A CRITICAL EVALUATION OF THE STATE FINANCES OF THE UTTARAKHAND GOVERNMENT: 2002-03 TO 2011-12

Study Report

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Report By

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Executive Summary

The present study provides a critical analysis of the fiscal situation of Uttarakhand government during the period 2002-03 to 2011-12. The analysis covers *inter alia* the trends in public revenue and capital expenditure, fiscal deficits, debt situation, subsidy, fiscal reforms carried out in the state, performance of the state public enterprises, power sector reforms and devolution to local bodies. The data for analysis have been taken from the state government budget documents, RBI reports on state finances, CAG reports and records of the concerned departments.

Demographic Profile of the State

The state Uttarakhand, earlier known as Uttaranchal, was created in November 2000, as the 27th state of the Republic of India. It was carved out of the North Western hilly region of the erstwhile state of Uttar Pradesh. Uttarakhand is very rich in forest. The net shown area is just about 14.2 per cent. According to the 2011 census, total population of Uttarakhand is 10.09 million. Only 30 per cent of the population resides in urban areas. The growth rate of population in the state was 1.74 percent per annum during the decade 2001-11. The population density has increased from 159 in 2001 to 189 in 2011. Sex ratio remained nearly constant between 2001 and 2011, but the child sex ratio (0-6 years) has declined adversely. The literacy rate in the state in 2011 was 78.82 percent which is higher than the national literacy rate of 74 per cent. Literacy rates for males and females were 87.4 per cent and 67.06 per cent respectively.

Economic Profile

Uttarakhand is one of the fastest growing states of the India. The State's economy grew at an annual growth rate of over 10 percent during the last decade. In terms of economic growth, the state's performance has been above the national average from 2002-03 to 2010-11. The high growth led to rapid increase in state's per capita income, which increased from ` 27,726 in 2002-03 to ` 79,940 in 2011-12. The per capita income has increased nearly by 3 times as compared to 2004-05 faster than the growth rate of the national per capita income. In the initial years of the last decade per capita income of the state was slightly above the national per capita income. By 2011-12 the gap has increased to almost 30 per cent in favour of Uttarakhand. The share of the primary sector in total GSDP was about 26 percent in 2002-03, which has continuously declined to 11.22 percent in 2011-12. The share of industrial sector in total GSDP has increased from 23 percent in 2002-03 to 35 percent in 2011-12. The share of tertiary sector has, however, remained almost constant over the period.

Human Development

In terms of human development, Uttarakhand has done well as reflected from the state's performance in Human Development Index (HDI). HDI of Uttarakhand has improved from 0.339 in 1999-00 to 0.499 in 2007-08. Its rank among states also improved from 13th to 10th over the period. It has recorded highest increment (44.54 percent) in its HDI among all states during 1999-00 and 2007-08.

Trends in Own Tax Revenue

OTR increased more than six times in the last decade-from ` 894.7 crore in 2001-02 to ` 5615.6 crore in 2011-12. The CAGR of OTR was 18.84 percent during the period of 2001-02 to 2005-06, but declined marginally to 17.44 percent in the period 2006-07 to 2011-12. For the entire decade the growth rate was 17.69 percent. Growth rate of different taxes has, however, varied from tax to tax. Sales tax increased at a CAGR of 22.31 percent for the entire period. On the other hand, collections from state excise had a sluggish growth of 5.98 percent during the period 2001-02 to 2005-06, which improved to 17.74 percent in later half of the period under study (2006-07 to 2011-12). Total tax revenue increased from ` 1246.98 crore in 2001-02 to ` 3645.67 crore in 2006-07 and further to ` 8481.66 crore in 2011-12 showing an average annual compound rate of growth of 19.40 percent.

Tax Buoyancy, Capacity and Tax Efforts

Double log regression method is used to estimate the tax buoyancy. The relationship has been shown by the following equation:

Equation 1: $\quad\quad$ $\text{Ln (OTR}_t) = \alpha_1 + \beta_1 (\text{lnGSDP}_t) + \mu_t$

The equation yielded a tax buoyancy of 0.992 for the entire period. The R square value was found to be very high (0.981). However, the problem of serial correlation was found to be present. To take care of the problem of serial correlation the technique of structural break has been used by scholars by using a time dummy (Rajaraman et. al. 2005). The following equation was estimated for Uttarakhand for the period 2001-02 to 2011-12:

Equation 2: $\text{ln (OTRt)} = \alpha 1 + (\alpha 2 - \alpha 1)D + \beta 1 (\text{lnGSDPt}) + \{(\beta 2 - \beta 1)D*(\text{lnGSDPt})\} + ut$

In the equation β_2 is the value of tax buoyancy. The equation yielded a tax buoyancy of 0.956, which is derived from the second dummy term coefficient $(\beta 2 - \beta 1)$. The R square was very high at 0.992. DW statistics was 1.651. The serial correlation was found to be present but not very significant.

The present study adopts the regression approach to estimate potential taxable capacity of the state. The following form of equation has been used:

$$\text{OTR/GSDP} = \alpha + \beta_1(\text{SDP}_A/\text{GSDP}) + \beta_2(\text{SDP}_I/\text{GSDP}) + \beta_3(\text{SDP}_S/\text{GSDP}) + \beta_4(\text{PCI}) + \mu$$

Where,

> OTR = Own tax revenue
>
> GSDP = Gross state Domestic Product
>
> SDP_A = State domestic product from agriculture
>
> SDP_I = State domestic product from Industry
>
> SDP_S = State domestic product from services
>
> PCI = State per capita income

The Uttarakhand government is able to realize its tax potential for most of the years. Even in the years in which actual tax revenue is less than taxable capacity, it is not very significant. Except 2004-05, the variation is not more than 5 percent.

There is scope for increasing the Tax-GSDP ratio to at least 10 per cent. Following suggestions are given in this respect:

1. Policy inconsistencies and reversal in rates under populist considerations should be discouraged.

2. There is a large evasion in case of most of the taxes. Informed guess of departmental officers puts the evasion in case of VAT at 40 per cent. There is large scale undervaluation in sale of property to avoid stamp duty. A high level committee should be appointed to examine the extent and methods of tax evasion and suggest measures for checking evasion.

3. A large number of private cars are being used as taxis in an illegal manner. Strong administrative measures should be taken to check evasion of taxes along with imposition of high penalty in case of default.

4. Tax machinery should be strengthened and modernized. The computerization of tax collection should be introduced. Adequate staff should be appointed and vacant positions should be filled. Vigilance system should be strengthened.

