

# Revenue Incentives at the Third Tier

*Indira Rajaraman\**

## Abstract

Given the poor level of exploitation in most states of even such sources of revenue as have been legislatively assigned to the fiscal domain of panchayati raj institutions, the most important issue is that of incentives for own revenue collection. Incentives can be built into the design of State-local transfers by deducting local revenue potential from closed-ended grant entitlements, thus deeming local collections as having been realised (upto some stipulated fraction of potential if need be). Such a system can work only if the assessment of revenue potential across panchayat jurisdictions is perceived as cross-sectionally fair, and if it carries minimal costs of assessment for the State government. The jurisdiction-specific indicator must also not carry policy endogeneity, with adverse incentives for provision of public services by PRIs. The paper examines these issues and suggests a way by which the revenue potential can be quantified in an operationally useful way, without adverse incentives. The paper also examines whether State governments should be incentivised by the Centre to implement decentralisation and encourage own revenue generation by PRIs.

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“All PRIs have a poor fiscal base.”

-Government of India Mid Term Appraisal of the Ninth Five Year Plan 1997-2002: 176.

## Introduction

Although the above quote is followed by a very welcome exhortation to “provide PRIs with revenue raising powers of their own in order to reduce their excessive dependence on the State and Central Governments”, the quote is accurately indicative of what may be described as a generalised revenue-pessimism regarding PRIs. It is thought that PRIs uniformly have a poor fiscal base across the country, when such is not the case. There are states like Kerala, where the fiscal base even as presently defined is not poor. What we do have in most states is weak exploitation of the PRI fiscal base. This is repeatedly referred to in the first round of State Finance Commission Reports, after the 73<sup>rd</sup> Amendment to the Constitution, mandating the appointment of such commissions every five years.

Section II looks at the own fiscal base of PRIs as presently defined, along with the central issue of the incentives presently in place for own revenue collection. The section also looks at revenue outcomes, which are the ultimate test of the incentives in place.

Any formal incentive structure necessarily requires an assessment of the taxable capacity of each PRI jurisdiction, since there is a need to distinguish between revenues actually collected, and revenue potential. Given the large number of PRIs, the exact number for which varies even between official sources,<sup>i</sup> but of the order of a quarter of a million, the estimation of revenue potential becomes a daunting task. It becomes manageable if and only if the jurisdiction-specific information required to estimate revenue capacity can be readily accessed at State level for all jurisdictions.

Data on the crop-composition of agricultural land use is the only such jurisdiction-specific data readily available at State-level. It can be used to estimate revenue potential by panchayat jurisdiction, even though agricultural land is in general excluded from the taxable base of panchayats in most states under present legislation. The only revenue-significant inclusions are the right to tax buildings and non-agricultural land. This right is extended in one or two states to include agricultural land, but in a manner unrelated to crop use or income potential.

It is important to stress that it is not necessary for a crop-specific levy of the kind underlying the calculations to be actually in place. The argument made here is that, even if the right to levy a tax based on crop-specific returns to agricultural land is not actually assigned to PRIs, or even contemplated, the assessment of taxable capacity by that measure remains valid. It yields a way by which to obtain not merely an ordering of rural jurisdictions within each state in terms of relative revenue potential, but the percentage shares of each jurisdiction in total rural revenue potential. It is also feasible because the calculations are possible with secondary sources, which is an important consideration.

Non-tax revenue of PRIs is collected from an assortment of small fees. The most revenue-significant of these are attached as charges to the tax on residential and other buildings. Thus, an assessment of revenue potential in the first instance is possible only with respect to the tax base of PRIs.

Section III reproduces the results of a previous exercise (Rajaraman, 2003) for the revenue potential of each district in eleven selected states. Data limitations made it impossible to cover all states in that exercise. These district shares can directly be applied to the total revenue potential of the fiscal base presently in place, however defined, or to any revenue target, to obtain the revenue capacity of each rural jurisdiction within that aggregate target or potential.

Section IV examines the issue of whether and how state governments should be incentivised and/or rewarded for implementing the decentralisation process, and encouraging own revenue generation.

Section V concludes the paper.

## **II. Revenue Provisions, Outcomes and Incentives at the Third Tier**

When the 73<sup>rd</sup> Amendment to the Constitution came into force in 1993, the conformity legislation in each state specified the fiscal base of local government within the state. These state-level provisions are tabulated and discussed in Rajaraman, Bohra and Renganathan, 1996. Subsequently, barring Bihar, there was a first round of State Finance Commissions. A second round of reports is available for seven states (more have been completed, as for example in UP, but not yet placed in the public domain).

There is no national database where the present status in terms of the notified fiscal base of panchayats in the different states is available. The Report of the Tenth Five-Year Plan carries summary state-wise information on whether the recommendations of the first round of SFCs were accepted (GOI, 2002, Vol. III; Appendix 5.1). Even where these are reported as accepted, the changes may not have been notified. Indefinite withholding of notification is a non-transparent way by which legislation, even where enacted and formally signed into law, need not be actually implemented.

The judgement of the Tenth Plan Working Group on Decentralisation is that implementation of SFC-I recommendations has been weak in general, and indeed the Group appeals for time-bound notification. For five of the seven states for which the reports of SFC-II are available (see Box 1), the fiscal base reported appears to be the same as that in the conformity legislation, with a few marginal alterations at best.

The first round of SFC reports did not substantially expand upon the fiscal domains as defined in the conformity legislation, based on a widely shared conviction of panchayat inability to enforce compliance (Rajaraman, 2000). None recommended transfer of powers of any state government levy to panchayats. At best, surcharges on state levies like land revenue or stamp duty on sale of land were advised, with the proceeds to be fully assigned to panchayats. These provisions for piling on to stamp duty on sale of land would if implemented have added to the

incentive to evade stamp duty by understating the value of the property transferred.

SFCs-I confined their efforts to specifying the share of state government revenues to be granted to PRIs, either as a percent of total revenues, or as shares of particular taxes. The Working Group judgement on weak implementation of SFC recommendations relates even to notification of these provisions.

