



Climate Change Adaptation Policy and Institutional Framework in Arid Jodhpur District of Rajasthan

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DOI : <https://doi.org/10.5281/zenodo.15826509>

Abstract

This paper examines the institutional framework and welfare schemes that are operational in arid Jodhpur district of Rajasthan. The study explores how state and centrally sponsored interventions contribute to enhance agriculture sustainability, livelihood security, gender empowerment, and overall socio-economic development of region by providing for water, food, fuel, education, housing. In doing so, these interventions play a critical role in strengthening the adaptive capacity of local communities. The paper highlights the integrated approach of these schemes, combining financial assistance, basic services, and community engagement to address the needs of marginalized groups including women-headed households, children, persons with disabilities, small farmers, and BPL families. It also evaluates the operational mechanisms and grassroots institutional arrangements that facilitate last-mile delivery, such as Panchayati Raj Institutions, Village Health and Sanitation Committees, and School Management Committees. The analysis underscores the importance of convergence, transparency, and inclusivity in policy design and implementation to ensure equitable access and sustainable development in rural Rajasthan.

Keywords: Climate Change, Adaptation Policy, Arid, Institutional Framework, Rajasthan

Introduction:

According to the American Meteorological Society (AMS), an arid region is defined as an area with insufficient moisture, where the rate of evapotranspiration surpasses that of precipitation (Arid Zone - Glossary of Meteorology, n.d.). These regions are marked by low moisture levels, irregular and unpredictable rainfall, limited vegetation, and extreme weather conditions, including intense solar radiation and substantial heat loss (Wiesman, 2009). Common challenges in arid zones include water scarcity, erratic rainfall patterns, temperature extremes, frequent droughts, heightened evapotranspiration, and heatwaves (Bezuneh et al., 1992; Singh et al., 2021). Climate change is putting immense pressure on the ecological structure and functions of these areas through increasing temperatures, elevated CO₂ levels, and declining rainfall (Quoreshi et al., 2022). By the end of the century, escalating aridity is projected to trigger abrupt ecological shifts, leading to widespread land degradation and desertification, threatening the ecosystem services vital to nearly two billion people (Berdugo et al., 2020). Over the past century, arid and semi-arid regions have experienced the most significant temperature increases, contributing 44% to the overall warming of land surfaces (Zhu et al., 2021). Furthermore, extreme climate events are expected to have severe impacts on ecosystems, agriculture, and human livelihoods in these regions, where the availability and distribution of water are particularly vulnerable (Zhang et al., 2009).

Jodhpur: A Case Study:

The western region of Rajasthan experiences an arid climate, largely due to the presence of the Thar Desert (GoR, 2022). This study focuses on Jodhpur district, one of the 12 arid districts in Western Rajasthan that lie within the Thar Desert. Arid regions typically face a significant shortfall in rainfall compared to evapotranspiration levels. Jodhpur, often referred to as the "Blue City" because of its blue-painted buildings, is located in western Rajasthan. It is the second-largest city in the state, situated between longitudes 72° 55' to 73° 52' east and latitudes 26° 00' to 27° 31' north, covering about 11.6% of Rajasthan's total area. Administratively, it is part of the Jodhpur Division. The district features varied terrain, including rugged hills, sandy plains, and scattered sand dunes, all characteristic of the Thar Desert landscape. Agriculture forms the backbone of Jodhpur's economy, with many residents engaged in farming and livestock rearing. Additionally, the district benefits from a growing tourism sector, supported by its rich cultural heritage, historic architecture, and unique desert environment.

The Indian Meteorological Department (IMD) classifies Jodhpur's climate as dry, based on key meteorological factors such as temperature, rainfall, and humidity that reflect the region's arid conditions. According to the Köppen climate classification, Jodhpur falls under the hot desert climate category (BWh), characterized by extremely hot summers, mild winters, and minimal precipitation. The district experiences three main seasons: summer, monsoon, and winter.

