
Dr. Rajarethinam Emmanuel¹, Dr. S. Thangamayan², Dr. B. Chitrai Rajan³,
Dr. M. Ramesh⁴, Telu Suvarna⁵, R. Premalatha⁶

¹,²,³,⁵,⁶ Asst. Professor, Economics Department, VISTAS, Chennai - 600117
⁴ Associate Professor, Economics Department, VISTAS, Chennai - 600117

ABSTRACT

The double-digit growth rate of the recently bifurcated Andhra Pradesh stands in sharp contrast to the sliding growth witnessed in the neighboring Tamil Nadu. In terms of per capita income, Tamil Nadu has moved from its fifth position held in 2011-12 to an alarming ninth position in 2017-18, losing out to Telangana and three other states. The turmoil of bifurcation is no doubt turned around for Andhra Pradesh. But the political vacuum created by the passing away of the two popular Chief Ministers in the case of Tamil Nadu, Dr. J. Jayalalitha and Dr. M. Karunanidhi has only taken a worse turn. The economic indices suggest that the deeply-set trend for Tamil Nadu has its origin at the competing populist measures announced through election manifests initiated by these two stalwarts. Against this overall context, this article makes a comparative analysis of the budgetary allocations of Tamil Nadu and Andhra Pradesh in the study period of 2011-18 to check how far they are in tandem with the targets, announced in the respective vision documents. To cross-check if allocations and implementations have achieved their results or not, we have relied on the state-wise and the sector-wise data given by RBI.

Keywords: Vision Document, capital expenditure, welfare schemes, political charisma, budgetary analysis, sectoral data.

1. INTRODUCTION

The two largest southern states, Tamil Nadu and Andhra Pradesh, have gone through major political crisis between 2011 and 2018 leading to notable economic trend breaks (Ghatak, Roy 2014). The unsettled atmosphere prior to the bifurcation of Andhra expectedly caused a dip in growth; but the quick reversal in trend has captured public attention even more. To the great surprise of all political pandits, the growth rate of Telangana and Andhra Pradesh for the period 2016 – 18 are already at the top for the entire country.
Following the bifurcation, Tamil Nadu now remains the biggest and the most populous of the southern states. But it has also gone through political and economic crisis of a more gradual nature, initiated through personal rivalries of the two long-time Chief Ministers and the sudden vacuum, left by their demise. The burden of politically-motivated welfare measures, announced through the competing election manifestos of DMK and AIADMK, took a worse turn when Dr. J. Jaya Lalitha was rushed to Apollo Hospital in the late hours of 22 September, 2016. Ever since, Tamil Nadu grabbed media attention more for its unrest than its achievements. However, the economic slide was noticeable way before. From 2012 onwards, the annual growth rate of Tamil Nadu had kept wavering roughly from 4% to 8% every alternate year. The compounding effect of populism and political unrest has made the state to lose some of the notable ranks held in the previous decade. The per capita income of Tamil Nadu, ranked to be the fifth in India until 2012, marched down to an alarming ninth position by 2017-18. (Central statistical organization, New Delhi)

Against this background, this article makes a comparative analysis of the budgetary allocations of Tamil Nadu and Andhra Pradesh vis-à-vis their vision documents released in this decade. We would also verify through RBI sector-wise data if state expenditure on developmental projects contributed to aggregate GSDP within the study period. The hypothesis is to explore if the new tradition of winning elections on populist welfare measures is the major cause of the slide in growth for Tamil Nadu and if the judicial mix of low-cost welfare programs combined with a high-cost growth-stimulating projects is the winning formula for Andhra Pradesh.

2. ONE VISION AND TWO RESULTS

Tamil Nadu, released its Vision Document in the year 2012, setting out targets to be achieved over a period of ten years. The per capita income was fixed at Rs. 4, 50, 000 for the year 2023, under the expectation the State would achieve 11% compounded annual growth rate, if additional budgetary allocations especially for infra-structure facilities were provided for. The rationale of the key strategy is reflected in the following words of the Document.