Thus, the own levy rights of panchayats are essentially confined to the initially legislated set of taxes on buildings and non-agricultural land (where this ad valorem levy on capital or annual value extends also to agricultural land in Kerala and Bihar at GP level, and in Punjab at Taluk Panchayat level).<sup>ii</sup> Other inclusions of secondary revenue significance are taxes on entertainment and non-motorised vehicles. The profession tax is the only Constitutionally sanctioned local levy, but is not assigned to rural local bodies in all states.<sup>iii</sup> There is a very large number of user fees and charges. The revenue-significant levies in this class, such as for water, sanitation, street lighting and cleaning, where levied, are piled on as additional rates to the tax on buildings. In addition, there is a long list of fees leviable on the use of assorted facilities.

Incentives for exploitation of the assigned fiscal base require, first and most fundamentally, that taxes should be classified as obligatory in the relevant legislation. This is by no means sufficient to ensure collection, but it is necessary, particularly if PRIs are to be further incentivised by declaring a potential revenue target which is deemed to have been collected. Surprisingly, the conformity legislation in many states does classify certain taxes as obligatory; the details are in Rajaraman et.al., 1996. Since this is enshrined in the first Act following the 73<sup>rd</sup> Constitutional Amendment, it has to be assumed that those provisions were notified.

The Report of the Working Group lists only three states where the levy of taxes and non-tax charges by PRIs is entirely optional: Bihar, Orissa and Rajasthan. This in itself is encouraging, because it is clear that the first requirement, of obligatory taxes, is largely, if by no means fully, met. Some decentralisation purists may see the classification of local taxes as obligatory, either fully or partially, as an encroachment on the discretionary latitude of the local fiscal domain. However, as long as expenditure norms are used to judge on local entitlements, that in itself

runs counter to the general theoretical prescription that public services should be provided in accordance with subnational voter preferences. As long as normative criteria are used on the expenditure side, it is perfectly reasonable to have an incentive for tax effort as a symmetrical intrusion on the revenue side.<sup>iv</sup>

Obligatory taxes must also carry non-zero floor rates of levy specified in the legislation, and denial of all power to grant local explanations. Floor rates are not generally found in present-day panchayat legislation, but rate ceilings are a standard feature. Permissible exemptions should be listed in the legislation, with no open-ended provision for additions to the list through subsequent amendment. However, placing taxes in the obligatory class by itself is not sufficient, unless revenues from obligatory levies are deemed to have been collected while working out State-local transfers. In this way, State-local transfers can adjust for variations across panchayats in taxable capacity, while assuming a minimum uniformity of tax effort.

The only test of the incentives and provisions introduced after the 73rd Amendment is to look at revenue outcomes, but these in turn are limited on two counts. The first is that there is no routine reporting of tax collection figures for the third tier, as there is at Central and State levels. The latest reliable figures are those collected by the Eleventh Finance Commission, and relate to as far back as 1997-98. Those were used to generate per capita collections in Rajaraman, 2003, reproduced below in table 1. States are listed in the table in descending order by absolute per capita own revenue in 1990-91.

More recent own revenue figures are possible only to the extent that they are collected and reported by the second round of State Finance Commission Reports. Whatever was available from these reports is presented in Box 1.

Between 1990-91 and 1997-98, there was a doubling in average per capita collections across all states, from a little over Rs.5 to a little over Rs.10, aggregating across all tiers of the panchayat structure. Thus, the Constitutional Amendment has had some discernible revenue impact. The per capita collection of Rs. 10 in 1997-98 is an average across a wide range, from zero in many states, to Rs. 58.32 in Goa.

**Table 1: Panchayat Own Revenue Collections**

		Per Capita (Rs.)				Ann. Growth Own Rev. 1991-98 (%)
		1990-91		1997-98		
		GP	All tiers	GP	All tiers	
1	Haryana	23.68	23.68	37.42	37.46	8.79
2	Meghalaya	15.64	15.64	18.37	18.37	4.91
3	Goa	15.20	15.20	58.32	58.32	20.92
4	Punjab	12.71	15.09	29.75	34.76	13.98
5	Kerala	14.62	14.62	43.27	43.27	17.89
6	Andhra Pradesh	10.74	12.89	21.92	25.92	11.91
7	Gujarat	7.52	10.14	10.45	13.35	5.66
8	Rajasthan	4.93	7.15	3.34	7.64	3.43
9	Maharashtra	6.55	7.07	19.75	21.00	18.49
10	Karnataka	5.58	5.58	8.96	8.96	8.22
11	Tamil Nadu	2.81	4.27	7.27	9.61	11.67
12	West Bengal	1.74	2.88	2.35	3.56	4.67
13	Madhya Pradesh	2.30	2.35	4.71	5.55	15.14
14	Orissa	2.15	2.15	2.33	2.33	2.45
15	Uttar Pradesh	0.30	2.04	0.30	3.61	10.80
16	Assam	1.03	1.51	1.06	1.56	2.01
17	Tripura	0.06	0.06	0.24	0.24	22.95
18	Himachal Pradesh	0.04	0.04	1.29	1.29	65.39
19	Bihar	0.00	0.00	0.00	0.00	0.00
20	Manipur	0.00	0.00	0.00	0.00	0.00
21	Mizoram	0.00	0.00	0.25	0.25	0.00
22	Nagaland	0.00	0.00	0.00	0.00	0.00
23	Sikkim	0.00	0.00	0.00	0.00	0.00
	<b>All</b>	<b>4.23</b>	<b>5.24</b>	<b>8.37</b>	<b>10.17</b>	<b>11.76</b>
	<b>Coeff of var</b>	<b>1.59</b>	<b>1.31</b>	<b>1.95</b>	<b>1.62</b>	

Source: Rajaraman, 2003, table 2.2.

Notes: Figures are for panchayat "own" revenues. GP is Gram Panchayat; all tiers sum the figures for Gram, Taluk and Zilla Panchayats. Per capita figures for 1997-98 are based on estimated rural population for 1997-98, from inter-censal growth rates, merging the three newly created states with parent states. The sum across all states obtained here differs slightly from the all-states aggregate in the Report of the EFC. No revenue data are provided in the report for Arunachal Pradesh and Jammu and Kashmir.

The percent increase in own revenue over the seven years 1991-98 has however been highest in those states where the pre-Amendment per capita revenue was highest, barring a few commendable exceptions, such as Tripura and Himachal Pradesh, which had high rates of revenue growth although from a near-zero base. Thus, the formal introduction of the third tier, far from leading to convergence in the cross-state disparity in local revenue collection by panchayats, has

actually resulted in greater disparity. The coefficient of variation has increased, from 1.31 in 1990-91 to 1.62 in 1997-98.