Jodhpur receives an average annual rainfall of 314.7 mm (District Gazetteer Jodhpur, 2023), and the area is prone to drought approximately once every three years. Climate projections suggest that while the frequency of severe and extreme droughts may decline, the incidence of mild droughts is

expected to rise (SAPCC, 2022). Though overall rainfall is predicted to increase, it is becoming more irregular and unpredictable, with post-monsoon rainfall showing an upward trend. This shift is posing new challenges for agriculture-dependent communities (GoR, 2022).

Jodhpur, located in Rajasthan, India, exemplifies these challenges due to its harsh climate, scarce water resources, and underlying socio-economic vulnerabilities. The State Action Plan on Climate Change (GoR, 2022) forecasts a rise in precipitation for arid western Rajasthan, alongside growing drought sensitivity and reduced water availability. Research further indicates rising temperatures, increased frequency of heatwaves, higher evapotranspiration rates, and greater variability in rainfall patterns for the Jodhpur region (Poonia & Rao, 2013; Sharma et al., 2021). In a predominantly agrarian society like Jodhpur, rural women are particularly burdened by climate impacts—facing pressures related to food security, water collection, caregiving, and declining agricultural productivity, which directly affects their health and nutrition.

This paper explores the adaptation policies and institutional mechanisms implemented in Jodhpur District to address these complex climate challenges. It analyzes key government initiatives and institutional arrangements across sectors such as agriculture, water, health, livelihoods, and socio-economic development, highlighting their role in enhancing local adaptive capacity.

Climate Change Adaptation Policy and Institutional Framework in Jodhpur district:

As a federal nation, India operates under a dual system of governance, with powers and responsibilities clearly divided between the central and state governments. This division is enshrined in the Indian Constitution, which outlines distinct areas of jurisdiction for each level of government. The central government provides overarching policy guidance and extends financial and technical support for climate adaptation through various ministries and national programs. Meanwhile, state governments have the authority to design and implement region-specific adaptation strategies based on their unique needs and challenges.

To enhance climate resilience in sectors such as agriculture, water, and health, the central government has introduced initiatives like the National Action Plan on Climate Change (NAPCC) and its associated missions. These national frameworks guide and shape the formulation of state-level policies. Exercising its constitutional autonomy, the Government of Rajasthan has developed its own State Action Plan on Climate Change (SAPCC), which aligns with national priorities while addressing localized issues. Rajasthan's adaptation initiatives span multiple sectors, integrating climate resilience into farming methods, water resource management, public health, and socio-economic development.

Institutional mechanisms at both the state and grassroots levels play a vital role in ensuring effective policy implementation. This chapter will explore the adaptation strategies and institutional arrangements in Jodhpur, a desert district of Rajasthan. It will assess how national and state-level climate plans are contextualized and executed on the ground.

National Action Plan on Climate Change (NAPCC):

Launched by the Prime Minister on June 30, 2008, the National Action Plan on Climate Change outlines India's strategic response to climate change while aiming to promote ecological sustainability. It underscores the importance of maintaining high economic growth to improve living standards and reduce the vulnerability of the majority of the population to climate-related impacts (GoI, 2008). The NAPCC comprises eight core missions: the National Solar Mission, National Mission for Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Ecosystem, National Mission for a Green India, National Mission for Sustainable Agriculture, and National Mission on Strategic Knowledge for Climate Change.

The Ministry of Environment, Forest and Climate Change (MoEFCC) serves as the lead ministry for the NAPCC. Each mission is implemented by the relevant ministry and coordinated through inter-sectoral groups made up of experts from academia, industry, civil society, and government. These groups are designed to suit the specific focus of each mission, with clearly defined objectives and operational frameworks.

To support the implementation of the NAPCC, the government established a high-level advisory council on climate change chaired by the Prime Minister. This council includes representatives from various sectors—government, industry, and civil society—and is responsible for setting the overall strategic direction, reviewing progress, promoting research and development, and guiding India's position in international climate negotiations.

