

Annex III: FISCAL IMPACT

A. Introduction

1. Though the tsunami and its associated destruction constitute one of the worst humanitarian tragedies in the coastal history of India, its economic impact is highly localized and felt most starkly at the level of the numerous affected communities. The estimated total financial losses in the mainland states and the union territory of Pondicherry reported by the Government of India (GOI) are \$1.2 billion, but the disaster will have no impact on the GDP growth of either the country or even the affected states. There will be some impact, however, on the finances of Tamil Nadu and Kerala, and on the Center's fiscal deficit depending on the nature of its assistance to the affected states. A marginal impact in the short run on the balance of payments can be expected to the extent that shrimp exports and coastal tourism are hit.

B. Impact Analysis

Tamil Nadu

2. The total estimated cost of reconstruction²² according to the Government of Tamil Nadu is Rs. 3,772.1 crores (\$867 million). This amounts to about 2.1 percent of the Gross State Domestic Product²³ (GSDP). Besides this, immediate and temporary relief is expected to be about Rs. 600.0 crores (0.3 percent of GSDP). This expense is partly offset by a central grant of Rs. 250.0 crores (\$57.5 million) from the National Calamity Relief Fund²⁴. Thus, since the tsunami hit in the last quarter of fiscal 2004-05, the state's additional expenditure amounts to Rs. 350.0 crores (after deducting the central grant) or 0.2 percent of GSDP on immediate and temporary relief.

3. There is no impact on the growth rate of the Tamil Nadu economy even though economic activity in the affected coastal districts has been severely hit. In these districts, the fisheries sector, agriculture, and micro enterprises and small businesses have been very adversely affected²⁵. But this will not make any dent on the state's growth rate as economic activity along the coastline contributes very little to state income. The coastal economy is not well integrated with the overall economy and is not perceived as a key driver of growth. For instance, fisheries contribute a mere 0.6 percent to state GSDP and no major industry is located in the affected coastal districts.

4. **Fiscal Impact.** The tsunami will have no impact on the revenues of the state as those worst hit by the disaster – fishermen, small entrepreneurs, vendors and agriculturists – belong to the informal sector. Their contribution to the consumption tax is also relatively insignificant. However, the tsunami will have an impact on the expenditure side given that the reconstruction cost is over 2

²² Reconstruction includes short-term rehabilitation cost falling in the year 2005-06 and medium term reconstruction spread over the next two years.

²³ The total reconstruction costs are estimated as a percentage of 2004-05 GSDP.

²⁴ National Calamity Relief Fund is a mandated Finance Commission grant for natural calamities such as droughts, famine, floods, etc. For tsunami, center released an additional amount for the affected states under this fund in order to meet immediate relief and rehabilitation expenditures. Southern states tend to spend more than the mandated allocations because of their drought prone nature. Center had to release additional amount for meeting tsunami expenditures.

²⁵ For details of the impact on these sectors, see Annex VI on Agriculture and Livestock, Annex VII on Fisheries and Annex VIII on Livelihoods.

percent of the GSDP. The state cannot spend the entire amount in one single year and much depends on the fiscal headroom available to it after meeting its committed expenditures such as salaries and wages, pensions and interest. In addition, the reconstruction of physical infrastructure to pre-tsunami levels itself will need to be spread over a period of two to three years. It is estimated that the short-term rehabilitation cost which is expected to fall in 2005-06 is Rs. 1,077.0 crores (\$248 million), about 0.6 percent of GSDP. The medium term reconstruction needs of Rs. 2,695.0 crores (\$619.5 million), about 1.2 percent of GSDP are spread over the next two years (Table 1).

