Fiscal Performance of Special Category States in India: A Case Study of Tripura State Finance

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Abstract. Deteriorating fiscal health at both central and state level is one of the major concerns in India. In this context, to maintain fiscal discipline at the state level many measures have been adopted .The states have initiated fiscal reforms to bring fiscal discipline at the state level. Even the special category state which gets more grants than the general category states because of their special problems have enacted fiscal responsibility and budget management act to maintain fiscal discipline. With this background this study is an attempt to measure the fiscal performance of a special category state i.e., Tripura by evaluating its performance over the time period 1990-91 to 2009-10 to see whether the fiscal performance of this state is improving or not after implementing the fiscal reform program. The paper has developed a composite index known as Tripura Fiscal Performance Index (TFPI).It is observed that the fiscal performance as a whole is improving after implementing the FRBM Act. The year 2007-08 is the best fiscal performance year. However the state should maintain its fiscal discipline in terms of deficit management and own revenue augmentation to have sustainable long term financial stability.

Keywords: Fiscal Discipline, Composite Fiscal Performance Index, FRBM Act

1 Introduction

In India, deteriorating fiscal health both at central and state level has been a major concern among both policy makers and researcher since 1990s. It was against this backdrop that for the first time, the Eleventh Finance Commission (EFC) recommended a fiscal reform incentive scheme with an objective to maintain fiscal discipline at the state level. When it was observed that the fiscal indiscipline is not under control, the Twelfth Finance Commission (TFC) came with schemes for fiscal correction of states and the Government of India also moved swiftly to facilitate fiscal reforms at the State level and the idea of ‘incentivizing reforms’ took roots (World Bank, 2004). Apart from this, a number of other important initiatives were undertaken like State level Fiscal Responsibility Legislations (FRLs) and various institutional reforms. In addition to this, India adopted a rules-based fiscal framework known as Fiscal Responsibility and Budget Management Act (FRBMA) in 2003. The objective is to ensure inter-generational equity in fiscal management and the fiscal sustainability necessary for long-term macro-economic stability.

The FRBMA strengthened India’s fiscal policy framework and its implementation initiated in the budget 2004-05 also coincided with a decline in India’s central government fiscal deficit by about 1.8 percent of GDP between its introduction and 2007-08. At the same time, however, the date for achieving the FRBMA current deficit targets has been postponed on repeated occasions, off-budget activities increased, and significant slippages with respect to the 2008-09 deficit targets were expected even before the global crisis precipitated calls for fiscal stimulus. This rise questions about the effectiveness of the FRBMA. At the same time, most of the states also adopted their own FRLs and have experienced significant improvements in their overall balances in the last few years. A more detailed look at the nature of this consolidation is warranted given the combination of a rapidly growing economy, large vertical imbalances, and a large pool of captive savings (Simone and Topalova, 2009). Detailed State-wise analysis of various fiscal indicators done by RBI (2010), reveal most of the states are facing deterioration in revenue balance.

There is an increase in the level of Gross Fiscal Deficit (GFD) in 2008-09 and 2009-10 as compared to the earlier period of 2005-08. Further, analysis of States' budget document indicates inadequate fiscal transparency across the States. So, states need to adopt of revenue augmentation and expenditure rationalization measures to end the process of fiscal correction and consolidation as early as possible. In this context of fiscal performance India being a federal country, macroeconomic stability in terms of sound fiscal condition depends on the fiscal performance of its constituent states. There are 28 states which are categorized in to general category states and special category states. The special category states such as Arunachal Pradesh, Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura are located in the north east part of the country and known for their under development.

These states get 90% as grant and 10% as loan from the centre. The basic objective behind such scheme is to make the special category states able to reduce their debt liability so that they can maintain a sound public finance (The Hindustan Times, 2006). Besides this, these states are endowed with huge natural resources. While the general category states does not get assistance on the same proportion. Such assistance creates distinction between general category states and special category states in the context of centre state financial relation and has been coined as asymmetric fiscal federalism (Rao M Govinda and Sing Nirvikar, 2004)in India.