State Action Plan on Climate Change – Rajasthan (2022):

The Rajasthan State Action Plan on Climate Change (RSAPCC) is a comprehensive framework tailored to the specific climate risks, vulnerabilities, and adaptation needs of Rajasthan. It also highlights potential mitigation strategies and opportunities for climate resilience at both state and local levels. The RSAPCC provides a roadmap for tackling the current and anticipated effects of climate change across key sectors such as water, agriculture, health, forests and biodiversity, socio-economic development, and urban governance.

This plan builds upon existing national and state policies and aims to integrate climate considerations into ongoing development efforts. It identifies key policies, programs, and institutional mechanisms, and outlines strategies to incorporate climate vulnerability and adaptive responses into these frameworks.

Institutional Mechanism: The Department of Environment and Climate Change (DECC), in collaboration with the Department of Economics and Statistics (DES), serves as the central authority for monitoring and evaluating the State Action Plan on Climate Change. Individual line departments are tasked with reporting their progress through their respective annual reports. DECC will work in coordination with these departments to ensure effective cross-sectoral implementation of the plan. Each line department is responsible for carrying out the climate-related recommendations relevant to their sector. DECC will collect and consolidate the information from these reports to present a comprehensive assessment of the overall progress of the climate action plan.

I. Water Sector Adaptation Policy Framework:

National Water Mission (NWM): The Government of India established the National Water Mission (NWM) as one of the eight core missions under the National Action Plan on Climate Change. The mission's main objective is to conserve water, minimize wastage, and ensure more equitable distribution of water resources—both across and within states—by adopting integrated approaches to water resource development and management.

National and State Water Policies:

Both the central and state governments have formulated water policies—such as the National Water Policy (2012) and the Rajasthan State Water Policy (2010)—to address water management challenges. These policies focus on Integrated Water Resource Management (IWRM), developing comprehensive water databases, supporting local communities, implementing water pricing mechanisms, encouraging research and development, resolving water-related disputes, and improving overall water availability.

Jal Jeevan Mission (JJM):

JJM is a centrally sponsored initiative that aims to provide every rural household with a reliable and sustainable supply of drinking water at an affordable cost, thereby enhancing the quality of life in rural areas. The mission seeks to ensure Functional Household Tap Connections (FHTCs) for all rural homes by 2024, supplying at least 55 litres per capita per day (LPCD) of quality drinking water. The financial responsibility is shared equally between the central and state governments (50:50 ratio).

Special focus is given to water-scarce regions, such as drought-prone and desert areas, and quality-affected zones. The mission also aims to equip schools, Anganwadis, healthcare centres, and Gram Panchayat buildings with tap connections. It encourages active participation from Gram Panchayats and local communities in planning, managing, and operating village-level water supply systems.

Other key components include developing dependable water sources, managing greywater, and supporting activities like human resource training, establishing water quality laboratories, and conducting awareness programs. The mission is implemented through a three-tier structure: the State Water and Sanitation Mission (SWSM) at the state level, the District Water and Sanitation Committee (DWSM) at the district level, and the Village Water and Sanitation Committee (VWSC) at the village level. These bodies are tasked with overseeing and executing the mission on the ground.

In Rajasthan, which ranks second last in terms of total FHTC coverage, the SWSM—established in 2000 under the Rajasthan Society Registration Act, 1958—is responsible for JJM implementation across the state. Previously, the mission was managed by the Water and Sanitation Support Organization (WSSO) under the Public Health Engineering Department (PHED, 2024). Additionally, a State Project Monitoring Unit (SPMU), comprising technical experts, has been formed to coordinate, monitor, and expedite mission activities at the state level.

Institutions in Water Sector: Here is a paraphrased version of your text:

Numerous central and state-level ministries and departments are involved in managing the water sector, particularly in ensuring water supply for drinking and irrigation. At the national level, the Ministry of Jal Shakti serves as the apex body. It comprises two key departments: the Department of Drinking Water and Sanitation—which oversees major initiatives like the Jal Jeevan Mission and Swachh Bharat Abhiyan—and the Department of Water Resources, River Development, and Ganga Rejuvenation.

