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A Study on Financial Provisions for Disaster Management in the State of Andhra Pradesh

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Abstract

In India, the rescue, relief and rehabilitation measures in the event of a disaster are primarily the responsibility of the State governments. The Central government supplements the efforts of the State government by providing logistical and financial support in case of severe natural calamities. The state of Andhra Pradesh is exposed to cyclones, storm surges, floods and droughts. About 44 percent of the state is vulnerable to tropical storms and related hazards. Budgeting for a disaster is a challenging and complicated task for the State. It receives the financial assistance from the Central government on yearly basis as well as assistance for various calamity response/ mitigation programmes financed through external aids by United Nations, World Bank etc. The major component of the financial allocation is based on the recommendations of the finance commissions. Since independence, the finance commissions have been mandated, by the Constitution of India, to recommend financial allocations to the states.

The financial impacts of disasters are beyond the coping capability of the state government at most times. Therefore, there is a requirement for developing financial and fiscal management plans by the State government based on the financial resources available from various sources. ***This paper attempts to analyse the financial provisions available for disaster management in the state of Andhra Pradesh.***

Key words: *Finance Commission, Disaster Relief Fund, Grant-in–Aid, Natural Hazards.*

1. Introduction

1.1 Budgeting for disaster management is a challenging task for even the most developed economy in the world. It is even more onerous and complicated for a developing country like India, which needs to draw a fine balance whilst allocating resources for developmental projects and disaster management, which is an unpredictable and uncertain eventuality. In the early years, post independence, the budgetary allocations in India were mostly dedicated for large developmental projects, part of which, in effect, augmented the disaster mitigation process. In India, the rescue, relief and rehabilitation measures in the event of a disaster are primarily the responsibility of the State governments. The Central government supplements the efforts of the State governments by providing logistical and financial support in case of severe natural calamities. Although the responsibility for disaster management has been entrusted with the state governments, the major part of the financial provisions are made by the central government. In an intriguing federal democracy overshadowed by geo-political, social and economic diversity, it has been a tight rope walk for the Indian government to make provisions for disaster management.

1.2 Andhra Pradesh is exposed to cyclones, storm surges, floods, droughts and few other natural and man-made calamities. A moderate to severe intensity cyclone can be expected to make landfall every two to three years. About 44 percent of the state is vulnerable to tropical storms and related hazards. In Oct 2014, cyclone Hudhud caused extensive damage to the city of Visakhapatnam and the neighboring districts of East Godavari, Vizianagaram and Srikakulam in Andhra Pradesh. Damages were estimated to be Rs 21908 Crores (US$3.4 billion) by the Andhra Pradesh State government (Rama Krishna Rao S, et al, 2015). The financial impacts of these types of disasters are beyond the coping capability of the State government at most times. The Sendai Framework for Disaster Risk Reduction (2015- 30), adopted at the third United Nations World Conference on Disaster Risk Reduction, held in 2015 in Sendai, Japan outlines seven clear targets and four priorities for action to prevent new and reduce existing disaster risks. The framework includes 'Investing in disaster risk reduction for resilience' as a priority area (UNISDR, 2015). Therefore, there is a requirement for developing financial and fiscal management strategies for disaster resilience by the state government based on the financial resources available from various sources. ***This paper attempts to analyse the financial provisions for disaster management in the state of Andhra Pradesh***.

1.3 In the state of Andhra Pradesh, response, relief and rehabilitation including the financial provisions are handled by Departments of Revenue. In case of a disaster, the State Crisis Management Committee is set up under the chairmanship of Chief Secretary who is the highest executive functionary in the State. All the concerned Departments and organisations of the State and Central government departments located in the State are represented in this Committee. The committee reviews the action taken for response and relief including financial allocations as considered necessary. The financial provisions for the Disaster Risk reduction are available from various sources (NDMP, 2016). These include:

- Grant allocated to the State Disaster Relief Fund (SDRF) by the Central government based on the recommendations of the Finance Commissions (FCs).
- Additional Central assistance from National Disaster Response Fund (NDRF) in the event of a calamity of severe nature, where the requirement of funds for relief operations is beyond the funds available in the SDRF account.
- Funding for Disaster Risk Reduction through related schemes and projects through Central and State governments' Plan schemes.
- Capacity Building Grant for training and capacity building of stakeholders and functionaries in State, preparation of disaster management plans based on hazard, risk and vulnerability analysis and setting up and strengthening of Emergency Operation Centre in the State.
- Flexi funds as a part of Centrally Sponsored Schemes (CSS).
- Externally Aided Projects, wherein the State receives assistance for various calamity response/ mitigation programmes through United Nations, World Bank etc.
- Foreign Assistance.
- Donations from Private sectors and NGOs.