Historically, spending on infrastructure development in Tamil Nadu has been 4% to 5% of GSDP, while the requirement (as dictated by Vision 2023) is to increase the annual spending on infrastructure to about 10% of GSDP from 2015 onwards and further to 11.5% from 2019 onwards (Vision Tamil Nadu 2023: pg 14)

But the economic indices through the major part of this decade reveal that since the time of the release of the Document, Tamil Nadu started losing some of the pre-eminent positions it held earlier. This definitely calls for an analytical review if budgetary allocations had gone precisely against the vision set by the document.
In 2011-12, for instance, the per capita income of Tamil Nadu was Rs. 92,984 against Rs. 69,000 for the undivided Andhra – a comfortable lead of Rs. 23,984 per head for Tamil Nadu. Such a huge variation in two neighboring regions was due to the fact Tamil Nadu had established a stronger network of industries, skilled labor and urbanization. The erstwhile Andhra had less number of urban centers and its vast coastal area and greater potentials of river water couldn’t match up to the industrial development in Tamil Nadu, even 60 years after independence.

However, it’s this six-decade old trend that has gone through a dramatic change in recent years. By 2016-17, the per capita income of Telangana had gone up to Rs. 1,22,684 and for Tamil Nadu it was just Rs. 1,17,806, pushing Tamil Nadu to the seventh rank in India (Central Statistical Organization, New Delhi). One possible reason for the higher notch attained by Telangana is the quick re-emergence of Hyderabad, as the top-most Indian city attracting investments in software industries. Yet another reason for the higher per capita income is due to the reduced population of 3.5 crores for Telangana as per 2011 census.

The real surprise, therefore, springs from the new Andhra, the immediate neighbor of Tamil Nadu, having a comparable population of about 5 crores in 2014, at the time of bifurcation. Despite the challenge of newly-constructing a world-class capital city and relying entirely on its vast agricultural and coastal base, the new state has already made some remarkable strides of growth. Hence we would focus in this study for the most part on the vision and achievements of Andhra Pradesh in comparison to Tamil Nadu.

SUNRISE ANDHRA 2029, the counterpart Vision Handbook, incorporated very similar targets and strategies set out by Tamil Nadu in 2012. The critical difference is that Andhra is well on its trajectory of targeted growth rate with a consistent achievement over the last four years since the historical bifurcation. The road map of vision for Andhra stands credible until now. The accomplishment is especially commendable given the fact, India had gone through the economic shock waves of demonetization and GST right in this period, leading to a reduction of 2.5% in national growth.

Already in the year 2014-15, when Modi-disruptions hadn’t yet occurred, Tamil Nadu witnessed a 4.9% growth, as against the 9.2% growth of the newly bifurcated Andhra. More importantly, however, Andhra jumped on to a double-digit growth rate, clocking 10.6%, 11.01% and 11.22% in successive years, right at the time when Modi-disruptions were at their peak. In contrast, Tamil Nadu, continued to swing between 4% and 8% every successive year right from 2011-12 onwards and the pattern kept on right up to the year we have the full data.

The comparison against national average can be one easy way of analyzing the performance of the states (Ghatak, Roy 2014). But the aggregate data as such hardly tells us much about the causal factors. We need to investigate the sectoral trends, matching them with budgetary incomes
and allocations and we also need to cross-check, the plan and expenditure of these two States with RBI sector-wise growth data, to verify if the implementation of projects had contributed to the aggregate growth levels or not.

3. KEY FINDINGS OF THE STUDY

1. The GSDP growth rate for Andhra between 2014 and 2018 has been driven by the vision and the budgetary allocation for the Agricultural and allied sector. As reflected in the RBI data, Andhra secured a higher volume of output over Tamil Nadu from 2012 onwards.

2. In services sector Andhra is growing at a higher rate than Tamil Nadu due to the charismatic leadership of Dr. Chandra Babu Naidu, although in absolute volumes, Tamil Nadu is still far ahead.

3. The allocation of funds and implementation of new projects in other sectors such as construction, manufacturing, industry, Banking and Insurance haven’t yielded a higher rate of growth in GSDP in comparison to Tamil Nadu within the study period.