5. **Status Quo versus New Scenario.** To analyze the impact of these additional expenditures on the finances of Tamil Nadu, the state's existing Medium Term Fiscal Plan is used as a baseline or status quo (SQ) scenario. A new scenario is built on the assumption that Tamil Nadu itself will bear all the costs of relief and reconstruction (Rs. 350.0 crores in relief after deducting the calamity relief grant and Rs. 3,772.0 crores in reconstruction). In 2004-05, the additional expenditure will be 0.2 percent of GSDP, which is the amount spent for immediate and temporary relief. As a result, the fiscal deficit in 2004-05 will increase to 4.0 percent of GSDP in the new scenario compared to 3.8 percent of GSDP in the status quo (Table 1).

6. During the reconstruction period (2005-06 and 2007-08) the fiscal deficit to GSDP ratio in the new scenario is higher than that in the status quo, which clearly shows the impact of tsunami-induced expenditures on state finances (Table 1). It may also be noted that fiscal deficit as a percentage of GSDP expands more than the actual tsunami-related expenditure in the new scenario due to additional interest burden. Debt stock will increase from 30.3 percent of GSDP to 33.1 percent of GSDP in the new scenario during 2004-07 as against 30.1 percent to 31.0 percent in the status quo over the same period. The spiral effect of debt-deficit dynamics because of higher interest burden will spill over beyond 2007-08 till it stabilizes as a percentage of GSDP.

Table 1: Impact of Tsunami on Tamil Nadu Finances (% GSDP)

	2002-03	2003-04	2004-05 Budget Estimate	2005-06 Projected	2006-07 Projected	2007-08 Projected
Status Quo Scenario : Medium Term Fiscal Plan (MTFP)						
I. Revenues	13.3	13.6	13.7	13.7	13.7	13.7
II. Current expenditure	16.3	15.7	15.4	15.2	14.5	14.1
Interest	2.7	2.8	2.9	3.0	3.0	3.0
III. Capital outlay	1.3	1.4	1.9	1.7	1.8	2.0
IV. Total expenditure (II+III)	17.7	17.1	17.3	16.8	16.3	16.1
V. Net lending	0.2	0.1	0.1	0.1	0.2	0.1
VI. Fiscal deficit (IV+V-I)	4.5	3.7	3.8	3.3	2.8	2.5
VII. Debt stock	25.4	28.5	30.1	31.0	31.2	31.0
New Scenario : Additional Expenditure - Relief Rs. 350 crores (\$80.46 million) and Reconstruction Rs. 3,772 crores (\$867.13 million)						
VIII. Revenues	13.3	13.6	13.7	13.7	13.7	13.7
IX. Current expenditure	16.3	15.7	15.4	15.2	14.5	14.2
Interest	2.7	2.8	2.9	3.0	3.1	3.2
X. Capital outlay	1.3	1.4	1.9	1.7	1.8	2.0
XI. Tsunami related expenditure			0.2	0.6	0.6	0.6
XII. Total expenditure (IX+X+XI)	17.7	17.1	17.5	17.4	17.0	16.8
XIII. Net lending	0.2	0.1	0.1	0.1	0.2	0.1
XIV. Fiscal deficit (XII+XIII-VIII)	4.5	3.7	4.0	3.9	3.5	3.2

XV. Debt stock	25.4	28.5	30.3	31.8	32.7	33.1
MEMO: Impact of Tsunami						
Fiscal deficit (XIV-VI)			0.2	0.6	0.7	0.7
Debt stock (XV-VII)			0.2	0.8	1.5	2.1

ASSUMPTIONS

1. The short term reconstruction needs as estimated by the team for 2005-06 is Rs. 1,077 crore (0.6 percent of GSDP).
2. The medium term reconstruction cost is spread over 2 years (2006-07 and 2007-08) in the ratio 50:50.
3. GSDP is assumed to be the same in both scenarios and is taken from the MTFP of GOTN.
4. The average effective interest is assumed over 10 percent.
5. Debt stock from 2004-05 onwards is projected as debt stock in year t-1 plus the fiscal deficit in year t, where t=time
6. The estimates will be revised once the Government publishes its revised MTFP of 2005-06.

Source: Government of Tamil Nadu MTFP (2004-05), Staff Estimates.