The low growth in revenues raised by panchayats, especially in states where panchayat revenues were low to start with, underlines the need to embody incentives for local resource generation in the design of the local fiscal domain and in the design of revenue transfers from higher level governments. What is called for is a system of incentives that does not encroach upon the discretionary latitude of the third tier, since it is this that drives and legitimises the case for decentralisation of governance. At the same time, there is the need to fortify the panchayat tax collection machinery in its confrontation with local elites.

Seven SFC-II reports are available in the public domain, of which one (Himachal Pradesh) has issued only the urban volume so far, and the other (Uttaranchal) is a new state without any prior point of comparison. In the remaining five, the own revenue information provided is uneven and of uncertain provenance. Some just report projected revenue as supplied to the Eleventh Finance Commission. The lack of any systematic data even in the second round of State Finance Commission reports on panchayat own revenue collections is in itself an indicator of the lack of importance given to defining a local fiscal base, and enforcing the exploitation of it. Box 1 below presents per capita own revenue estimates for the five states, pieced together from the patchy information provided (see notes in the box).

The figures in Box 1 show a doubling in per capita own revenue in Karnataka, a more than trebling in Tamil Nadu relative to 1997-98, and a nearly 60 percent increase in Punjab and Rajasthan at GP level (but a more modest 11 percent across all tiers in Rajasthan). Only Andhra shows an absolute decline of 60 percent. With this lone exception the picture is encouraging.



**Box 1: Own Revenues of PRIs from Reports of SFC-II**

State		Year	Total (Rs. Lakh)	Per Capita (Rs.)	Change since 97-98 (%)
Andhra	GP	2000-01	4659.00	8.44	(-)60
Karnataka	GP	2000-01	6683.19	19.20	114
Punjab	GP	1999-00	7491.00	46.69	57
Rajasthan	GP	1999-00	2297.87	5.31	59
	All	1999-00	3661.71	8.46	11
Tamil Nadu	GP	1999-00	8394.44	24.07	230

*Source:* For all states, population figures are from the 2001 Census. Revenue figures from the Reports of the Second State Finance Commission of Andhra Pradesh, Punjab, Karnataka, Rajasthan and Tamil Nadu.

*Notes:* Only Punjab and Rajasthan supply own revenue figures explicitly and only Rajasthan supplies figures aggregated across all panchayat tiers. The own revenue figures for Rajasthan appear to include cesses on stamp duty and other state levies, which are more properly classified as shared state taxes. The Andhra figure is obtained from application of the percent to total income in para 5.13.1 to the total income figure in para 5.18.1, which is reported to have been sourced from the public accounts, and therefore should be an audited figure of collections. The Karnataka figure is obtained from application of the percent shares in table 2.4 to total GP income as reported in para 2.29 of SFC-II. The Tamil Nadu figure is the sum of tax and non-tax entries in tables IV-6 and IV-19 of SFC-II (there are conflicting entries in table IV-18).

Table 1 shows that roughly 80 percent of panchayat own revenues are collected by Gram Panchayats, a pattern unchanged between 1990-91 and 1997-98 (exceptions are UP and Rajasthan, where higher tiers have a substantial share in collections). It is the GP at village level that is vested with powers of revenue collection, since that is the tier with executive functional responsibilities. This is one of the commendable features of panchayat legislation in India, since an incentive exists for government at any level to collect revenue only when it is also authorised to spend what it collects (Rajaraman, 2000). That then requires that the present legislation in respect of financial authorisation should be investigated for the extent to which GPs are authorised to spend what they collect. This information is tabulated below in Box 2.

**Box 2: Powers of the GP to Approve Schemes Without External Sanction**

<b>Amount Limits</b>	<b>States</b>
Unlimited without qualification	Goa with technical sanction (TS), Kerala, West Bengal.
Unlimited for own resources	Gujarat, Assam, Maharashtra (also JGSY).
Caps: 1,00,000 – 6,00,000	Karnataka, HP, Madhya Pradesh, Punjab , Rajasthan
50,000 – 1,00,000	Madhya Pradesh, Rajasthan, Tamil Nadu
10,000 – 50,000	Andhra Pradesh, Haryana (External TS required), HP (without TS), Orissa, UP

*Source:* Government of India, Ministry of Rural Development, Panchayati Raj Division.  
*Notes:* The information has not been updated beyond October 2000.

The picture is mixed. There are as many as six states that fully authorise their GPs to spend without limit, three of these only with respect to own revenue. Others authorise them up to specified limits. Where these limits are very low in absolute terms, at or below Rs. 15,000 as in Andhra Pradesh, Orissa and Himachal Pradesh clearly there is no incentive for GPs to collect own revenue if they have no discretionary latitude to spend what they collect.

Direct incentives such as matching grants from the State government are among the incentives systems known, and presently on offer in Tamil Nadu, for example, in the form of the Panchayat Village House Tax Matching Grant Scheme. Matching grants are not recommended here because they do not discriminate between low revenue-raising effort and low revenue-raising capacity. This is especially important in the panchayat context, where there can be jurisdictions with close to zero revenue-raising capacity.

Other types of direct incentives have been recommended in a few reports of the first round of SFCs, in the form of additional grants for local resource efforts. Of these only two, those of Maharashtra and Haryana, specify physical or revenue targets in an operationally useful way (in Haryana, cash awards for specified performance outcomes on primary enrolments, small family norms, own resource effort and

detection of power theft; in Maharashtra, cash awards for clearly defined targets, phased by year, for recovery of costs of drinking water supply and irrigation schemes). These are SFC-I recommendations, which may or may not have been implemented. The SFC-I Reports for M.P., Punjab, Rajasthan and West Bengal recommend incentives but without specifying the form they might take.

The most important point to note is that incentives that call for monitoring and verification by State governments are liable to lapse over time. For any incentive system to work, the costs of the incentive itself have to be minimal to the enforcing agent.

The only incentive scheme for local revenue effort that is close to costless is to have closed-ended State-local flows, where allocations for any panchayat are made after deducting baseline calculations of local revenue potential, which is deemed to have been collected (upto some stipulated percentage less than hundred if need be), at specified floor rates. In the end, it is only through building incentives into the design of State-local transfers that endogenous pressure can be built up against tax default by local elites. This leads to the need for estimating revenue potential of panchayat jurisdictions, which is done in the next section.