4. Tamil Nadu, which started off with an admirable vision plan in 2012, is off the track ever since, due to its political compulsions to prioritize welfare schemes. This immediate priority has taken a toll on the growth-deliverable infra structural projects.

4. METHOD OF ANALYSIS

A simple one-on-one budgetary comparison has turned out to be an insufficient, complicated and inefficient tool for three important reasons. 1. Each State releases different modules of budgetary documents and annexures. There’s no law as of now to compel them to adopt a unified module of presentation which could have helped comparative analysis. 2. It’s next to impossible to separate revenue expenditure from capital expenditure in development schemes presented in budgetary documents, as both components generally merge in each of these projects. 3. The high-sounding budgetary outlay gets utilized not more than 60 - 70% in most cases as finally reflected in the accounts of the past years.

It’s precisely to make up for such short-comings, we would rely on the RBI that gives the state-wise and sector wise data. This is a lot more credible method of comparison than the high-sounding budgetary allocation. In any case, it’s finally the GSDP and PCI data achieved by the state that can be most reliably compared, even though such economic indices hardly present a full picture of human development, which in any case continues to remain a highly debated measure of comparison (Antony, Rao, Balakrishnan 2001).

5. REVIEW OF LITERATURE
Olken and Jones, have analyzed the question as to what extent leaders inspire or hinder national growth levels (2005). This is especially relevant for our context, as we need to take into account the policy and charisma of powerful leaders in the two states under consideration.

Ghatak and Roy (Ghatak & Roy, 2015) have brought out a number of comparative studies on the growth achievements of Gujarat under Modi against Bihar under Nitish Kumar. However, these studies haven’t divulged into linking growth data with budgetary allocations for which the leaders ought to take the final responsibility.

In contrast, in this paper, we consider that this exercise of matching the growth data with budgetary allocations is of huge significance, as it can provide the recommendations for the much required alignment with the vision document.

T.H. Chowdary has argued as early as (2002) that Andhra has brought out the right module and ambience for an IT driven state level Development.

A recent editorial of this journal (2018), makes the point that the future direction of Tamil Nadu remains uncertain, despite the entry of film stars into political arena.

Any rigorous study on the lines of comparing Tamil Nadu and Andhra Pradesh, following the Bifurcation of 2014, is probably yet to appear in research literature and this article would indeed be one of the pioneers.

### 6. POSSIBLE ACTORS BEHIND GSDP TREND BREAKS

#### 6.1. Grant-in-aid

The bifurcation package given to Andhra could be one possible reason for the spurt of its economy witnessed in recent years. However we need to examine how much of grant was actually released and how much of it was actually utilized in the study period.

As per the note of the 14th Finance commission, Andhra was entitled to a sum of Rs. 2,06,819 crore for a period of five years and an additional Rs. 29,374 crore per annum for the same period, starting from 2014-15.

To compensate for revenue deficit, Rs. 6, 609 crore was released during 2014-15 and to meet the resource gap in funding, Rs. 2, 303 crore was released. The state also received at least Rs. 15,000 crore as routine grants per annum.

In addition, the Railways sanctioned Rs. 20, 236 crore, for the doubling of tracks in Andhra. The Defence Ministry, it has been announced, has in the pipeline, projects worth over Rs. 5,700 crore. The HRD Ministry is expected to spend Rs. 7,000 crore for setting up institutes like IIT and IIM.
While the package of Grant-in Aid could have been the major reason for the spurt of growth in Andhra, the important point to be noted is this.

Despite the overall outlay of Rs. 70,738 crores per annum for a period of five years, the Central government has conceded in its fact-sheet released on March 6, 2016 that Rs. 35,000 crores alone had been released for want of utilization certificates and for want of detailed projects. Comparing this against the little above 20,000 crores received by Tamil Nadu as routine grants per annum, the difference of additional grant utilized by Andhra works out to be just 15,000 crores. This can’t be the main reason of the 3 to 5% additional growth achieved by Andhra in comparison to the performance in Tamil Nadu.