2. Grant allocated to the State by the Central Government.

The major part of the financial provision of the State is met from the grants provided by the Central government as a part of budgetary allocations based on the recommendations of the Finance Commissions for preparedness, mitigation and reconstruction. Since independence, the Finance Commissions have been mandated, by Article 280 of the Constitution of India, to recommend financial allocations to the states. While allocating the funds to various states for a period of five years, the FC considers the expenditure incurred by the State Government on relief operations during the past, vulnerability to natural disasters as well as the economic status of the State. Until the DM act of 2005, the financial provisions had catered only for the immediate relief measures and did not cater for financial provisions for the reconstruction and rehabilitation. The financial allocation to the state by the fourteen finance commissions so far can be classified into three concepts (table 1):

S .No	Concepts of Financing Disaster Relief	Recommended by	FY
1	Margin Money	1st to 8th Finance Commissions	1951-1990
2	Calamity Relief Fund (CRF)	9th to 12th Finance Commissions	1991-2010
3	State Disaster Relief Fund (SDRF)	13th & 14th Finance Commissions	2011-2020

Table. 1 Concept of Financing by Various Finance Commissions

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3. Concepts of Fund allocation

3.1 Concept of Margin Money

3.1.1 The first finance commission set up on 22 Nov 1951, made the recommendations for the budgetary allocations to the States based on the financial position as declared by the States themselves through the actual revenue and expenditure incurred in the past. It was difficult for the finance commission to make provisions towards calamity relief and take an exact view of the requirements of the state for unforeseeable factors like famines, draught, natural calamities, and exodus of population from one region to another. Until the 5th Finance Commission; the allocations of finances for disasters was done through the allocations of margin money by way of 'Grant-in Aid' of the revenue from the Consolidated Fund of India.

3.1.2 The State of Andhra Pradesh was formed on 01 Nov 1956 by merging the Andhra State and Telangana region of Hyderabad State to form a united 'Telugu speaking State'. The first 'Grant-in-Aid' per-se was allocated to the state of Andhra Pradesh by the 2nd finance Commission. The 2nd finance commission whilst allocating finances to the States for severe natural calamities noted the possible undesirable effects of dislocation in the finances of a State on this account (Rangarajan C, 2003). Keeping in mind the necessity of minimising any tendency for wasteful expenditure on the part of the States, it recommended that the States should bear a significant share of the total relief expenditure burden. The 2nd Finance Commission (1955 - 60) innovated the concept of Margin Money to be set apart as a separate fund for meeting expenses on natural calamities.

3.1.3 The impact of famine of 1966 & 1967 brought the focus of the government and the policy makers to make financial provision specifically for natural disasters like famine and draught and establishment of a 'National Fund' (Rangarajan C, 2003). In the financial years 1966 - 67 and 1967- 68 the affected states were provided with famine relief of 73.49 Cr and 78.89 Crores respectively. The 6th finance commission set up on 29 the February 1968, explicitly called for the Commission to review the feasibility of establishing a 'National Fund' to which the Central and State Governments could contribute a percentage of their revenue receipts. The commission concluded that the establishment of a National Fund, fed by Central and State contributions, was neither feasible nor desirable as many states opposed the idea. It recommended that States should draw up programmes of both medium and long term significance for permanent improvement of the areas prone to drought and flood. It recommended that instead of incurring expenditure on relief on ad hoc basis on schemes of dubious value, provision should be made on a much larger scale for development of drought and flood prone areas in the State and Central sectors.

3.1.4 The 7th Finance commission (1980 - 85)

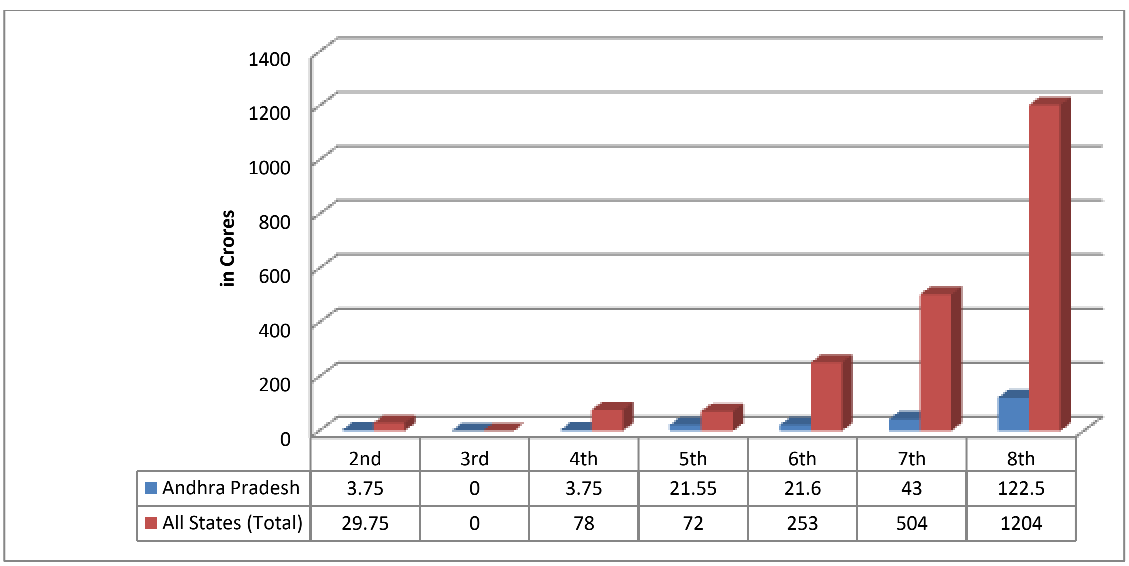

Table 2: Margin money awarded by 2nd to 8th FC to the State of AP vs Total allocation