Kerala

7. The revised estimates submitted to the joint assessment team by the Kerala government put the total cost of reconstruction at Rs. 666.0 crores (\$153.1 million), about 1.6 percent of GSDP. Out of this, the short term rehabilitation cost is estimated to be about Rs. 363.0 crores (\$83.4 million) while the total medium term reconstruction which is likely to be spread over 2006-07 and 2007-08 is about Rs. 303.0 crores (\$70.0 million). The short term reconstruction cost which will be incurred in 2005-06 is about 0.3 percent of GSDP while the medium term reconstruction cost is 0.1 percent of GSDP each year in the subsequent years. Bulk of the expenditure on immediate and temporary relief estimated as Rs. 173.0 crores (\$400 million) in 2004-05, is met by a central grant under the National Calamity Relief Fund. The immediate and temporary relief is about 0.2 percent of GSDP.

8. **Growth.** There is no impact on Kerala's GSDP growth for similar reasons as in Tamil Nadu – loss of life, damage to physical infrastructure and economic foundations in the coastal districts have had a localized impact but do not make a dent on the state's overall growth as the affected areas are poorly developed and contribute little to Kerala's economy.

9. **Fiscal impact.** Again, as in the case of Tamil Nadu, no impact is expected on the revenues of Kerala. However, the fiscal deficit is expected to widen because of the impact on the expenditure side. The debt stock will worsen as annual accretions to the stock in the form of fiscal deficit are expected to increase. This in turn will set in motion deficit-debt dynamics, impacting the interest outgo and worsening the composition and quality of expenditure to that extent.

10. **Status Quo and New Scenario.** The status quo scenario is the Medium Term Fiscal Plan (MTFP) of the Government of Kerala presented in the latest Budget (2005-06). In the new scenario, while the short-term rehabilitation cost is expected to fall in 2005-06, the medium term cost is spread evenly in the next two years. This assumption is made keeping in view the absorptive capacity of the state and the fiscal space available to the state in the medium term. The average effective interest rate on debt is assumed to be about 9 percent. In both the scenarios GSDP remains the same. The impact of additional tsunami-related expenditure is shown in the total expenditure since it is too early to say whether the state will spend this money as current or capital expenditure.

Table 2: Impact of Tsunami on Kerala Finances (% GSDP)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
			Revised Estimate	Budget Estimate	Projected	Projected
Status Quo Scenario : Medium Term Fiscal Plan (MTFP)						
I. Revenues	13.2	13.1	14.3	14.8	15.5	16.1
II. Current expenditure	18.3	17.2	18.8	18.4	18.0	17.2
Interest	3.6	3.7	3.6	3.5	3.4	3.3
III. Capital outlay	0.9	0.7	0.6	1.0	1.0	1.0
IV. Total expenditure (II+III)	19.1	17.9	19.4	19.4	19.0	18.2
V. Net lending	0.2	1.4	0.1	0.0	0.2	0.2
VI. Fiscal deficit (IV+V-I)	6.2	6.1	5.3	4.6	3.8	2.4
VII. Debt stock	38.4	41.5	42.6	42.6	41.9	39.6
New Scenario : Additional Expenditure of Rs. 666 crores (\$153.1 million)						
VIII. Revenues	13.2	13.1	14.3	14.8	15.5	16.1
IX. Current expenditure	18.3	17.2	18.8	18.4	18.0	17.3
Interest	3.6	3.7	3.6	3.5	3.5	3.4
X. Capital outlay	0.9	0.7	0.6	1.0	1.0	1.0
XI. Tsunami related expenditure				0.3	0.1	0.1
XII. Total expenditure (IX+X+XI)	19.1	17.9	19.4	19.7	19.2	18.5
XIII. Net lending	0.2	1.4	0.1	0.0	0.2	0.2
XIV. Fiscal deficit (XII+XIII-VIII)	6.2	6.1	5.3	4.9	3.9	2.6
XV. Debt stock	38.4	41.5	42.6	43.0	42.3	40.2
MEMO: Impact of Tsunami on						
Fiscal deficit (XIV-VI)				0.3	0.1	0.2
Debt stock (XV-VII)				0.3	0.4	0.6

