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**REPORT OF THE COMMITTEE FOR EVOLVING A
COMPOSITE DEVELOPMENT INDEX OF STATES**

**GOVERNMENT OF INDIA
MINISTRY OF FINANCE
SEPTEMBER 2013**


New Delhi
September 2, 2013

To,

The Hon'ble Finance Minister,
Government of India,
New Delhi.

Dear Finance Minister,

We, the members of the 'Committee for Evolving a Composite Development Index of States', have pleasure in submitting herewith our Report.


Raghuram G Rajan
Chairman


Tuhin Kanta Pandey
Member


Niraja G Jayal
Member


Bharat Ramaswami
Member


Shaibal Gupta
Member

Preface

The level of development of a state is likely to be the consequence of a complex set of historical, cultural, and sociological factors. An explicit government objective was to have a more egalitarian society, coupled with balanced development of different regions. Despite taking a number of steps to reduce the regional disparities, substantial differences in development still exist between states. In order to address this issue, the Government in May 2013, decided to constitute an Expert Committee to consider backwardness of the States for evolving a Composite Development Index of States.

The composition of the Committee was

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|-----|--|-------|----------|
| (1) | Dr. Raghuram G. Rajan,
Chief Economic Adviser,
Ministry of Finance | | Chairman |
| (2) | Shri Shaibal Gupta | | Member |
| (3) | Dr. Bharat Ramaswami | | Member |
| (4) | Shri Najeeb Jung | | Member |
| (5) | Dr. Niraja G. Jayal | | Member |
| (6) | Shri Tuhin Pandey | | Member |

The Terms of Reference of the Committee were as under

- (a) To suggest methods for identifying backward States on the basis of measures such as the distance of the State from the national average on a variety of criteria such as per capita income and other indicators of human development;
- (b) To suggest any other method or criteria to determine the backwardness of States;
- (c) To suggest the weightage to be given to each criterion;
- (d) To recommend how the suggested criteria may be reflected in future planning and devolution of funds from the Central Government to the States.
- (e) To suggest ways in which the absorptive capacity of States for funds and their ability to use the funds to improve well-being can be assessed and used to influence devolution to incentivise performance.

Consequent to his taking over as the Lt. Governor of Delhi, Shri Najeeb Jung ceased to be a member of the Committee.

The Committee held seven meetings and the Report has been finalized after these deliberations.

The writing of this Report, and the analysis behind it, was a substantial task, especially given the limited time frame. The task was made easier by the tremendous support and valuable inputs given by the Members of the Committee. However, we did not achieve full consensus on every issue. A note of dissent by Dr. Shaibal Gupta is appended.

I would like to thank Shri Najeeb Jung, former Vice Chancellor of Jamia Milia Islamia, who was also a Member of the Committee till his appointment as Lieutenant Governor of Delhi.

I would particularly like to thank Shri A. S. Sachdeva for his exemplary dedication and hard work in coordinating the activities of the Committee, guiding the technical team, and ensuring the report was produced on time.

Dr. Prachi Mishra also helped guide our technical work and helped write much of the report. I am grateful to her for rendering yeoman service.

I wish to acknowledge the untiring efforts put in by the young officers of the Indian Economic Service, Shri Kapil Patidar, Shri Rangeet Ghosh and MsShweta. They undertook the technical analysis necessary for developing the index and the allocations. Their deep interest in their work, and the questions they asked as they undertook it, enabled us to identify and fix weaknesses in the methodology.

I would like to sincerely acknowledge the services rendered by Shri Narendra Jena for helping with data and Shri Suresh Arora for arranging and facilitating the meetings.

Raghuram G Rajan
Chairman

New Delhi

1st September, 2013

Executive Summary

When India gained independence, the country was underdeveloped, with income unevenly distributed across regions. An explicit government objective was to have a more egalitarian society, coupled with balanced development of different regions. The major tasks before the country were to increase the rate of growth and to reduce inequality in income and wealth. It was argued that if the market mechanism was given a primary role and the role of the state was restricted, the country's economic development would remain confined to selected pockets that were relatively better off, resulting in further widening of inequality. Therefore, active state intervention was envisaged to reduce the disparities. The mechanism employed to achieve these goals was the transfer of resources from the Centre to the states. These transfers, which are more heavily directed to populous and poorer states, have been channelled through the Finance Commission and the Planning Commission.

The level of development of a state is likely to be the consequence of a complex set of historical, cultural, and sociological factors. Additional financial resources may be helpful in increasing growth rates, but the ability to use these resources well is probably most important in distinguishing regions that develop successfully and those that do not. Therefore, any scheme of allocation should take into account both development needs as well as past performance, with the latter serving both to incentivize better performance and to allocate resources where they can be most effectively used.

Our Committee proposes a general method for allocating funds from the Centre to the states based both on a state's development needs as well as its development performance. The Committee will not propose a quantum of funds to be allocated based on these criteria, as this is beyond its terms of reference.

The methodology developed by the Committee first allocates funds across states based on need, in line with recommendations of previous committees. Need is based on a simple index of (under) development. The index proposed here is an average of the following ten sub-components: (i) monthly per capita consumption expenditure, (ii) education, (iii) health, (iv) household amenities, (v) poverty rate, (vi) female literacy, (vii) percent of SC-ST

population, (viii) urbanization rate, (viii) financial inclusion, and (x) connectivity. Less developed states rank higher on the index, and would get larger allocations based on the need criteria.

The Committee proposes allocations based on the index, but with allocations increasing more than linearly to the most underdeveloped states. The proposed allocation scheme accommodates differences in needs, even while recognizing that the truly needy should be given disproportionately more. Importantly, since the index is based on publicly available data, there is no element of discretion in the allocations.

The value of the underdevelopment index for a state represents the need of an average individual in a state. To allocate more to underdeveloped states with large areas but small population, the Committee decided to assign 80 percent weight to a state's share in population and 20 percent to the state's share in area in determining the factor by which to multiply need. This follows the approach of a number of committees as well as the Finance Commission.

This report however, also takes a step forward in trying to draw a balance between "needs" and "performance". Given that poor administration or weak institutions in a recipient state can fritter away allocated resources to the detriment of the population, there should be some recognition for effective governance and the efficiency of resource use. This becomes all the more necessary since the proposal to give substantially more to underdeveloped states might create a mild disincentive to develop. The Committee therefore settled on improvements to a state's development index over time (that is, a fall in underdevelopment) as the measure of performance.

Finally, all states require a basic minimum to meet fixed expenditures such as administrative costs. Because states with small populations and areas are unlikely to meet that minimum threshold, the Committee recommends that each state get a fixed basic allocation of 0.3 percent of overall funds, to which will be added its share stemming from need and performance to get its overall share.

In sum, given there are 28 states included for the construction of index, 8.4% of funds will be allocated as a fixed basic allocation. Of the remaining 91.6%, we choose parameters such that 3/4th of it is allocated based on need and 1/4th based on performance. A positive feature of this formula for allocation of funds is that the incremental reward for performance is increasing in the level of underdevelopment – this is because the reward for performance is multiplied by need. In other words, the formula rewards underdeveloped states more for an improvement in the index.

Given 28 states, on average each state gets 3.6 percent of allocation of funds. There is considerable variation across states. The shares range from 0.30 percent to 16.41 percent with a standard deviation of 4.02 percent. Not surprisingly, some states gain and others lose when compared with allocation shares based on formulas used for transfers through the Planning Commission or the Finance Commission routes. However, relative to the Finance Commission formula, only five states lose one percentage point or more of their share.

Finally, this report is primarily about the allocation of funds. Yet underdevelopment, as discussed above, is more than about simply the allocation of funds. The Central Government may want to offer additional forms of support to states that are particularly underdeveloped. We deem states that score 0.6 and above on our (under)development index “least developed” states. States that score below 0.6 and above 0.4 are “less developed” states, while states that score below 0.4 are “relatively developed” states. The 10 “least developed” states that currently score above 0.6 could, for instance, be targeted for additional assistance. Note that as states develop fast, they will move out of the “least developed” segment, but because the index is a relative measure, there will always be some states in that segment.

States which are now classified as “special category” states and states that have raised a claim for inclusion in that category will find that their need for funds and special attention is more than adequately met by the twin recommendations of the basic allocation of 0.3 per cent of overall funds to each state and the categorization of states that score 0.6 and above on the (under) development index as “least developed” states. These two recommendations, along with our allocation methodology, effectively subsume what is now “special category”.

Recommendations

- (i) The Committee recommends that the framework outlined in this report be used to allocate some of the development funds that are allocated by the center to the states.
- (ii) The Committee recommends that the proposed underdevelopment index be updated on a quinquennial basis and performance be measured relative to the last update.
- (iii) The Committee recommends that the index and the allocation formula be re-examined after 10 years and revisions proposed based on experience.
- (iv) The Committee recommends that “least developed” states, as identified by the index, be eligible for other forms of central support that the Central Government may deem necessary to enhance the process of development.
- (v) The approach recommended in this report is not intended to replace all existing methodologies, but should be thought of as one that will channel some fund allocations based on need and performance. Other methodologies may serve different purposes and should be used in parallel to allocate other funds.

The report is organized as follows. In the Introduction, the causes of underdevelopment are discussed, and the analytical underpinnings for the report outlined. In Section I, the broad framework based on needs and performance, which the committee proposes for the allocation for funds is presented. In Section II, the state-wise allocations based on the suggested formula are presented, and the properties of the underdevelopment index are discussed. In Section III, the findings are discussed with a focus on three key issues: how the index correlates with left wing extremism, how the index can identify “least developed” states that may need additional assistance, and how the specific parameters used in the formula can be varied. In Section IV, we conclude by repeating the key recommendations.

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Introduction

When India gained independence, the country was very underdeveloped, and income was unevenly distributed across regions. An explicit government objective was to have a more egalitarian society, coupled with balanced development of different regions. The major tasks before the country were to increase the rate of growth, to reduce inequality in income and wealth, and to promote a more even distribution of economic power. It was argued that if the market mechanism was given a primary role in regulating the course of development and the role of the state was restricted, the country's economic development would remain confined to the selected pockets that were relatively better off, resulting in further widening of inequality. Active state intervention, for example by channeling capital investment into certain areas, was envisaged to reduce the disparities.

In accordance with the constitutional mandate, a Finance Commission is constituted every five years to recommend the distribution of the 'divisible pool' of Central government revenue (financial resources) between the Union and States and horizontal allocation across states. In determining horizontal devolution, successive Finance Commissions have broadly attempted to address the issues of fiscal need, fiscal capacity, costs of providing similar level of public goods and services and rewarding efficiency in public management, fiscal efforts and outcomes. The Thirteenth Finance Commission, the latest Commission to have submitted its Report, stated that its overall approach was to foster "inclusive and green growth promoting fiscal federalism".