It is a general consensus and interest that if these states are getting such assistance, even after getting such amount as assistance whether these states are performing well or not? Against this backdrop the objective of this paper is an attempt to evaluate the fiscal performance of a special category state i.e Tripura and see its performance from different dimension such as deficit management, revue generation and expenditure management and debt servicing. Tripura has been selected in this study as the state is the second largest state in the northeastern states of India in terms of population and area after Assam. Additionally, the state is politically stable and recognized as peaceful state in comparison to other northeastern states in the context of insurgency and other social tensions during the study period. These characteristics make the state a good case to present north east of India and also fit for the present context.

2 Related Work

There are several studies based on fiscal performance of central government and state government finances for example by Sarma (2003), Chelliah Committee (1994), World Bank Study (1996-97) Rao (2004), Zaidi (2002), Sivram (2003), Chaitanya (2006) RBI Study (2004) and Dholakia (2005) are some of the prominent studies..Many of these studies are extensive and theoretical in nature focusing on providing a macro picture of all the states or major states fiscal position and presented in time series analysis form. However there are few popular works which are restricted to particular states. For example, the study by Zaidi (2002) focuses on the finances of Uttar Pradesh from 1991 to 1999-2000. Similarly the study of Chaitanya (2006) is based on Andhra Pradesh.

In the literature, the north eastern states as a whole, which are special category states, have drawn attention. Regular studies done by RBI are notable here. Particularly in the context of Tripura the study, Restructuring Public Finance of Tripura by Rajaraman, et al (2004) is notable. This study is on how fiscal restructuring in Tripura is an imperative for, if the growth potential of the state is to be realized. The report is extensive and in-depth in nature examining the debt swap scheme of the Centre, in which Tripura has been a Participant, own revenue performance, and suggests ways by which the impressive gains recorded in recent years can be sustained into the future. However the study is not focusing on its year wise performance measurement.

So far as the measurement of fiscal performance is concern there are prominent studies like Dholakia and Solanki (2001) which have studied the fiscal performance proposing composite index of fiscal performance consisting of six different fiscal indicators for general category states. Bhide and Panda (2002) came up with another composite fiscal index, made up of five components, for judging the quality of central government budgets and states were ranked on the basis of the value of the index for different years for judging the quality of central government budgets consisting of six different fiscal indicators and the states were ranked on the basis of the value of the index. Similarly,Venkatraman (2003) did not construct a composite index but did rank the states according to their fiscal achievements by using six indicators. Further, Dholakia (2005) proposed an alternative approach to fiscal performance measurement constructing a composite fiscal performance index using eight indicators.

3. Objective, Data Source and Methodology

The broad objective of this paper is to measure the fiscal performance of Tripura in terms of deficit management, revue generation and finally how the state is maintaining its expenditure and servicing debt to examine whether the fiscal performance of the state is improving or not after implementing the fiscal reform program.

Data have been collected from Hand Book of Statistics on State Government Finances-2010 published by the Reserve Bank of India. The study period is 19 years i.e 1990-91 to 2008-09.

To measure the fiscal performance a composite fiscal performance index for Tripura has been developed known as Tripura Fiscal performance Index (TFPI) following the approach of Archana Dholakia (2005).

TFPI is consisting of three individual indices such as (A) Deficit Indicator Index (DII), (B) Own Revenue Effort Index (OREI) and (C) Expenditure and Debt Servicing Index (EDSI). Each indicator indices are consisting of ratios of fiscal indicators.(A) Deficit Indicator Index (DII) is consist of i) Gross Fiscal Deficit as a proportion of Total Expenditure (GFD/TEX), ii) Revenue Deficit as a proportion of Net Fiscal Deficit(RD/NFD) and iii) Capital Outlay as a proportion of Net Fiscal Deficit(CO/NFD).(B) Own Revenue Effort Index (OREI) is consist of i) Own Tax Collection as Proportion of Revenue Expenditure (OT/REX) and ii) Own Non-Tax Collection as a Proportion of Revenue Expenditure (ONT/REX) and (C) Expenditure and Debt Servicing Index is consist of i) Non-Developmental Revenue Expenditure as a proportion of Revenue Receipts(NDRE/RR),ii) Interest Payment as a proportion of Revenue Expenditure(IP/REX) and iii) Debt Repayment as a proportion of Central Fiscal Transfers received by the state(DR/GCFT)

To develop the composite index following steps have been followed.

