

Executive Summary & Salient Field Insights for Drought Policy



Executive Summary

Drought: From Relief to Risk Reduction

Most of the studies on droughts in India have focussed on the myriad of drought impacts and make these the basis for policy recommendations. While impacts of drought and coping mechanisms to deal with the same in specific areas have been the prime focus of policy, Disaster Risk Reduction also takes into account existing infrastructure and policies during a normal non-drought year that build resilience of people in the event of a drought. The current study thus was taken up in order to turn the lens and look at droughts through policy in order to critically assess strengths and weaknesses of the existing policy environment, access to policy, and the opportunities that this environment provide to further drought resilience. Many sectoral policies already exist in India that mitigate and build resilience against impacts of droughts. Strengthening these existing policies and streamlining them to meet the specific needs in periods of drought is a more effective way of drought management. Telangana, as a region has been closely associated with discourses of drought-proneness, farmer suicides, policy neglect, and backwardness in the past. As a new state it has a fresh opportunity to strengthen or change paradigms and policies for drought amelioration.

Objectives and Methodology

The key objectives of the study were;

- to understand the evolution of the National and Telangana state drought policy environment
- to critically appraise the current drought policy of the new Telangana state
- to examine the access to drought policies focussing on vulnerable sections and inequalities and gaps therein

A mix of methodological tools including Qualitative Document Analysis, GIS mapping methods, qualitative interviews with institutions at the village, block and district levels, and a quantitative household survey through semi structured questionnaires, were used to attain a comprehensive understanding of drought policies and access. The study traversed through eight sectors of policy in order to understand the drought policy environment, its evolution and its emerging character.

The Drought Policy Environment

The Drought Policy Environment includes policies that both expressly target drought and those that indirectly do so by building resilience. Thus, the spectrum of drought management can be seen in terms of long-term to short-term approaches. The drought policy environment emanates from sectors of disaster management, water, agriculture, climate change, environment, rural development, food security and health. Overall there has been a strengthening of drought policies through sectoral policies in terms of their incorporation of droughts and disasters in their ambit in recent years. However, major debates and contradictions are still found in the policy trends. There are contradictions and divergent directions in the conceptualisation of droughts, binaries of rainfed and irrigated areas, rural and urban water provision, food security and move towards commercialisation of agriculture. The definitions and discourses of droughts in government policy reflect the ways in which the problem and significance of droughts is understood by policy. This lens through which the problem is understood determines the ways in which policy responds to it. This is seen historically in the evolution of drought policy wherein there has been a shift in problematisation of droughts as famines to regional backwardness to water crisis, climate change and

agrarian crisis. Accordingly the responses have shifted from responding to food scarcity to drought prone area development, ecological management, and finally to intensification of the water economy through irrigation.

The problem of drought has become subsumed under wider issues of emerging water crisis, climate change, and agrarian distress. The spatial significance of droughts has thus gone beyond the core drought prone areas. There is a weakening of the deterministic link of droughts with rainfall failure and strengthened link with water scarcity, which has created a space, at the very root, for a greater role of policy in creating and ameliorating droughts. There has been a strengthening of the role of the centre on drought-relevant policies and sectors in recent years. In this context, the natural alignment of central and state policy priorities is crucial for strengthening drought policies implemented at the state level. The shift in national policy focus to agrarian distress and water stress makes the central policy thrusts more aligned to the policy issues and responses of Telangana. This is an opportunity for the state to strengthen its drought, agriculture, and water sector initiatives further through additional support from the central level policy.

Irrigation as Drought Proofing

While there is now a greater role of policy, the increased focus on agrarian distress has ironically led the policy response to further extend irrigation. There is a push for maximising irrigation potential of the country such that even a drought proofing programmes such as IWMP has gotten subsumed under the irrigation scheme PMKSY. As the water economy moves towards a greater intensification and push to its edge, there is lesser scope for water buffers in the event of a deficient year. Irrigation as drought proofing has also been the core drought policy for Telangana. However this focus has limitations, particularly for the case of Telangana. Unlike the major irrigated areas of the country, which are primarily in regions of perennial glacier-fed rivers and alluvial aquifers, Telangana depends on sources of water that are highly dependent on annual rainfall. In a region where irrigation sources themselves are highly sensitive to droughts such irrigation extension with an inherent focus on more water intensive cropping and farming systems (policy discourse of irrigated agriculture development) without the demand management that is built into the rainfed area agriculture policy, this irrigation extension could increase drought vulnerability. It is also a structural and resource centric approach that is blind to issues of access to the augmented resource which takes away focus from the issue of discriminatory and unequal access to and control of the water resources harnessed.