made a distinction between calamities of different natures by differentiating between droughts on the one hand and floods, cyclones and earthquakes on the other on the basis of the nature of events and the type of measures required for response. The Commission recognised that relief requirement for the rapid onset disasters like floods, cyclones and earthquakes was immediate and quick, while slow-onset events like droughts could be planned with a long term perspective. It recommended that for expenditure on relief and repairs and restoration of public works following floods,
Cyclones and other calamities of this nature, a central assistance should be made available as non-plan grant. The 8th Finance Commission recommended provision of 50 per cent of the margin money by the State Governments for 'Relief on Account of Natural Calamities' and balance 50 per cent of the margin money in every year as a 'Grant-in-Aid' by the central government. On the occurrence of a natural calamity, a State was entitled to draw on the Centre's contribution after it has exhausted its own share of the margin money.

3.1.5 The margin money allocated to the States by the various Finance Commissions steadily increased from Rs. 29.75 Crores during 1955 - 60 to Rs 1204 Crores during 1985 – 90 (Table 2), wherein Andhra Pradesh share increased from Rs 3.75 Crores to Rs 122.5 Crores. From the Fourth to Eighth FC, Bihar (12.9 %), West Bengal (12.3 %), Uttar Pradesh (11.2 %), Gujarat (10.5 %), and Andhra Pradesh (10.18%) were the top States who received highest priorities (Dhar Chakrabarti PG, 2013). The State of Andhra Pradesh received large allocations due to the enormous human and property loss caused by severe cyclones of 1977 and 1990.

3.2 Concept of Calamity Relief fund

3.2.1 The 9th finance recommended replacement of the existing arrangements for financing relief expenditure by a new one, under which, the States had much greater autonomy and accountability. It recommended formation of a 'Calamity Relief Fund' (CRF) for each State wherein the Government of India contributed to the extent of 75 per cent in the form of non-Plan grant. The balance 25 per cent was contributed by each State out of its own resources. The contribution to the fund was made by Governments in quarterly installments. The Centre constituted an Expert Group to monitor relief work carried out in States utilising the Calamity Relief Fund and also to advice the State agencies involved in relief work. A State-level Committee headed by the Chief Secretary of the State and consisting of officials connected with the relief work and other experts were constituted by the State Government to administer the Calamity Relief Fund. The Committee decided on all matters connected with the financing of the relief expenditure, including variations in the norms of assistance. The Calamity Relief Fund existed outside the general revenues of the State and was deposited in a nationalised bank.

3.2.2 The 10th Finance Commission recommended the continuation of the Calamity Relief Fund. The commission recommended establishment of a National Fund for Calamity Relief (NFCR) in addition to the Calamity Relief Funds to which the Centre and the States contributed and was managed by a National Calamity Relief Committee of which both the Centre and the States were represented. The 11^{th} FC modified it and recommended setting up of National Calamity Contingency Fund (NCCF). It had a core corpus of Rs. 500 Crores and was replenished through the National Calamity Contingent Duty (NCCD) imposed on cigarettes, pan masala, beedis, other tobacco products and cellular phones (Rangarajan C, 2003). The assistance from the NCCF was only for immediate relief and rehabilitation and not for any reconstruction of assets or restoration of damaged infrastructure.

3.2.3 The 11^{th} finance commission recommended continuation of the existing scheme of contribution of 25 per cent by the States and 75 per cent by the Centre to the Calamity Relief Fund. The FC recommended utilisation of CRF for providing relief to the people affected by man-made and other disasters and the concerned units from which a man-made disaster emanated, were to pay for it. The 12^{th} finance Commission also recommended continuation of the existing scheme and included the expenditure on relief of distress caused by fire to be treated on the same footing as a natural calamity of the category of floods. The CRF allocation to the state of Andhra Pradesh by the Finance Commissions increased by 342 % from 430 Crores during 9^{th} FC to 1901.25 Crores by the 12^{th} FC (Table 3). The allocation during this period to Andhra Pradesh increased due to the cyclone in 1996 wherein 1,000 people died and 5, 80,000 housed were destroyed. The estimated damage was of a tune of Rs 20.26 billion. The tsunami of 2004 inflicted severe loss to the state and the state received Rs 1094.4 Crores out of a total CRF allocation of Rs 11008 Crores (9.98%). To