Successive Five Year plans also laid emphasis on achieving the goal of balanced regional development and reducing inter-state disparities besides goals such as raising the rate of growth, eradicating poverty, etc. Plans were formulated for faster development of the relatively backward regions. In particular, public investment was undertaken by the government to set up public sector units in the backward areas. Various other measures were adopted to develop the backward regions such as higher investment for irrigation and rural infrastructure to increase the rate of growth in agriculture, financial and fiscal incentives to attract more private investment, etc. A system of fiscal federalism was evolved in which

resources were transferred from the Centre to the states, with the criteria for transfer of funds relatively biased in favour of the so-called “backward” states.

The effective transfer of resources currently are higher for poorer, more populous and inaccessible hilly states. The transfers channelized through the Finance Commission and Planning Commission give greater weightage to populous and poorer states. This aims at ensuring a higher rate of growth of the poorer states and reducing disparities through balanced regional development. Since the ability of poorer states to mobilize resources is limited, the share of grants vis-à-vis the states’ own resources is higher for them as compared to those states with higher per capita income. For hilly states with large populations in inaccessible areas, the grant component is also high.

An implicit understanding behind these allocations is that imbalances in development can be narrowed if poorer states get more resources to spend on consumption and investment, which will make them grow faster. However, there may be other impediments to growth than just the lack of financial resources. Two possibilities past committees and academia have focused on are (i) endowments and environment and (ii) institutions and absorptive capacity.

Endowments and Environment

A state may be underdeveloped because it has few natural resources, or because its environment is not conducive to economic activity. However, there are plenty of natural-resource-poor countries that have become developed and natural-resource-rich countries that have not. Even in India, some resource rich states have not developed as much as states with poor natural resources. This suggests that endowments may not be a pre-condition for development, and may sometimes hamper it. The academic evidence is mixed on whether this is an important factor.

Turning to the local environment, the National Committee for the Development of Backward Areas set up by the Planning Commission in 1978 identified six different characteristics of an area’s geography and history that would be an impediment to

development: a) chronically drought prone areas b) desert areas c) tribal areas d) hilly areas e) chronically flood affected areas, and f) coastal areas affected by salinity.

While areas that are heavily populated by tribals may be greatly underdeveloped, that is likely the consequence of complex historical, cultural, and political forces rather than a reflection of insurmountable impediments to development. While many of the other impediments may have been instrumental in limiting the extent of agriculture or the density of population, they do not seem permanent obstacles to development, especially because modern technologies help people adapt to the environment, and jobs outside agriculture are less influenced by environmental constraints.

Institutions or Absorptive Capacity

Some regions may be underdeveloped because they have never been able to develop the administrative and taxation institutions to raise resources, or when they do obtain resources, they do not have the governance capacity to use them well. The institutional factors suggested as important in the literature include better law and order conditions, business-friendly tax and labour laws, an effective legal and regulatory framework, transparent and well-enforced property rights, sound monetary and fiscal frameworks, etc. In a country characterised by a federal structure, the institutional arrangements outlining the relative responsibility of the federal government, particularly those relating to taxation, public expenditure and transfer of resources are also important.

The literature is divided on whether the strength of a region's institutions is largely an immutable historical legacy, or whether it can be modified by a committed administration. For example, the underdevelopment of certain states is often attributed to institutional legacies from the British rule e.g. the existence of a *Zamindari* system, whereby tax revenues were delinked with agricultural output, which concentrated wealth and distorted incentives.

Regardless of how a region acquires strong administrative and governance capacity, clearly without sufficient absorptive capacity in the receiving region, allocated resources may not be properly utilised, and may create debt but not the income to service the debt with. Ideally,

most resources should be transferred to regions that are both needy and have the capacity to invest the resources well.

Other Drivers

Apart from natural resources and institutions that could be seen to be “meta” drivers of development, there are lower level drivers of development such as the availability of infrastructure. A well-developed infrastructure tends to raise the productivity of investment and lowers the cost of production. In addition to physical infrastructure, social infrastructure also has an important role to play in the formation of human capital and consequently in the determination of the rate of growth of a region. Higher investment in education and health infrastructure can lead to higher levels of citizens’ well-being as well as a better educated and healthier workforce, resulting in higher work efficiency and productivity.

The structural composition of income of a state may also have a significant bearing on its level of income and rate of growth. States with a large agricultural sector are generally expected to have a lower rate of growth as compared to states with a higher share of income accruing from manufacturing or service sector. However, the share of each sector is not a given, and itself is a reflection of different levels of development.

In summary, the level of development of a state is the consequence of a complex set of historical, cultural, and sociological factors. Importantly, studies do not find geographic impediments, the lack of natural resources, or climatic factors as prominent reasons for underdevelopment. Additional financial resources may be helpful in increasing growth rates, but the ability to use these resources well is probably most important in distinguishing regions that develop successfully and those that do not. Therefore, any scheme of allocation should take into account both development needs as well as past performance, with the latter serving both to incentivize better performance as well as to allocate resources where they can be most beneficially used.

Resources and Current Allocation

The Indian Constitution provides for the levying of certain taxes by the central government, others being levied by state governments. The sources of financing of state governments can broadly be classified into four heads: (i) states' own revenue (tax and non-tax), (ii) transfer of funds from the centre (Finance Commission award and Plan transfers), (iii) borrowings of the states and (iv) non-debt capital receipts. Although states raise their own resources by way of taxes and other means, these are much less than the expenditure they have to incur. This necessitates the transfer of resources from the central government to states in the form of devolution, grants and loans based on certain criteria.

Centre-state transfers take place mainly through three channels: (a) statutory transfers through the Finance Commission mechanism. These include devolution of central tax revenues (divisible pool) to different states and grants-in-aid; (b) Central Assistance for State Plans including Normal Central Assistance (NCA) grant, which is governed by Gadgil-Mukherjee Formula; (c) grants through central ministries in accordance with guidelines of various Centrally Sponsored Schemes.

Of the total resources transferred to states from the centre in 2011-12 from Non-Plan (Finance Commission route) as well as Plan side, about 54 per cent was on the basis of Finance Commission transfers and 46 per cent on the Plan side. The Normal Central Assistance (NCA) grant, which is distributed to states as per Gadgil-Mukherjee formula based on categorization of "Special Category" and "General Category" states, constituted only about 3.8 per cent of total resources transferred to States and 8.2 per cent of plan transfers.

The present committee proposes a general method for allocating funds from the Centre to states based both on a state's development needs as well as its development performance. The committee does not, however propose a quantum of funds to be allocated based on these criteria, for that is not within its terms of reference.

I. Methodology

This section lays out the broad framework the committee put together for allocation of a given amount of central government funds across states. The details of the methodology are provided in the Appendix.

The proposed methodology first allocates funds across states based on need, which is in line with recommendations of previous committees. Need is based on a simple index of (under) development developed by the committee. Less developed states rank higher on the index, and would get larger allocations based on the need criteria.

Index of Underdevelopment

In measuring underdevelopment and mapping it to fund allocation, key concerns are three-fold: what variables enter the index, how these variables ought to be weighted, and how the index translates into an allocation of resources.

The underdevelopment index proposed here includes the following ten sub-components: (i) monthly per capita consumption expenditure, (ii) education, (iii) health, (iv) household amenities, (v) poverty rate, (vi) female literacy, (vii) percent of SC-ST population, (viii) urbanization rate, (ix) financial inclusion, and (x) connectivity. The Appendix describes in detail the data sources and how the components of the index are calculated.

One issue on which the committee deliberated extensively is whether to use state-level per capita income from national accounts or average per capita consumption expenditure from the household survey as an indicator of development. Per capita Net State Domestic Product (NSDP) is a common measure of development, and has also been used previously by the Planning Commission and Finance Commission. However, there was broad, though not universal, support in the committee that consumption expenditure should be used instead, as it appropriately measures the well-being of an average individual in a state, which the underdevelopment index should capture.

One concern with per capita income at the state level is that it may not adequately measure what reaches the people. Resource rich states may have high levels of average income, which is likely to be appropriated by resource-extracting corporations that may or may not be owned in the state. As a result, average consumption at the household level may still be low. Conversely, states with many emigrants may see inflows from remittances that tend to raise average consumption, even if average state incomes are low. Of course, that a state has a lot of emigrants may reflect the poor quality of job opportunities in that state. Moreover, emigrants do pay a cost by leaving family behind.

Another reason for using income is that it could represent greater capacity of the state to raise and utilize resources from its own people, for example through state taxes and household savings. However, household savings may be invested outside the state rather than internally, limiting the resources the state has for development.

Since we are interested in measuring the state population's well-being, a majority of the committee agreed that consumption from the household survey seems more appropriate than income from the national accounts. This is a judgment call, and we also present the index calculated using per capita net state domestic product in Appendix 5. The correlation between indices is 0.997.

A second variable that was debated was the fraction of people belonging to scheduled castes or scheduled tribes (SC/ST) in state population. Some on the committee believed that unlike the other variables, this was not an "outcome" variable. The majority of the committee, however, felt that it reflected groups that had been historically deprived, and even today may indicate social deprivation if not economic deprivation.

In Table 1, we report the pair-wise correlations between the different sub-components of the index. Overall, we do find positive correlations across indicators – the indicators are normalized based on a priori reasoning so that a higher value should likely be correlated with more underdevelopment, so it is gratifying they are positively correlated. However, the correlations are not always high suggesting that different indicators might bring in useful additional information.

Table 1. Correlation Across Sub-Components of the Under-Development Index

	Per capita consumption	Infant mortality rate	Female literacy	Poverty ratio	% STSC	Urbanization rate	HH with banking access	Education index	Household amenity index	Connectivity index
Per capita consumption	1									
Infant mortality rate	0.61*	1								
Female literacy	0.58*	0.66*	1							
Poverty ratio	0.77*	0.37	0.51*	1						
% STSC	0.21	0.06	-0.18	0.16	1					
Urbanization rate	0.75*	0.62*	0.58*	0.45*	0.11	1				
HH with banking access	0.52*	0.19	0.28	0.59*	0.45*	0.28	1			
Education index	0.53*	0.62*	0.57*	0.48*	-0.03	0.39*	0.36	1		
Household amenity index	0.89*	0.56*	0.57*	0.77*	0.40*	0.62*	0.67*	0.52*	1	
Connectivity index	0.56*	0.46*	0.50*	0.37	0.46*	0.55*	0.31	0.11	0.53*	1

* denotes statistical significance at the 5 percent level.

The ten sub-components are aggregated to create an overall index of underdevelopment. The Committee decided to assign equal weights to each of the sub-components for calculating the overall index for the state. Not only is this simple, but it is also not far off from the weights arrived at by using more sophisticated methods (see Appendix).

Categories and Linearity

Past committees have followed two possible approaches to allocating resources based on need. One approach is to sort states based on a development index into two fixed categories. The states in the “developed” category get modest fund allocations, whereas most of the available funds are distributed among the states in the “under-developed” category. This creates an enormous amount of jockeying amongst states about the cut-off. States in the “developed” category may want to be re-classified as “under-developed”, and states initially classified in the “under-developed” category may be extremely reluctant to leave that category. To the extent that the classifications were fixed in the historic past, they may become outdated and not reflect current needs. An originally “developed” state may fall behind and need funds, while an “under-developed” state may surge ahead in growth and not need any. At the same time, categorizations become politically difficult to change.