5. Tax rates should be rationalized. The practice of excluding VAT-able items to suit some sectors of the economy should be discontinued. There is no need to give exemption to several items as these benefit the traders only and not the artisans and workers. The policy of charging concessional rates to the many sectors should also be avoided.

6. Tourism is a lucrative sector for the state tax revenue. Government should try to tap this sector. Strict measures should be taken to bring motels and on the way small eating joints/hotels into the tax net.

7. The tax base should be expanded. Grand Parties, Resorts, Marriage halls and lawns and lavish expenditure on weddings should be brought under tax net.

8. The state government has not been levying some taxes like profession tax. These taxes should be imposed in the state.

9. There are huge arrears of tax and non-tax revenue. Total arrears were reported at `1249.80 crore at the end of the fiscal 2010-11, out of which ` 254.99 crore (20.40 percent) of arrears was more than five years old. Nearly, 71 percent of revenue in arrears was on account of Taxes/VAT on Sales and Trades, etc. Efforts should be made to recover these amounts by expediting the legal proceedings and administrative orders.

10. The frequent alterations in tax rates, base or the structure of incentives and tax policy objectives should be genuinely done away with.

Trends in Non-tax Revenue

The proportion of NTR to total revenue of the state government has significantly reduced from a high level of 59.41 percent in 2001-02 to 50.56 percent in 2006-07 and further to 38.05 percent in 2011-12. Looking at the composition of non-tax revenue we find that Grants from the center still comprise $4/5^{th}$ of the total non-tax revenue. Among state's own NTR sources, the share of economic services in total NTR declined from 17.16 percent to 8.06 percent during 2002-03 to 2011-12. On the other hand, share of general services went up to 11.33 percent from less than one percent during the same period.

User Charges

Recovery ratio was only about 3 per cent in case of education in 2002-03. It has since gone down to around one per cent. In case of medical and health, a fair amount of variation can be observed. Recovery rate declined to 1.7 percent in 2004-05 then went up to 7.3 percent in 2010-11, but again declined to 5.3 per cent 2011-12. In case of major and medium irrigation recovery ratio has declined and is currently around 3.5 per cent, whereas recovery rate of minor irrigation rose to around 6 percent in 2011-12 from about 1 percent in 2002-03. Recovery rate from the forestry and wild life is continuously declining and it was 95.7 percent in 2011-12 from a high level of 281.1 percent in 2002-03.

Total Expenditure

Total expenditure of Uttarakhand Government was ` 3297.76 crore in 2001-02 which rose to ` 9192.01 crore in 2006-07 and further to ` 17463.51 crore in 2011-12. The corresponding figures for revenue expenditure are ` 2832.60 crore, ` 6476.85 crore and ` 12975.30 crore for three years respectively. Capital expenditure has grown much faster than revenue expenditure in last decade rising to ` 4488.21 crore in 2011-12 from a low level of ` 465.16 crore in 2001-02.

Revenue Expenditure

Development expenditure rose from ` 18123.30 crore in 2001-02 to ` 3828.2 crore in 2006-07 and further to ` 8121.3 crore in 2011-12. On the other hand, non-developmental expenditure was ` 965.50 crore, ` 2377.4 crore and ` 4475.2 crore for the same years respectively. Among development expenditure, expenditure on education, sports, art and culture rose to ` 3462.9 crore in 2011-12 from ` 945.80 crore in 2002-03. Total revenue expenditure has grown at a CAGR of 18.64 percent during 2002-06, which declined to 14.91 percent during 2007-12. For the entire period the growth rate was 16.44 percent. Development and non-development expenditure also grew at nearly the same rate-16.18 and 16.68 percent respectively- for the entire period. Among development expenditure, expenditure on economic services grew a slower rate (11.70 percent) than social services (18.34 percent).

Capital Expenditure

Capital disbursement registered a sharp rise to ` 58615.30 crore in 2010-11 from ` 21171.70 crore in 2002-03 before experiencing a huge decline in 2011-12. On the other hand, total capital outlay (CO) of the state went up to ` 2317.30 crore from a low level of ` 338.90 crore during 2003-12. The share of development expenditure in total capital outlay rose to 96.66 percent in 2011-12 from 84.83 percent during 2003-12. It was due to a very high growth (62.07 percent) during 2002-06 which went down to 7.97 percent during 2007-12. The overall growth rate of capital outlay on development head was 26.12 percent. About 80 percent of developmental capital expenditure is on economic services and about 16 percent on social services.

Efficiency of Expenditure Use

The share of developmental revenue expenditure in the total expenditure showed an inter-year variation during the period 2006-12. It has slightly increased from 47 per cent to 52 per cent over the years. The share of developmental capital expenditure also showed inter-year variations. It improved marginally during the year 2011-12 as compared to 2009-10, but in comparison to 2005-06 it declined by 6 percent points. The overall development expenditure almost remains constant as percent to aggregate expenditure during the period 2006-12. During 2011-12, salaries and wages as a percentage of revenue expenditure on both social and economic service show a rise. The expenditure under operation and maintenance as a percentage of revenue expenditure has shown a decline during the 2011-12. These are unhealthy trends and need to be reversed.

Trends in Fiscal Deficit

All the deficit indicators show a rising trend till the year 2004-05, when GFD touched the level of 8.8 per cent of GSDP and revenue deficit stood at 3.8 per cent. Deficit indicators came down sharply in

the next two years. However, after 2006-07 there has been a relative stability in the deficit indicators. The fiscal management of the state is credited for maintaining deficit parameters within limits in post-FRBM years except 2009-10. What is commendable about Uttarakhand that it is able to bring down its primary deficit near to zero percent with revenue surplus. Capital outlay is the main source of the fiscal deficit. Its magnitude rose to 5.69 percent of GSDP in 2005-06, but then onward it declined drastically. At present, its share is 2.49 percent of GSDP.

Financing Pattern of Fiscal Deficit

The major portion of the fiscal deficit is financed by the market borrowings except in the year 2009-10 in which only 8.99 was financed by the market borrowings. Trends also suggest that state is offloading its debt to the centre. The state has been relying of NSSF or withdrawals from State Provident Funds to meet its fiscal deficit. As small savings and state provident funds are costlier sources of financing, state should try to reduce reliance on these sources.

Public Debt

The debt GDP ratio has recorded increment till 2004-05, with its peak of 40.84 percent. Since then, there is continuous decline in the Debt-GSDP ratio, which stood at 27.18 per cent in 2011-12 (including guarantes). The interest payment ratio has also recorded a clear decline. Interest payment as percent of revenue expenditure has been around 13 per cent in the last three years. Some decline has also been registered in the average interest rate, which has come down from 11 per cent in 2002-03 to 8.3 per cent in 2011-12.