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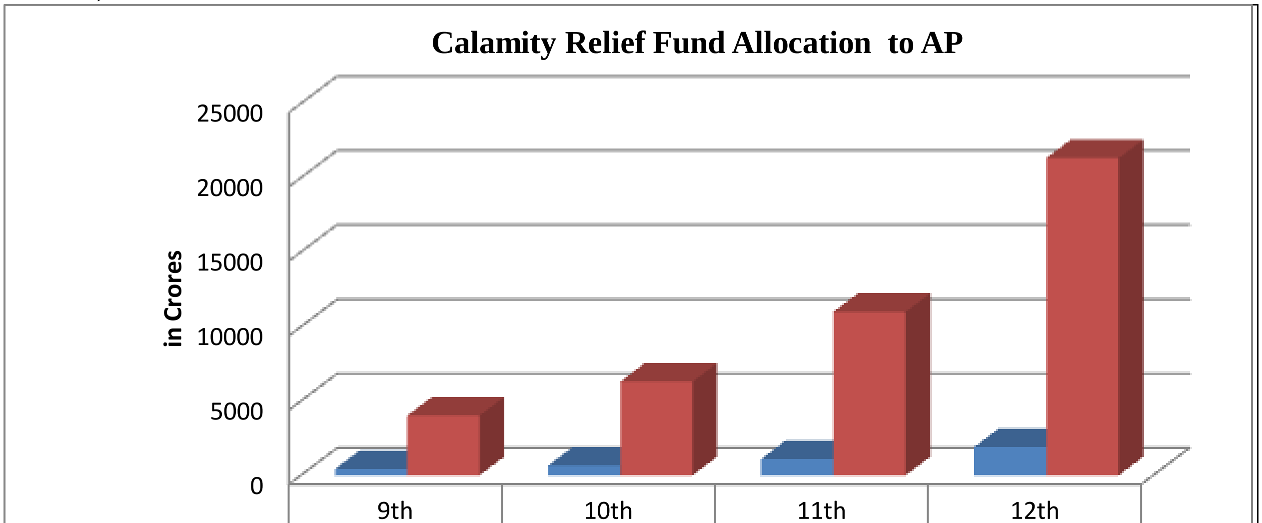
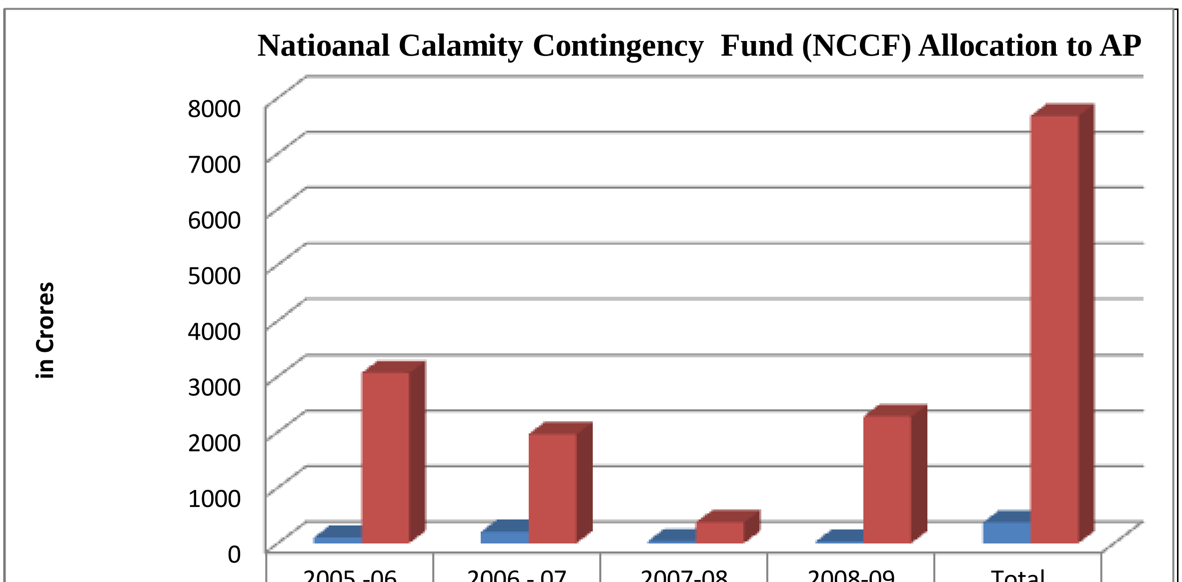
overcome the shortage of finances due to the Tsunami, the state was allocated fund from the NCCF (Table 4).



	9th	10th	11th	12th
Andhra Pradesh	430	653.77	1094.4	1901.24
All States (Total)	4020	6304	11008	21333

Table 3: Calamity relief fund allocated to Andhra Pradesh by 9th to 12th Finance Commission

3.2.4 Over the period 2005 - 09, the Central Government released 371 Crores to Andhra Pradesh from NCCF out of the total of Rs 7677 Crores to all States for various calamities (Table 4).



	2005 -06	2006 - 07	2007-08	2008-09	Total
Andhra Pradesh	100	203	38	30	371
All states	3061	1962	375	2279	7677

Table 4: Allocation from NCCF to Andhra Pradesh 2005 -2009

3.2.5 In order to finance post-disaster reconstruction which was not covered under the NCCF, Additional Central Assistance (ACA) of Rs 73 Crores was provided to Andhra Pradesh In the year 2008-09 out of a total of Rs 645 Crores released to 10 states under ACA for long term reconstruction of assets.