### **III. Estimating Revenue Potential**

The revenue potential of panchayats can only be defined with respect to some defined fiscal base. A jurisdictional estimate of revenue potential with the present fiscal base is difficult, because the principal tax found in nearly all states, the tax on buildings and non-agricultural land for example, requires jurisdictional primary data, not readily available through any secondary source. This is a difficult exercise even for any state government to attempt for the panchayats lying within its jurisdiction.

A possible alternative route to estimate PRI revenue potential therefore is to use the revenue potential from the tax on agricultural land, proposed as a justified direction in which to expand the panchayat fiscal base in Rajaraman, 2003, for calculating the relative revenue potential of the constituent districts within a state.<sup>v</sup> Any levy on agricultural land has to be crop-specific, since returns to cultivation are not equalised by

cropping pattern shifts, even within a homogeneous agro-climatic region.<sup>vi</sup> The district-specific revenue potential aggregating across crops then serves as a very useful, indeed the only possible, indicator of relative levels of rural income across districts, which can then be used to generate district-specific revenue potential from any other presently leviable tax, like the house tax for example.

The advantage of using inter-district relativities based on a crop-specific tax, which in turn is based on crop-specific norms of returns to cultivation, and finally weighted by gross acreage devoted to each crop in some reference year within each district, is that the jurisdictional data requirements can be easily met by State government agriculture departments everywhere. The disadvantage is that it excludes two important sources of rural income, from rural industry, and remittances from emigrants to other parts of the country or the world. Rural industry located in villages, as contrasted with industry located in small towns, caters to a largely local market, and therefore tends to cluster where agricultural purchasing power is high. It is reasonable to assume therefore that rural income from industry is strongly correlated with agricultural income. Skilled migrants again originate from agriculturally prosperous regions. That leaves unskilled emigration, which originates from agriculturally depressed regions. For these regions, no correction for remittances is warranted in any case.

Given the data difficulty with estimating the relative revenue potential of panchayats based on the existing fiscal base, the district-level relative revenue from a crop-specific land tax can be used to obtain a breakdown by PRI jurisdiction of the absolute revenue potential from the fiscal base as presently defined. State governments can then specify the grant entitlement of panchayats, after deducting an amount equal to their revenue potential, confined to whatever the defined fiscal base is currently defined to be.

The percentage shares by district shown in table 2 are extracted from Rajaraman, 2003, where the revenue potential in each district of eleven states<sup>vii</sup> is quantified, aggregated across all crops. Six field crops and one horticulture crop<sup>viii</sup> were covered, but not uniformly for all eleven states, because cost of cultivation data, from which the returns to cultivation norms were calculated, was patchy in coverage, in terms of both states and crops. A major exclusion in the case of Tamil Nadu for instance, is paddy. The newly-partitioned states (UP and MP) include

all pre-partition districts. Thus the coverage of the table really extends to thirteen states in all, with the inclusion of Uttaranchal and Chhattisgarh. Again, the caveat about the figures for Tamil Nadu needs to be sounded.

The table is instructive on several grounds. First, it is clear that the taxable capacity of districts varies widely within each state. This is an extremely important issue to flag. Box 3 lists the number of districts in each state with account for 80 percent of total revenue capacity by the agricultural land use method adopted here. As a rough generalisation, roughly half the districts in each state account for 80 percent of aggregate revenue potential. There is however a range between uniformly prosperous (Punjab) or uniformly backward (Orissa) states where it takes 60-65 percent of districts to cover 80 percent of aggregate revenue potential, and Madhya Pradesh, where 44 percent reach that target. But it has to be emphasised once again that this exercise, in addition to the exclusions listed in Box 3, excludes all horticulture crops<sup>ix</sup>, which could significantly alter the inter-district configuration as for example in Maharashtra, where grape and fruit cultivation carry high returns to land. Districts at the bottom end of the ranking accounting cumulatively for up to 20 percent of aggregate own revenue could, with little loss of fairness, and great advantage in terms of computational simplification, be treated as zero revenue potential districts for purposes of state-level allocation between PRIs.

The district shares of table 2 can be used with respect to any revenue target prescribed in per capita terms from the fiscal base as presently defined, to obtain the relative potential in each district, relative to the state aggregate. To give an illustrative example, if the per capita revenue collection target in Andhra is set at Rs. 10, up slightly from Rs. 8.4 as estimated by the SFC-II for 2000-01(Box 1), the approximate aggregate revenue using the rural population of the state at the 2001 Census of 5.5 crore, is Rs. 55 crore. For a per capita target of Rs. 15, the aggregate would be Rs. 83 crore. The revenue potential of West Godavari district, which carries 10 percent of the revenue potential of the state, works out for those targets to 5.5 crore and Rs. 8.3 crore respectively. Alternatively, if PRIs can levy surcharges on state levies, the target revenue can be directly estimated, instead of prescribing a per capita target. The district shares of table 2 can then be applied to that target.

Table 2 only specifies revenue potential at district level. At sub-

district level, the potential needs to be further disaggregated by Gram Panchayat. This task could be left to the discretion of the District Panchayat to perform.

<b>Box 3: Concentration of District-Level Revenue from a Crop-specific Levy on Agricultural Land</b>			
<b>State</b>	<b>Total Districts</b>	<b>No. Districts with 80 % of aggreg.</b>	<b>Major Crop exclusions rev potential</b>
Andhra Pradesh	23	12	
Gujarat	19	9	
Haryana	19	11	
Madhya Pradesh (incl Chhattisgarh)	61	27	Soybean
Maharashtra	30	16	
Orissa	30	18	
Punjab	17	10	
Rajasthan	32	17	
Tamil Nadu	30	17	Paddy
Uttar Pradesh (incl. Uttaranchal)	83	40	
West Bengal	17	9	

*Source: Rajaraman, 2003, table A10.1.*

The agricultural land tax is not at present legislated in any state. Nevertheless the revenue possibilities if such a tax is indeed legislated are of interest since they underline the additional revenue possible from a tax that is easy to estimate and easy to collect. The crop-specific levies per hectare can be updated to the price configuration of any year using the national income deflator for the agriculture sector. A crop yield update to any year is also equally easy procedurally, but data availability is the issue. A price update to 2000-01 of the levies calculated per district in Rajaraman, 2003, aggregated at state-level and estimated per capita using the rural population census figures, is shown in Box 4 (for all states excluding Tamil Nadu, the crop coverage for which was seriously incomplete with the exclusion of paddy). Needless to say, these are revenue additionalities, over and above the per capita collections presently in place, as listed in table 1, updated for five states in Box 1. The median revenue additionality is Rs. 9 per capita. It can be seen that the land tax if implemented can double own revenues of gram panchayats relative to what was collected in 1997-98 (table 1).