At the state level, several departments are engaged in water-related functions, including the Water Resources Department, Public Health and Engineering Department (PHED), Command Area Development and Water Utilisation, Groundwater Department (GWD), Indira Gandhi Nahar Department (IGN), and the State Water Resources Planning Department. PHED is a key agency running multiple programs such as Jal Jeevan Mission, Rajiv Gandhi Jal Sanchay Yojana, urban water supply schemes, installation of RO plants, and hand pump repairs. Jal Jeevan Mission is currently the flagship scheme under PHED's purview.

PHED is responsible for ensuring the provision of safe and adequate drinking water to both rural and urban populations in the state. It also handles sanitation and waste management efforts to safeguard public health, conducts water quality testing, establishes RO and de-fluoridation plants, and constructs essential water infrastructure such as pipelines and pumping stations. Additionally, PHED manages emergency water transportation to rural areas during summer and drought periods.

At the district level, the District Water and Sanitation Mission (DWSM) is the primary agency responsible for implementing drinking water initiatives under Jal Jeevan Mission. It is supported by the District Project Monitoring Unit (DPMU), which assists in tracking and reviewing the progress of JJM works. At the village level, the Village Water and Sanitation Committee (VWSC) is tasked with planning, executing, and maintaining Jal Jeevan Mission projects.

II. Agriculture Sector Adaptation Policy and Institutional Framework:

National Farmer's Policy 2007: The objective is to enhance farmers' net income and make agriculture a financially sustainable livelihood. The initiative includes a wide range of reforms covering areas such as land use, water management, livestock and bioresources, availability of high-quality seeds and planting materials, soil health cards, pest control, crop-specific tools, support for women farmers, access to institutional credit, use of Information and Communication Technology (ICT), provision of Minimum Support Price (MSP), and improvement of agricultural markets. These components are being implemented through various schemes at both central and state government levels (PIB, 2015).

National Mission for Sustainable Agriculture:

The initiative seeks to promote sustainable agriculture by implementing a range of adaptation strategies across ten key areas of Indian agriculture. These include: enhanced crop varieties, livestock and fish breeds; efficient water usage; pest control; improved farming techniques; nutrient management; agricultural insurance; credit access; market linkages; access to agricultural information; and diversification of livelihoods. These focus areas are supported through several sub-components:

- **Rain-fed Area Development (RAD):** This component focuses on developing Integrated Farming Systems (IFS) tailored to specific agro-climatic zones of the state. These systems include models based on livestock, horticulture, and agroforestry. The approach also emphasizes conserving natural resources through watershed management and soil conservation, in coordination with schemes like MNREGA, RKVY, and IWMP (NMSA, n.d.).
- **Sub-Mission on Agroforestry (SMAF):** Launched in 2017–18, this program aims to encourage tree planting on farmland, guided by the vision of “Har Medh Par Ped” (a tree on every boundary). It focuses on making quality planting materials available, promoting awareness of agroforestry practices and models suited to different agro-climatic zones and land use types. It also supports the development of a comprehensive agroforestry database and knowledge-sharing initiatives (DES, 2023).
- **Soil Health Management & Soil Health Card:** This scheme promotes soil testing, distributes soil health cards to farmers, and encourages scientifically informed nutrient management practices. Soil samples are analyzed, and the results are shared with farmers through these health cards to guide crop-specific fertilizer application.

The Pradhan Mantri Krishi Sinchai Yojana (PMKSY): Launched in 2015–16, the initiative aims to enhance water availability for agriculture and expand the area under assured irrigation. It also focuses on improving water use efficiency by minimizing wastage and encouraging the adoption of precision irrigation practices, following the principle of “More Crop Per Drop.” This scheme combines the efforts of three earlier programs: the Accelerated Irrigation Benefit Programme (AIBP), Integrated Watershed Management Programme, and On-Farm Water Management.