3.3 Concept of State Disaster Relief Fund

3.3.1 Until the DM act 2005, disaster management in India was considered only as an issue of providing relief and rehabilitation to the people affected by natural calamities. The 13th finance commission constituted after the DM act 2005, brought about a change in the approach to disaster management from a relief-centric to a holistic and integrated approach covering the entire scope of disaster management encompassing preparedness, prevention, response, mitigation, relief, reconstruction and rehabilitation in order to achieve sustainable development. The DM Act envisaged the constitution of two types of funds, one for disaster response and the other for mitigation to be set up at the National, State and District levels.

3.3.2 As per recommendations of 13th FC (Dhar Chakrabarti PG, 2013), the Centre contributed 75% and 90% of the total yearly allocation to general category states and special category States. The balance 25% and 10% was contributed by the respective government. The central share was released in two installments in the month of June and December each year. The assistance from NDRF and SDRF was provided for the additional requirement of the concerned programmes and schemes of the State government based on the extent of the instant calamity. SDRF (Singh RK, 2013) meets the expenditure for providing immediate relief to the victims of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloud burst and pest attack. The balance funds of CRF and NCCF as on 01 Apr 10 was merged with SDRF and NDRF respectively. The allocations recommended by the 13th finance towards SDRF for Andhra Pradesh was Rs 2811.64 Crores out of which the Central share was Rs 2108.73 Crores and the state share was 702.91 Crores (Table 5).

3.3.3 So far, only NDRF and SDRF have been constituted. As per Section 47 of the DM Act 2005, Central Government may constitute a National Disaster Mitigation Fund for projects exclusively for the purpose of mitigation. The 14th finance commission did not make any specific recommendation for a mitigation fund.

3.3.4 The 14th finance Commission has recommended an aggregate corpus for all States of Rs. 61,219 Crores for the period 2015 - 2020. It recommended that all States contribute 10 % to SDRF with the remaining 90 % coming from the Central government. The decision of constituting DDRFs has been left to the State governments.

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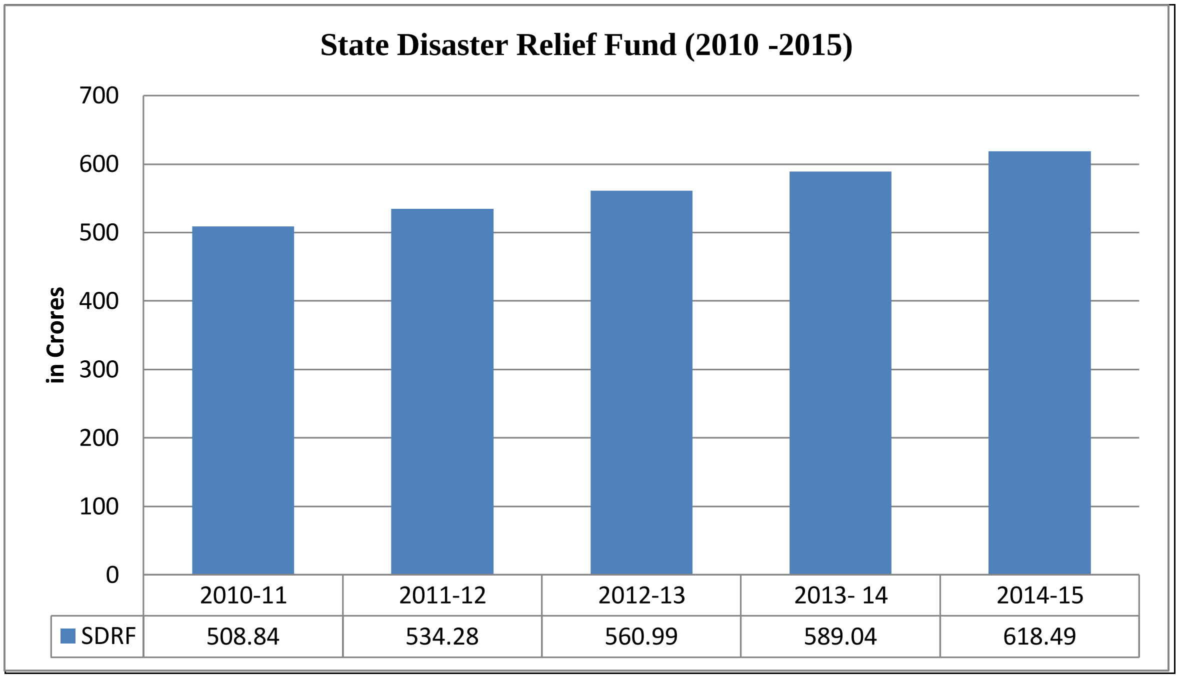

Table 5: Statewide allocation of funds from SDRF (2010-2015)

3.4 For determining the corpus of the SDRFs for the reorganized States of Andhra Pradesh and Telangana, the 14th Finance Commission took into account the resources available to the States of Andhra Pradesh and Telangana (14th Finance Commission). The expenditure of the erstwhile undivided Andhra Pradesh for the period 2006 - 07 to 2012 - 13, along with district-wise expenses for the same period was obtained along with district wise ratios of expenditures on disaster relief. These accounted for 88.92 per cent of the total expenditure. They were assigned between the two states in the ratio of 61.59 for Andhra Pradesh and 38.41 for Telangana. The respective SDRF corpus for the base year was accordingly arrived at in the ratio of 61.59 for Andhra Pradesh and 38.41 for Telangana. Projections were then made to arrive at the size of the SDRFs for Andhra Pradesh and Telangana for the award period (Table 6). The Commission also recommended the modus operandi for allocation of funds for the State of Andhra Pradesh.