<b>Box 4: Revenue Potential from Crop-Specific Levy on Agricultural Land 2000-01</b>		
<b>(Rs. per capita)</b>		
<b>Alternative rates of levy on crop specific taxable surplus</b>		
	<b>1%</b>	<b>2%</b>
Maharashtra	2.58	5.16
Orissa	4.04	8.09
Madhya Pradesh	4.30	8.61
West Bengal	7.92	15.85
Andhra Pradesh	8.81	17.62
Rajasthan	9.10	18.19
Uttar Pradesh	9.14	18.29
Gujarat	12.96	25.92
Haryana	32.07	64.15
Punjab	36.30	72.59

*Source: Calculated from Rajaraman, 2003, table A10.1*

#### **IV. Incentivising States**

The Eleventh Finance Commission for the first time set aside a portion of deficit grants from the Centre conditional upon States' own fiscal performance, but that did not touch on the third tier. (The practice of deficit grants itself has been criticised on the grounds that it rewards fiscal indiscipline).

In respect of the third tier, the EFC prescribed an explicit fund flow of Rs. 2000 crore per year, of which 1600 was for panchayats. The inter-state distribution formula introduced a rating mechanism of States on the basis of ten indicators, called an index of decentralisation, which carried a 20 percent weight in the formula used for determining state shares of the annual provision. In addition, the formula carried a weight of 10 percent for own revenue collections at the local level, normalised (with equal weights) for state GDP from agriculture, as (perfectly justifiable) measures of revenue potential.

The scheme amounted to a reward for past efforts towards implementation of the Constitutional amendment rather than an ongoing incentive mechanism. The formula is examined in Rajaraman, 2002, where it is shown that the decentralisation index was non-transparent,

and in combination with the weightage of the index by rural population, made the inter-state allocation not very different from what it would have been on the basis of rural population alone.

If the Twelfth Finance Commission continues with the tradition begun with the Tenth Commission of making an explicit provision for the third tier, there is certainly a strong case for continuing with the reward mechanism, which can thereby set a convention and incentivise states for similar such provisions in the future. The two issues that arise are in respect of rural revenue potential in rural areas, and the non-revenue indicators of the commitment of States towards decentralisation.

Using SDP from agriculture as a measure of aggregate revenue potential at the third tier in rural areas is certainly a reasonable start, although it would include value addition in plantation agriculture in the six states which have plantations. Plantation agriculture is not recommended here for inclusion in the revenue base of PRIs, since it is already effectively taxed by State governments, and at punitive rates. Once this adjustment is made, SDP from non-plantation agriculture yields an effective handle on the aggregate revenue potential in rural areas.

The non-revenue indicators used in the EFC report are listed below:

- i. Enactment of State Panchayat Legislation in conformity with the 73<sup>rd</sup> Amendment.
- ii. Intervention/restriction in the functioning of the Panchayats.
- iii. Assignment of functions to the Panchayats in the State Panchayat Legislation vis-à-vis the Eleventh Schedule.
- iv. Transfer of functions to the panchayats by way of Rules/Notifications/Orders of State Governments.
- v. Assignment of taxation powers to the village panchayats as per State Panchayat Acts.
- vi. Levy of taxes by the village panchayats.
- vii. Constitution of State Finance Commissions and submission of Action Taken Reports.
- viii. Action taken on the major recommendations of the SFC.
- ix. Elections to the Panchayats.
- x. Constitution of District Planning Committee.

Some of these, like enactment of the conformity legislation, are less relevant now than at the time of the EFC. The relevant incentives



today have to move states towards transparency with respect to the third tier, rather than demands that particular functions should be transferred down to PRIs. Thus for example instead of requiring acceptance of the recommendations of SFCs, what is needed is specification of time-bound intervals for legislative consideration, followed by time-bound notification of recommendations accepted, and full justification for those recommendations rejected or accepted only in part.

Finally, an interesting calibration of state commitment towards the third tier is available from utilisation rates by states of national Finance Commission fund provisions. Utilisation rates of the provisions of the Tenth Finance Commission are shown in Box 5. There was a matching revenue requirement made in the Rules governing that provision, which made the ability of any state to access it a function of own revenues generated at the third tier. Although this was an absolute requirement, not normalised by revenue capacity or potential, the total provision was sufficiently low that it was well within reach even of the poorer states (Rs. 100 per capita of rural population as given in the 1971 census, over a four-year period, thus amounting to Rs. 25 per year, and a little over half that number per head of current population at the time). The states which accessed less than 60 percent of the provision are in general low collection states (see table 1), but there are exceptions like Goa and Punjab in the group.

<b>Box 5: Utilisation of Tenth Finance Commission Provisions</b>		
<b>Class intervals</b>	<b>States</b>	<b>Frequency</b>
Equal to 100%	Gujarat, Haryana, Karnataka, J & K, Kerala, Mizoram, Orissa, Rajasthan, Sikkim, Tamil Nadu, West Bengal.	11
80% - 100%	Andhra Pradesh, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh	4
60% - 80%	Maharashtra, Tripura	2
40% - 60%	Goa, Manipur, Meghalaya, Nagaland, Punjab	5
20% - 40%	Arunachal Pradesh, Assam, Bizarre	3

*Source:* See source to Box 2.

## V. Conclusion

The principal responsibility for setting up an incentive structure for local revenue collection lies with State governments. If the Twelfth Finance Commission continues the tradition of making an explicit provision for the third tier, States themselves can be incentives to improve local revenue collection with the kind of reward mechanism introduced by the Eleventh Commission, in expectation of similar such provisions in the future. For this purpose, local revenues can be normalised by SDP from non-plantation agriculture, as the best possible indicator of local revenue potential across states. In terms of non-revenue indicators of State-level commitment to decentralisation, Central funding provisions could usefully be calibrated to time-bound elections and appointment of SFCs, time-bound intervals for legislative consideration and acceptance of SFC recommendations (total or partial as the case may be, or outright rejection with reasons), and time-bound notification of the accepted recommendations. There is need for a national data base with continual updates on provisions pertaining to PRIs across states.