We have constructed the composite index by following the methodology developed by Morris and McAlpin in 1982 which is used to construct Physical Quality of Life Index (PQLI). In the construction process first of all above mentioned eight key fiscal ratios are calculated (See Appendix Table-1). Secondly, each ratio has been calculated for each year i.e., for 1990-91 to 2008-09 and converted indices following the methodology of Morris and McAlpin (Appendix Table-2). The worst and best values of each indicator were identified. For each indicator the performance of the state in each year was put on a 0 to 100 scale where, 0 represents an absolutely defined worst performance and 100 represents an absolutely defined best performance and to aid the calculations, one unit point was added to the best values of the indicators. Thus the formula to calculate Index is as follows:

Indicator Index= (Actual Value –Minimum Value) / (Maximum Value-Minimum Value)

In the third steps, the individual indicator indexes have been calculated taking simple average of number of ratios under each head of index.

The justification for using a multiple indicator model to evaluate the fiscal performance is because the selection of only one indicator for measuring fiscal discipline is unjustified. For example Fiscal/Gross Domestic Product or Revenue deficit/revenue Receipts, this amounts to neglecting the other important fiscal variables. It also ignores the qualitative aspects of fiscal parameters like how the government spends ,on what it spends, what is the proposition of debt ,interest payments and their impact, how fiscal deficit is financed etc (Dholakia and Solanki, 2001).In addition to this it increases the probability of error measurement (Dholakia, 2005).

This is an easy method to find out the performance of the state ,as an increase in the value of an indicator index would necessarily mean improvement in the fiscal performance and vice versa. Once the indicator index is formed, at last the composite index is calculated as a simple average of the indicator indices.

Composite Index= ∑ Individual Indicator Index of each year/ Number of Individual Indicators

The three indicator indices of Tripura for the years under study are presented in Tab-2 and the average of these indices are taken to construct the composite index presented in Table-3. According to the value of composite index the years are ranked as the year with highest index value is 1 and the year with lowest value is 20.

To see whether the three indices are associated or not from composite fiscal performance point of view we have test the association doing Chi-Square Test using SPSS-15.

4. Data Analysis and Descriptive statistics

4.1 Tripura Economy: A Note

Tripura is situated between latitudes 22°56' and 24°32' north and longitudes 91°09' and 92°20' east. It has an area of 10,491.69 Sq. Km surrounded by Bangladesh to the north, south and west and connected with the rest of India by only one road, through the hills to the border of Cachar District in Assam. The state is hilly and forested: over 60 per cent of the land area is covered by hills, and almost 60 per cent is classified as forest land.

The Tripura economy is agrarian in nature where more than 50 per cent of its population depends on agriculture for their livelihood. Agriculture & allied activities contributes 23 percent to the Gross State Domestic Product (GSDP).Since the land is covered with forest and terrain only 27 per cent of geographical area is cultivable. The principal crop of Tripura is rice sown in 91 percent of the cropped area. The economy is characterized by unemployment, high rate of poverty, low per-capita income, low capital formation, in-adequate infrastructure facilities, geographical isolation and communication bottleneck, inadequate exploitation and use of forest and mineral resources, low progress in industrial field (Tripura Economic Review-2008-09)