Composition of Debt

About 70-75 percent of total outstanding debt is internal debt, mainly contributed by SDLS and NSSF. Remaining 25-30 percent debt consists of loans from centre, state provident fund, reserve fund deposit and advances and contingency fund. Trends in loans from centre are reflecting the trends reported in financing pattern. The loans from the centre have almost stagnated at around ` 400 crore

Contingent Liabilities

Upto 2002-03, the government had not extended any guarantee. However, after that the state had guaranteed loans raised by various corporations and public undertakings, which at end of 2005-06 stood at `1345 crore and were within the target of `1644.94 crore, as prescribed in the MTFP of the state government for the same year. The outstanding amount of guarantees in the nature of contingent liabilities were about 24 percent of revenue receipts in the year 2005-06. This proportion has come down to 12 per cent in 2011-12. The major beneficiaries of guarantee were Energy Department, Urban Development Department, and Social Welfare Department.

Fiscal Reforms

A synoptic view of major reforms undertaken in Uttarakhand is given below-

Table 5.1: Summary of Reforms in Uttarakhand

Reform measure	Date of implementation
Value Added Tax (VAT) Implemented	January 2005
Fiscal Responsibility Legislation (FRL) enacted	February 2005
New Pension Scheme (NPS) Introduced	April 2005
Ceilings on Guarantee imposed	Yes
Consolidated Sinking Fund (CSF) set up	Yes
Guarantee Redemption Fund (GRF) set up	Yes

Source: RBI, 2013.

Devolution of Functions and Funds to Local Bodies

The government of Uttarakhand had entrusted only 14 subjects out of 29 subjects as per the Eleventh Schedule of the Constitution to the PRIs in the year 2003 and thereafter no subject was devolved to PRIs. Out of the 18 functions listed in the XIIth Schedule only thirteen functions are transferred to the ULBs. The 1st SFC of Uttarakhand had simply recommended devolution to urban and rural local bodies on per capita basis. It didn't provide for distribution of a specified percentage of the net proceeds of the state's own revenues except posing a ceiling of 11 percent. Nevertheless, it did estimate that in the first year of its award period, the devolution would constitute 9.01 percent of the State's own revenues. The Commission has set 42.23 percent share for the Panchayats and 57.77 percent for the Municipalities. Out of the share of the Panchayats, the respective percentage for Gram Panchayats, Kshetra Panchayats and Zila Panchayats worked out to 75.18, 9.35 and 15.47 percent. Out of the share of the Municipalities, the percentage for Nagar Panchayats, Nagar Palika Parishads and Nagar Nigam respective was 9.41, 68.94 and 21.65 percent.

The 2nd SFC recommended vertical devolution of 10 percent of state's own revenue (both tax and non-tax excluding interest receipts, dividend, profits, royalties from minerals and sale proceeds from forest produce, etc.) for the award period (2006-07 to 2010-11). The share of ULBs was fixed at 40 percent and remaining 60 percent to PRIs. The two SFCs also indicated the relative share of different

level of PRIs and ULBs. The devolution criteria also took into account the relative social-economic backwardness of different districts into account apart from a share in the population. The 3rd SFC recommended that the share of local bodies should be raised to 10.5 per cent of state's own tax revenue which would be distributed equally between the ULBs and PRIs in the ratio of 50:50. The distribution of the devolution among various ULBs would be done as follows – Nagar Nigams (25%), Nagar Palika Parishads (60%) and Nagar Panchayats (15%). The devolution shares for the PRIs were 50 percent to Gram Panchayats, 20 percent to Kshetra Panchayats and 30 percent to the Zila Panchayats.

Reforms undertaken under JNNURM Conditionalities

Under this scheme, total 14 projects have been sanctioned to the Uttarakhand till the end of November 2013, which cover 3 major cities of the state with population of more than ` 10 lakh i.e. Hardwar, Nainital and Dehradun. Out of 14 projects, 13 are in progress. An amount of ` 405.34 crore has been allocated to concerned urban local bodies. There has been marked progress towards implementation of JNNURM reforms. Though, only three cities are covered by JNNURM in the State, the reform agenda under the program has state-wide application. The important reforms implemented in Uttarakhand include

- The constitution of the District Planning Committees, which will give a place to the ULBs and PRIs in a district in the formulation of the district plan.

- The creation of a Monitoring Committee under the Mayor/President for O&M of water supply, taking up of new schemes and inclusion of the evaluation of the Monitoring Committee in the annual reports of the concerned officers.

- Reduction in the rate of Stamp Duty from 10 percent to 5 percent for men and 4.5 percent for women.

- Transfer of additional functions to the ULBs.

- Convergence of city planning functions in ULBs and enactment of Community Participation Legislation.

Financial Performance of Public Sector Undertakings

Turnover to GSDP ratio had initially increased from 1.5 per cent in 2003-04 to 5 percent in 2005-06. Since then the ratio has fluctuated between 3.7 per cent and 5.35 percent in 2011-12. The overall losses have gone up from ` 74.80 crore in 2006-07 to ` 562.77 crore in 2011-12. During the year 2011-12 out of 20 working PSUs, eight PSUs earned a profit of `60.72 crore and 12 PSUs incurred loss of `623.47 crore.

Total outgo from budget has been increasing over the years and was relatively high in 2010-11 and 2011-12. The main support was in the form of equity capital and loans to PSUs. Outgo on subsidy

head has not been large. Total grants/subsidy outgo has gone up from `36.72 crore in 2003-04 to `188.44 crore in 2005-06, however, after that it declined to `1.24 crore in 2009-10 before rising back to `76.23 crore in 2011-12. Thus, it can be said that state government was successful in reducing subsidy burden but it needs to maintain this momentum. However, guarantee commitment has been high in the state during 2006-07 to 2011-12.

Power Sector Reforms in the State

There has been considerable decline in the Transmission and Distribution Losses (T&D Losses) of UPCL in the last five years. The losses declined from 48 percent in 2001-02 to 19.96 percent in 2011-12. Similarly, Aggregate Technical and Commercial Losses (AT&C Losses) of UPCL have declined from 35.36 percent in 2007-08 to 25.51 percent in 2011-12. The reduction in T&D Losses and AT&C losses is the outcome of high metering coverage. The UPCL has been able to meter more than 98 percent of consumers. The collection efficiency has also improved in the state. It was 75 percent in 2001-02 which improved to 93 percent in 2010-11.