Any State-level incentive system requires three properties to work in practice. It must carry minimal costs of assessment and enforcement (performance targets are costly to monitor), must be cross-sectionally fair in assessment of revenue potential across panchayat jurisdictions, and must distinguish between revenue effort and the underlying revenue potential (matching grants fail on the last count). Most of all, State grants must not be so structured as to carry adverse policy incentives. A grant system inversely calibrated to local facilities for example will generate adverse incentives for keeping these under-supplied.

The only cost-effective way to incentivise revenue collection is to have a system of norm-based closed-ended grants from State governments, where allocations for any panchayat are made after deducting baseline calculations of local revenue potential, which is deemed to have been collected (upto some stipulated percentage less than hundred if need be), at specified floor rates. This calls for a minimal-cost method of estimating jurisdiction-specific revenue potential. Other supporting requirements are that all or a subset of local taxes should be classified as obligatory, to fortify PRIs in their confrontation with local

taxable elites. This is already in place in all but three states (Bihar, Orissa and Rajasthan). However, there is no specified non-zero floor rate of levy, or explicit denial of the power to grant exemptions. Also and very importantly, collection incentives will be reduced if PRI discretion to spend from their own collections is capped, as is presently the case in all but six states.

Revenue potential can only be defined with respect to some defined fiscal base. The problem however is that the present fiscal base, consisting principally of the tax on buildings and non-agricultural land, requires jurisdictional data on structures. This kind of data is not readily available through secondary sources. The paper recommends therefore that revenue potential be estimated from crop-specific returns to agricultural land, from data easily obtainable from State government agriculture departments, and aggregated across gross acreage under each crop by PRI jurisdiction in some reference year. Rural industry located in villages, as contrasted with industry located in small towns, caters to a largely local market, and therefore tends to cluster where agricultural purchasing power is high. It is reasonable to assume therefore that rural income from industry is strongly correlated with agricultural income. Skilled migrants again originate from agriculturally prosperous regions. Thus, agricultural potential is a good indicator of non-agricultural as well as remittance income.

A tax based on crop-specific returns to agricultural land is not at present leviable by PRIs in any state. Three states grant PRIs the right to tax agricultural land, but in a manner unrelated to crop use or income potential. The justification for using the inter-district relativities based on returns to land is that it is the most cost-effective indicator by which to generate district shares of any other presently leviable tax, like the house tax for example. Further extension to sub-district jurisdictions is also possible, with data easily available at state-level.

Non-tax revenue of PRIs is collected from an assortment of small fees. The most revenue-significant of these are attached as charges to the tax on residential and other buildings. Thus, an assessment of revenue potential in the first instance is possible only with respect to the tax base of PRIs.

A crop-specific tax on land could carry clear revenue additionality in the fiscal system as a whole, and is feasible as a local levy, as argued

in Rajaraman, 2003. An update to 2000-01 prices of the additional revenue estimated there works out to Rs. 9 per capita, at the median of the ten states covered. (The latest figures from the Report of the Eleventh Finance Commission show the mean per capita collection across all states for 1997-98 at Rs. 10 per capita). Roughly half the districts in each state account for 80 percent of aggregate revenue potential. Districts at the bottom end of the ranking, accounting cumulatively for up to 20 percent of aggregate own revenue, could with little loss of fairness, and considerable computational simplification, be treated as zero revenue potential districts for purposes of distributing state grants between PRIs.

The target revenue for all PRIs in aggregate can be prescribed in per capita terms. Alternatively, if PRIs can levy surcharges on state levies, the target revenue can be directly estimated.

The lack of importance given to local revenue generation is reflected in the lack of systematic data on own revenue collections by PRIs in the second round of SFC reports. The sketchy information in the five states for which reports are available suggests that there has been some improvement in own revenue collections beyond 1997-98, the latest year for which data are obtainable from the Report of the Eleventh Finance Commission. With the lone exception of Andhra, which shows an absolute decline of 61 percent, the picture is encouraging.

**Table 2:** Relative Revenue Potential of each District

Rank	District	Revenue Share (%)	Rank	District	Revenue Share (%)
<b>Andhra Pradesh</b>					
	<b>Total</b>	<b>100.00</b>			
1.	West Godavari	10.34	13.	Kurnool	3.68
2.	Krishna	8.77	14.	Prakasam	3.48
3.	Karimnagar	7.14	15.	Medak	2.57
4.	Guntur	6.76	16.	Srikakulam	2.44
5.	East Godavari	6.62	17.	Mahbubnagar	2.33
6.	Warangal	6.61	18.	Vizianagaram	2.33
7.	Nalgonda	6.27	19.	Cuddapah	2.30
8.	Ananthapur	6.09	20.	Adilabad	2.03
9.	Chittoor	5.17	21.	Visakhapatnam	1.07
10.	Nellore	4.66	22.	Rangareddy	0.96
11.	Khammam	4.37	23.	Hyderabad	0.00
12.	Nizamabad	4.01			

**Table 2** (contd...)

<b>Rank</b>	<b>District</b>	<b>Revenue Share (%)</b>	<b>District</b>	<b>Revenue Share (%)</b>
<b>Gujarat</b>			<b>Haryana</b>	
	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>
1.	Junagarh	16.55	Sirsa	12.18
2.	Rajkot	15.36	Fatehabad	9.20
3.	Amreli	9.54	Hisar	8.75
4.	Surendranagar	8.93	Jind	8.30
5.	Bhavnagar	7.84	Karnal	8.13
6.	Jamnagar	6.93	Kaithal	7.87
7.	Mehsana	6.40	Kurukshetra	6.44
8.	Banaskantha	5.23	Yamunanagar	5.37
9.	Vadodara	4.37	Sonipat	4.91
10.	Kutch	4.22	Ambala	4.31
11.	Ahmedabad	3.94	Bhiwani	4.18
12.	Sabarkantha	3.60	Faridabad	3.89
13.	Broach	3.20	Panipat	3.83
14.	Panchmahal	1.69	Rohtak	3.57
15.	Khedra	0.91	Jhajjar	2.91
16.	Surat	0.67	Gurgaon	2.85
17.	Gandhinagar	0.48	Rewari	1.47
18.	Dangs	0.11	Mahendragarh	1.38
19.	Valsad	0.03	Panchkula	0.46
<b>Punjab</b>			<b>West Bengal</b>	
	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>
1.	Sangrur	14.42	Midnapore	19.12
2.	Firozepur	13.13	Burdwan	14.93
3.	Amritsar	10.03	Bankura	8.83
4.	Ludhiana	9.36	Hooghly	8.31
5.	Patiala	8.51	Birbhum	7.17
6.	Bathinda	6.26	Murshidabad	6.29
7.	Gurdaspur	5.61	Nadia	5.24
8.	Moga	4.67	24-Parganas(N)	4.87
9.	Mansa	4.59	Purulia	3.96
10.	Jalandhar	4.56	24-Parganas(S)	3.95
11.	Muktsar	3.72	Malda	3.82
12.	Faridkot	3.16	Uttar Dinajpur	3.31
13.	Fatehgarh Sahib	3.12	Dakshin Dinajpur	2.91
14.	Kapurthala	2.89	Cooch Behar	2.75
15.	Hoshiarpur	2.43	Jalpaiguri	2.09
16.	Ropar	1.93	Howrah	2.02
17.	N. Shahr	1.60	Darjeeling	0.44