Agriculture growth has remained much lower than the growth rates witnessed in the industrial and services sectors in the State. The average annual growth rate of Net State Domestic Product (NSDP) at 1999-2000 prices for 2007-08 (P) was 7.16 percent, which shows a down fall from earlier projections as a part of slow down of the national economy. The average person in Tripura has fewer resources than the average person in India. During 1980-81, per capita income of Tripura was 75 per cent of the National average; by 2002-03, it had risen to 88 percent of the National average and in 2006-07 it is about 93.71 per cent. In fact, population changes played a key role during 1980s; the large increase in population lowered the gains in per capita terms. With the declining in population growth after 1990s, per capita income increased faster, although below the National average. The State with the highest per capita income is Goa, with Rs.70, 112 per person in 2005-06 and almost 2.75 times the estimates of Tripura. The per capita income of the State rose from Rs.14,119 in 1999-2000 to Rs.19,059 in 2002-03 and to Rs.22,836 in 2004-05 and further to Rs.28,806 in 2007- 08 with new 1999-2000 base of Gross/Net State Domestic Product. On the other hand, per capita income of the country rose from Rs.15, 881 in 1999-2000 to Rs.23, 199 in 2004-05 and further to Rs.33, 283 in 2007-08 with similar new base of 1999-2000. The Gross State Domestic Product (GSDP) at current prices increased to Rs.8,296.85 crore in 2004-05 which was Rs.4,866.73 crore in 1999-2000 and further increased to Rs.10,821.43 crore in 2007-08 with new base of 1999-2000.The Net State Domestic Product (NSDP) at current prices has increased from Rs.4, 495.57 crore in 1999-2000 to Rs.7, 647.92 crore in 2004-05 and further to Rs.10, 007.12 crore in 2007-08 with similar new base of 1999-2000.

Tripura Fiscal Responsibility and Budget Management Act, 2005 was passed by the state on 24th June 2005 during the fiscal year 2005-06. The act speaks about the responsibility of the Government of Tripura to ensure prudence in fiscal management and fiscal stability by progressive elimination of revenue deficit, reduction in fiscal deficit, debt management in consistent with fiscal sustainability. Under this the set targets are i) Continue to remain revenue surplus and build-up further surplus. ii) Strive to bring down the fiscal deficit to 3% of Gross State Domestic Product (GSDP) by March 2010.iii) Bringing down debt stock within 40% of GSDP by March 2010 and iv) Limit risk weighted guarantees to 1% of GSDP of the respective year.

4.2 Fiscal Performance of Tripura

4.2.1 Fiscal Performance indicators

From Table-1 and Graph-1 it is observed that except the years 1990-91, 1999-00, 2000-01, 2002-03 the state has maintained surplus revenue in every year during the time period 1990-91 to 2008-09.In the year 1990-91 the calculated revenue deficit as percentage of GSDP is 0.15 but in the next year the state has turn in to revenue surplus and continued to be revenue surplus state up to the year 1998-99.The years 1999-00 and 2000-01 have registered revenue deficit of 0.47 and 1.75 percent as a percentage of GSDP respectively but again the state had surplus revenue of 0.85 percent as a percentage of GSDP in the year 2001-02.

Table- 1 Fiscal Performance Indicators (As a Percentage of GSDP)

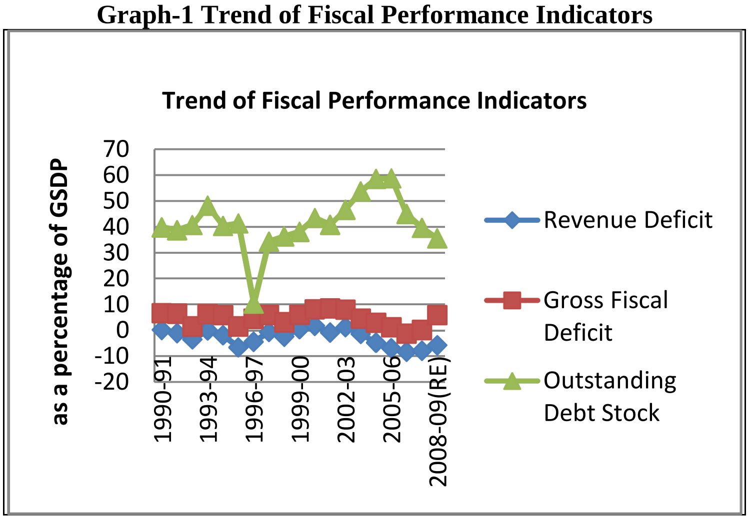
Year	Revenue Deficit	Gross Fiscal Deficit	Outstanding Debt Stock
1990-91	0.15	6.62	39.80
1991-92	-1.09	6.41	38.69
1992-93	-3.48	1.48	40.70
1993-94	NA	6.24	48.16
1994-95	-1.91	5.85	40.34
1995-96	-6.58	1.48	41.30
1996-97	-4.43	4.43	10.38
1997-98	-0.67	5.95	34.27
1998-99	-2.44	3.10	36.28