After the creation of the state two separate corporations named UPCL and UJVNL for the transmission and distribution were setup in June 2001. After the enactment of the Electricity Act 2003 by the Government of India, for the transmission of electricity a separate corporation named PTCUL was established in June 2004. For regulation and tariff determination, Uttrakhand Electricity Regulatory Commission (UERC) was setup in 2002. The determination of the tariff by the Commission is being done regularly from 2003-04. The Commission is also engaged in making new Electricity Supply Code and Grid code. The majority of the hydropower capacity is owned by the state. As per the data supplied by the Government of Uttrakhand, power utilities are not receiving any kind of subsidies from the state government.

State Subsidies

As per CAG 2011, amount of explicit subsidies is `42 crore, `42 crore and `44 crore for 2008-09, 2009-10 and 2010-11 respectively. However, it has gone up to `219.64 crore in 2011-12 mainly because of sudden increase in food subsidy (`182.10 crore). As per Cost Recovery Approach Total subsidies have gone up from `1121.99 crore to `5263.14 crore during 2001-02 to 2011-12 registering almost 4.5 times increase. Total subsidies as per cost recovery approach are rising year on year basis at the rate of 14.5 percent. This rise, basically, took place due to rise in Merit-I subsidies which increased to `3504.4 crore in 2011-12 from `704.06 crore in 2001-02. On the other hand, Merit-II subsidies grew slowly as compared to Merit-I. However, Non-merit subsidies declined to `3.92 crore in 2006-07 from `139.31 crore in 2001-02 before rising to a whooping amount of `1020.86 crore in 2011-12.

Concluding Remarks

The analysis of budgetary trends of the Uttrakhand Government during the period 2002-03 to 2011-12 reveals that the state government has managed its finances well. The state is well on the path of fiscal consolidation as indicated by most of the fiscal indicators related to revenue and fiscal deficits, outstanding debt, tax-GSDP ratio, etc. There has been a qualitative improvement in the composition of expenditure in favour of capital expenditure. Plan expenditure has increased markedly. However, social sector has been given secondary priority.

However, fiscal health of the state is highly prone to economic instability. Therefore, there is a need for strict vigil to keep the fiscal reforms on track. Expenditure on medical and health and power sector needs to be stepped up. The government should also fix limit on its contingent liabilities. State public enterprises are putting a heavy pressure on state finances, there is an urgent need to restructure the PSUs and privatise the non-functional and low priority PSUs. Especial attention needs to be paid to the functioning of the power sector. There is also a large scope for raising tax and non-tax revenues in the state. Tax rates need to be rationalized. Tax collection machinery needs to be streamlined and modernized. The large evasion in taxes should be strongly curbed. The user charges for public services need to be rationalized and linked to cost of provision of the service. Subsidy should be restricted only to the deserving sections. The budget formulation and budgetary control systems also need to be streamlined. The legislative approval and control system on government budget needs to be tightened. Public participation in determining fiscal priorities and public expenditure should be encouraged to improve the outcome and effectiveness of public expenditure.

PREFACE

The present study provides an analysis of the State Finances of Uttarakhand covering the period of 10 years from 2002-03 to 2011-12. The study is sponsored by the Fourteenth Finance Commission of India with the following terms of reference:

1. Estimation of revenue capacities of State and Measures to improve the tax- GSDP ratio during last five years. Suggestions for enhancing the revenue productivity of the tax system in the State.

2. Analysis of the state's own non-tax revenues and suggestions to enhance revenues from user charges and profits from departmental enterprises and dividends from non-departmental commercial enterprises.

3. Expenditure pattern and trends separately for Non-Plan and Plan, Revenue and Capital, and major components of expenditure there under. Measures to enhance allocative and technical efficiency in expenditures during the last 5 years. Suggestions for improving efficiency in [public spending.

4. Analysis of Deficits — Fiscal and Revenue along with Balance of Current Revenues for Plan financing.

5. The level of Debt: GSDP ratio and the use of debt (i.e whether it has been used for capital expenditure or otherwise). Conpolt4ion of the state's debt in terms of market borrowing, Central government debt (including those from bilateral/multilateral lending agencies routed through the Central government), liabilities in public account (small savings, provident funds etc) and borrowings from agencies such as NABARD, LIC etc.

6. Implementation of FRBM Act and commitment towards targets. Analysis of MTFP of various departments and aggregate.

7. Analysis of the state's transfers to urban and rural local bodies in the state. Major decentralisation initiatives. Reforms undertaken under JNNURM conditionalities.

8. Impact of State Public Enterprises finances on the States' financial health and measures taken to improve their performance and/or alternatives of closure, disinvestment etc.

9. Public expenditure and Financial Management Reforms implemented in the state.

10. Impact of power sector reforms on states' fiscal health. In case reforms have not been implemented, the likely outcome on the States' fiscal health.

11. Analysis of contingent liabilities of the state.

12. Subsidies given by the states (other than Central subsidies), its targeting and evaluation.

The study is based on secondary data taken from the budget documents of the State government, RBI studies on State Finances and information obtained from various government departments and organisations.

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Chapter 1

Economy of the State: A Macro Perspective

1.1 Physical Profile of the State

The state Uttarakhand, earlier known as Uttaranchal, was created in November 2000, as the 27th state of the Republic of India. It was carved out of the North Western hilly region of the erstwhile state of Uttar Pradesh. The boundary of the state touches the national as well as international boundaries, in the North East, it borders China and in the South East, it borders Nepal. Within India, its neighbouring states are Himanchal Pradesh and Uttar Pradesh.

The state is spread over 53483 km. square area. Its share in total area of the country is 1.67 percent, while its share in the country's population is 0.84 percent. The state comprises two administrative divisions, namely, Garhwal and Kumaon. The state is organized into 13 districts, 78 tehsils and 95 development blocks. As per the Census 2001 nearly 70 percent of the population resides in rural areas spread over 15761 inhabited villages.

The topography of Uttarakhand is characterised by hilly terrain, rugged and rocky mountains, deep valleys, high peaks, swift streams and rivulets, rapid soil erosion, frequent landslides and widely scattered habitation. The natural vegetation is mixed broad-level forest with oak and pine predominating. Climate varies from subtropical in the valleys to temperate on the higher slopes with a summer monsoon. The temperature ranges from 16°C to 40°C but it drops below freezing point in many parts of high mountain areas of the region during winter.
Two of India's mightiest rivers, the Ganga and the Yamuna take birth in the glaciers of Uttarakhand and are fed by myriad lakes, glacial melts and streams in the region.