Source : MTFP 2005-06, Government of Kerala and Staff Estimates

11. In 2005-06, the ratio of fiscal deficit to GSDP in the new scenario increases by 0.3 percentage points compared to the status quo. The impact of additional expenditures in 2005-06 is on the debt stock and not on interest payments (interest would rise in the next year). In the medium term, the fiscal deficit to GSDP in the new scenario is higher by 0.1 percentage points in 2006-07 and 0.2 percentage points in 2007-08 compared to status quo scenario. In 2007-08, fiscal deficit to GSDP in the new scenario is higher than the tsunami-induced expenditure (as percentage of GSDP) because of the underlying debt-deficit dynamics through additional interest burden on the accumulated debt stock due to tsunami related expenditures (Table 2).

Andhra Pradesh

12. In its memorandum to the Government of India, Andhra Pradesh has estimated the total cost of reconstruction as Rs. 315.0 crores (\$72.4 million), about 0.2 percent of GSDP. The Government of Andhra Pradesh has received Rs. 100.0 crores under the National Calamity Relief Fund in order to meet temporary and immediate relief needs. The short-term reconstruction is estimated to be about Rs. 114.0 crores (\$26.0 million), 0.1 percent of the GSDP. The estimated medium term reconstruction cost is Rs. 201.0 crores (\$46.2 million), also 0.1 percent of GSDP. The short-term reconstruction cost is likely to be borne in 2005-06 while the medium term reconstruction cost is estimated to be incurred in 2006-07. It may also be the case that unspent amounts under the calamity

relief fund will be able to meet part of the short term costs. As noted earlier, there is no impact on the state growth rate.

13. **Fiscal Impact:** There is no adverse fiscal impact of the tsunami on the state. The revenues are completely unaffected, and the additional expenditure in 2005-06 is estimated to be less than 0.1 percent of GSDP offset by the unspent balances in the calamity relief fund. In 2006-07, additional expenditure due to Tsunami is estimated to widen the deficit by 0.1 percentage points of GSDP. The additional expenditure is expected to have only a marginal impact on the state's Medium Term Fiscal Plan projection for 2005-06 and 2006-07, and unlike Tamil Nadu and Kerala, there is no spiral effect of additional expenditures in subsequent years. The assessment team thus does not feel a need to develop status quo and new scenarios for Andhra Pradesh.

Pondicherry

14. The Government of Pondicherry has estimated the cost of reconstruction in the union territory at Rs. 522.0 crores (\$120 million). As in the other affected regions, coastal fishing communities, poor artisans and agriculturists living in the coastal regions are the worst affected. Fishing contributes about 2 percent to the territory's income. While there is no direct impact of the disaster on the growth rate of the local economy, it might suffer in the short run a loss of perception as an attractive tourist resort.

15. **Fiscal Impact:** It is difficult to talk of fiscal impact on a union territory, which by definition is an administrative division of the Government of India. The territory generates some of its own revenue and the gap between its revenues and expenditures is met by the central government. The question of a 'deficit' thus does not arise and the fiscal impact in terms of additional expenditures is on the central government rather than the union territory. The total tsunami related expenditure, which will be spread over two to three years, is roughly 8.6 percent of Pondicherry's gross domestic product and 0.02 percent of national GDP.

C. Conclusion

16. The impact of tsunami-induced additional expenditures on the finances of the affected states varies depending on the extent of rehabilitation and reconstruction activities required in each state. Nevertheless, this impact could be mitigated by alternative sources of financing (seek additional assistance from the center, from external agencies or access funds from the market) to meet the additional expenditures. It needs to be noted that the overall balances will be affected by the terms and conditions on which the various state governments obtain financing for the additional expenditures.