3.5 The 14th finance Commission recommended allocation of 2429 Cr to the newly formed State of Andhra Pradesh for the period 2015 - 2020 out of a total allocation of Rs. 61,219 Crores to all states. The allocation is comparatively higher because of the allocation recommended is for the new state of Andhra Pradesh. The 14th Finance commission recommended separate allocation for the state of Telangana.

3.6 In the financial Years (2014 - 17), the Andhra Pradesh government received allocations from the National Disaster Relief Fund to the tune of Rs 1637.49 Crores as the corpus under SDRF was exhausted (Table7). In the FY 2014 -15, the expenditure increased due to the Cyclone Hudhud.

3.7 It can be seen that the expenditure on disaster relief from the Central fund has increased considerably from 2004 - 09 (Table 4).

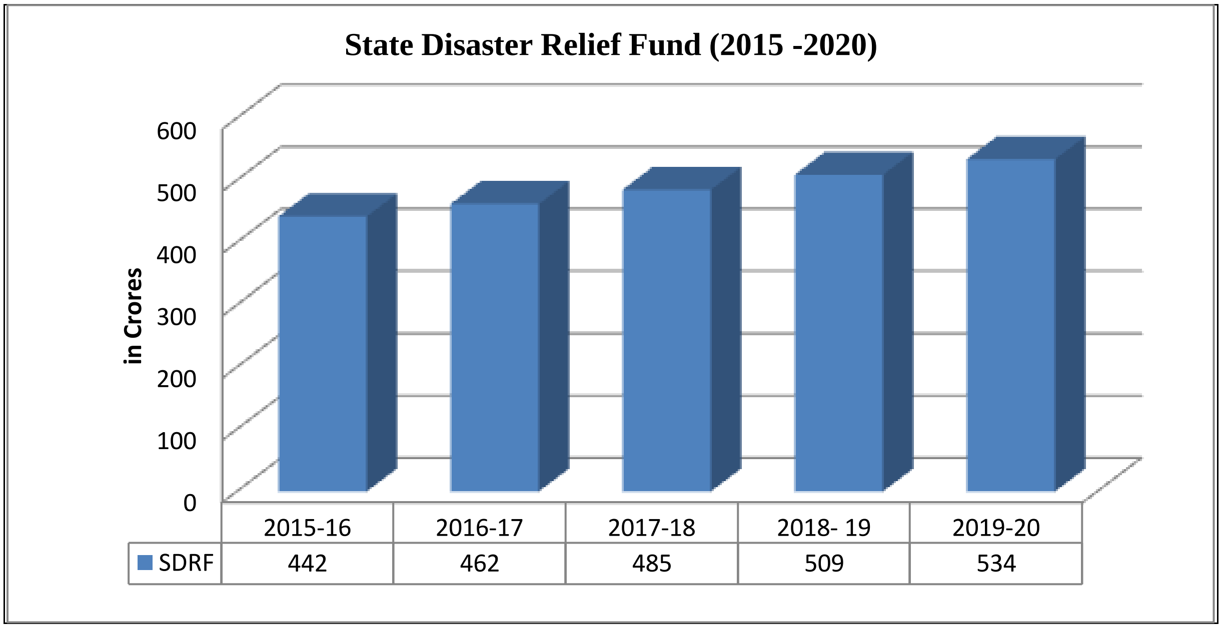

Table 6: Statewide allocation of funds from SDRF (2015-2020)