Nearly half of the population resides in three districts of Haridwar, Udham Singh Nagar and Dehradun falling in the foothills of the Himalayas. Champawat, Rudraprayag and Bageshwar are the least populated districts of Uttarakhand constituting just about eight per cent of population.

The net shown area is just about 14.2 per cent. About 34 per cent of the agriculture land is concentrated in Haridwar and Udham Singh Nagar and 21 per cent in Almora and Pauri Garhwal. Uttarakhand is very rich in forest. About 62.3 per cent of the reported area of Uttarakhand is covered with forest. The forestland is concentrated in Uttarkashi, Chamoli, Pauri Garhwal and Tehri Garhwal. A large part of forest area consists of degraded forests.

1.2 Social Profile

According to Census 2001, 84.96 percent of the state population was Hindu, 11.92 percent Muslim, 2.50 percent Sikh and remaining 0.62 percent of the population consisted of other religious minorities like Buddhist, Jain and Christian. As per the Census 2011, Scheduled castes formed 18.76 percent of the state's population. The proportion of Scheduled Tribes residing in the state is low at 2.89 percent.

1.3 Demographic Profile of the State

According to the 2011 census, total population of Uttarakhand is 10.09 million. Only 30 per cent of the population resides in urban areas. The growth rate of population in the state was 1.74 percent per annum during the decade 2001-11. The population density has increased from 159 in 2001 to 189 in 2011. Sex ratio remained nearly constant between 2001 and 2011, but the child sex ratio (0-6 years) has declined adversely (Table 1.1). The literacy rate in the state in 2011 was 78.82 percent which is higher than the national literacy rate of 74 per cent. Literacy rates for males and females were 87.4 per cent and 67.06 per cent respectively.

Table 1.1: Select Demographic Indicators for Uttarakhand

Description	2001	2011
Population	8,489,349	10,086,292
Decadal Population Growth	19.20%	18.81%
Density/km2	159	189
Urban Population	2179074	3049338
Percentage of urban to total population	25.7	30.2
Rural Population	6310275	7036954
Percentage of rural to total population	74.3	69.8
Sex Ratio	964	963
Child Sex Ratio	967	890
Literacy	71.62%	78.82%
Male Literacy	81.02%	87.40%
Female Literacy	63.36%	67.06%

Source: Census of India 2001 & 2011.

In several demographic indicators the States compares well with the national average. The crude birth rate in Uttarakhand (19.3) is less than national average (22.1). Similarly, crude death rate is also lower than the national average. Natural growth rate of population in the state is lower than national average. Infant mortality rate in Uttarakhand are also distinctly below the national average both in the urban and the rural areas (Table 1.2).

Table 1.2: Birth and Death Rates in Uttarakhand and India, 2010

Indicators	Uttarakhand	India
Crude birth Rate	19.3	22.1
Rural	20.2	23.7
Urban	16.2	18.0
Crude Death rate	6.3	7.2
Rural	6.7	7.7
Urban	5.1	5.8
Natural Growth Rate of Population	13.0	14.9
Infant Mortality Rate	38	47
Rural	41	51
Urban	25	31
Mean No. of Children Per married Female	4.3	4.4

Source: SRS Data-2010.

Traditionally migration has been high in the state the absence of livelihood opportunities in the Hills.The 2011 Census reveals migration from all hill districts of the State. Excepting two Hill Districts, all others hover around a population growth rate of 5 % with Almora and Pauri districts showing a negative population growth of -1.73 % and-1.51 %.

1.4 Economic Profile

The rank of Uttarakhand in per capita income among major states was 7th in 2008-09. It ranks 8th in terms of composite index of infrastructure (Table 1.3). Uttarakhand is rich in power resources. Availability of assured, uninterrupted, quality power at affordable and competitive rates attracted industrial investment in the state. The new industrial policy of 2003, which gave hefty tax benefits to investors thereby encouraging industrial investment and employment generation.

Table 1.3: Infrastructure Development and Per Capita Income for Major States: 2008-09

State	Infrastructure Index		Per Capita Income	
	Index	Rank	Per Capita Income (in `)	Rank
Kerala	197.36	1	53046	6
Punjab	175.81	2	55315	3
Himachal Pradesh	164.2	3	49903	8
Tamil Nadu	152.24	4	54137	5
Haryana	136.43	5	67388	1
Gujarat	124.72	6	55066	4
Karnataka	124.35	7	48084	9
Uttarakhand	**118.38**	**8**	**50674**	**7**
Maharashtra	115.56	9	62234	2
Andhra Pradesh	112.84	10	46345	10
West Bengal	97.01	11	35487	11
Uttar Pradesh	86.99	12	20422	16
Rajasthan	84.11	13	31279	13
Orissa	81.83	14	31416	12
Madhya Pradesh	78.91	15	25278	14
Bihar	78.79	16	13728	17
Assam	62.02	17	24099	15

Source: Infrastructure Index is taken from Twelfth Five Year Plan, Vol. 1. Per capita income figures are taken from Statistical Diary of UP.

Uttarakhand is one of the fastest growing states of India. The State's economy grew at an annual growth rate of over 10 percent during the last decade. In terms of economic growth, the state's performance has been above the national average from 2002-03 to 2010-11 (Figure 1.1). The high growth led to rapid increase in state's per capita income, which increased from ` 27,726 in 2002-03 to ` 79,940 in 2011-12. The per capita income has increased nearly by 3 times as compared to 2004-05 faster than the growth rate of the national per capita income. In the initial years of the last decade per capita income of the state was slightly above the national per capita income. By 2011-12 the gap has increased to almost 30 per cent in favour of Uttarakhand.