6.2. Borrowings

Yet another reason could be the fact, the Govt. of Andhra made a huge borrowing for its public expenditure, to implement its various new projects such as setting up Amaravati, the capital city and institutes of learning, research and health care. But the comparative data clearly shows that it’s Tamil Nadu which has been borrowing at a much higher level to meet its revenue and fiscal deficits. Tamil Nadu’s borrowing stood at Rs. 66,142 crores in 2016-17; Rs. 47,837 crores in 2017-18 and it has budgeted Rs. 57,664 crores of loans for 2018-19.

In comparison, Andhra Pradesh made a borrowing of Rs. 67,897 crores only in 2016-17. And it drastically reduced the amount in 2017-18 to Rs. 32,885 crores and has budgeted for 2018-19 a slightly higher amount of Rs. 35,552 crores.

The outstanding liability for Andhra Pradesh as on 31st March 2015 was Rs. 1,22,610 crores and for Telangana it was just Rs. 72,660 crores, against Tamil Nadu’s liability of Rs. 1,85,610 crores. The last available data as per RBI is for end March 2017, when the liability for Andhra Pradesh has gone up to Rs. 1,60,900 and for Tamil Nadu it’s a whopping Rs. 2,56,070 crores. While leading states such as Gujarat and Maharashtra have contained their outstanding liability at 18% and 19% of GSDP respectively, the two southern states are already above or extremely close to the recommended ceiling of 25% of GSDP. For Andhra it’s 28.7% of GSDP and for Tamil Nadu its 23% of GSDP as per 2018-19 budget. The liability for Andhra is definitely on the higher side; but given its long list of new projects and the kind of economic growth already seen, it’s likely that the state would bring down the liability to the recommended limits in the upcoming years.

In any case, one can easily conclude that the recent growth rate of Andhra Pradesh is not due to the increase in its borrowings after 2015. The higher liability for Andhra seems to have been inherited from the time of bifurcation. Hence borrowing in the study period is ruled out as the main reason for the sharp variation in the growth rates of the two states considered.
6.3. Budgetary allocation

If capital receipts and borrowings did not play a major role, it’s possible that budgetary allocation to achieve specific targets could have caused the difference (Ghatak & Roy, 2015) in the economic growth. When a State government has a judicial mix of welfare schemes without sacrificing the most needed capital expenditure for new projects, one could assume that the net result would be growth accelerating development.

Stunningly populist welfare measures were introduced in Tamil Nadu in the last three regimes, each political party committing themselves to such measures in their election manifesto. The allocations in the budgets presented after assuming power, have been at the cost of planned expenditure for economic development. It is this ongoing compulsion of the last three regimes that seems to have reversed the trend of double digit growth for Tamil Nadu. In sharp contrast, the new energy, vision and the competitive spirit adopted by Andhra and Telangana have yielded better results.

The Report of the PRS Legislative Research (Suhag & Tiwari, 2018), The state of state finances coincides with our study period. It is an insightful report based on the state budgets of 2011-12 to 2018-19 and it gives an excellent comparison of their budgetary allocations and utilizations.

As per this report, States in India allotted 85% of budget to meet their Revenue expenditure and the remaining 15% for Capital expenditure in the study period. Any state led by vision and commitment would allocate higher percentage of resources on capital expenditure. This is generally an excellent test mark of the manner in which the state has laid out the base for economic growth.

Surprisingly, however, the capital expenditure of Tamil Nadu was at the level of 11% of its total expenditure for the years 2016 – 19, as against the national average of 15%. But Andhra Pradesh has increased its outlay from 11% to 15% in the last two financial years. This already gives us some indication of how the new state with all its multiple new plans, projects and strategies has surged ahead towards its intended goals.

Tamil Nadu, brings out an annexure on the Social Welfare schemes and this occupies a large pie of its revenue and capital expenditures. In 2016-17, when AIADMK was returned to power, the total expenditure for social welfare schemes had gone up to Rs. 49,162 crores. In the following year it was slightly narrowed down to Rs. 40,036 crores. Again in 2018-19, the budget estimate is for Rs. 42,743 crores and this occupies 19.25% of the total expenditure of the state.