Crop Insurance: Pradhan Mantri Fasal Bima Yojana (PMFBY):

This is a demand-driven and voluntary scheme, open to participation by both farmers and state governments. It offers insurance coverage for a variety of crops, including food grains (cereals, millets, and pulses), oilseeds, and commercial or horticultural crops. Farmers pay subsidized premium rates—2% for Kharif crops, 1.5% for Rabi crops, and 5% for commercial/horticultural crops. According to the revised guidelines introduced by the Government of India for Kharif 2020, the government provides a maximum subsidy of 25% for irrigated areas and 30% for non-irrigated areas.

Additionally, a state-level initiative supports the payment of premiums, subsidies, and incentives to frontline workers involved in conducting crop-cutting experiments. The scheme covers losses occurring before sowing as well as after harvest, offering protection against yield reduction due to natural calamities such as droughts, floods, pests, diseases, and lightning-induced fires. It also includes risks like prevented sowing, mid-season adversities, post-harvest losses (up to two weeks), and localized disasters such as hailstorms, landslides, and flash floods.

Ranked as the third-largest crop insurance program globally in terms of premium volume, the Pradhan Mantri Fasal Bima Yojana (PMFBY) plays a vital role in stabilizing farmers' incomes, especially in seasons or regions hit by adverse weather events or natural disasters.

PM-KISAN: The Central Government has launched the “Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)” scheme to provide income support to all landholding farmer families across the country who possess cultivable land. The primary aim is to offer financial assistance to help these families purchase essential agricultural inputs, thereby ensuring healthy crop production and improved yields to meet both farming and household needs. Under this scheme, eligible farmers receive ₹6,000 per year, which is directly transferred to their bank accounts through the Direct Benefit Transfer (DBT) system. Certain categories of farmers are excluded as per the scheme guidelines ((DAC&FW), 2020).

Institutional structure:

At the central level, the Department of Agriculture and Farmers Welfare serves as the lead agency for overseeing agricultural missions. In Rajasthan, the Department of Agriculture acts as the nodal department at the state level. Both national and state-level committees have been formed, comprising representatives from various departments, to provide guidance and ensure effective implementation of these missions.

At the district level, District Mission Committees—headed by the CEO of the Zilla Parishad—are responsible for coordination. These committees include members from multiple line departments such as animal husbandry, horticulture, fisheries, rural development, and forestry, as well as representatives from ATMA (Agricultural Technology Management Agency), Krishi Vigyan Kendras (KVKs), growers' associations, marketing boards, banks, and NGOs. Panchayati Raj Institutions play a key role in identifying priority areas and selecting beneficiaries for the mission's implementation (DAC, 2009).

III. Health Sector Adaptation Policy Framework

National Health Mission (NHM):

Launched in 2013, the National Health Mission combines two key sub-missions: the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM). Its core aim is to ensure universal access to affordable, equitable, and quality healthcare that is responsive to the needs of all citizens. The major goals of NHM include:

- Reducing child and maternal mortality rates
- Preventing and managing both communicable and non-communicable diseases, including those specific to local regions
- Ensuring fair access to essential public services such as food, nutrition, sanitation, hygiene, and universal healthcare, with a particular emphasis on women and children's health and immunization
- Promoting traditional healthcare practices and integrating AYUSH systems into mainstream medical care
- Achieving population stabilization and maintaining gender and demographic balance
- Providing comprehensive and integrated primary healthcare services
- Encouraging healthier lifestyles across communities

NHM consists of five major components:

1. **Health System Strengthening:** Improving infrastructure, increasing healthcare personnel, enhancing access to essential medicines and medical equipment, and ensuring availability of services like ambulances, Mobile Medical Units (MMUs), and Accredited Social Health Activists (ASHAs).
2. **RMNCH+A:** Delivering services focused on reproductive, maternal, newborn, child, and adolescent health.