Figure 1.1: Trend in GDP Growth Rate at Factor Cost (at 2004-05 Prices)
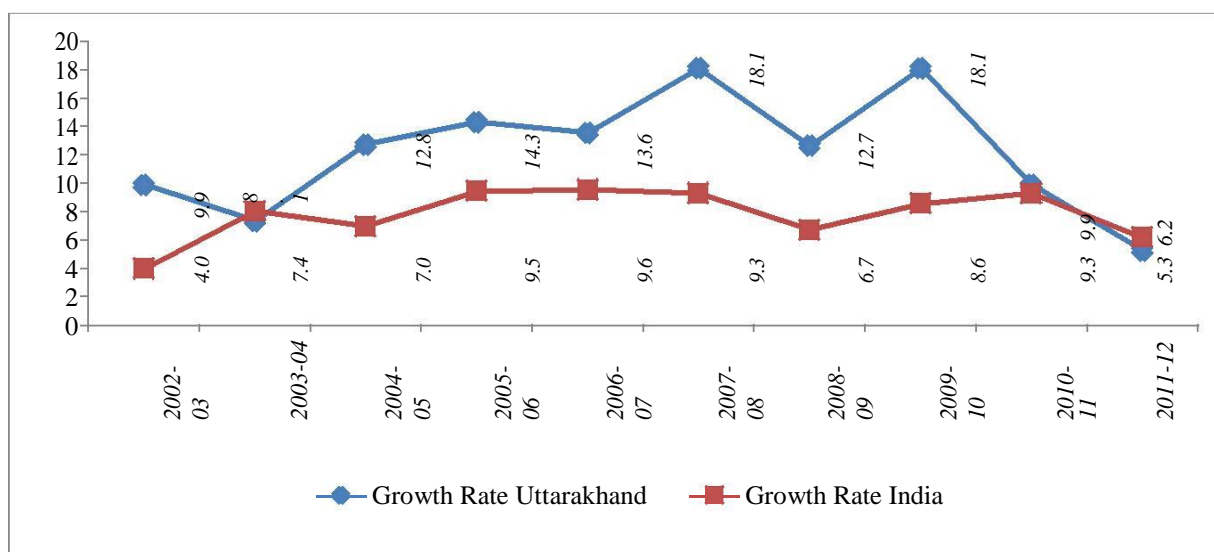
Table 1.4: Per Capita Income of Uttarakhand at Current Prices (in `)

Year	Uttarakhand	India
2004-05	24726	24143
2005-06	29441	27131
2006-07	35111	31206
2007-08	42619	35825
2008-09	50657	40775
2009-10	62764	46249
2010-11	72217	54151
2011-12	79940	61564

Source: Based on CSO estimates.

1.5 Sectoral Shifts

The shares of different sectors in total GSDP of the state have also changed during 2002 to 2012. The share of the primary sector in total GSDP was about 26 percent in 2002-03, which has continuously declined to 11.22 percent in 2011-12. The share of industrial sector in total GSDP has increased from 23 percent in 2002-03 to 35 percent in 2011-12. The share of tertiary

sector has, however, remained almost constant over the period (Table 1.5). Nevertheless, the tertiary sector contributes over half of the GSDP of the state and remains the principal driving force of the state's economy. Tourism is one of the key components of the economy of

Uttarakhand both because of its scenic beauty and religious importance, which attract millions of tourists to the state throughout the year.

Table 1.5: Share of Different Sectors in GSDP at Constant 2004-05 Prices: 2002-12

Year	Uttarakhand (GSDP)				India (GDP)			
	Agriculture & allied	Industry	Services	Total	Agriculture & allied	Industry	Services	Total
2001-02	25.51	22.83	51.66	100.0	25.48	23.1	51.4	100.0
2002-03	24.37	24.37	50.51	100.0	23.65	23.7	52.7	100.0
2003-04	23.71	25.52	50.77	100.0	23.49	23.7	52.8	100.0
2004-05	22.27	28.23	49.50	100.0	21.9	25.1	53.0	100.0
2005-06	18.85	31.43	49.72	100.0	21.6	25.3	53.1	100.0
2006-07	17.37	33.29	49.34	100.0	21.0	26.1	52.9	100.0
2007-08	15.01	34.69	50.30	100.0	21.0	26.3	52.7	100.0
2008-09	12.84	34.61	52.55	100.0	20.4	25.7	53.9	100.0
2009-10	11.92	35.06	53.02	100.0	20.3	25.0	54.7	100.0
2010-11	11.44	35.13	53.43	100.0	20.4	24.4	55.1	100.0
2011-12	11.22	35.18	53.60	100.0	19.9	23.8	56.3	100.0

Source: Based on CSO estimates.

Table 1.6 shows the shares and growth rate of various sub-sectors of the state economy. Manufacturing is the most rapidly growing sector of the state economy. Its share in GSDP has increased from 10.4 per cent in 2002-03 to 25 per cent in 2011-12. Registered manufacturing shows a high growth in the state. But the growth rate of the un-organized manufacturing has been slow and its share in GSDP has declined. Mining and quarrying activity had grown at a rate of 21% during 2002-07, but registered sudden decline in its growth rate during next five years (2007-12).

The growth in construction activity has also shown good growth during first half of the decade (2002-07) while in the second half (2007-12) the pace of growth has declined rapidly. Services sector, on the other hand, shows a jump in growth rate in the second period. Among services, trade and hotels, banking and insurance and public administration show relatively higher growth.

Agriculture and allied sector has grown at a steady rate of 3.3 per cent per annum during both the sub-periods.

Table 1.6: Sectoral Distribution of GSDP

Sector	Share in GSDP (%)			Compound Annual Growth Rate (%)	
	2001-02	2006-07	2011-12	2002-07	2007-12
1. Agriculture	19.1	12.9	8.2	3.1	3.0
2. Forestry & logging	6.4	4.5	3.0	3.8	4.1
3. Fishing	0.0	0.0	0.0	4.5	5.0
(A) Agriculture and Allied	**25.5**	**17.4**	**11.2**	**3.3**	**3.3**
1. Mining & quarrying	0.8	1.2	0.7	21.0	1.6
2. Manufacturing	10.4	18.2	24.7	24.8	19.8
2..1 Registered	5.9	14.6	22.1	33.5	22.5
2.2 Unregistered	4.4	3.6	2.6	7.1	5.2
3. Construction	10.2	12.5	8.3	16.3	3.8
4. Electricity, Gas and Water supply	1.5	1.4	1.5	10.1	14.3
(B) Industry & Construction	**22.8**	**33.3**	**35.2**	**20.3**	**14.0**
1. Transport, storage & communication	6.0	7.1	7.7	15.4	14.5
2. Railways	0.3	0.2	0.2	3.2	13.3
3. Transport by other means	4.3	4.8	5.2	13.8	14.7
4. Storage	0.1	0.1	0.0	1.7	5.2
5. Communication	1.3	2.0	2.2	22.8	14.4
6. Trade, hotels and restaurants	17.0	18.7	25.4	13.7	19.9
7. Banking & Insurance	4.0	4.3	5.1	12.9	16.7
8. Real estate, ownership of dwellings and business services	7.6	5.5	3.7	4.5	4.2
9. Public administration	5.8	4.9	5.8	7.8	16.8
10. Other services	11.3	9.0	5.9	6.5	3.7
(C) Services	**51.7**	**49.3**	**53.6**	**10.5**	**14.6**
State domestic product	100.0	100.0	100.0	11.6	12.7

Source: CSO Data

Analysis of growth pattern in the state indicates that the high pace of growth in the state has been industry led growth (Figure 1.2). Industry grew at a high rate averaging 20.3 percent during 2002-07, but its pace diminishes to 14.0 percent in the next half of the study period (2007-12). Services sector also recorded a decent growth of 10.5 percent during 2002-07 which picked up during 2007-12 to 14.6 percent.

