendation for something that needs to happen in future.

Brown Text: Indicators from NITI Aayog SDG Index 2020

Green text: Dashboards and Reports

S. No	Indicators(16)	Mapping to Strategy
1	Percentage of households at risk to damage by wind, extreme rainfall, and earthquakes	1
2	Access to basic amenities (safe drinking water, sanitation, and wastewater drainage)	1,2,3
3	Population density	2
4	No. of rooftop water harvesting structures in U.P	2,3
5	Percentage of urban households with drainage facility	3
6	Number of municipal corporations banning single-use plastic	4
7	No. of EVs rolled out	5
8	Total registered motor vehicles in million-plus cities	5
9	No. of training programmes conducted for PRIs at block level (for ODF_plus activities)	6

Table 1A: Indicators for the Sustainable Habitat Mission (Contd.)

S. No	Indicators(16)	Mapping to Strategy
10	No. of model ODF-plus villages that are declared and verified	6
11	Percentage of rural households at risk to damage by wind, flood, and earthquakes	7
12	Access to an alternate employment source (MGNREGS)	8
13	No. of beneficiaries/rural youth that got job placements	8
14	Women participation in the labour force	8
15	Access to transport and road connectivity	9
16	No. of habitats covered with metalled road	9

One of the key ways in which the challenge of climate change can be addressed by Governments and development agencies is by reducing vulnerability. Derived from the vulnerabilities listed under the chapter “Climate Vulnerability Assessment” of the UPSAPCC 2021-2030, Table 1: Vulnerability Indicators for the Sustainable Habitat Mission, as the name suggests, highlights the vulnerability indicators most relevant for the Sustainable Habitat Mission.

In Table 2: Operationalized M & E Framework for Sustainable Habitat Mission, you will find a detailed look at the individual indicators, their definitions, the strategies they have been mapped to the measurement unit, their data sources, the department or agency responsible for their collection and the period during which this has to be done. Thus this is the most comprehensive table for the indicators and offers the Operationalized M & E Framework for the Sustainable Habitat Mission.



If one is working on certain projects under UP DEMP or has to see the alignment of the indicators with a specific programme or the UP SDG Vision 2030, one can refer to the tables in the annexure online using the QR code given below.



To understand the detailed process behind these tables one can refer to Developing Monitoring & Evaluation Framework for UPSAPCC 2021-2030 : Process Document.

S. No	Indicators Selected for the M&E Framework: Sustainable Habitat Mission	Functional relationship with Vulnerability
1	Percentage of households at risk to damage by wind, extreme rainfall and earthquakes.	Positive
2	Access to basic amenities (safe drinking water, sanitation and wastewater drainage)	Negative
3	Population Density (person/km ²)	Positive
4	Access to an alternate employment source (MGNREGS)	Negative
5	Women participation in the labour force	Negative
6	Prioritization of natural resource management works under MGNREGS	Negative
7	Access to transport and road connectivity	Negative
8	Change in number of pucca houses (PMAY)	Negative
9	Percentage of rural households at risk to damage by wind, flood and earthquakes	Negative
12	Stray cattle density (per km ²)	Positive



Reference Text for Table 2: Operationalized M & E Framework for the Sustainable Habitat Mission

The Uttar Pradesh State Action Plan on Climate Change (UP SAPCC) 2021-2030 presents climate change-related mitigation and adaptation strategies to address regional and state-specific climate risks. The table below puts together the operationalized M&E Framework for Sustainable Habitat Mission. This framework was developed after several rounds of deliberations and discussions between DoEFCC, GIZ and Sambodhi, and presents the final short-listed indicators for this mission.