**Table 2 (contd....)**

Rank	District	Revenue Share (%)	District	Revenue Share (%)
Orissa			Rajasthan	
	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>
1.	Buragarh	9.92	Ganganagar	15.16
2.	Ganjam	9.25	Hanumangarh	9.45
3.	Mayurbhanj	5.04	Alwar	8.12
4.	Cuttack	4.94	Bharatpur	6.40
5.	Bhadrak	4.74	Jaipur	4.53
6.	Khurda	4.02	Bundi	3.86
7.	Jajpur	3.99	Kota	3.54
8.	Puri	3.87	Dausa	3.46
9.	Nawrangpur	3.76	Jhunjhunu	3.41
10.	Koraput	3.66	Jalore	3.17
11.	Dhenkanal	3.55	Nagaur	3.05
12.	Sambalpur	3.55	Tonk	3.04
13.	Kedrapara	3.48	S.Madhopur	2.96
14.	Nayagarh	3.34	Bikaner	2.59
15.	Balasore	3.31	Jodhpur	2.57
16.	Jagatsinghpur	3.07	Pali	2.34
17.	Bolangir	2.85	Baran	2.33
18.	Sonepur	2.84	Sikar	2.31
19.	Sundargarh	2.83	Bhilwara	2.23
20.	Kalahandi	2.74	Karoli	2.15
21.	Keonjhar	2.66	Dholpur	2.05
22.	Malkangiri	2.21	Chittorgarh	1.93
23.	Rayagada	2.12	Sirohi	1.21
24.	Nawapara	1.57	Ajmer	1.19
25.	Gajapatti	1.46	Banswara	1.18
26.	Angul	1.36	Udaipur	1.15
27.	Phulbani	1.10	Jhalawar	0.99
28.	Jharsuguda	1.04	Jaisalmer	0.98
29.	Boudh	0.95	Barmer	0.86
30.	Deogarh	0.76	Churu	0.85
			Dungarpur	0.52
			Rajsamand	0.43

**Table 2 (contd....)**

Rank	District	Revenue Share (%)	District	Revenue Share (%)
<b>Maharashtra</b>			<b>Tamil Nadu</b>	
	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>
1.	Jalgaon	12.03	Villupuram	8.64
2.	Kolhapur	11.30	Dharmapuri	8.35
3.	Ahmadnagar	7.67	Thiruvallur	7.44
4.	Satara	6.57	Vellore	7.30
5.	Solapur	5.37	Erode	7.23
6.	Parbhani	5.31	Namakkal	7.12
7.	Sangli	5.19	Salem	5.85
8.	Pune	5.16	Kancheepuram	5.83
9.	Aurangabad	5.03	Cuddalore	5.78
10.	Dhule	4.30	Dindugul	5.76
11.	Jalna	4.26	Perambur	5.22
12.	Yavatmal	4.14	Coimbatore	4.81
13.	Akola	4.03	Tiruchirapalli	3.10
14.	Nasik	3.90	Tiruvannamalai	2.95
15.	Bid	2.77	Pudukottai	2.31
16.	Nanded	2.72	Madurai	2.16
17.	Buldana	2.58	Virudunagar	2.10
18.	Amravati	2.50	Tirunalveli	2.01
19.	Wardha	1.34	Theni	1.60
20.	Latur	1.24	Karur	1.30
21.	Osmanabad	0.16	Thanjavur	1.14
22.	Chandrapur	0.71	Ramanathapuram	0.65
23.	Nagpur	0.59	Sivagangai	0.45
24.	Bhandara	0.11	Nagapattinam	0.44
25.	Gadchiroli	0.00	Thoothukudi	0.23
26.	Greater Bombay	0.00	Thiruvarur	0.22
27.	Raigarh	0.00	Kanya Kumari	
28.	Ratnagiri	0.00	Chennai	0.00
29.	Sindhudurg	0.00	Nilgiris	0.00
30.	Thane	0.00	Ariyalur	0.00

**Table 2 (contd....)**

Rank	District	Revenue Share (%)	District	Revenue Share (%)
<b>Uttar Pradesh</b>			<b>Madhya Pradesh</b>	
	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>
1.	Muzzaffarnagar	5.21	Morena	7.23
2.	Bijnor	4.71	Ujjain	5.18
3.	Kheri	4.64	Bhind	4.92
4.	Saharanpur	3.22	Sheopur	4.04
5.	Meerut	2.92	Indore	3.65
6.	Shahjahanpur	2.70	Dhar	3.62
7.	Bareilly	2.68	Gwalior	3.61
8.	Sitapur	2.65	Vidisha	3.59
9.	Moradabad	2.47	Hoshangabad	3.51
10.	Badaun	2.29	Sehore	3.04
11.	J.B.PhuleNagar	2.25	Chattarpur	3.02
12.	Pilibhit	2.23	Shivpuri	3.01
13.	Hardoi	2.12	Dewas	2.84
14.	Bulandshahr	2.11	Ratlam	2.81
15.	KushiNagr	2.05	Tikamgarh	2.76
16.	Azamgarh	1.80	Sagar	2.75
17.	Rampur	1.71	Shajapur	2.74
18.	Bagpat	1.63	Satna	2.66
19.	Agra	1.61	Guna	2.54
20.	Aligarh	1.58	Raisen	2.37
21.	Maharajganj	1.54	Mandsaur	2.06
22.	Ghaziabad	1.50	Rewa	1.91
23.	Sultanpur	1.48	Chindwara	1.78
24.	Barabanki	1.46	Harda	1.70
25.	Haridwar	1.45	Rajgarh	1.61
26.	Mathura	1.42	Datia	1.58
27.	Etah	1.39	Narsimpur	1.52
28.	Gonda	1.35	East Nimar	1.45
29.	Jaunpur	1.32	Jabalpur	1.39
30.	Ambedkarnagar	1.21	Bhopal	1.36
31.	Deoria	1.19	Betul	1.36
32.	Ghazipur	1.16	West Nimar (Khargaon)	1.32
33.	Basti	1.16	Damoh	1.30
34.	Gorakhpur	1.14	Neemach	1.23
35.	Raebareli	1.12	Katni	1.06
36.	Allahabad	1.12	Jhalva	1.05
37.	Fatehpur	1.09	Panna	0.84
38.	Unnao	1.07	Sidhi	0.75
39.	KanpurDehat	1.05	Seoni	0.70
40.	Mainpuri	1.05	Wadwani	0.67
41.	Bahraich	1.03	Dindori	0.66
42.	U.S.Ngr	1.02	Mandla	0.57
43.	Balliah	1.01	Sarguja	0.51
44.	Kanpur City	0.94	Shahdol	0.37
45.	SiddharthNgr	0.92	Umaria	0.26