Figure 1.2: Sectoral Growth Rates at Constant 2004-05 Prices (%)
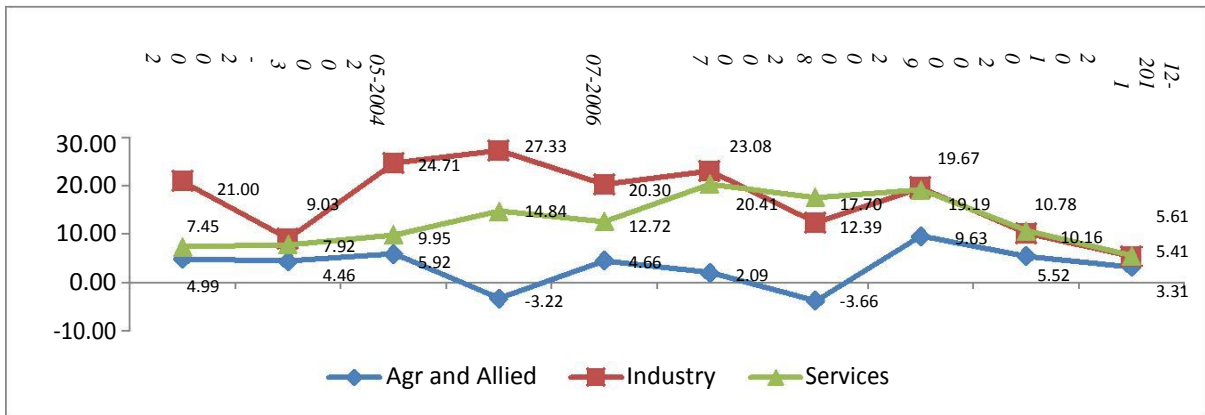
Source: CSO Data

1.6 Employment Pattern

The composition of employment in Uttarakhand constrasts sharply from the employment pattern in India (Figure 1.3). Thus, according to the 2011-12 NSS figures only 33.5% of total workers were employed in agriculture and forestry in Uttarakhand against the figure of 52.2 per cent in India according to UPS status. The second most important sector was construction in which 20.9% workers were employed against the figure of 8.7% at the national level. Manufacturing accounts for 11.6% of workers in Uttarakhand and 10.6% in India. Nearly one third of total workers in Uttarakhand are employed in the services sector as compared to only 28.5 % in India.

Figure 1.3: Share of Employment by broad Industry Group (Usual Principal Status) 2010-11

Source: RBI (2012)

7
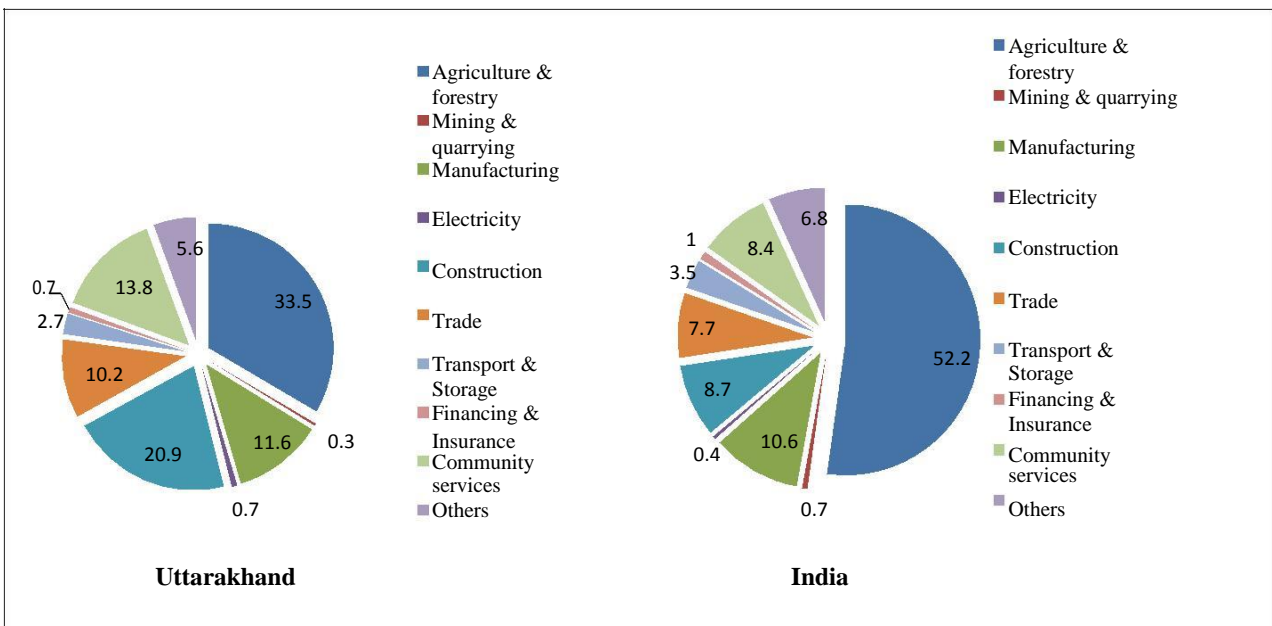
1.7 Achievement on Human Development

In terms of human development, Uttarakhand has done well as reflected from the state's performance in Human Development Index (HDI). HDI of Uttarakhand has improved from 0.339 in 1999-00 to 0.499 in 2007-08. Its rank among states also improved from 13th to 10th over the period. It has recorded highest increment (44.54 percent) in its HDI among all states during 1999-00 and 2007-08 (Table 1.7).