1999-00	0.47	5.97	38.08
2000-01	1.75	8.10	43.40
2001-02	-0.85	8.44	40.78
2002-03	1.20	7.98	46.56
2003-04	-1.40	4.51	53.70
2004-05	-4.75	2.89	58.50
2005-06	-6.93	1.21	58.70
2006-07	-8.27	-1.27	44.95
2007-08	-7.88	0.15	39.59
2008-09(RE)	-5.76	5.86	35.56

Note: NA- Data not available, "-"Represents surplus
Source: Authors own calculation using data collected from Hand Book of Statistics on State government Finances-2009-10, RBI

Although, again in the year 2002-03 the state registered revenue deficit of 1.20 percent as a percentage of GSDP the state has maintained revenue surplus up to the years 2008-09.So the state has maintained revenue surplus in every year after implementing the FRBMA. The Gross Fiscal Deficit as a percentage of GSDP is calculated to be less than 10 percent. From 1990-91 to 1996-97, the state had up and down in accumulating fiscal deficit ranging from 6.62 to 1.48 percent but in the year 1998-99 it was 3.10 and increased to 5.97,8.10 and 8.44 percent in the years 1999-00, 2000-01 and 2001-02 respectively. The year 2002-03 registered falls with 7.98.There was continuous fall in it up to the year 2005-06 and the year 2006-07 is found to be surplus.

Graph-1 Trend of Fiscal Performance Indicators



On the basis of revised estimate data the year 2008-09 is having gross fiscal deficit 5.86 as a percent of GSDP. This trend of Gross Fiscal deficit shows that the state is serious in reducing gross fiscal deficit in conformation to achieve FRBM target. The trend of outstanding debt can be divided in to four phases. In the first phase (1990-91 to 1993-94) it has increased from 39.80 to 48.86 percent of GSDP .Second phase (1993-94 to 1996-97) shows a drastic fall i.e 48.86 percent to 10.38 percent of GSDP .Third phase (1996-97 to 2005-06) is the phase of increase in Out Standing Debt. In the year 1996-97 it was 10.38, increased to 58.70 in the year 2005-06.The fourth phase is (2005-06 to 2008-09) shows continuous fall in outstanding debt from 58.70 in the year 2005-06 to 35.56 in the year 2008-09.Thus the state is successful to achieve the FRBMA target 2007-08.However the state should continue to reduce the debt stock the years ahead.

4.2.2 Fiscal Performance on the basis of individual Indicator Indices

The following Table-2 and Graph-2 reports that the fiscal performance of the state in terms of deficit management was worst in the year 2001-02.In the next year the state performed slightly better but on the next year i.e., 2003-04 the performance has become far better than the previous years. The state continued to manage the deficit effectively up to the year 2007-08 with low performance in the year 2006-07 in comparisons to its previous years. Again in the next year the deficit management was better up and the year 2007-08 found to be best performance year in terms of deficit management over the time period 1990-91 to 2010.