An alternative approach is to allocate funds to every state based on how it scores on the underdevelopment index. The benefit of this approach is that it can accommodate change, but the cost is that it gives funds to all, even very developed states who do not really need it.

This committee decided to follow an intermediate approach so as to accommodate differences in needs, even while recognizing the truly needy should be given disproportionately more. At the same time, we want changes in a state's development to affect funds allocation seamlessly, without requiring re-categorization. We therefore propose to allocate in proportion to the index. However, we will square the index so that truly needy states get disproportionately more, while more developed states get less. In other words, our methodology introduces non-linearity, though not in an extreme form as categorization does. Moreover, states will get more or less over time based on their measured need, not because of their initial categorization. Finally, since the index is based on publicly available data, there is no element of discretion in the allocations.

Population and Area

The squared underdevelopment index represents the need of an average individual in a state. To get the allocation for a state, normally we should multiply by the state's share in population. There is, however, an argument for allocating more to underdeveloped states with large areas but little population. A road costs the same whether it connects a village of 25 inhabitants or 5000 inhabitants. Similarly, there are fixed costs of building schools or dispensaries, but these have to be near people to be of use. Therefore, underdeveloped states with small populations and large areas will have the burden of creating significantly more infrastructure per capita. To address this, the Committee decided to assign 80 percent of weight to a state's share in population and 20 percent to the state's share in area for determining the factor by which to multiply need. This follows the approach of a number of committees as well as the Finance Commission.

Performance

This Committee however, also takes a step forward in trying to draw a balance between "needs" and "performance". Given that poor administration or institutions in a recipient

state can fritter away allocated resources, to the detriment of the population, there should be some recognition for effective governance and the efficiency of resource use. This becomes all the more necessary since the proposal to give substantially more to underdeveloped states will create a mild disincentive to develop. In other words, a performance bonus can be thought of as removing the disincentive (or "tax") for a state to improving its development index, which will result in a reduced share in allocations.

There could be many ways of measuring performance, but for simplicity the committee settled on improvements to a state's development index over time (that is, a fall in underdevelopment) as the measure of performance. Importantly, the committee decided that a change in the fraction of SC/ST population was not a meaningful measure of performance, and therefore this variable was dropped while computing the performance index.

Needs and performance components are combined using appropriate weights to derive the allocation share of each state. Introducing this principle of rewarding states for performance, in the committee's view, represents a substantial change over previous methodologies. However, since there has been little experience with it so far, to begin with the Committee proposes to have a relatively small weight on performance, amounting to approximately 25 percent of the total allocation based on need and performance.¹

Small States

All states require a basic minimum to meet fixed expenditures such as administrative costs. Because states with small populations and areas are unlikely to meet that minimum threshold, the Committee recommends that each state get a fixed basic allocation of 0.3 percent of overall funds, to which will be added its share stemming from need and performance to get its overall share. Such a minimum share will be especially important for the relatively small North-Eastern states, which are politically very sensitive.

¹ The Gadgil-Mukherjee formula has weight for indicators on performance viz. tax effort, fiscal management and progress in respect of national objectives. The weights, however, are small.

Formula for Allocation

The formula for allocation of central government funds can be represented as follows:

$$\begin{aligned} & \textit{Percent share of state } i \textit{ in the total central government funds allocated} \\ &= 0.3\% \\ & \quad + \textit{ Percent share of state } i \textit{ based on need} \\ & \quad + \textit{ Percent share of state } i \textit{ based on performance} \end{aligned}$$

One way of seeing this is to visualize the formula as allocating points to states. A state gets points for need and for performance. The points a state gets for each, expressed as a fraction of the sum of points of all states (for need and performance), is the state's share stemming from need and performance respectively of 91.6% of the amount to be allocated. The remaining 8.4% is equally divided so that each state gets 0.3%. To be concrete:

Points to state i based on need are:

$$\begin{aligned} & [0.8 * \textit{Share of Population of State } i + 0.2 * \textit{Share of Area of State } i] \\ & \quad * [(\textit{under}) \textit{ development index for state } i]^2 \end{aligned}$$

Points to state i based on performance are:

$$\begin{aligned} & \textit{Points to state } i \textit{ based on need} * \textit{Change in (under) development index for state } i \\ & \quad * \textit{Performance weighting parameter} \end{aligned}$$

An important concern is how frequently the development index and the measure of performance will be updated. Since many of the development indicators are based on quinquennial surveys, the Committee suggests the development index be updated every five years, and the performance index should reflect the change from the previous update.

II. Allocations Suggested by the Method

Table 2 is the main table in the report. Column [1] shows the allocation shares across states based on the methodology presented above. There is considerable dispersion across states. The shares range from 0.30 per cent to 16.41 percent with a standard deviation of 4.02 percent.

Columns [2] – [4] show the distribution across states for other existing mechanisms of resource transfer based on releases. Column [2] shows the shares for the Plan transfers (which includes NCA grants, and the centrally sponsored schemes). Column [3] presents the allocations for the NCA grants, which is less than 4 percent of total transfers, and is based on the Gadgil-Mukherjee formula. Column [4] shows the shares for transfers made through the Finance Commission route.

Not surprisingly, some gain and others lose based on our formula. Nine states gain in shares relative to the Plan transfers, and twelve gain relative to the Finance Commission ones. Notably, for most of the states, the loss in shares is small. For example, relative to the Finance Commission formula, only five states lose one percentage point or more of their share.

Table 2. Allocation Share (in percent): Present Committee Recommendations and Comparison with Others

	[1]	[2]	[3]	[4]
	Present Committee shares	Total Central Assistance to State Plans & Centrally Sponsored	Normal Central Assistance (NCA) as per Gadgil Mukherjee Formula	Finance Commission (grants + share in Central Taxes)
Andhra Pradesh	6.85	7.34	2.72	6.61
Arunachal Pradesh	0.97	1.56	4.38	0.50
Assam	3.05	4.93	10.31	3.31
Bihar	12.04	7.42	4.95	10.06
Chattisgarh	3.70	3.14	1.21	2.43
Goa	0.30	0.15	0.22	0.23
Gujarat	3.69	3.05	1.72	3.12
Haryana	1.33	1.36	0.88	1.11
Himachal Pradesh	0.67	2.04	5.81	1.54
Jammu & Kashmir	1.83	4.92	9.03	2.51
Jharkhand	3.88	2.96	1.47	2.77
Karnataka	3.73	4.13	2.03	4.39
Kerala	0.38	1.95	1.44	2.45
Madhya Pradesh	9.56	6.91	3.15	6.72
Maharashtra	3.94	6.64	3.01	5.28
Manipur	0.50	1.39	3.34	0.80
Meghalaya	0.65	1.11	2.74	0.51
Mizoram	0.40	1.09	3.26	0.50
Nagaland	0.45	1.39	3.45	0.84
Odisha	6.53	4.62	2.48	4.83
Punjab	1.07	1.26	1.05	1.45
Rajasthan	8.42	4.79	2.76	5.84
Sikkim	0.35	0.67	2.18	0.35
Tamil Nadu	2.51	4.46	2.66	5.01
Tripura	0.52	1.78	5.05	0.81
Uttar Pradesh	16.41	10.09	8.87	18.16
Uttarakhand	0.79	1.90	5.90	1.15
West Bengal	5.50	6.93	3.92	6.72

Note: The shares in columns [2] to [4] are based on releases, and are for 2011-12. Normal Central Assistance grants are included in total Central Assistance to State Plans.

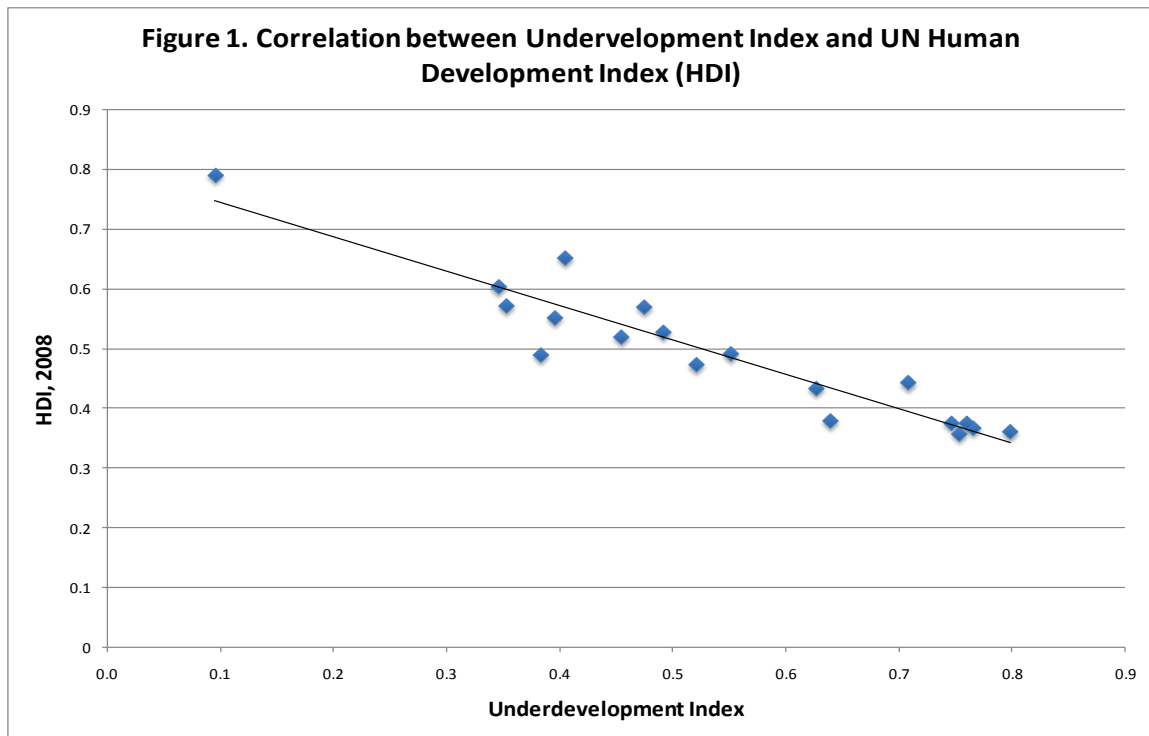
It may be noted that allocation shares are determined not only by the index of underdevelopment and improvements in it, but also by their population and area. Going by this criteria, larger states do get higher allocations.