The policy and budgetary thrust of Telangana also shows a major investment thrust in the water sector. Compared to all states, Telangana has a particularly pronounced budgetary focus on the welfare of backward classes and social security. It has also invested a higher percentage of its budget outlay on nutrition. However, with regard to rural development, medical and public health, its relative focus is lesser than that of all states put together. The push for the water sector and social inclusivity emanates from the historical political context of the Telangana region and the associated struggle for state formation. The geographical and historical conditions of the Telangana region have contributed to the way policy neglect has prevailed since the region was integrated in a united Andhra Pradesh state. Water centric neglect is seen through pump-set and groundwater dependent farmers, the absence of required lift irrigation projects, and discrimination in funding as well as river water allocation. With liberalisation, the agrarian crisis only grew evidenced by swelling numbers of suicides in the countryside. The documents of the new state/government show a discourse with strong thrust to ensuring the welfare of social groups.

Sectoral Analysis of Telangana's Drought Policy

The approach to understanding the existing 'drought policy' in Telangana in absence of a single document is done through examining the key sectors of water, agriculture, food security, and rural livelihood. For each sector, three aspects were assessed;

- 1) Intent,
- 2) Comparison with current national and previous state policy, and
- 3) Policy critiques and implementation gaps. Each sector was defined by the current state and national programs and policies.

Water includes Mission Bhagiratha, Mission Kakatiya, Telangana State Micro Irrigation Project, as well as irrigation extension. There are changes in Telangana's approach for example a shift away from groundwater, ensuring universal drinking water access, and a social group based drip irrigation subsidy. There are several concerns that arise including cost recovery and maintenance bodies that would need to be addressed.

Agriculture sector in Telangana consist of a package of programs to boost production of commercial crops and seeds. Agrarian distress is addressed through short term relief measures, and furthermore the strategy is aligned with 'doubling farmers' income'. This sector sees a clear continuation of the previous state's agricultural policy, which was noted for its neglect of rural welfare. The question is there whether Telangana, committed to social welfare, will be able to place social and ecological priorities over that of the market.

Rural livelihood is seen with NREGA, NRLM, caste-based asset distribution, land distribution, pensions, as well as allied sectors such as fisheries. These state specific schemes are indeed new emergences, however they raise a concern with regard to a recent notification from the Ministry of Finance which seeks to curb this kind of spending by states.

Food Security includes expansion of PDS rice, supply of polished rice (*Sanna Biyyum*), Mid-Day Meals and Aroghya Lakshmi meals. While the state massively expands coverage of PDS rice, it is at the expense of other ration items which thus increase people's dependence on the market. Food ration procurement, be it for Mid-Day Meals or Anganwadi Centres, is done by a third party which raises the accountability concerns.

Spatial and Social Contexts

Droughts are experienced differently by varied geographies and socioeconomies. A short duration field survey was carried out in Kamareddy district for understanding the issues of access to various drought related policies as well as the contexts of drought. The four mandals selected for the study showed differences in soil type, presence of tanks and borewell irrigation, borewell and crop failure status, as well as drinking water distress. The red soil areas, with partial failure of borewells, faced complete failure of agriculture but only partial drinking water distress due to reduced yields. In black soil areas agriculture there was almost complete failure of borewells and major drinking water distress but only partial agriculture failure even in rainfed areas. There is a non-linear and imperfect linkage between rainfall deficiency, agriculture failure, and drinking water distress which needs to be taken into account in policy thinking, particularly in the 'irrigation as drought proofing' paradigm.