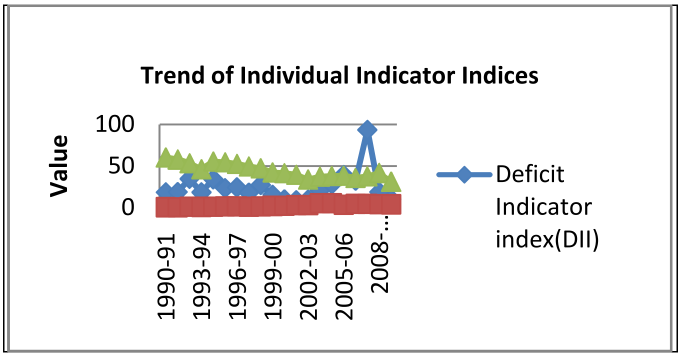
Table-2 Different Indices and Year wise ranking On the basis of performance

Year	Deficit Indicator index(DII)		Own Revenue Effort Index(OREI)		Expenditure and Debt Servicing Index(EXDEI)	
	Value	Rank	Value	Rank	Value	Rank
1990-91	18.21	13	0.40	19	60.41	1
1991-92	18.63	12	0.26	20	57.95	2
1992-93	34.35	3	0.91	6	53.48	5
1993-94	18.10	14	0.78	18	46.26	9
1994-95	33.93	4	0.86	17	55.54	3
1995-96	23.19	9	1.43	13	54.54	4
1996-97	24.12	8	1.49	12	52.70	6
1997-98	17.77	15	0.95	15	49.52	7
1998-99	27.13	7	1.38	14	47.41	8
1999-00	15.24	16	1.95	11	42.47	10
2000-01	9.48	18	2.21	10	41.53	12
2001-02	8.68	20	2.86	9	39.56	13
2002-03	9.16	19	2.96	8	33.88	19
2003-04	20.74	10	5.08	2	37.29	17
2004-05	27.78	6	5.17	1	38.02	15
2005-06	38.81	2	3.23	7	38.44	14
2006-07	32.09	5	4.41	3	35.73	18
2007-08	93.25	1	4.32	4	37.69	16
2008-09(RE)	18.64	11	4.10	5	41.77	11
2009-10(BE)	9.93	17	3.91	6	31.21	20

Source: Authors own calculation using data collected from Hand Book of Statistics on State government Finances-2009-10, RBI

The Own Revenue Effort Index (OREI) shows that the year 1991-92 was the worst performance year in terms of revenue augmentation by the state on its own effort. In the next year the performance become well but again in the year 1993-94 deteriorated. The performance continues to become better from one year to another up to the year 1996-97 but in the year 1997-98, the performance deteriorated. It improved continuously up to the year 2004-05 and the year 2004-05 is observed to be the best performance year over the time period 1990-91 to 2009-10 in terms own effort for revenue augmentation. However, the next year i.e., 2005-06 the performance has deteriorated and again has improved in the year 2006-07 and again it has deteriorated in the year 2007-08.

Graph-2 Trend of Individual Indicator Indices



Expenditure and Debt Servicing Index (EXDEI) reveals that the best performance year was 1990-91 in terms expenditure and debt servicing over the time period 1990-91 to 2009-10.The performance started to deteriorate continuously the years ahead up to the year 1993-94.In the year 1994-95 it improved and again it started to deteriorate continuously till the 2002-03.It improved continuously up to the year 2005-06.The year 2006-07 register fall in performance in comparisons to the previous year's trend and on the basis of budgeted estimate data the year 2009-10 is the worst performance year.

4.2.2.1 Association among indices

It is evident from Table-3 that chi-square does not show any evidence of significance at 5 percent level of significance. This implies that, variables for all the indices are not associated. Therefore to have proper policy the policy makers should consider all variable to have fiscal prudence.

Table-3 Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	380.000(a)	361	.236
Likelihood Ratio	119.829	361	1.000
Linear-by-Linear Association	.043	1	.835
N of Valid Cases	20		

a 400 cells (100.0%) have expected count less than 5. The minimum expected count is .05.

4.2.3 Fiscal Performance on the basis of Composite Index

Finally, the composite index i.e., Tripura Fiscal Performance Index (TPFI) reveals that the best fiscal performance year for the state Tripura in terms of deficit management, revenue augmentation and expenditure and debt servicing is 2007-08 and the worst performance year is 2009-10 (BE)(see Table-3 and Graph-3).To discuss the fiscal performance, the time period 1990-91 to 2009-10 can be divided in to three phases. The first phase is 1990-91 to 1993-94.