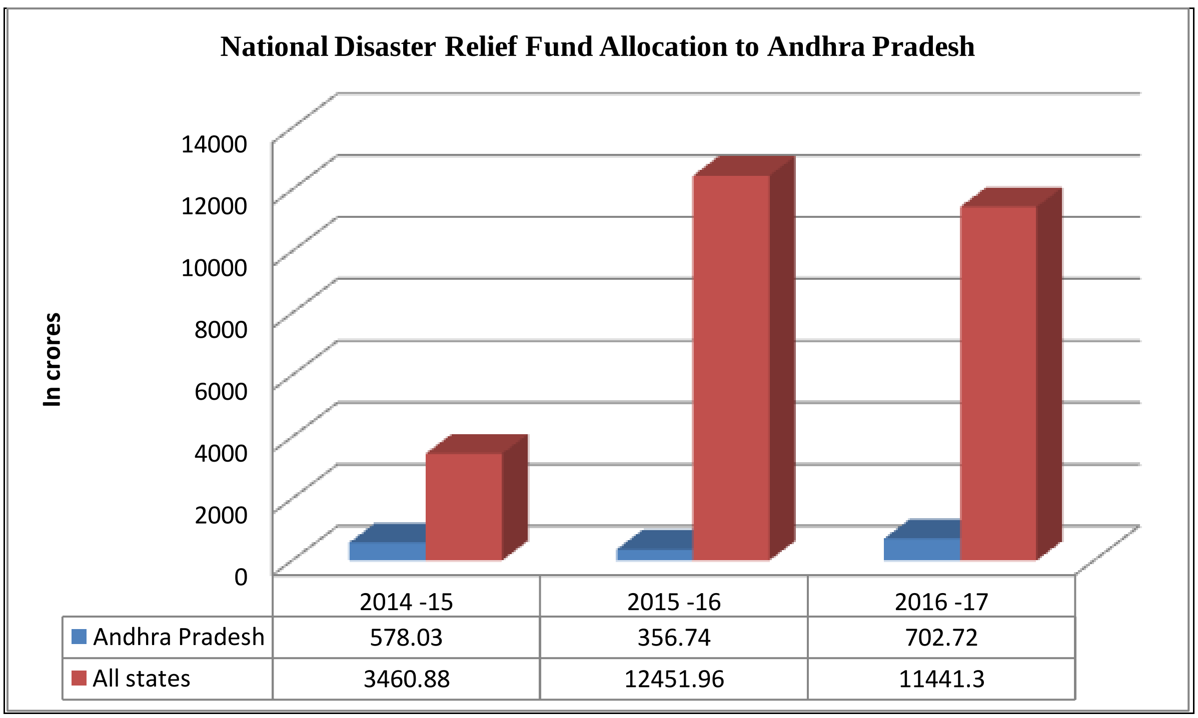

Table 7: Allocation of funds from NDRF (2014 - 2017)

Funding through related schemes and projects through Central and State governments. Various nodal ministries as well as other ministries and departments of Centre and State have dedicated schemes, aimed at disaster prevention, mitigation, capacity building etc. within their particular domain. These include the scheme for strengthening of fire and emergency services, financial assistance to training institutions for disaster management, Integrated Coastal Zone Management programme and flood management & forecasting programmes. There are projects on Tsunami and Storm Surge

Warning System. The National Cyclone Risk Mitigation Project encompasses cyclone forecasting tracking and warning systems, capacity building and structural measures. Apart from these, many of the schemes, which are implemented by various ministries/ departments, have embedded Disaster Risk Reduction (DRR) components. There are many other programmes that improve societal resilience, which is a critical component of DRR, such as the National Rural Health Mission, Mahatma Gandhi Employment Guarantee Scheme and the Urban Renewal Mission.

3.8 Capacity Building Grant

On the recommendation of the 13th Finance Commission, Rs 525 Crores was allocated to the States for taking up activities for building capacity of which Andhra Pradesh had a share of 30 Crores i.e. Rs 6 Crores per year. This grant was to be utilised for preparation of an action plan for the entire period of 2010-15 as well as action plans for each financial year. These plans were to include training and capacity building of stakeholders and functionaries in States, preparation of disaster management plans based on hazard, risk and vulnerability analysis and setting up and strengthening of Emergency Operation Centres in States.

4. Flexi Funds as a Part of Centrally Sponsored Schemes

In 2014, The Department of Expenditure, Ministry of Finance directed all Central Ministries to keep at least 10 percent of their Plan budget for each Centrally Sponsored Scheme (CSS) as flexi-fund (except for schemes which emanate from a legislation or schemes where the whole or a substantial proportion of the budgetary allocation is flexible. States could use the flexi-funds for the CSS to meet the following objectives:

- Provide flexibility to States to meet local needs and requirements within the overall objective of each program or scheme.
- Pilot innovations and improve efficiency within the overall objective of the scheme and its expected outcomes.
- Undertake mitigation /restoration activities in case of natural calamities in the sector.

5. Externally Aided Projects

Besides the funds which are available through plan and non-plan schemes, funds are mobilised through external funding agencies for vulnerabilities assessment, capacity development, institutional strengthening of response mechanism and mitigation measures etc. The Central Government provides support to the State for reconstruction and rehabilitation in the aftermath of major disasters through aid from Word Bank, United Nations and other such external funding agencies. On 27 Jan 2011, The Central government sanctioned the phase I of the centrally sponsored National Cyclone Risk Mitigation Project for Andhra Pradesh and Odisha at a cost of Rs 1496.1 Crores (Nanda Kumar T, 2011). The loan has been funded by the World Bank under the adaptable programme loan with an International development association credit amounting to 1144.96 cr. The remaining amount of 298.27 Crores has been funded by the State government. The project has four components:

- Last mile connectivity
- Structural and non – structural measure
- Technical assistance for hazard risk mitigation, capacity building and knowledge creation
- Project management and implementation support

6. Foreign Assistance and Donations from Private sectors and NGOs

Although as a matter of policy, the Government of India does not issue any appeal for foreign assistance in the wake of a disaster. However, if the national government of another country voluntarily offers assistance as a goodwill gesture in solidarity with the disaster victims, the Central Government may allow acceptance of the offer. The donations by NGOs and private sectors are deposited in the Prime Minister/ Chief Ministers Relief Fund.