While some sections are able to cope better during droughts, vulnerable sections suffer disproportionately due to their lower resilience to reduced incomes and poor quality of access to resources. The very base of livelihood and income for lower castes and marginal landholding households is thus precarious and limited, a year of drought and deficit play the role of sharpening existing vulnerabilities. Not only this, their access

to government policy is also lower. Some policies however are depended on highly by the most vulnerable sections, such as SHGs, MNREGS, and thus strengthening of these policies can make drought mitigation more inclusive. Not just women, but women of vulnerable sections of lower castes and class, are particularly vulnerable.

Forward Directions

After completing the policy analysis as well as the field survey, a dissemination workshop was held with Telangana-based individuals from government, civil society, academia, and research to get feedback as well as inputs on how to further the work around building drought resilience with the lens of inclusiveness and access. The Policy debate raised debates of convergence issues, the role of technology, whether to see droughts as disasters or backwardness, and the failures of the state. Recommendations were raised regarding institutions, assets, cropping, and others. Furthermore, suggestions for future research were also given, specifically how farmer perspectives can be better incorporated in policy work.

As a short study seeking to understand a broad and multi-sectoral field, the issues raised are best to understood as questions and areas of concern for a young government. To this end, this study has raised emergent issues and ways forward under the following themes;

- 1) **Addressing policy research gaps** involves conducting research in different agro-climatic zones, i.e. to understand spatial differences; foregrounding drought in policy analysis so that gaps can be revealed, and lastly to incorporate methods that center farmer perspectives and decision making as part of policy.
- 2) **Social science has a role** in so-called technical fields, and drought even more so. The kinds of technology made available as well as issues of access; the methods in which extension is conducted, as well as maintaining a dialogue with government and civil society would allow drought management to be properly ensured.
- 3) Lastly, **implementation** is the actualisation of the policy and therefore is a persistant concern. While this study was not aimed at assessing implementation status, it is clear that this cannot be ignored. Issues of awareness and training, as well as those of vulnerable and invisibilised groups such as women or tribals, obviously will determine the actual outcome.

SALIENT OBSERVATIONS

Policy Issues from Field Insights

Water Sector:

Mission Bhagiratha –

- There is uncertainty and limited conviction among the population regarding user charges being charged for Mission Bhagiratha water.
- Private and PPP RO water was being accessed in all villages visited. There had been “awareness” built regarding the superior quality and safety of RO water as against panchayat water. This behavioural aspect will offer a challenge to the uptake of Mission Bhagiratha for drinking water use.
- Not only the volume but also timing, duration, and regularity of water supply will affect utility of Mission Bhagiratha water.
- Mechanisms need to be put in place to ensure that equity in supply is met in operational terms of the “per-capita” allocation at the village level.

Mission Kakatiya-

- WUA elections provided for under APFMIS have not taken place since 2008, leaves questions of tank maintenance after the one time tank rejuvenation activities under Mission Kakatiya.
- Upper caste households mostly owned land close to and downstream of tanks and thus tended to be the main beneficiaries. Lower caste households had lands either upstream of the tank or at great distance from the tank and thus benefitted lesser both from the groundwater recharge as well as direct tank irrigation.
- Most small and marginal farmers did not own borewells in order to avail the benefits of groundwater recharge from tank rejuvenation.
- Tanks, especially small tanks, are highly dependent on regular recharge from rainfall. Small tanks are unable to sustain its water resource for more than a month in the absence of rainfall recharge and extraction of water through groundwater borewells. During drought years they are not recharged enough to sustain the dependent population and economy.
- Silt for application on fields extracted from the desilting of tanks has to be transported by farmers at their own cost, which only rich farmers could afford.

Micro Irrigation-

- Despite subsidies only a small percentage of farmers availed drip irrigation. The upper caste large farmers accessed this programme more than lower castes and marginal farmers. The primary reason they availed drip irrigation technology as it enabled them to increase their productivity and area under production.
- Access to irrigation source is essential for drip facility and most small/marginal farmers did not have access to irrigation.
- Drip irrigation methods required more frequent and regular irrigation particularly in dry spells, and in red soil areas where the water holding capacity of soils was lower. Thus regular power for running borewells was essential, which is a problem in power short drought periods.