3. Communicable Disease Control: Programs aimed at managing and reducing the burden of infectious diseases.
4. Non-Communicable Disease (NCD) Interventions: Addressing NCDs up to the district hospital level.
5. Infrastructure Maintenance: Financial support for healthcare staffing, including salaries for Auxiliary Nurse Midwives (ANMs) and Lady Health Visitors (LHVVs).

Mukhyamantri Nishulk Dava Yojana:

Launched on October 2, 2011, the Mukhyamantri Nishulk Dava Yojana provides essential medicines free of cost to both outpatient and inpatient visitors at government healthcare facilities. This includes hospitals linked to medical colleges, district hospitals, community health centres, primary health centres, and sub-health centres.

Mukhyamantri Nishulk Nirogi Rajasthan Yojana:

Building upon the existing Mukhyamantri Nishulk Dava Yojana (2011) and Mukhyamantri Nishulk Jaanch Yojana (2012), the state introduced the Mukhyamantri Nishulk Nirogi Rajasthan Yojana on May 1, 2022. This scheme further strengthens the earlier initiatives by ensuring that residents across Rajasthan receive free medical treatment and diagnostic services.

Mukhyamantri Chiranjeevi Swasthya Bima Yojana:

Recognizing the vital role of health insurance, particularly for vulnerable populations, the state launched this program on May 1, 2022, with the goal of achieving Universal Health Care as per the Sustainable Development Goals (SDGs). Rajasthan became the first state to offer universal healthcare coverage. The scheme provides an annual family health insurance of ₹25 lakh, covering medical expenses for five days before hospital admission and fifteen days after discharge. It is free for families enrolled under the NFSA, SECC, small and marginal farmers, contractual workers, and beneficiaries of the COVID-19 ex-gratia scheme.

Integrated Child Development Services (ICDS):

ICDS includes multiple sub-schemes that operate with the support of Anganwadi centres. It was launched in Rajasthan on October 2, 1975, starting in Garhi Panchayat Samiti, Banswara district. The program aims to enhance the health and well-being of women and children, especially pregnant and breastfeeding mothers, by delivering essential services and nutritional support.

Institutional Structure for Health:

At the state level, the Department of Medical, Health, and Family Welfare is responsible for planning and delivering healthcare services across both rural and urban regions. Health infrastructure is continually strengthened in alignment with the National Health Policy, as outlined in the corresponding official framework.

S.N.	Medical Institutions	Number of Medical Institutions	Under the NUHM (Functional)
1.	Hospitals*	183	-
2.	Community Health Centres	813	11
3.	Primary Health Centres (Rural)	2485	-
4.	Primary Health Centres (Urban)	58	296
5.	Dispensaries	184	-
6.	Mother & Child Welfare Centres	118	-
7.	Sub-Centres	15550	-
8.	Beds	68034	390

Table 1: Hierarchy of Health Institutions at district level

Source: Economic Review Rajasthan (2023-24)

The Directorate of ICDS is responsible for implementing programs related to women and child welfare, including the Pradhan Mantri Matru Vandana Yojana and the Indira Gandhi Matru Poshan Yojana. In addition to the institutional health hierarchy described earlier, Village Health and Sanitation Committees (VHSCs) are formed at the local level. These committees are chaired by the Sarpanch or Ward Panch, with members including the ASHA Sahyogini (who also acts as the convener), Anganwadi Worker, ANM, and representatives from Self-Help Groups (SHGs), NGOs, and Mahila Swasthya Sangh (MSS). VHSC meetings are held on the days when the Auxiliary Nurse Midwife (ANM) is present in the village. Each revenue village also selects a Swasthya Mitra—a male or female volunteer who works without remuneration—to assist in community health initiatives. The committee plays a key role in raising public awareness and supporting the objectives of the Nirogi Rajasthan Abhiyan, which aims to improve overall health outcomes. Anganwadi centres, in collaboration with the Department of Medical and Health, provide services such as health checkups, referrals, and immunizations.