Table-3 Tripura Fiscal Performance Index (TFPI)

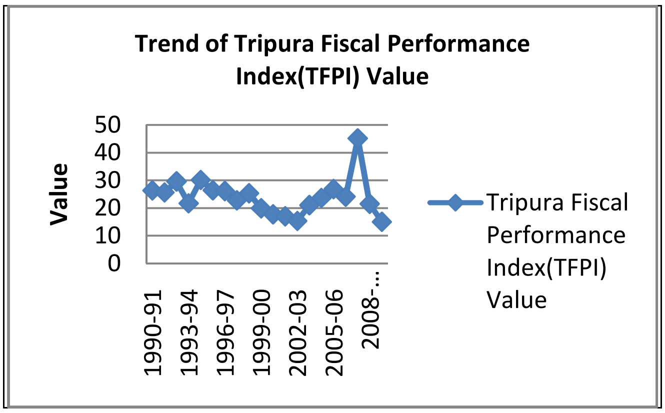
Year	**Tripura Fiscal Performance Index(TFPI)**	
	Value	Rank
1990-91	26.34	6
1991-92	25.61	8
1992-93	29.58	3

1993-94	21.71	13
1994-95	30.11	2
1995-96	26.39	5
1996-97	26.10	7
1997-98	22.75	12
1998-99	25.31	9
1999-00	19.89	16
2000-01	17.74	17
2001-02	17.03	18
2002-03	15.33	19
2003-04	21.04	15
2004-05	23.66	11
2005-06	26.83	4
2006-07	24.08	10
2007-08	45.09	1
2008-09(RE)	21.51	14
2009-10(BE)	15.02	20

Source: Authors own calculation using data collected from Hand Book of Statistics on State government Finances-2009-10, RBI

In this phase the performance from the year 1990-91 to 1992-93 has improved but the performance deteriorated in the year 1993-94.The second phase is 1993-94 to 2002-03.In this stage, though the performance improved in the year 1994-95 again it has constantly deteriorated till the year 2002-03 with slight improvement during 1998-99.The third phase is 2002-03 to 2007-08.This phase is the phase of improvement in the fiscal performance.

Graph-3 Trend of Tripura Fiscal Performance Index (TFPI) Value



From 2002-03 it improved constantly up to the year 2005-06.During 2006-07 though it deteriorated in comparisons to the previous year's performance in the year 2007-08 a steep improvement in the fiscal performance of the state is observed .On the basis of revised estimate and budgeted estimate data it is observed that in the year 2008-09 and 209-10 the fiscal performance is worst and similar to the condition during 2002-03.

5 Conclusion and policy implication

From the above study it is observed that the fiscal performance of Tripura state finance is better after implementing the FRBM Act. The state has been maintaining revenue surplus and have reduced the deficits but in the context of own revenue effort the performance is not satisfactory since the best performance year is before the implementation of the Act. Similarly, its performance in terms of expenditure and debt servicing is not satisfactory. Such performance revels that the state is heavily depending on central assistance in managing its revenue and expenditure. Therefore, the state should try to augment own revenue generation; implement effective expenditure management steps and debt servicing schemes to ensure fiscal sustainability in long run.

The study is important from two grounds such as; first, it is based on a simple methodology which measures the fiscal performance from different dimensions. Secondly, this study is valuable from macroeconomic stability and micro economic efficiency point of view. India is a vast country having 8 special category states characterized by almost similar socio economic characteristics of Tripura and have been receiving grants from the centre. Since there is fiscal imbalance both at the central and state level, both central government as well as state government, irrespective of special category status or general category status should maintain fiscal discipline. This can only be maintained when there will be effort for both revenue augmentation and expenditure management and better debt servicing steps both at the centre and state level.

Though the study is based on a single special category of India, it is a case study to derive ides for all other special category states in India. The study explores area of further research in the area of fiscal performance of other special category states and a comparative analysis among general category states and special category states to see whether the performance of general category states is better or the performance of special category states is better. To provide policy solution it is necessary to study the revenue and expenditure pattern of all the states in details which calls for future research in this area.