To see that this is not excessive, we could look at allocation share in relation to say the population share (share of that state in the national population). We could also look at the allocation of a given amount of funds (say Rs. 1000 crore) in per capita terms. Table 3 shows these additional metrics. Column [1] shows the allocation share based on the previous table. Column [2] shows the share relative to the population share (i.e. share in total funds/share in total population). Column [3] shows the allocations that each state would receive, if the total allocations for all states was Rs. 1000 crore. Column 4 gives the per capita allocation in Rs. for each state (for a total pool of Rs. 1000 crore). Note that the allocation to larger States decline on per capita basis while the smaller States no longer seem disfavored.

Table 3: Allocation Share (in relation to population)

	[1]	[2]	[3]	[4]
State	Total share	Total share/ Population share	Allocation in Rs.1000 crores (in Rs. crores)	Per capita allocation in Rs. 1000 crores (in Rs.)
Andhra Pradesh	6.85	0.96	68.51	8.10
Arunachal Pradesh	0.97	8.30	9.65	69.74
Assam	3.05	1.16	30.46	9.76
Bihar	12.04	1.38	120.38	11.56
Chhattisgarh	3.70	1.72	36.99	14.48
Goa	0.30	2.46	3.01	20.63
Gujarat	3.69	0.73	36.92	6.11
Haryana	1.33	0.62	13.29	5.24
Himachal Pradesh	0.67	1.16	6.71	9.77
Jammu & Kashmir	1.83	1.74	18.33	14.62
Jharkhand	3.88	1.40	38.75	11.75
Karnataka	3.73	0.73	37.30	6.10
Kerala	0.38	0.13	3.79	1.13
Madhya Pradesh	9.56	1.57	95.60	13.16
Maharashtra	3.94	0.42	39.38	3.50
Manipur	0.50	2.34	5.04	19.62
Meghalaya	0.65	2.59	6.45	21.76
Mizoram	0.40	4.34	4.00	36.46
Nagaland	0.45	2.73	4.53	22.90
Odisha	6.53	1.85	65.32	15.56
Punjab	1.07	0.46	10.73	3.87
Rajasthan	8.42	1.46	84.21	12.28
Sikkim	0.35	6.83	3.50	57.39
Tamil Nadu	2.51	0.41	25.05	3.47
Tripura	0.52	1.68	5.17	14.09
Uttar Pradesh	16.41	0.98	164.11	8.21
Uttarakhand	0.79	0.93	7.85	7.79
West Bengal	5.50	0.72	54.95	6.02
	100		1000	

Table 4 shows the underdevelopment index and the allocation shares across states. Column [1] shows how states fare on the underdevelopment index. The average level of underdevelopment for the country is 0.5. Notably, there is significant dispersion across states with minimum and maximum values of 0.05 and 0.80, and a standard deviation of 0.2. The index is strongly and negatively correlated with the Human Development Index (HDI), with a correlation coefficient of -0.9 (Figure 1). Note that higher values of HDI denote higher levels of development, unlike our index where higher values denote greater underdevelopment.



Columns [2] [3] and [4] in Table 4 show the fixed share, share in fund allocation based on need and performance respectively. The total share, which is the sum of the need and performance based shares is shown in Column [5]. 69 percent of total allocation is distributed based on need. Uttar Pradesh gets the highest share based on both need and performance, followed by Bihar in terms of need but not in terms of performance. However, when measured in relation to the population share, Arunachal Pradesh, Odisha, Chhattisgarh

and Meghalaya, receive the highest based on need; whereas Rajasthan, Odisha, Jammu and Kashmir and Sikkim get the highest shares based on performance (not shown in the table).

Note that one interesting feature of the formula is that the incremental reward for performance is increasing in the level of underdevelopment – this is because the reward for performance is multiplied by need. In other words, the formula rewards underdeveloped states more for an improvement in the index, a necessary feature in the formula since the most underdeveloped states tend to lose more allocations as they develop.

Table 4: Underdevelopment/Need Index and Allocation Share

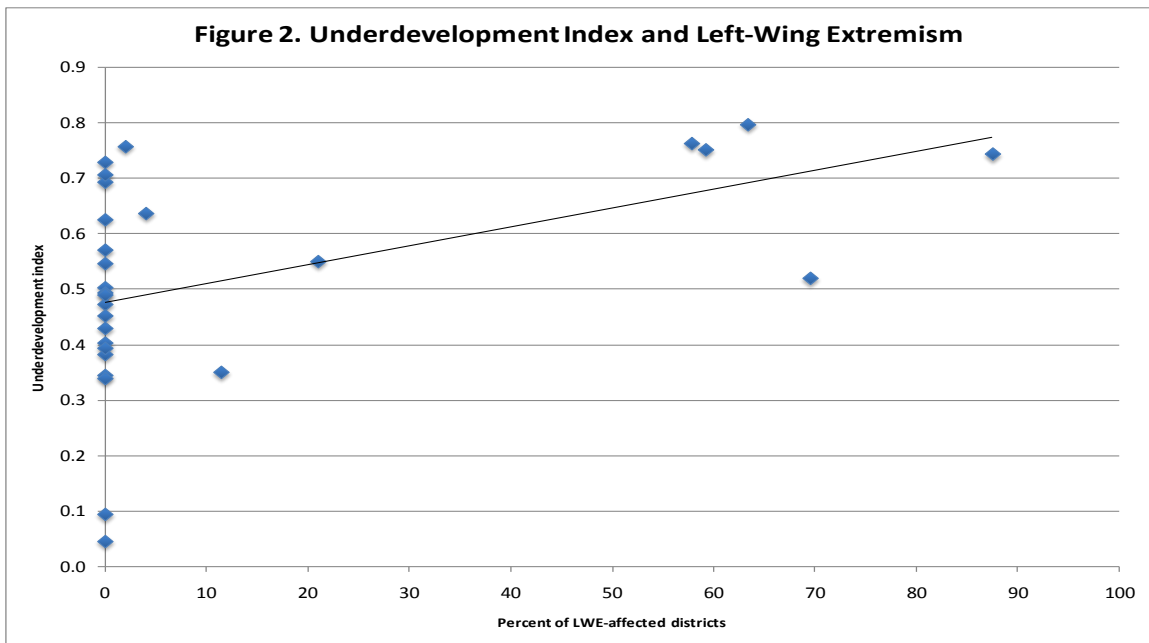
	[1]	[2]	[3]	[4]	[5]
State	Underdevelopment/need index	Fixed Share	Share based on need	Share based on performance	Total share
Andhra Pradesh	0.52	0.3	4.03	2.52	6.85
Arunachal Pradesh	0.73	0.3	0.65	0.02	0.97
Assam	0.71	0.3	2.60	0.14	3.05
Bihar	0.76	0.3	8.94	2.80	12.04
Chhattisgarh	0.75	0.3	2.91	0.49	3.70
Goa	0.05	0.3	0.00	0.00	0.30
Gujarat	0.49	0.3	2.56	0.83	3.69
Haryana	0.40	0.3	0.62	0.41	1.33
Himachal Pradesh	0.40	0.3	0.26	0.11	0.67
Jammu & Kashmir	0.50	0.3	1.13	0.40	1.83
Jharkhand	0.75	0.3	3.04	0.54	3.88
Karnataka	0.45	0.3	2.19	1.24	3.73
Kerala	0.09	0.3	0.04	0.03	0.38
Madhya Pradesh	0.76	0.3	7.86	1.40	9.56
Maharashtra	0.35	0.3	2.35	1.28	3.94
Manipur	0.57	0.3	0.20	0.00	0.50
Meghalaya	0.69	0.3	0.33	0.02	0.65
Mizoram	0.49	0.3	0.10	0.00	0.40
Nagaland	0.55	0.3	0.14	0.01	0.45
Odisha	0.80	0.3	4.85	1.38	6.53
Punjab	0.35	0.3	0.52	0.25	1.07
Rajasthan	0.63	0.3	5.29	2.83	8.42
Sikkim	0.43	0.3	0.03	0.02	0.35
Tamil Nadu	0.34	0.3	1.32	0.88	2.51
Tripura	0.47	0.3	0.14	0.08	0.52
Uttar Pradesh	0.64	0.3	12.24	3.87	16.41
Uttarakhand	0.38	0.3	0.30	0.19	0.79
West Bengal	0.55	0.3	4.09	1.10	5.50
		8.4	68.74	22.86	100.00

III. Discussion of Findings

We now discuss three key issues that came up in the committee: (i) whether the underdevelopment index is positively correlated with left-wing extremism such that the allocation formula gives more to states affected by such insurgencies, (ii) how does the Committee’s approach relate to the categorization of states, and (iii) a more technical aspect: how sensitive is the formula to the chosen values of the parameters. We discuss each of these issues briefly below.

States affected by Left-Wing Extremism

One potential issue of concern is whether the methodology proposed by the committee adequately allocates funds to states affected by left-wing extremism (LWE). Among the internal security threats that affect India, LWE, commonly dubbed as the Naxal-Maoist threat is perhaps one of the gravest and most alarming. According to data from the Ministry of Home Affairs, the insurgency currently spans nearly 106 districts spread over 9 states. As shown in Figure 2, states with a higher fraction of districts affected by LWE also score higher on the underdevelopment index, and therefore are allocated a higher share of funds based on need.



Source: The information on LWE districts is taken from Ministry of Home Affairs, Reply to Lok Sabha Unstarred Question No. † 1374. The total number of districts is taken from Census, 2011 (except for 3 states – Uttar Pradesh, Punjab, and Chhattisgarh, we use official state government websites). The LWE districts are defined as those covered under the Security Related Expenditure (SRE) Scheme for the purpose of reimbursement of expenditure incurred by the State Governments on counter-LWE measures.

Special Category States

The National Development Council (NDC) has accorded the status of Special Category State (SCS) to eleven (out of twenty-eight States) which have been characterized by a number of features necessitating special consideration. These features include: (i) hilly and difficult terrain, (ii) low population density and/or sizeable share of tribal population, (iii) strategic location along borders with neighbouring countries, (iv) economic and infrastructural backwardness, and (v) non-viable nature of state finances. States under this category have a low resource base and are not in a position to mobilize resources for their developmental needs even though the per capita income of some of these states is relatively high. Moreover, a number of these states were constituted out of former small Union Territories or districts of some other states, necessarily involving creation of overheads and administrative infrastructure that was out of proportion to their resource base. At present there are eleven Special Category States namely, Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand.

Allocation schemes based on such existing categorizations can be run in parallel to the one we have proposed based on need and performance, recognizing they serve somewhat different purposes.

There is some merit in categorization, however, to the extent that it allows the Centre to target specific benefits. Reducing underdevelopment is more than about simply the allocation of funds. The Centre may want to offer additional forms of support to states that are particularly underdeveloped. Our index offers an opportunity to do that. In particular, we could label states that score 0.6 and above on our (under)development index “least developed” states. States that score below 0.6 and above 0.4 are “less developed” states, while states that score below 0.4 are “relatively developed” states. The 10 “least developed” states that currently score above 0.6 could, for instance, be targeted for specific additional

support. Current “least developed” states would be Arunachal Pradesh, Assam, Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Meghalaya, Odisha, Rajasthan, and Uttar Pradesh

Unlike existing categorization schemes, however, our categories are dynamic and automatically calculated by formula. As states develop fast, they will move out of the “least developed” segment, allowing other, less developed states to garner the benefits. However, because the index is a relative measure, there will always be some states in the “least developed” segment.