Andhra Pradesh has also adopted some of the schemes implemented in Tamil Nadu, but the budgetary allocations for growth-driven infra-structural projects occupies well above 50% of all developmental expenditure.
To return to the PRS document on the State of State Finances, Telangana spent 63% on infrastructure and economic development in the study period of 2011-19, which is the highest of all states. Andhra spent 33% of its total expenditure on this crucial component and Tamil Nadu spent 24% which is way behind the national average of 32% spent by the States.

It’s therefore evident, that the aspirations of the Vision Document 2023 have been thoroughly let down by the ruling dispensation in Tamil Nadu and the slide down in growth rate is directly attributable to serious neglect of expenditure on infrastructure. Populism is pushing the State of Tamil Nadu, down the ladder of growth.

7. CROSS-CHECKING FROM SECTOR-WISE RBI DATA

Budgetary allocation and implementation of projects may not have realized their full potential of growth in the years taken for study. Hence we need to verify and confirm which sectors of the state reveal a spurt or a decline in growth in the given period.

To begin with, we can verify from the state-wise data of RBI if the consistent higher growth rate of Andhra for the past 4 years has taken it closer to the GSDP of Tamil Ndu.

<table>
<thead>
<tr>
<th>TABLE 1: GROSS STATE DOMESTIC PRODUCT AT FACTOR COST</th>
<th>(Current Prices)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td>751486</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>379402</td>
</tr>
</tbody>
</table>

We find that the GSDP for Andhra is at 132% of what it was in the year 2014-15, whereas in the case of Tamil Nadu the increase is just 121%.

Now to verify which sector has contributed to this relative spurt in GSDP, we could begin with RBI sectoral data and see if budgetary allocations have yielded the required result within the study period.

7.1 Agriculture and Allied sectors

Andhra Pradesh recorded an impressive 17.76% of growth in Agriculture and allied sectors in the year 2017-18, when the national average was at 3%. In the previous year it was 14.03% with fisheries growing at 30.09%, Livestock at 12.18% and Horticulture at 16.79%.
The govt. allocated 5.79% of total budgetary expenditure to Agriculture and allied sectors and 8.13% to Irrigation projects in 2017-18 budget. The biggest chunk was Rs. 7009 crores for Polavaram project which again saw a 28.4% increase and stood at Rs. 9000 crores in 2018-19 outlay.

The govt. of Andhra spent an average of Rs. 10,000 crores each year on irrigation projects until 2016-17 and increased the expenditure by another Rs. 5000 crores in the last two years.

With multiple irrigation projects, seed parks and introduction of technology in Agriculture, Andhra Pradesh has laid a strong foundation in Agricultural and allied sectors which has undoubtedly contributed to the aggregate growth rate.

To verify if this determined focus has helped Andhra to overtake Tamil Nadu in the aggregate growth rate, we would return to the RBI data.

**Table 2: Growth in Agriculture and Allied sector**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td>53756</td>
<td>46960</td>
<td>62970</td>
<td>71779</td>
<td>70652</td>
<td>65223</td>
</tr>
<tr>
<td>Ratio compared to previous year</td>
<td>0.87</td>
<td>1.34</td>
<td>1.14</td>
<td>0.98</td>
<td>0.92</td>
<td></td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>52041</td>
<td>61230</td>
<td>71147</td>
<td>78935</td>
<td>86443</td>
<td>97171</td>
</tr>
<tr>
<td>Ratio compared to previous year</td>
<td>1.18</td>
<td>1.16</td>
<td>1.11</td>
<td>1.1</td>
<td>1.12</td>
<td></td>
</tr>
</tbody>
</table>

This table confirms that Tamil Nadu had a slightly higher GSDP in Agriculture in the year 2011-12 but it gave up its advantage immediately thereafter. Andhra on the other hand has continued to increase its agricultural product consistently above 100%. Starting from 2011-12, the overall increase for Tamil Nadu was just 121% and for Andhra it was 187%.