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Appendix

Table-1: Fiscal Indicators Ratios of Tripura (%)

A-Deficit indicators																				
Indicators Ratios	**1990-91**	**1991-92**	**1992-93**	**1993-94**	**1994-95**	**1995-96**	**1996-97**	**1997-98**	**1998-99**	**1999-00**	**2000-01**	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**	**2008-09(RE)**	**2009-10(BE)**
GFD/TEX	14.03	13.88	3.50	14.14	3.86	11.11	10.35	14.52	7.71	16.36	20.84	21.82	21.17	12.34	8.04	3.33	-3.97	0.44	14.76	20.99
RD/NFD	2.22	-17.39	-234.78	0.00	-116.13	-138.53	-101.67	-11.34	-80.17	7.96	21.72	-10.15	15.23	-31.27	-162.81	-565.18	664.84	-4520	-102.34	-27.63
CO/NFD	97.78	116.63	334.78	100	458.06	167.89	201.67	110.82	180.17	92.39	78.51	110.34	84.77	131.27	263.62	664.29	-564.06	4620	202.34	127.71
B-Own Revenue Effort Indicators																				
OT/REX	0.05	0.05	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.11	0.11	0.12	0.14	0.13	0.13	0.13
ONT/REX	0.04	0.03	0.04	0.04	0.04	0.05	0.05	0.03	0.04	0.05	0.05	0.05	0.05	0.08	0.08	0.03	0.04	0.04	0.04	0.04
C-Expenditure and Debt Servicing Indicators																				
NDRE/RR	26.97	27.54	28.58	34.60	28.32	26.42	28.28	32.29	32.25	37.60	39.47	38.43	43.98	40.41	36.01	35.55	34.66	35.49	35.06	42.84
IP/REX	7.64	9.12	10.73	10.58	10.76	11.31	12.13	11.32	11.99	12.66	13.03	13.95	14.84	16.15	16.31	15.51	15.63	14.17	11.37	9.14
DR/GCFT	8.47	9.70	10.70	11.73	11.28	10.42	11.88	12.30	12.34	14.69	15.94	15.72	18.19	18.71	16.47	15.41	14.09	13.57	11.43	9.97

Note: RD- Revenue Deficit, GFD-Gross Fiscal deficit, NFD-Net Fiscal Deficit, REX-Revenue Expenditure, ONT-Own Non-tax Collection, NDRE-Non Developmental Revenue Expenditure, RR-Revenue Receipt, IP-Interest Payment, DR-Debt Repayment, GCFT-Gross Fiscal Transfer
TEX-Total Expenditure, OT-Own Tax Collection
Source: Calculated by author from the data collected from Hand Book of Statistics on State Government Finances, 2010, RBI

Table-2: Formula used for conversion of Indicators in to Individual indices

Sl/No	Indicators	Best Value (=100)	Worst value (=0)	Formula
1	GFD/TEX	-4.97=(-3.97-1) (2006-07)	21.82 (2001-02)	21.82-AV --------------- x 100 21.82+4.97
2	RD/NFD	-4521=(-4520-1) (2007-08)	664.84 (2006-07)	664.84– AV ----------------- x 100 664.84 + 4521
3	CO/NFD	4621=(4620+1) (2007-08)	-564.06 (2006-07)	AV+564.06 --------------- x 100 4621+564.06
4	OT/REX	1.14=(0.14+1) (2006-07)	0.05 (1990-91)	AV – 0.05 ---------------- x 100 1.14– 0.05
5	ONT/REX	1.08=(0.08+1) (2003-04)	0.03 (1991-92)	AV- 0.03 -------------- x 100 1.08 – 0.03
6	NDRE/RR	25.42=(26.42-1) (1995-96)	43.98 (2002-03)	43.98 – AV ----------------- x 100 43.98 – 25.42
7	IP/REX	6.64=(7.64-1) (1990-91)	16.31	16.31 –AV ---------------- x 100 16.31 – 6.64
8	DR/GCFT	19.71=(18.71+1)	8.47	AV-8.47 ----------------- x 100 19.71 – 8.47

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