**Table 2 (contd....)**

Rank	District	Revenue Share (%)	District	Revenue Share (%)
46.	Faizabad	0.89	Balaghat	0.19
47.	Chandauli	0.88	Koriya	0.11
48.	Pratapgarh	0.81	Bilaspur	0.10
49.	Tehrigarhwal	0.79	Durg	0.10
50.	Farrukabad	0.76	Raipur	0.09
51.	Balrampur	0.75	Jushpur	0.08
52.	Auraiya	0.75	Rajnandgaon	0.08
53.	Mirzapur	0.74	Bastar	0.08
54.	Mau	0.73	Kwardha	0.06
55.	Firozabad	0.72	Dantewada	0.04
56.	Etawah	0.70	Kankar	0.03
57.	Hatharas	0.65	Korba	0.02
58.	SantKabirNgr	0.62	Raigarh	0.02
59.	Varanasi	0.60	Dhamtari	0.02
60.	Jalaun	0.59	Mahasamund	0.02
61.	G.BuddhaNagar	0.56	Jangir	0.02
62.	Kannauj	0.54		
63.	Shravasti	0.53		
64.	Jhansi	0.47		
65.	Lucknow	0.47		
66.	Banda	0.42		
67.	Kaushambi	0.37		
68.	Sonbhadra	0.36		
69.	Hamirpur	0.35		
70.	Lalitpur	0.33		
71.	Nainital	0.31		
72.	S.RaviDasNgr	0.28		
73.	Dehradun	0.22		
74.	Chitrakut	0.21		
75.	Mahoba	0.20		
76.	Garhwal	0.14		
77.	Almorah	0.10		
78.	Pithoragarh	0.09		
79.	UttarKashi	0.07		
80.	Chamoli	0.07		
81.	Bageshwar	0.06		
82.	Champavat	0.04		
83.	RudraPrayag	0.03		

Source: Rajaraman, 2003.

Notes: The 83 districts of Uttar Pradesh include 13 now in Uttaranchal, and the 61 districts of Madhya Pradesh include the 16 now in Chhattisgarh. The 19 districts of Gujarat are before the carving of 6 additional districts to the present day total of 25. Likewise the 30 districts of Maharashtra do not include the 5 new districts which make the present day total of 35. The total State and district-level revenues are obtained from crop composition of agricultural land use in the years 1997-98 and 1998-99. Aggregated across crops, using norms of crop-specific returns to land from cost of cultivation data in secondary sources pertaining to the mid-nineties.

## References

Government of India, 2000 *Mid-Term Appraisal of Ninth Five-Year Plan 1997-2002*.

\_\_\_\_\_, 2001 *Report of the Working Group on Decentralized Planning and Panchayati Raj Institutions for the Tenth Five Year Plan 2002-07*, Planning Commission, New Delhi.

\_\_\_\_\_, 2002 *Tenth Five-Year Plan 2002-07*, in three volumes.

Rajaraman, Indira, O.P. Bohra and V.S. Renganathan, 1996 "Augmentation of Panchayat Resources" *Economic and Political Weekly* XXXI:18 (4 May); 1071-1083.

Rajaraman, Indira, 2000, "Fiscal Features of Rural Local Government in India" in J.J. Dethier, ed. *Governance, Decentralisation and Reform in China, India and Russia* (Kluwer).

\_\_\_\_\_, 2002 "Growth-Accelerating Fiscal Devolution to the Third Tier" *NIPFP Discussion Paper No. 2*, January.

\_\_\_\_\_, 2003 *A Fiscal Domain For Panchayats* (Oxford University Press). ISBN 0195665074.

*Reports of the Second State Finance Commission of Andhra Pradesh, Punjab, Karnataka, Rajasthan and Tamil Nadu.*

Sen, Tapas K. and Christoph Trebesch, 2003 "The Use of Socio-Economic Criteria for Intergovernmental Transfers: The Case of India" paper presented at a conference on *Issues Before the Twelfth Finance Commission*.

## Endnotes

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- i A total of 247033 according to the Report of the Eleventh Finance Commission, but only 238682 according the Report of the Working Group on Decentralised Planning and Panchayati Raj Institutions for the Tenth Five Year Plan, 2002, a later and possibly more accurate source.
- ii The Report of the SFC-II for Punjab somewhat confusingly recommends extension to agricultural land of what it calls the legislated land tax at GP level, but the land tax was vested in TPs in the legislation, and already extended to agricultural land (see Rajaraman et. al., 1996).
- iii Kerala is the lone exception.
- iv See Sen and Trebisch, 2003, a recent statement of the case for not having an incentive for tax effort imposed by higher level grant-giving governments.
- v This paper does not see any purpose to repeating the justification for that recommendation, since there is a book-length treatment in Rajaraman, 2003.
- vi Any of a number of barriers to entry, ranging from factor-specificity to imperfections in credit markets can prevent factor shifts to the most profitable crop in a region.
- vii District crop yield data, were available in published form only for these eleven states for recent years (1997-98 or 1998-99).
- viii The six were two cereal (paddy, wheat), two oilseed (groundnut, rapeseed/ mustardseed), two commercial (sugarcane, cotton) and the horticulture crop was potato.
- ix Except for the potato crop in West Bengal