Instructions for reading the mission spreadsheet	Legends
Column 2, Indicator , presents the indicators selected for this mission.	** Indicators derived from schemes, programmes, NITI Aayog SDG Index, SAPCC Vulnerability Indicators, Dashboards and reports
Column 3, Definition , provides a definition of the indicator.	Blue text: Vulnerability indicators (from SAPCC)
Column 4, Mapping to Strategy , presents the strategy or strategies to which each indicator is being mapped.	Pink Text: These indicators are not from any current scheme since they are part of an action point, which is a recommendation for something that needs to happen in future.
Column 5, Measurement Unit , is the unit (e.g., kg, hectares, INR, number, etc.) at which indicator is being measured.	Brown Text: Indicators from NITI Aayog SDG Index 2020
Column 6, Data Source , is the relevant national or state level schemes, programmes, projects, and/or dashboards mapped to the indicators [Source: secondary research].	Green text: Dashboards and Reports
Column 7 presents the Department/ Agency responsible for collecting data.	
Column 8, Periodicity , is the frequency at which data is available from the said source. Eg., Annual, bi-annual, quarterly, monthly, etc.	
Column 9, Notes , contains additional relevant information,	

Strategy 1	Mainstreaming climate resilience and pollution mitigation actions into urban governance and policy planning
Strategy 2	Building climate-resilient housing infrastructure
Strategy 3	Developing climate-resilient urban water infrastructure and storm water drainage
Strategy 4	Developing climate-resilient waste-management infrastructure
Strategy 5	Building climate-resilient road infrastructure and low-carbon mobility options
Strategy 6	Mainstreaming climate change in rural governance and planning
Strategy 7	Build climate-resilient rural housing
Strategy 8	Developing climate adaptation-integrated approach to rural skills development and diversification of livelihood opportunities
Strategy 9	Building climate-resilient road and waste infrastructure

Table 2: Operationalized M & E Framework for the Sustainable Habitat Mission

No.	Definition	Mapping to Strategy	Measurement Unit
1	Percentage of households at risk of damage by wind, extreme rainfall and earthquakes The indicator measures the percentage of households at risk of damage by wind, extreme rainfall and earthquakes. Higher value means lower performance (-)	1	Percentage
2	Access to basic amenities (safe drinking water, sanitation and wastewater drainage) Measures the percentage of population with access to basic amenities like safe drinking water, sanitation facilities, and wastewater drainage as compared to the total population. Higher value means better performance (+)	1, 3, 4	Percentage
3	Population density Population density is the number of persons living in a given area per square kilometre. This is a direct measure that helps track the dependency on resources and vulnerability. Higher value means lower performance (-)	2	person/km ²

Data Source	Department/Agency Responsible for Data Collection	Periodicity	Notes
Uttar Pradesh State Disaster Management Authority (UPSDMA), UP government [Disaster Risk Reduction Programme (DRR)]	Revenue Department and SDMA + Municipal Corporation	Seasonal (Rainy, Winter, Summer)	
Town and Country Planning Department (AMRUT)	Town and Country Planning Department	Monthly	
UP Housing and Development Board	UP Housing and Development Board	Annual	

Table 2: Operationalized M & E Framework for the Sustainable Habitat Mission

No.		Definition	Mapping to Strategy	Measurement Unit
4	No. of rooftop water harvesting structures in UP	The indicator reports the total number of rooftop rainwater harvesting structures installed in the state. Higher value means better performance (+)	2, 3	Number
5	Percentage of urban households with drainage facility	Percentage of urban households with drainage facility = $(N/D) * 100$ N = Number of urban households having drainage facilities (connections) D = Total number of urban households in the state Higher value means better performance (+)	3	Percentage
6	No. of electric vehicles registered	No. of electric vehicles registered Electric vehicles includes: Bus + e-rickshaw with cart (G) + e-rickshaw (P) + goods carrier + M cycle/scooter + M cycle/scooter with side car + moped + motor cab + motor car + motorized cycle (CC > 25cc) + three-wheeler goods + three-wheeler passenger Higher value means better performance (+)	5	Number
7	Total registered motor vehicles in million-plus cities	The total number of motor vehicles registered in UP cities with a population greater than a million Higher value means lower performance (+)	5	Number
8	No. of training programmes conducted for PRIs at block level (for ODF-plus activities)	ODF-plus activities include solid waste management including agriculture waste, black and grey water waste management, waste from biogas plants and plastic waste management. The indicator measures the number of training programmes conducted for PRIs at the block level. Higher value means better performance (+)	6	Number