Parameterization

Figure 3 provides a visual representation of allocations under the formula.²One interesting property of the index is that for given weights on need and performance, need based allocations increase steeply with the underdevelopment index, while performance based allocations are less sharply linked to performance index. A better performing state would have a slightly larger share of the pie than one that performs less well, for the same level of development, population and area. The reason allocations do not climb as sharply with performance is that the better performing state loses some allocations because it is more developed (performance is multiplied by need in determining the allocation to performance).

Figure 3a. Relative allocation based on need and underdevelopment Index

² For visual presentation, one state which is an outlier has been excluded from Figures 3a and 3b.

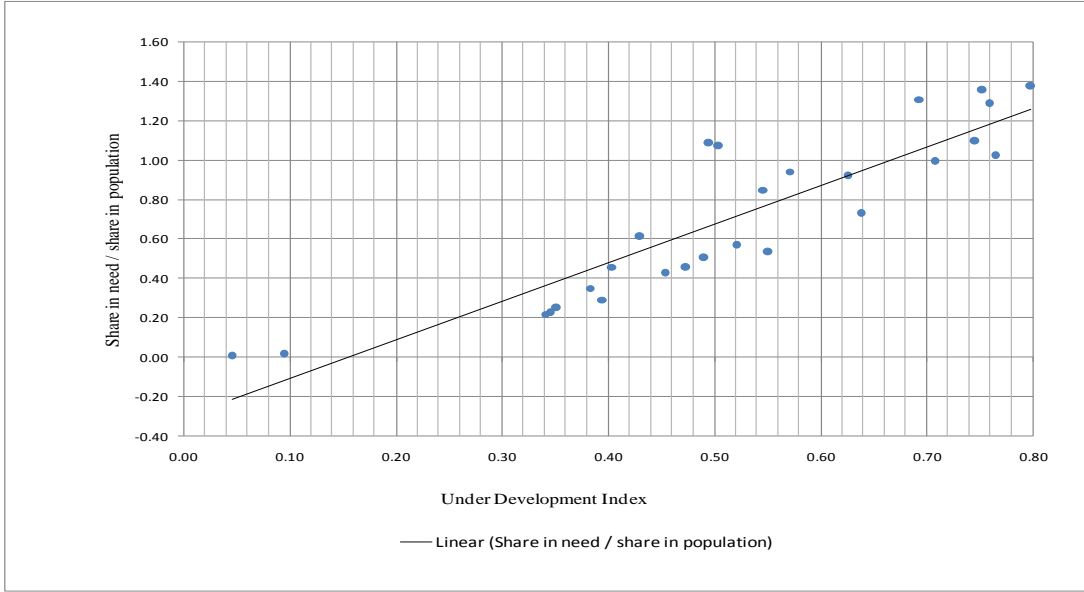
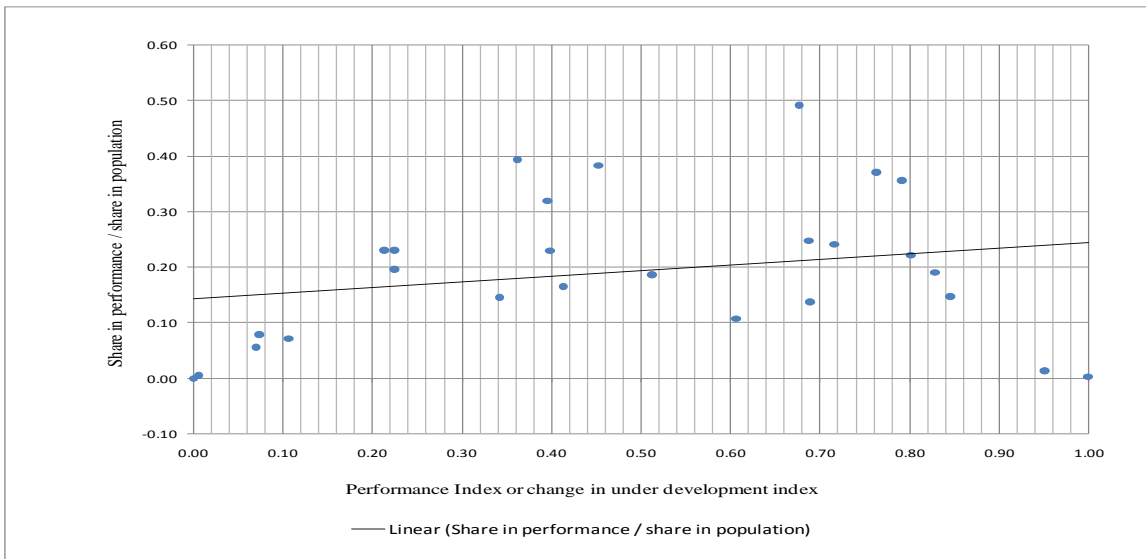


Figure 3b. Relative allocation based on Performance Index



Note. Figures 3a and 3b used weights on need equal to 2, and the performance parameter is chosen such that a total of 25 percent is allocated based on performance.

The choice of the parameters in the allocation formula is based partly on what previous committees used, but also on the judgment of the present Committee. First, the underdevelopment index is multiplied by the size of a state to determine the share based on need. Following the approach used by a number of committees as well as the Finance Commission, size is measured by a variable that gives 80 percent of weight to a state's share in population and 20 percent to the state's share in area.

Second, the underdevelopment index is “squared” so that the truly needy get disproportionately more funds. The Committee chose to square the index as this is one of the most common and widely accepted forms of non-linearity used in different applications across fields. This is a fairly innocuous assumption. As discussed in detail in the Appendix, as the *weight on need* (the power to which the index is raised in determining need) increases from 1 to 3, the total share allocated to needs increases only marginally.

Third, the weighting on performance is chosen so as to allocate a small portion (assumed to be 25 percent) of the funds allocated based on need and performance. The Committee decided to keep the share of funds to be distributed based on performance rather low. Over time, the weight can perhaps be increased.

Importantly, there is a fair amount of flexibility built into the formula. The choice of the parameters was based on a delicate balance between keeping the formula simple and transparent, but at the same time retaining its novelty and the essential insights that emanated from serious deliberations of the committee.

Finally, this committee has responded to the concerns of states. The demand by some states to be retained or included in the “special category” is in reality more an economic argument than political argument. The case of small states now included in the “special category” is addressed by our recommendation of a fixed basic allocation of 0.3 per cent of overall funds. The case of some states for inclusion in the “special category” is addressed by our recommendation that states that score 0.6 and above on the (under)development index be deemed as “least developed” states.

IV. Recommendations

- (i) The Committee recommends that the framework outlined in this report be used to allocate some of the development funds that are allocated by the Center to the states.

- (ii) The Committee recommends that the proposed underdevelopment index be updated on a quinquennial basis and performance be measured relative to the last update.
- (iii) The Committee recommends that the index and the allocation formula be re-examined after 10 years and revisions proposed based on experience.
- (iv) The Committee recommends that “least developed” states, as identified by the index, be eligible for other forms of central support that the Center may deem necessary to enhance the process of development.
- (v) The approach recommended in this report is not intended to replace all existing methodologies, but should be thought of as one that will channel some fund allocations based on need and performance. Other methodologies may serve different purposes and should be used in parallel to allocate other funds.

Appendices

Appendix 1. Underdevelopment Index

The underdevelopment index the Committee proposes includes the following ten sub-components: (i) monthly per capita consumption expenditure, (ii) education, (iii) health, (iv) household amenities, (v) poverty rate, (vi) female literacy, (vii) percent of SC-ST population, (viii) urbanization rate, (viii) financial inclusion, and (x) connectivity. Table A1 provides a list of all the variables and the sources.

Income is proxied for by per capita consumption expenditure from the Consumption Expenditure Surveys of the National Sample Survey Organisation (NSSO), and is averaged across individuals at the state-level. The rationale for this is discussed in detail in the text, along with a different view point expressed by one of the members.

The “education” sub-index is computed as a weighted average of (i) attendance ratio and, (ii) number of institutions for primary and secondary education per 1000 of state population in the age groups of 5-14 years. Attendance ratio is calculated for age categories 5-14, 15-19, and 20-24 years using NSSO’s data from the Employment and Unemployment Surveys, and is measured as the fraction of a particular cohort that reports attending an educational institute.

The “health” sub-index is measured by a single indicator – infant mortality rate. This is motivated by the fact that infant mortality is widely accepted in the literature as a good indicator not only for health outcomes but as a proxy for a broad set of human development outcomes.³

³ Infant mortality is the primary health indicator for four reasons. First, data on infant mortality are available and are more reliable than other indicators, such as life expectancy, child mortality and maternal mortality. Second, infant mortality is more sensitive than other indicators like life expectancy to changes in economic conditions, and is considered to be a flash indicator of the health conditions of the poor (Boone, 1996). Third, reductions in infant and child mortality largely explain the substantial improvements in life expectancy over the last fifty years in developing countries (Cutler et al., 2006). Finally, past studies indicate that in developing countries, infant mortality depends on access to medicines and health facilities, water and sanitation, fertility patterns, maternal

The sub-index for “household amenities” is a weighted average of the number of households which have the following (i) electricity as primary source of lighting, (ii) access to drinking water within premises, (iii) no sanitation facilities within premises, (iv) mobile/phone facilities, (v) no specified assets.⁴

Poverty ratios used in the Report have been taken from Planning Commission and are based on the definition being currently used by the Planning Commission. It can be suitably altered when a new definition of the poverty line is proposed.

Female literacy, percent of SC-ST population, and urbanization rate are from the census abstracts. In addition to economic and social outcomes, we also include an indicator of financial development, which is the number of households availing banking services.

Finally, we include a sub-index of connectivity – which is a weighted average of a number of indicators -- length of surfaced national and state highways, other surface road and rail route per 100 sq. km. The sub-index will be increasing in these measures. Connectivity could also be defined as a ratio of the population, as suggested by one of the members. The committee thought that this would be essential if there are capacity constraints, however it was not completely clear that such constraints are binding, hence the committee decided not to scale it by population.

The committee converged on the list of ten variables that comprise the index after many discussions and serious deliberations. There was broad consensus on the set of ten variables presented above. However, there were differing views in the committee as well. For example, one member suggested inclusion of electricity consumption per capita, however it was decided not to include it as it is already being captured by existing variables like consumption, and the household amenities sub-components.

health, maternal and infant nutrition, maternal and infant disease exposure, and female literacy in addition to per capita GDP and economic inequality.

⁴ In the 2001 Census, “specified assets” include radio, transistors, television, telephone, bicycle, scooter, motor cycle, moped, car, jeep, and van. In addition to these, the 2011 Census also includes computer & laptop.