IV. Food Security:

The Ministry of Consumer Affairs, Food, and Public Distribution serves as the central authority for implementing food subsidy programs aimed at ensuring food security. Within the ministry, the Department of Food and Public Distribution manages this responsibility. At the state level, the Department of Food and Civil Supplies oversees the program's execution.

The primary national framework guiding food security is the National Food Security Act (NFSA), 2013. This is implemented through the Pradhan Mantri Garib Kalyan Yojana, under which families covered under the Antyodaya Anna Yojana (AAY) receive 35 kg of wheat per ration card each month, while other eligible beneficiaries receive 5 kg of wheat per person, free of charge.

To achieve objectives like price stability, rationing during periods of scarcity, and providing essential goods at subsidized rates to low-income and vulnerable groups, states operate the Public Distribution System (PDS). State governments are responsible for setting up fair price shop networks, distributing food grains, issuing ration cards, and overseeing the functioning of these shops.

Essential items such as wheat, rice, and sugar are distributed regularly through this system. In Rajasthan, the Rajasthan State Food and Civil Supplies Corporation Ltd. (RSFCSCL) plays a key role in ensuring efficient procurement, transportation, and delivery of food grains to fair price shops, facilitating the distribution to beneficiaries.

V. Improving the Socio-economic-demographic Profile as a mechanism to build Adaptive Capacity to climate change:

Different indicators of socio-economic and demographic profile determine the adaptive capacity of people. Such as educated people find it easier to adapt their livelihood which is threatened due to climate change induced agriculture unpredictability in rural areas.

Education:

Education plays a crucial role in building human capital, enhancing individuals' quality of life, and contributing to the broader socio-economic development of society. The western region of Jodhpur lies within the Thar Desert, where many people live in isolated villages and hamlets surrounded by sand dunes. Delivering basic educational infrastructure to these remote areas poses significant challenges. Nevertheless, the government has made notable efforts to uphold its commitment to the universalization of education by implementing several key programs.

Right to Education Act (RTE) 2009: All children aged 6 to 14 have the right to free and compulsory education in a neighborhood school until they complete elementary education. It is the responsibility of the state government to ensure equal access to schools located within a reasonable distance—within 1 km for classes I to V and within 2 km for classes VI to VIII. In challenging desert regions, the state or local authorities are required to set up a primary school for communities with at least 150 people and 20 school-age children, and an upper primary school (classes VI to VIII) for a minimum of 30 children.

Key provisions of the Act include:

- No capitation fees or admission screening for children or parents
- A ban on corporal punishment and mental harassment
- A no-detention policy
- Formation of School Management Committees (SMCs) to oversee school operations

These measures are essential for boosting student enrolment and ensuring continued attendance.

Educational Support Schemes in Rajasthan:

- *Samagra Shiksha*: This is the Government of India's flagship initiative for the universalization of elementary and secondary education. In Rajasthan, it is implemented by the Rajasthan Council of School Education (RCSE) as a unified implementing agency.
- *Mukhyamantri Free Uniform Distribution Scheme*: As per the 2021–22 state budget, all students from grades 1 to 8 in government schools are provided with two sets of uniform fabric free of cost.
- *Free Textbook Scheme*: Under this program, the state government supplies free textbooks to all students from classes 1 to 8 who are regularly attending government schools. The textbooks are distributed by the State Textbook Board, Jaipur.
- *Mid-Day Meal Scheme (PM-POSHAN Yojana)*: This centrally sponsored program aims to enhance the nutritional status of school-going children. It provides one nutritious meal each school day to students enrolled in public and government-aided schools, supporting both their health and educational participation.