- The subsidy is being computed prior to application of taxes (GST), and the farmer has to bear the price of the taxes which nearly doubles the cost of drip irrigation technology making it significantly lesser accessible to the poor small farmers.
- The drip irrigation system in villages visited was being promoted by Sugar mills and companies for the sugarcane crop. Thus the “water-saving” technology is mostly being utilised for a water-intensive crop.

Government Water Tankers:

- There is immense inequality in accessing tankers. Instances such as SC colonies not receiving tankers, SCs being given much lower limits of water volumes accessed, long queues in which lower castes have to wait for upper castes to access water first.
- Long queues, quarrels over water, irregularity and uncertainty of tankers affect women’s employment and household water distress.

Agriculture Sector:

Commercial Agriculture push-

- Volatility of price shocks, higher input costs, and market dependence makes market-oriented commercial agriculture highly risky especially for the small and marginal farmers as well as agricultural labourers. Long term price insulation mechanisms (rather than short term and one time debt waivers) need to be ensured to protect farmers who move to less water intensive but risky commercial crops.
- Farmers were found to be more sensitive to timing, duration, and distribution of rainfall while making cropping decisions rather than annual quantum of rainfall. However many of the promoted commercial crops such as soya were found to be more sensitive to ill-timed rainfall and thus risk failure in normal rainfall years making farmers with irrigation access prefer water-intensive paddy and sugarcane. Promoting water-saving but climate sensitive market oriented crops without proper market insulation may increase farm distress and vulnerability in the guise of drought-proofing.

Crop Contingency Plans:

- Since climatic fluctuations lead to crop failures, particularly for rainfall *sensitive* crops, even in non-drought years (annual total) years, crop contingency plans need to be extended to farmers at all times and not only in the occasion of a drought.
- Crop Contingency Plans are taken up only after a late onset on rainfall and in effect taken up only for farmers who have not yet sown the crop. However, many farmers with even marginal access to irrigation sow early not waiting for the rain, and thus do not benefit from crop contingency.

Procurement:

- Private procurement happens at the farmers’ doorstep, thereby reducing transportation and travel costs, whereas government procurement requires the farmer to transport the crop produce with often the only partial procurement.
- Cotton procurement has been linked to ginning mills which are located in concentrated cluster in one region. Farmers not close to the mills were not able to access the government procurement centres due to heavy transportation costs and deterioration of quality of produce while transporting to long distances.
- Government procurement demands higher quality of produce and thus farmers feel there is the risk that

a share or all of their crop produce may not get procured at all even after transporting long distances.

Insurance:

- From the most recent NSSO survey “Situation of Agricultural Households in India” 2011-12, in most of the districts in Telangana the percentage of farmers having access to crop insurance is significantly lesser than percentage of farmers that have experienced crop loss.
- Crop insurance is operationalized primarily through a linkage with crop loans accessed from banks as an annual insurance premium deducted from the loan amount. But, most lower caste and marginal farming households did not access credit from banks.
- A significant percentage of households, particularly from the lower castes and poorer households reported being unaware of insurance or not having insurance. Among the SC and BC households despite having access to government sources of crop loans, many households reported not having/no awareness regarding crop insurance.
- Since the insurance is linked to the crop loan, it is accordingly linked to the crop that the loan is covered for. However, farmers reported that they took most crop loans against sugarcane crop as they got higher credit amounts for the crop, but they might choose to sow a different crop, thus in the event of crop failure were not eligible for a claim.
- Crop diversification and changing cropping choices based on vagaries of early monsoon is practiced widely and thus insurance linked to particular crops proves ineffective.
- The process of making insurance claims was not known by farmers and their perceptions regarding insurance claims, from told experiences, is that the process is complex, time consuming, and reveals no results.
- There were complaints regarding immense delay in visits by insurance officers to compute crop loss, and by then the field was already cleared for the next cropping season.

Extension:

- Less than 40% households had access to government extension.
- The upper castes and large farmers have reported higher access to extension services. This is also due to a popular method of extension through *progressive farmers*.
- Farmers reported that even if government officials visit the village for extension, they usually come at hours when most farmers are in the fields for cultivation and farm labour.