The list of variables, sources, and the time periods considered are described in the appendix. The Committee uses the data on latest year available (2011 for the variables from the census, or 2009-10 or 2011-12 for those from the NSSO), and also for a base year (2001, or 2004-05 depending on the source of the variable). The data cover 28 states. Union territories are not included for data availability reasons.

Table A1. Index for Underdevelopment: Sub-Components and Sources

Variables		Source (Base Year)	Source (Current Year)
1.	Income	MPCE	2004-05, NSSO
2.	Education	<ul style="list-style-type: none"> Attendance Ratio No. of Education Institution in Primary/ Junior Basic School & Middle/Sr. Basic School 	<ul style="list-style-type: none"> 2004-05, NSSO Economic Survey(2007-08)
3.	Health	IMR	SRS Bulletin 2005-06
4.	Household Amenities Index	<ul style="list-style-type: none"> % of HH with drinking water within premises % of HH with no sanitation facilities % of HH with Telephone/ mobile service % of HH with no specified asset % of HH with electricity as primary source of lighting 	Census 2001
5.	Poverty Ratio		Planning Commission (2004-05)
6.	Female Literacy Rate		Primary Census Abstract (PCA, 2001)
7.	% of SC-ST population		Primary Census Abstract (PCA, 2011)
8.	Urbanization Rate		
9.	Financial Inclusion	% of HH with banking facility	Primary Census Abstract (PCA, 2001)
10.	Connectivity Index	<ul style="list-style-type: none"> Length of Surface National Highways per 100 sq km Length of Surface State Highways per 100 sq km Other Surface Road per 100 sq km Rail route per 100 sq km. 	Basic Road Statistics of India July 2010 Indian Railways: Year Book (2004-05)
			Basic Road Statistics of India, August 2012 Indian Railways: Year Book (2010-11)

Appendix 2: Aggregation and Normalization of the Underdevelopment Index

The ten sub-components are aggregated to create an overall index for underdevelopment. For the baseline analysis, as discussed in the text of the report, the Committee takes a simple arithmetic mean of the sub-components.

A principal component analysis of the sub-components suggests that they are all positively correlated with the first component, which we take to be underdevelopment. A natural alternative to equal weights is the squared factor loadings from principal component analysis (which sums up to 1). This turns out to be 0.16 for per capita consumption expenditure, 0.08 for education, 0.10 for health, 0.16 for household amenities, 0.12 for poverty ratio, 0.10 for female literacy, 0.02 for percent of SC-ST population, 0.11 for urbanization rate, 0.07 for financial inclusion, and 0.08 for connectivity. Given that the coefficients for most of the sub-components did not differ significantly from the equal weights for indicators, the Committee decided to give weight of 0.1 for all indicators. The Committee also reconstructed the index using the principal component weights; the resulting index was highly correlated with the one with equal weights, with a correlation coefficient of 0.99.

For those sub-components that are an aggregate over various indicators (education, household amenities, and connectivity), weights were assigned on the basis of Principal Component Analysis to the indicators that go into the sub-component.

Each sub-component is normalized between 0 and 1, and rescaled such that 1 indicates a higher degree of underdevelopment. Normalization is necessary to ensure no sub-component has a disproportionate weight in the overall index.

The normalized indicators are calculated as below:

$$I_x = \frac{x - x_{min}}{x_{max} - x_{min}}$$

where x is the original sub-component, and I_x is the normalized one.

Appendix 3: Performance Change in Underdevelopment index

In order to calculate the change in the index to measure performance, we make the following modifications to the procedure described above. First both the base and current year indices are normalized using the minimum and maximum values for the base year. We do this in order to avoid the possibility that a change in the index might merely reflect a change in the minimum and maximum values across states over the two years, rather than an improvement in the index.

Second, three of the variables, which we use in the construction of the needs-based indices are dropped – share of SC/ST in total population, length of surfaced national highways, and railways. The share of SC/ST in total population does not seem to be a variable that would affect performance, so it was excluded from the performance calculation. Similarly, the length of surfaced national highways and railways are determined by the central government, and states should not be rewarded or penalized for any change in these.

Third, the change in the index is normalized using the minimum and maximum values, so that the least performing state does not receive any bonus, whereas the better performers get bonus shares in proportion to the magnitude of their improvement.

Appendix 4: Alternative Values of the Parameters in the Allocation Formula

In the text of the report, the Committee assigned a weight on need equal to 2, and the performance weighting parameter at 0.8 so as to allocate 25 percent of total funds based on performance. Table A2 shows robustness with alternative weights on need and performance. As the weight on needs increases from 1 to 3 (performance weight remaining unchanged at the baseline of 0.8), the total share allocated to needs increases only marginally from 67.3 to 69.9; whereas keeping the weight on needs unchanged at 2, increasing the weight on performance from 0.25 to 1.0 increases share of the total allocated based on performance almost thrice – from 8.7 to 27.1 percent (Table A2).

Table A2. Alternative Weights on Need and Performance

Weight on performance	Weight on need	Fixed Share	Need Share	Performance Share
0.25	1	8.4	82.2	9.4
	2	8.4	82.9	8.7
	3	8.4	83.4	8.2
0.79	1	8.4	67.3	24.3
	2	8.4	68.7	22.9
	3	8.4	69.9	21.7
1	1	8.4	62.8	28.8
	2	8.4	64.5	27.1
	3	8.4	65.8	25.8

Appendix 5: Underdevelopment/ Need Index based on Per Capita Net State Domestic Product

Underdevelopment/ Need Index Based on Per Capita NSDP⁵	
Andhra Pradesh	0.54
Arunachal Pradesh	0.74
Assam	0.71
Bihar	0.76
Chhattisgarh	0.74
Goa	0.05
Gujarat	0.50
Haryana	0.43
Himachal Pradesh	0.42
Jammu & Kashmir	0.53
Jharkhand	0.74
Karnataka	0.48
Kerala	0.15
Madhya Pradesh	0.76
Maharashtra	0.37
Manipur	0.58
Meghalaya	0.70
Mizoram	0.52
Nagaland	0.57
Odisha	0.79
Punjab	0.39
Rajasthan	0.65
Sikkim	0.41
Tamil Nadu	0.36
Tripura	0.47
Uttar Pradesh	0.65
Uttarakhand	0.39
West Bengal	0.56

⁵ In this index per capita consumption is replaced by per capita NSDP. Other variables remain the same as they are in the index presented in Table 4.

Appendix 6: Approach / Variables used by Past Committees to Address Regional Backwardness⁶

A number of Committees in the past have gone into the issue of addressing regional imbalances. The broad approach followed and indicators used by some of the important ones are listed below.

Committee on Dispersal of Industries (1960): The Committee on Dispersal of Industries, was set up to examine the question of industrialization of rural and industrially underdeveloped areas through small and medium scale industries. The criteria recommended by the Committee for determining backwardness at district level were based on the following:

Poverty indicated by:

- low per capita income; and
- low per capita consumption
- Ratio of population to cultivable land (50% or more below the national average of per capita land holding considered as backward)
- Absence or under-exploitation of other natural resources - minerals, forests and animals
- Percentage of population engaged in secondary and tertiary sectors (25% below the national average considered as backward)
- Ratio of urban to rural population (districts where the ratio was less than 50% of the national average considered as backward)
- Percentage of factory employment (50% below the national average considered backward)
- Poverty of communication indicated by small lengths of railways and metalled roads per square mile (districts where the railway and road mileage fell below 50% of the national average considered as backward)
- High incidence of unemployment and gross underemployment
- Consumption of electric power

⁶ This Section is based on the material contained in the Report of the Inter-Ministry Task Group on Redressing Growing Regional Imbalances set up by Planning Commission.

Planning Commission Study Group: In the context of the formulation of the Draft Fourth Plan (1966-71), the Planning Commission had requested State governments to devote special attention to the subject of area development. In this connection, backward areas were classified under five categories

- a) Desert areas
- b) Chronically drought affected areas
- c) Hill areas including border areas
- d) Areas with high concentration of tribal population
- e) Areas with high density of population with low levels of income, employment and living etc.

For category (e) above, a Study Group was set up to review some indicators of regional development. The Study Group recommended the following indicators:

- a) Total population and density of population
- b) Number of workers engaged in agriculture including agricultural labourers as percentage of total workers
- c) Cultivable area per agricultural worker
- d) Net area sown per agricultural worker
- e) Percentage of gross irrigated area to net sown area
- f) Percentage of area sown more than once to net sown area
- g) Per capita (rural population) gross value of agricultural output
- h) Establishments (manufacturing and repair) using electricity
- i) Number of workers per lakh of population employed in registered factories
- j) Mileage of surfaced roads
- k) Number of commercial vehicles registered in a district
- l) Percentage of literate population
- m) Percentage of school-going children
- n) Number of seats per million population for technical training
- o) Hospital beds per lakh of population

Pande Committee Report: The Pande Committee was set up in 1968 in order to suggest a strategy to minimise existing regional imbalances by encouraging the establishment of

industries in selected backward areas through financial and fiscal incentives including investments from financial and banking institutions. Keeping in view general fund constraints, the Committee felt that it would be desirable to select certain backward districts only in industrially backward States, which may then qualify for special treatment by way of incentives for industrial development. The indicators adopted for this purpose were as follows:

- a) Total per capita income
- b) Per capita income from industry and mining
- c) Number of workers in registered factories
- d) Per capita annual consumption of electricity
- e) Length of surfaced road in relation to the population and area of the State
- f) Railway mileage in relation to the (i) Population and (ii) Area of the State

For identification of backward districts in industrially backward States and Union Territories the following criteria were recommended:

- Districts outside a radius of about 50 miles from large cities or large industrial projects
- Poverty as indicated by low per capita income starting from the lowest to 25% below the State average.
- High population density in relation to utilization of productive resources and employment opportunities as indicated by:
 - Low percentage of population engaged in secondary and tertiary activity (25% below the State average to be considered as backward)
 - Low percentage of factory employment (25% below the State average to be considered as backward)
- Non and/or under-utilization of economic and natural resources like minerals, forests etc.
- Adequate availability of electric power or likelihood of its availability within 1-2 years
- Availability of transport and communication facilities or likelihood of their availability within 1-2 years
- Adequate availability of water or likelihood of availability within 1-2 years

Wanchoo Committee Report: The Wanchoo Committee was appointed by the National Development Council in 1968 to study the issue of regional imbalance. The terms of reference of this Group were:

- To consider the nature of concessions to be given for encouraging the development of industries in backward regions and in particular to examine procedural, financial and fiscal incentives.
- To consider the role of State governments and financial institutions in the development of industries in backward regions
- To examine the type of disincentives that should be introduced to avoid concentration in metropolitan or highly industrialized areas.