7. Expenditure Norms & Analysis

A study, of State budget of Andhra Pradesh from 2004 to 2016 (RBI 2018), reveal high levels of financial deficit to meet the expenses for relief activities in respect of natural calamity. Receipt and expenditure statement for the past 12 years have been compiled in the table below. The figure shows a phenomenal rise on relief expenditure in the State. For the country as a whole the annual relief expenses during 2015 - 16 registered a growth of 268% over the period 2004-16.

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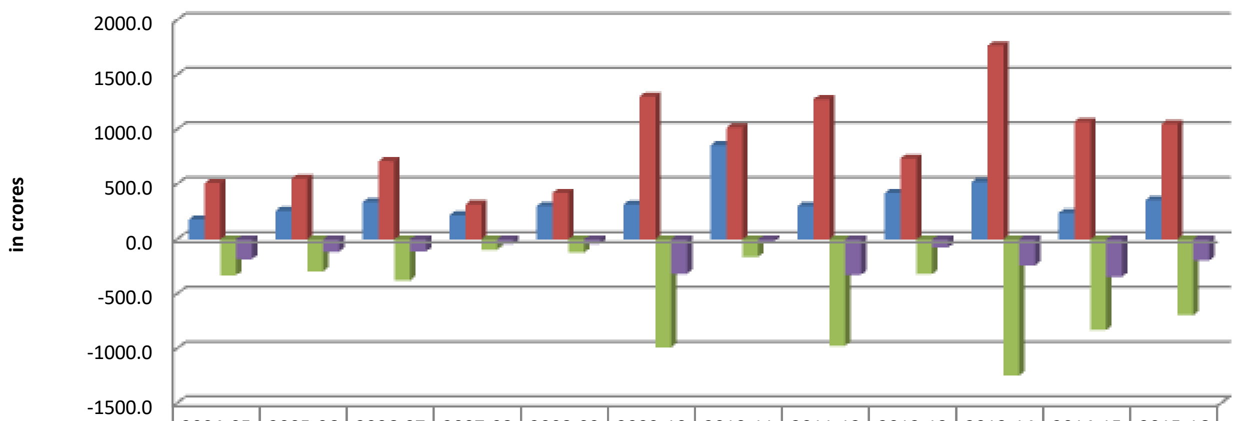
Reciept & Expenditure statement for Disaster Management in Andhra Pradesh



	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Reciept	180.6	258.1	335.5	220.0	298.7	313.7	856.4	300.7	420.7	520.9	241.5	356.7
Expenditure	509.4	553.2	710.2	316.3	421.1	1303.2	1017.7	1277.0	737.0	1768.7	1071.0	1050.3
Deficit	-328.9	-295.1	-374.7	-96.3	-122.4	-989.6	-161.3	-976.3	-316.3	-1247.8	-829.4	-693.6
Defifit %	-182.1	-114.4	-111.7	-43.8	-41.0	-315.5	-18.8	-324.7	-75.2	-239.5	-343.4	-194.4

Table 8: State Expenses on Natural Calamities – RBI Data (https://rbi.org.in)

The Analysis (Table 8) depicts that Andhra Pradesh incurred more expenditure than the combined allocations under CRF, NCCF, SDRF and NDRF on the following grounds:

- Occurrence of natural calamities over a period of time has increased extensively and intensively causing enormous financial burden on State exchequer.
- Paradigm shift in the focus from relief centric approach to prevention, mitigation and preparedness has increased disaster management activities and increased expenditure.
- Expenditure on relief assistance towards rescue, relief and rehabilitation has increased considerably.

8. Conclusion and Suggestions

With the change in global climate, the severity and frequency of natural disasters is increasing. The expenditure on disaster management has risen considerably over the years and is likely to follow the trend in the years to come. The financial burden on the state government has increased considerably and the funds available with the SDRF are insufficient and the Central government has been augmenting the funds by additional allocations from NDRF. There is a need for establishment of a system to track disaster related expenditure to make a comprehensive analysis and allocation of financial resources as the allocation and expenditure towards disaster management efforts are, at times, done on ad hoc basis. The availability and quality of data on hazards, exposures, vulnerabilities and losses need to be ascertained to manage the allocated finances to overcome the financial vulnerabilities. The efforts to optimise the financial expenditure would include establishment of a more comprehensive disaster database, improved damage assessment methodology, incorporation of guidance on disaster finance into the planning document/ manual for disaster risk reduction for Andhra Pradesh State Disaster Management Authority (APSDMA). To augment financial allocation and its optimum utilisation the State would require a comprehensive economic and financial analysis of the impact of disasters in Andhra Pradesh. An analysis needs to be undertaken to explore the historical interaction between natural hazards and public finances. This would be extremely useful in financial planning towards disaster management.

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