Input Subsidy:

- While subsidised seeds are provided farmers reported issues such as subsidised seeds and inputs being sold after sowing is complete for the season.

Promotion of dryland practices:

- As compared to even pulses, farmers reported rice to have the ability to withstand rainfall fluctuations as well as requiring less weeding.
- SRI has very high labour requirement which is a challenge in some areas where there is lack of availability of agriculture labour at low costs.
- Cotton and soyabean induce high risk and distress due to their high sensitivity to ill-timed rainfall and

moisture levels affecting propensity for crop failure or reduced quality of output fetching low prices.

Rural Livelihoods

MGNREGS

- Convergence of MGNREGS with Swachh Bharat Mission prioritised NREGS activities on building toilets and not on drought-proofing structures since last two years.
- Farm ponds could be taken up only by large farmers as it required adequate land area. Groundwater recharge benefited mostly the large farmers as they had access to borewells.
- Calculation of wages is based on volume of work (measurement of structure). During months when soil moisture content is less, tasks like breaking the ground become more laborious and thus volume of work completed decreases and so do wages.
- During drought years while days of work one can demand was increased, in effect there was lack of availability of work due to high demand for work. In more populated villages there was more demand for work and limited works taken up relative to the population and thus harder to get NREGS work during droughts.
- Delays in MGNREGS wage payments for an average of 42 days, ranging from a few weeks to over three months, have been reported. Given that NREGS provides the basic source of livelihood to the most economically and socially vulnerable sections, such delayed payments can pose as sources of vulnerability to droughts to these sections.

NRLM:

- The access and dependence of vulnerable groups on SHGs for credit is significant.
- SHGs provide a limited amount of loan amounts, and are unable to meet the increased demand for credit, for both personal and livelihood purposes, during drought periods.
- Since facilities of low interest crop loans, crop loan waivers, and loan linked crop insurance are made available through and associated with formal sources of credit, these informal sources lose out on access to many government financial benefits and policies.

Others:

- Fishery developed through tank rejuvenation in Mission Kakatiya is of use only in big tanks that can sustain water for longer periods. In smaller tanks water is retained for barely a month and thus dependence on it for fishing is limited.
- Government support for fodder for livestock during droughts is limited. People had to travel long distance to other districts at their own costs to access fodder. Heavy cost burden has to be borne by farmers for fodder access.

Food Security:

- The expansion of PDS rice coverage seems to be coming at the expense of reduced number of ration items generally available through the PDS. Telangana had discontinued the earlier state-sponsored scheme called 'Amma Hastham' which provided 9 essential items in a packaged through PDS, and currently only rice, kerosene, and sugar are available.
- Households reported a lack of pulses and sparse and unequal distribution of kerosene to be most troublesome for beneficiary households, therefore increasing dependence on the market.

- Fund allocation for MDM and ICDS does not change during a drought and food prices do, the agencies tend to reduce the quantity/quality of food (vegetables/eggs) to adjust for the increased prices.
- Based on physical and socioeconomic contexts of a region there is a non-linear and imperfect linkage between rainfall deficiency, agriculture failure, and drinking water distress. This is particularly relevant for the new Drought Manual that has provided a fixed level of rainfall deviation as the first and necessary trigger to declare a drought. Some regions may face agricultural droughts at lower levels of rainfall deviation. There is a need for spatial analysis in different resource and agroclimatic regimes with different local practices.
- Some sections of society are able to cope better during droughts while vulnerable sections suffer disproportionately due to their lower resilience to reduced incomes and poor quality of access to resources and policies.
- Inequalities need to be met head on firstly by recognising and acknowledging these inequalities in policy, which currently is more discursive than functional. Then the means and paths through which these socioeconomic inequalities operate and reproduce in rural society needs to be researched and identified. These processes and variables that limit access to resources and policies need to be built in to the design of policies and methods to address these limitations need to be explicitly specified. And finally since these socioeconomic inequalities are entrenched in social norms and practices, regular monitoring of access to these policies need to be provided for. Grievance redressal, regular audits, and availability of monitoring data are essential.