The Committee recommended a package of concessions – procedural, financial and fiscal – for encouraging the development of industries in backward regions. The National Development Council, which in consultation with financial institutions evolved a set of criteria for identification of industrially backward districts on the basis of:

- a) Per capita foodgrain /commercial crop production depending on whether the district was predominantly a producer of foodgrains/ or cash crops (for inter-district comparisons, conversion rates between foodgrains and commercial crops were to be determined by the State Government where necessary).
- b) Ratio of agricultural workers to population
- c) Per capita industrial output (gross)
- d) Number of factory employees per lakh of population or alternatively number of persons engaged in secondary and tertiary activities per lakh of population
- e) Per capita consumption of electricity
- f) Surfaced road or railway mileage in relation to population

Report on Backward Areas: The Planning Commission constituted a committee headed by Prof. Sukhamoy Chakravarty in October 1972, but it could not submit its final report. It was of the view that only such indicators should be chosen which will best express relative variations in development among various area units, subject to data availability. The following variables were chosen for the analysis:

- a) Density of population per sq. km. of area

- b) Percentage of agricultural workers to total working force
- c) Gross value of output of foodgrains per head of rural population
- d) Gross value of output of all crops per head of rural population
- e) Percentage of total establishments using electricity to total number of establishments (manufacturing and repair)
- f) Percentage of household establishments using electricity to total household establishments
- g) Percentage of non-household establishments using electricity to total household establishments
- h) Number of workers in registered factories per lakh of population
- i) Length of surfaced roads per 100 sq. kms. of area
- j) Length of surfaced roads per lakh of population
- k) Percentage of male literates to male population
- l) Percentage of female literates to female population
- m) Percentage of total literates to total population

National Committee on the Development of Backward Areas (NCDBA): The NCDBA appointed by the Planning Commission in November, 1978 recommended that the following types of problem areas should be treated as backward for the purposes of planning.

- a) Chronically drought prone areas
- b) Desert areas
- c) Tribal areas
- d) Hill areas
- e) Chronically flood affected areas
- f) Coastal areas affected by salinity

The six categories listed above were treated as six types of fundamental backwardness. An area could suffer from the handicap of more than one type of fundamental backwardness.

Committee to Identify 100 Most Backward and Poorest Districts in the Country (1997):

This committee was set up to prepare Special Action Plan for infrastructure development in rural areas in the 100 most backward and poorest districts of the country. The criteria used by the committee included the following:

Indicators of social infrastructure

- Number of primary schools
- Percentage of female literates
- Number of primary health sub-centres
- Number of community health workers
- Infant Mortality Rate
- Percentage of villages having potable water supply

Indicators of economic infrastructure

- Percentage of villages with pucca roads
- Number of railway stations
- Percentage of villages electrified
- Percentage of villages with post offices
- Bank branches per lakh population
- Cropping intensity
- Value of output per hectare
- Percentage of villages engaged in non-agricultural activities

Districts were ranked in ascending order of poverty and backwardness as indicated by the aggregate index developed by the Committee.

National Commission on Population

The National Commission on Population worked out a composite index and ranked 569 districts of the country using the following variables:

1. Percentage of decadal population growth rate
2. Percentage of births of order 3 and above (in place of the total fertility rate)
3. Percentage of current users of family planning methods
4. Percentage of girls marrying below 18 years of age
5. Sex ratio

6. Percentage of women receiving skilled attention during deliveries
7. Percentage of children getting complete immunization
8. Female literacy rate
9. Percentage of villages not connected with pucca road (estimated)
10. Percentage coverage of safe drinking water and sanitation (estimated)
11. Percentage of births registered (estimated)
12. Percentage of deaths registered (estimated)

Inter-Ministry Task Group on Redressing Growing Regional Imbalances (2005)

The Group appointed by the Planning Commission identified 4 major aspects in its methodology to determine backwardness:

1. Though poor resource endowment acts as an inbuilt constraint to development, the Committee did not adopt resource availability as a determinant parameter to identify backwardness.
2. Human development.
 - **Income:** variables considered are (i) preponderance of agricultural labourers in the population (ii) level of agricultural wages (iii) output per agricultural worker (iv) per capita credit and deposits.
 - **Health:** (i) IMR (ii) Crude death rate. Full immunization and institutional delivery are considered to be the most important parameters that capture health status of a region, particularly those of women and children.
 - **Education:** (i) Female literacy rate (to focus on the gender aspect) (ii) Gross enrollment ratio (considered to be a less satisfactory variable) supplemented by availability of secondary schooling facilities with reference to the targeted population.
3. Availability of physical infrastructure
 - (i) Percentage of households without electricity

(ii) percentage of rural households with drinking water sources at a distance greater than 500 metres

(iii) percentage of households not availing bank services.

4. Robust budgets and ability to raise revenues, etc. are important for states to invest in public goods; the committee did not consider any parameter linked to budgetary capacity.

Percentage of SC and ST population was considered as an overall proxy for regional backwardness.

Appendix 7: Note of Dissent from Dr. Shaibal Gupta, Member

1. It is now well established that development is a multi-dimensional phenomenon. The academic discourse on development is thus varied, depending on which particular dimension of the phenomenon is addressed. But policy dialogue on development often requires an index of development that combines the individual measures of these different dimensions of development. The construction of such an index — the main agenda of the Committee — is not an easy task. Broadly speaking, it involves two major steps — first, choice of dimensions (variables) that together reasonably characterize the state of development; and secondly, assigning weightage to each variable, reflecting their relative importance. An element of judgment is probably unavoidable in either of the steps; but unfortunately, the majority Report of the Committee seems to have expressed some judgments that defy logical arguments. During the deliberations of the Committee, I have repeatedly drawn attention of the members to these anomalies. Since my repeated requests remained unheeded, I am constrained to submit this note of dissent on the final Report.
2. For the theoretical base for the choice of indicators of backwardness, it was rightly agreed in the beginning that the chosen indicators should all be 'outcome' variables, not background or process variables. However, in spite of this decision, 'Percentage of SC/ST Population' was chosen as one of the variables, which certainly is not an outcome variable. The understandable disadvantage of a State, because of a higher percentage of SC/ST in its population, is adequately captured in the remaining variables. I had, therefore, expressed my reservation about inclusion of this variable, but had later agreed to it when the results of the Principal Component Analysis (PCA) were not available to us. It now emerges that it has a factor loading of only 0.02 in the PCA, and hence is not worthy of inclusion in the index. The results of PCA provides justification to my initial reservation. In the Report, it is mentioned that "The majority of the committee, however, felt that it reflected groups that had been historically deprived, and even today may indicate social deprivation if not economic deprivation". It is true that such deprivations are indeed there, but the impact of all these deprivations are already taken into account in 9 outcome

- variables. One should also note in this context that, for the construction of the index, the Committee has not taken into account any other disadvantages of the states like the extent of flood prone area, extent of area affected by left-wing extremism or any other.
3. Household banking facility is a household amenities variable and, as such, treating it as an exclusive indicator of financial inclusion is not correct. If we want a robust indicator of financial inclusion, it must have credit per capita and credit-deposit ratio. Since, the latter variables have not been selected, households availing banking facility should be part of the household amenities variable.
 4. In spite of my repeated mention, connectivity index does not include any reference to population coverage. The argument of capacity constraints not binding does not hold ground. In the past, road and rail lengths have been normalized to both surface area and population. The database is also available on this basis. We should simply treat road and rail length, per unit surface area and per unit population, as equally weighted variables in the connectivity index, like other committees have done in the past.
 5. The issue on which I disagree most relates to the choice of Monthly Per Capita Consumption Expenditure (MPCE) in place of Per Capita GSDP (Per Capita Income or PCI) for the construction of the index. In this context, it should first be remembered that our Committee was constituted in the light of the Finance Minister's latest budget speech, which clearly mentions: "It may be more relevant to use a measure like the distance of the State from the national average under criteria such as *per capita income* (emphasis added), literacy and other human development indicators" to determine their backwardness. The importance of PCI is also reiterated in Committee's First Terms of Reference — "To suggest methods for identifying backward States on the basis of measures such as the distance of the State from the national average on a variety of criteria such as *per capita income* (emphasis added) and other indicators of human development". Unfortunately, the Committee

- has proposed to replace PCI with MPCE, and thus, has not only gone against the spirit of Finance Minister's budget speech, but also against our Terms of Reference.
6. As a measure of under-development of a geographical area, the PCI is superior to the MPCE. I have argued this during our discussions. Since the matter is central to our agenda, let me try once more. If both the PCI and the MPCE are measured accurately, the difference between the two would be: (a) per capita savings and (b) remittance income. Typically, the more developed an area, the higher is the per capita savings as a percentage of total income. Thus, a more developed area would have a proportionately lower MPCE compared to its income, in relation to a less developed area. As far as remittance incomes are concerned, here again, it is usually the case that less developed areas tend to have higher distress out-migration arising out of insufficient jobs within their own area. In this case also, therefore, a less developed area will tend to have a proportionately higher MPCE than a more developed area. In view of the above, the MPCE will always under-measure the difference between the richer and poorer areas as compared to the PCI. (Formally, $Y = C + I + G$, so that $Y/N = C/N + (I+G)/N$ using standard symbols and N for population. The question is whether to use Y/N or C/N ? The difference is clear: by using C/N , the report misses out the term $(I + G)/N$ or, in other words, per-capita savings (= per-capita investment) and the government expenditure. This is unacceptable.
 7. One of the reasons mentioned for choosing MPCE, in place of PCI, was that some members felt the estimates of the former are more reliable than that of the latter. As regards the estimates of PCI, it should be noted that all GSDP estimates, although prepared by respective State governments, are based on the methodological guidelines issued by the National Accounts Division of the Central Statistical Organisation (CSO). CSO then does comparability checks before releasing the final figures. Thus, there should be no conceptual problem in the GSDPs. At the same time, it is not true that the MPCE estimates derived from the NSS surveys are free of data problems. There are two issues that need to be kept in mind. First, it is well known that the total household expenditure arising out of the NSS surveys are

significantly lower than the aggregate household consumption expenditure derived from the national accounts; and second, this underestimation is not consistent across states. Since the MPCE embodies these critical data limitations, it simply cannot be said that the MPCE estimates are more reliable than the GSDP estimates.

8. GSDP is preferred over NSDP as a measure of income, because the only difference between the two is an exogenously imposed depreciation formula, which brings down physical capital to an artificial book value much below the market or replacement value. It thus favours industrialised states at the cost of the economically backward states. Fiscal capacity, the most important instrument for alleviating backwardness, is also measured as Tax-GSDP ratio, not as Tax-NSDP ratio. It is not without reason that successive Finance Commissions and the Gadgil Mukherjee Formula use per capita GSDP and not per capita NSDP as the acceptable variable in their devolution formula.
9. The use of the MPCE in the construction of under backwardness index has another difficulty to overcome. The MPCEs are estimated in nominal terms (current prices) and need to be converted to constant prices using deflators which capture the price differentials across states. We know from the price data that interstate price differentials can be as high as 30 to 40 per cent. Proper corrections for such price differentials are very difficult, and as such the MPCE could distort the index. The advantage of using the poverty ratio is that this problem is taken care of in the computation of the ratios. On the whole, therefore, inclusion of both the MPCE and poverty ratios would amount to double counting and would provide little additional information. A combination of the PCI and the poverty ratio is, therefore, clearly superior to a combination of MPCE and poverty ratio for use in the proposed backwardness index.
10. It was also mentioned that if we replace MPCE with PCI and reconstruct the index, it turns out that the PCI-based index is highly correlated with the MPCE-based one, with a correlation coefficient of 0.85. I suppose that this was mentioned to allay misgivings; but please note that this is the most natural thing — if between two indices the only difference is one variable, the correlation must be high. But more

importantly, a correlation coefficient of 0.85 does not at all imply that one may be used in place of the other. I have already indicated that there are major omissions when one uses MPCE.