Data Source	Department/Agency Responsible for Data Collection	Periodicity	Notes
Jal Shakti Abhiyan: Catch the Rain (Dashboard)	Irrigation and Water Resources Department	Annual	
Urban Development Department	Urban Development Department	Monthly	
Transport Department [Uttar Pradesh Electric Vehicle Manufacturing Policy 2019]	Transport Department	Annual	
1. Transport Department 2. UPDES	Transport Department	Annual	Statistical Year Book, 2018, Motor Vehicles (MoSPI)
Panchayath Raj Department	Panchayat Raj Department	Half-yearly	

Table 2: Operationalized M & E Framework for the Sustainable Habitat Mission

No.		Definition	Mapping to Strategy	Measurement Unit
9	No. of model ODF-plus villages that are declared and verified	The indicator measures the number of villages declared and verified as model ODF plus villages. Higher value means better performance (+)	6	Number
10	Percentage of rural households at risk of damage by wind, flood and earthquakes	The indicator measures the proportion of rural households at risk of damage by wind, extreme rainfall and earthquakes Higher value means lower performance (-)	7	Percentage
11	Access to an alternate employment source (MGNREGS)	The indicator reports the number of youth who have been provided with alternative employment Higher value means better performance (+)	8	Number
12	No. of beneficiaries/ rural youth that got job placement	The indicator reports the number of rural youth beneficiaries that have got jobs Higher value means better performance (+)	8	Number
13	Women participation in the labour force	The percentage of women in the labour force against the total labour force (workforce) Higher value means better performance (+)	8	Percentage

Data Source	Department/Agency Responsible for Data Collection	Periodicity	Notes
Panchayath Raj Department	Panchayat Raj Department	Monthly	
Uttar Pradesh State Disaster Management Authority (UPSDMA), UP government [Disaster Risk Reduction Programme (DRR)]	UPSDMA + Panchayat Raj Department	Annual	
Rural Development Department	Rural Development Department	Daily	<p>During consultation, it was confirmed that the data is present in the MIS of RD.</p> <p>Link - https://nregade2.nic.in/Net-nrega/Login.aspx?&level=HomeGP&state_code=31</p> <p>The website is updated daily</p>
Swarna-jayanthi Grameen Swarozgar Yojana (SGSY)	Rural Development Department	Daily	<p>During consultation, it was confirmed that the data is present in the MIS of RD.</p> <p>Link - https://nregade2.nic.in/Net-nrega/Login.aspx?&level=HomeGP&state_code=31</p> <p>The website is updated daily</p>
Rural Development Department	Rural Development Department	Daily	<p>During consultation, it was confirmed that the data is present in the MIS of RD.</p> <p>Link - https://nregade2.nic.in/Net-nrega/Login.aspx?&level=HomeGP&state_code=31</p> <p>The website is updated daily</p>

Table 2: Operationalized M & E Framework for the Sustainable Habitat Mission

No.		Definition	Mapping to Strategy	Measurement Unit
14	Access to transport and road connectivity	The proportion of households having convenient access to transport and road connectivity Higher value means better performance (+)	9	Proportion
15	No. of habitats covered with metalled road	The number of habitations (settlements) covered with all-weather metalled road Higher value means better performance (+)	9	Number

Data Source	Department/Agency Responsible for Data Collection	Periodicity	Notes
Public Works Department	Public Works Department	Annual	
Panchayati Raj Department MIS	Panchayat Raj Department	Daily	

Published by

Directorate of Environment (DoE) and UP Climate Change Authority,
Environment, Forest and Climate Change Department,
Government of Uttar Pradesh,

Email: Doeuplko@yahoo.com