**7.2 Sectoral Growth: Manufacturing**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td>151768</td>
<td>178261</td>
<td>181417</td>
<td>182208</td>
<td>200041</td>
<td>213624</td>
<td>-</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>50706</td>
<td>42376</td>
<td>42423</td>
<td>46723</td>
<td>50787</td>
<td>57409</td>
<td></td>
</tr>
</tbody>
</table>
In manufacturing the overall increase in the study period is 141% for Tamil Nadu and just 113% for Andhra. It’s obvious therefore that the higher aggregate growth rate for Andhra is not due to the manufacturing sector.

7.3 Sectoral Growth: Construction

With higher outlays given for housing and the construction of Amaravati, it’s natural to expect that the construction sector could have highly contributed to the GSDP growth of Andhra. However in comparison to the growth in Tamil Nadu, there’s no impressive performance in the study period.

Tamil Nadu had a higher GSDP of 146% at the end of 2016-17 and Andhra has achieved 147.6% of volume at 2011-12.

7.4 Sectoral Growth: Industry

In the Industrial sector Tamil Nadu has increased its output to 144.7 % at the end of 2016-17 and Andhra has achieved just 126.6 % of 2011-12 output.
7.5 Sectoral Growth: Banking and Insurance

Table 6: SECTORAL GROSS STATE DOMESTIC PRODUCT AT FACTOR COST: BANKING AND INSURANCE (Current Prices) (Concl.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td></td>
<td>40196</td>
<td>44662</td>
<td>51033</td>
<td>57170</td>
<td>62574</td>
<td>69904</td>
<td>-</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td></td>
<td>14256</td>
<td>15842</td>
<td>17104</td>
<td>19009</td>
<td>21255</td>
<td>24154</td>
<td>-</td>
</tr>
</tbody>
</table>

In Banking and Insurance, Tamil Nadu continues to maintain its lead by increasing the output by 174% against the 169% increase secured by Andhra.

7.6 Sectoral Growth: Services

Table 7: SECTORAL GROSS STATE DOMESTIC PRODUCT AT FACTOR COST: SERVICES (Current Prices) (Concl.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tamil Nadu</td>
<td></td>
<td>349825</td>
<td>404560</td>
<td>467982</td>
<td>532564</td>
<td>579313</td>
<td>654434</td>
<td>-</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td></td>
<td>143085</td>
<td>165925</td>
<td>190358</td>
<td>220330</td>
<td>254453</td>
<td>295187</td>
<td>-</td>
</tr>
<tr>
<td>Telangana</td>
<td></td>
<td>177597</td>
<td>210308</td>
<td>242273</td>
<td>285898</td>
<td>328859</td>
<td>373750</td>
<td>-</td>
</tr>
</tbody>
</table>

In services sector, Tamil Nadu still commands a comfortable margin at the level of gross output. However, Hyderabad with its resurgence in attracting private capital and Andhra with the iconic leadership of Dr. Chandra Babu Naidu have outperformed Tamil Nadu in terms of the faster rate of growth evident already in the study period.

While Tamil Nadu has increased its output to 187% of the base year, Andhra has an impressive 206% starting from the disadvantage of not having a Metropolis and Telangana has regained its prominence with 210% of increase from the base year.
8. CONCLUSION

The spurt of growth in Andhra from the year of bifurcation, 2014, is not so much due to the special package of Grant-in-Aid or the borrowings of the state government. It has come as the effect of the inspiring vision, plan, judicial allocation of funds and implementation of infrastructure projects led by the current Chief Minister, Mr. Chandra Babu Naidu. However, it is only the agricultural and allied sectors to a large extent and the services sector to a small extent that have made a significant contribution to GSDP. Expenditure on other sectors are yet to bring out their full potential.

Tamil Nadu, on the other hand, is losing out to its neighbor for two important reasons. 1. The politics of competitive populist measures have taken a serious toll on the finances available for economic and infra-structure development. 2. A visionary leader who can assure inclusive growth and yet be the driving factor of attracting investments towards the latest technologies is a significant need to bring Tamil Nadu back on the trajectory of double digit growth.

REFERENCES


Ghatak, M. and S. Roy (2014c): “Mirror, mirror on the wall, which is the most dynamic state of them all?”, Ideas for India, March 23, 2014, also published in The Outlook, March 31.