11. That the MPCE-based index is not able to adequately capture the disadvantages of the poorer States will be evident from the table below, where I arrange the States whose Per Capita GSDP is below the national average in 2011-12 in order of their Per Capita GSDP, going from the lowest to the highest in this category. I compute the Per Capita GSDP score using the same normalization procedure as per our Committee. It turns out that correlation coefficient between their PCI and backwardness scores is only 0.48 and between their ranks is only 0.41, both of which are very weak correlations by any standard. The table actually shows how distortionary the proposed backwardness index is, and how radically it alters the income gap of the backward States from the All-India average.

State	Per Capita GSDP 2011-12	PC Income Score	Our Index Score	Income Rank	Our Index Rank
Bihar	25,023	1.00	0.76	1	2
Uttar Pradesh	33,732	0.95	0.64	2	9
Manipur	36,871	0.93	0.57	3	11
Assam	41,098	0.91	0.71	4	7
Jharkhand	41,134	0.91	0.75	5	4
Madhya Pradesh	42,493	0.90	0.76	6	2
Odisha	51,130	0.85	0.80	7	1
Tripura	54,682	0.83	0.47	8	17
Chhattisgarh	54,712	0.83	0.75	9	4
Jammu & Kashmir	55,886	0.82	0.50	10	14
Mizoram	60,181	0.80	0.49	11	15
West Bengal	60,484	0.80	0.55	12	12
Rajasthan	60,868	0.79	0.63	13	10
Nagaland	60,903	0.79	0.55	14	12
Meghalaya	61,283	0.79	0.69	15	8

As can be seen from the table above, Odisha, which is by far the most backward according to the proposed index, has double the per capita income of Bihar which has the lowest per capita income; and as many as five states in between them have ranks varying wildly from 2 to 11. Similarly, Gujarat, one of the most economically

prosperous states of India, appear in the list as a 'less developed' state, with an underdevelopment index of 0.49.

By replacing Per Capita GSDP with MPCE, the suggested index will considerably deprive the poorer States of precious resources that are mediated through the Planning Commission and Finance Commissions. I honestly think that an index based on Per Capita GSDP is more likely to generate a consensus at the All-India level than the one based on MPCE.

12. In the proposed index, the income-deprivation of the disadvantaged States (the most serious of all deprivations) is underestimated first by considering MPCE, in place of Per Capita GSDP, and then by assigning a less than due weightage to even MPCE. The most preferred procedure for finding the relative importance of different variables in analysing multi-variate data is Principal Component Analysis (PCA). This was indeed done by the Committee, resulting in factor loadings that ranged from 0.02 to 0.16. These factor loadings do differ significantly and one wonders why the Report opts for equal weightage (0.10) for all variables. It does not make sense to assign equal weight to MPCE (factor loading 0.16) and Percentage of SC/ST Population (factor loading 0.01). In defence of the equal weights for all sub-components, the Report mentions that the exercise is 'simple'; but surprisingly for assigning weights to various indicators within a sub-component, the Committee has chosen the technique of Principal Component Analysis (PCA). Obviously, the well-established technique of PCA cannot be 'complex' in one point and 'simple' in another one, within the same exercise.
13. It is completely wrong to say that MPCE better measures the population well-being and that Per Capita Income does not adequately measure what reaches the people. As mentioned above, MPCE, which is only household consumption, gives only a part of the total picture. Manufacturing, mining and modern service sector generate wage, salaries and rental incomes for the local population, both directly and indirectly. It is well known that only a small part of the gross profit is distributed as dividend income, the largest part being ploughed back as investment, while tax

- revenues enhance the fiscal capacity of the state to undertake development expenditure, and provide the essential public goods and services to the people. Therefore, well-being of a population does not depend on consumption alone; it depends as much on private investment and government expenditure. Any measure which neglects investment, the lack of which is the most crippling disability of a backward state, cannot be a true measure of backwardness.
14. As a matter of fact, the MPCE formulation is so unfair that while workers in an economically backward state may be forced out of their homeland because of a lack of livelihood opportunities (absence of modern industrial and service sector), fruits of their toil (transfer incomes), which enhance fiscal and development capabilities of other States, will now be used to show they are relatively better off. For measuring regional inequality at the state level, we need a measure that focuses on economic activity within the geographical boundaries of the state, and there cannot be a better measure for this other than the time tested Per Capita GSDP.
 15. Even in literature, Per Capita GSDP alone is seen to do as well as HDI and more complex indices for economic and social backwardness. There can be no justification for ignoring PCI in the proposed backwardness formula, if the formula is to fairly capture the debilitating backwardness of the really poor states. One may note that in the Human Development Index (HDI), prepared by UNDP, PCI is assigned a weight of 1/3. As explained above, a combination of PCI and Poverty Ratio is far superior and less distortionary than the combination of MPCE and Poverty Ratio proposed in this Report. Poverty ratio and MPCE are anyway not independent of each other.
 16. The Report has recommended the categorisation of the states in 3 groups — least developed, less developed and relatively developed, with no provision for 'Special Category States'. In this context, I may like to bring to the attention of the Committee that from the recent pronouncements of the Central Government, it is apparent that the institution of the Committee on Composite Development Index and the agenda of 'Special Category Status' are not wholly unrelated. The entire

understanding behind establishing the Committee was to revisit the criteria for granting 'Special Category Status' which will be clear from the following outline of its historical genesis.

The present Bihar Government, which came to power in 2005, took the state on a trajectory of unprecedented high economic growth. However, it became clear that the state cannot offset the huge development deficit compared to rest of the country even if it grows at this pace. This inspired the demand for 'Special Category Status' – a policy measure to propel the state to come closer to national average on various development parameters. The demand by Government of Bihar was backed by unanimous resolutions in Bihar Legislative Council and Bihar Legislative Assembly, and presented to the Prime Minister in a memorandum with 12 million signatures from the state. In response, an Inter-Ministerial Group (IMG) was formed on 8th December 2011 to examine the demand for 'Special Category Status' for Bihar. While not agreeing to the demand, the IMG clearly recognized “the huge development deficit of Bihar” and agreed that Bihar is amongst the lowest in the country on human development index. Aggrieved over the IMG report, the Chief Minister of Bihar wrote a letter to the Prime Minister on 15th June 2012 stating that “people of Bihar expect justice and equity to meet their legitimate developmental aspirations” and requested him to initiate steps to fulfil the demand for 'Special Category Status'. Fortunately, notwithstanding the decision of IMG, the Government of India started taking cognizance of the issue.

In this backdrop, the Finance Minister Mr. P Chidambaram clearly outlined the necessity for a fresh approach in response to Mr. N K Singh’s starred question related to 'Special Category Status' for Bihar in Rajya Sabha on 20 December 2012. In his reply, he stated that *“the current criteria for deciding backwardness etc. are based on terrain, population density, international borders, infrastructure backwardness etc. I think while these criteria have served the useful purpose, it is perhaps time to revisit these criteria. I think what is important is that no State is left behind, no part of India should be left behind as we move forward. My current thinking is that we should look at the needs under different parameters..... 'Per Capita' is one parameter, but there are other parameters also, like literacy, power, IMR and*

MMR. There may be other parameters also. But look at the mean in these parameters and measure the distance of each State from the mean; and then devise plans and programmes so that those who are farthest away from the mean come closer to the mean". This approach was further articulated in the Finance Minister's speech while presenting the Union Budget on the 28th of February 2013, wherein he said: "The present criteria for determining backwardness are based on terrain, density of population and length of international borders. It may be more relevant to use a measure like the distance of the State from the national average under criteria such as per capita income, literacy and other human development indicators. I propose to evolve new criteria and reflect them in future planning and devolution of funds."

This approach is further institutionalized in the Economic Survey 2012-13 which called out that "the inter-state comparison of performance of states based on different indicators shows that while some states have performed well in terms of growth indicators, they have performed poorly in terms of other indicators like poverty, rural urban disparity, unemployment, education, health and financial inclusion. This calls for a rethink on the criteria used for devolution of funds to states under Finance Commissions where criteria like income distance (12th Finance Commission) or fiscal capacity distance (13th Finance Commission) along with population are given high weightage and none of the human development indicators or financial inclusion indicators are used. Similarly, the criteria used for awarding 'special category status' to states (hilly and difficult terrain, low population density and/or sizable share of tribal population, strategic location along borders with neighbouring countries, economic and infrastructural backwardness, and non-viable nature of state finances) need to be revisited."

It is surprising that ignoring the above trend of facts, the Report makes recommendation for a new categorisation of states, where 'special category status' does not figure. One should realize that the idea of 'Special Category Status' for some states was introduced not only for devolution of central funds to states, but to grant a few other facilities (notably, tax concessions) to promote development in those disadvantaged areas. Under no circumstances, the Committee should restrict the option of the Central Government for narrowing the regional disparity. It should be left to the Central Government to decide whether it wants to categorize states on any criterion to act as a basis for any development goal, particularly narrowing of

regional disparity. For a state like Bihar, which is grappling with the development deficit for nearly two centuries, the 'Special Category Status' could trigger economic resurgence, with private and public investment coming in a big way. For historically disadvantaged landlocked states, 'Special Category Status' is a necessary pre-condition for development. It seems there is a concerted strategy not only to deny Bihar the 'Special Category Status', but also denying its legitimate demand by putting it on a higher rank in the underdevelopment index.

17. I honestly feel that, even at this stage, this anomaly can be offset by incorporating the viewpoints articulated in the previous paragraphs. I suggest a simpler, and better Underdevelopment Index, without changing the selected variables as follows:

- (i) Per Capita GSDP (PCI)
- (ii) Health (Infant Mortality Rate)
- (iii) Education (Female Literacy Rate and School Attendance Ratio)
- (iv) Poverty Ratio (Tendulkar)
- (v) Urbanisation Rate
- (vi) Per capita electricity availability / consumption
- (vii) Household Amenities (drinking water, sanitation, banking, telephone facility and specified assets)
- (viii) Connectivity Index (Rail and Road per unit surface area and population)

Such a simplified index would go a long way in generating acceptability and wider consensus, as compared to what is being proposed in this report.