Housing: The Pradhan Mantri Awas Yojana–Gramin (PMAY-G) was introduced by the Government of India to provide affordable housing with basic amenities to rural populations, aiming to fulfill the vision of "Housing for All." Beneficiaries are selected based on data from the Socio-Economic Caste Census (SECC) 2011. The scheme is targeted at individuals without shelter, as well as those from the Economically Weaker Section (with an annual income up to ₹3 lakh) and the Lower Income Group (earning between ₹3 lakh and ₹6 lakh annually). In addition to financial assistance for housing, beneficiaries are eligible for wage employment of up to 90 days under MGNREGS to support house construction.

Fuel: The Ministry of Petroleum and Natural Gas (MoPNG) launched the flagship Pradhan Mantri Ujjwala Yojana (PMUY) to provide clean cooking fuel—mainly LPG—to rural and economically weaker households. The initiative aims to promote better health and environmental outcomes by encouraging the use of cleaner fuels. It has played a key role in reducing reliance on traditional cooking methods such as firewood, coal, and cow dung cakes, which negatively impact both the environment and the health of rural women.

Currently in its second phase, the scheme targets adult women from poor households who do not already have an LPG connection. Eligibility is determined based on criteria such as SECC data, Antyodaya Anna Yojana (AAY), SC/ST, Most Backward Classes (MBC), and beneficiaries of PMAY. To further support affordability, the state government has introduced the Rasoi Gas Cylinder Subsidy Yojana, under which BPL families and PMUY beneficiaries receive up to 12 LPG cylinders per year at a subsidized rate of ₹450 each.

Toilet: An assistance of ₹12,000 is provided under the Swachh Bharat Mission–Gramin (SBM-G) to all eligible BPL families, SC/ST households, small and marginal farmers, female-headed households (FHH), persons with disabilities, and landless laborers for the construction of toilets. Rajasthan achieved Open Defecation Free (ODF) status in 2018. Currently, the second phase of SBM-G is underway, focusing on sustaining ODF status and further enhancing sanitation and cleanliness in rural areas.

Government Welfare Assistance:

Pension: Various pension schemes are available in Rajasthan, including in Jodhpur district, such as the Mukhyamantri Old Age Samman Pension Yojana, Mukhyamantri Ekal Nari Samman Pension Yojana, Mukhyamantri Vishesh Yogyajan Samman Pension Yojana, and the Small and Marginal Older Farmers' Samman Pension Yojana, among others. As per the 2023–24 state budget, the monthly pension amount for all these schemes has been raised to ₹1,000 for beneficiaries up to the age of 75 years.

Palanhar : The Palanhar Scheme is a direct benefit transfer initiative launched by the Government of Rajasthan to support children facing difficult circumstances. It offers financial assistance to children who have lost both parents, or whose parents are serving life imprisonment or have been sentenced to death. The scheme also includes children whose mother has died and the father is serving a life sentence, or vice versa. Initially targeted at orphaned children from Scheduled Castes (SC), the scheme was later expanded to include orphans from all social backgrounds.

In addition to orphans, the scheme supports children in various vulnerable situations, such as those of widowed mothers (up to three children), widows who have remarried, parents affected by leprosy or HIV/AIDS, abandoned or divorced women, mothers involved in nata relationships (up to three children), and parents with disabilities or suffering from silicosis. The caregiver responsible for raising such a child is referred to as a 'Palanhar'.

Under this program, orphaned children between the ages of 0 to 6 years who are enrolled in Anganwadi centres receive a monthly allowance of ₹1,500, while those aged 6 to 18 years and attending school receive ₹2,500 per month. For children falling under other eligible categories, the monthly assistance is ₹500 for those aged 0 to 6 years, and ₹1,500 for those aged 6 to 18 years. The scheme plays a crucial role in ensuring the welfare and development of children from disadvantaged and marginalized communities.

Conclusion:

The chapter provides the adaptation policy and institutional framework operation in Jodhpur district of Rajasthan. The chapter covers policies of different areas which are necessary for removing sensitivity and building adaptive capacity of such as education, water, health, food, farm and non-farm livelihood, housing, fuel, sanitation, and so on. This is attributed to commendable government efforts to take services at the doorstep of people in remote locations in desert areas of Jodhpur.

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