Table 1.7: Human Development Index for States, 1999-2000 and 2007-08

Rank 2007-08	State	HDI (2007-08)	HDI (1999-2000)	Change in HDI	Percentage change
1	Kerala	0.790	0.677	0.113	16.69
2	Himachal Pradesh	0.652	0.581	0.071	12.22
3	Punjab	0.605	0.543	0.062	11.42
4	Tamil Nadu	0.573	0.480	0.1	21.14
5	Maharashtra	0.572	0.501	0.071	14.17
6	Haryana	0.552	0.501	0.051	10.18
7	Jammu & Kashmir	0.529	0.465	0.064	13.76
8	Gujarat	0.527	0.466	0.061	13.09
9	Karnataka	0.519	0.432	0.087	31.64
10	West Bengal	0.492	0.422	0.07	16.59
11	Uttarakhand	0.490	0.339	0.151	44.54
12	Andhra Pradesh	0.473	0.368	0.105	28.53
	All India	**0.467**	**0.387**	**0.08**	**20.72**
13	Jharkhand	0.444	0.336	0.108	32.14
14	Rajasthan	0.434	0.387	0.047	12.14
15	Uttar Pradesh	0.380	0.316	0.064	20.25
16	Madhya Pradesh	0.375	0.285	0.09	31.58
17	Bihar	0.367	0.292	.0.075	25.68
18	Orissa	0.362	0.275	0.087	31.64
19	Chhattisgarh	0.358	0.278	0.08	28.78

Source: India Human Development Report, 2011.

In terms of Education Index (EI), the state has shown more than double improvement as compared to India (Table 1.8). The Income index (YI) of the state has also increased by more than double of the country index. However, in terms of health the state was not be able to achieve much success and it is still lower than the country health index (HI).

Table 1.8: HDI Components of Uttarakhand and India, 1999-00 and 2007-08

Indicator	1999-00		2007-08		Change	
	Uttarakhand	India	Uttarakhand	India	Uttarakhand	India
Health Index	0.465	0.497	0.53	0.563	0.065	0.066
Income Index	0.179	0.223	0.302	0.271	0.123	0.048
Education Index	0.371	0.442	0.638	0.568	0.267	0.126
HDI	0.399	0.387	0.49	0.467	0.091	0.08

Source: India Human Development Report 2011

In a comparative perspective too, Uttarakhand's demographic indicators are better as compared to many other states (Table 1.9). The states of UP, Bihar, Chhattisgarh and Jharkhand are far behind in different demographic indicators. Uttrakhand is cruising fast to become a member of developed states in terms of the major indicators of social and economic development. Population density in the state is low. Literacy rate in Uttarakhand is 79.63 percent as compared to 74 percent in India. Female literacy (70.70 percent) in 2011 in the state is higher than country average of 65.50 percent. Similarly, infant mortality rate is quite low. Only Kerala, Maharashtra and Tamilnadu have lower infant mortality rate than Uttarakhand.

Table 1.9: Important Demographic Indicators for the Major States

State	Population Density per 100 Sq. Km, 2011	Decadal Population Growth 2001-2011	Literacy Rate (2011)	Female Literacy (2011)	Sex Ratio (2011)	IMR (2009)
Andhra Pradesh	308	11.10	67.66	59.74	992	49
Assam	397	16.93	73.18	67.27	954	61
Bihar	1102	25.07	63.82	53.33	916	52
Jharkhand	414	22.34	67.63	56.21	947	44
Gujarat	308	19.17	79.31	70.73	918	48
Haryana	573	18.80	76.64	66.77	877	51
Himachal Pradesh	123	12.81	83.78	76.60	974	45
Jammu & Kashmir	124	23.71	68.74	58.01	883	45
Karnataka	319	15.67	75.60	68.13	968	41
Kerala	859	4.86	93.91	91.98	1084	12
Madhya Pradesh	236	20.30	70.63	60.02	930	67
Chhattisgarh	189	22.59	71.04	60.59	991	54
Maharashtra	364	15.99	82.91	75.48	925	31
Orissa	269	13.97	73.45	64.36	978	65
Punjab	550	13.73	76.68	71.34	893	38
Rajasthan	201	21.44	67.06	52.66	926	59
Tamil Nadu	555	15.60	80.33	73.86	995	28
Uttar Pradesh	828	20.09	69.72	59.26	908	63
Uttarakhand	**189**	**19.17**	**79.63**	**70.70**	**963**	**41**
West Bengal	1029	13.93	77.08	71.16	947	33

Source: Population and literacy data are from Census of India, 2011; IMR data are from SRS bulletin, January 2011.

1.8 Poverty in the State

There has been a significant decline in the poverty levels in the state. Poverty came down to 11.6 percent in 2011-12 from 32.7 percent in 2004-05. The number of poor also declined sharply over the period-from 29.7 lakhs in 2004-05 to 11.6 lakhs in 2011-12 (Table 1.10). However, inequalities in consumption expenditure have increased over this period as shown by the trends in the Gini Coefficient (Table 1.10). The increase in inequalities was faster in the

urban areas as compared to the rural areas. It will also be observed from the table that inequalities are much sharper in the urban areas as compared to the rural areas.

Table 1.10: Poverty in the State

| Area | Population below Poverty line | | | | | | Gini Coefficient | |
| | 2004-05 | | 2009-10 | | 2011-12 | | 2004-05 | 2009-10 |
	% of person	No of persons (in Lakh)	% of person	No of persons (in Lakh)	% of person	No of persons (in Lakh)	MRP	MRP
Urban	26.2	6.6	25.2	7.5	10.48	3.35	0.302	0.395
Rural	35.1	23.1	14.9	10.3	11.62	8.25	0.223	0.231
Total	32.7	29.7	18	17.9	11.26	11.6	-	-

Source: Planning Commission estimates based on Tendulkar Committee Methodology.

1.9 Concluding Remarks

Uttarakhand is a state rich in natural resources. It has recorded a decent achievement in economic and social development. Population density is low. However, the geography of the state creates a number of problems also. The topography of Uttarakhand is characterised by hilly terrain, rugged and rocky mountains, deep valleys, high peaks, swift streams and rivulets, rapid soil erosion, frequent landslides and widely scattered habitation. This creates problems for provision of basic services to the scattered habitations with small populations. Local employment opportunities in the state are limited and there is large scale migration of male population. Dependence on remittances is high. The mountains in the state are fragile and the development process has created environmental problems through land degradation and increased soil erosion. The state is also prone to natural calamities. Cultivable land in the state is limited. High proportion of the land is under forest cover. This imposes additional burden on maintenance of forests. Availability of land is also a constraint for infrastructure and industrial development of the state. Thus, due to its special geographical and demographic pattern additional expenditure burden is put on the Uttarakhand government. On the other hand, dependence on the services sector also restricts the capacity of the state to raise resources for taxation. All these factors have implications for the public finances of the state.

Chapter 2

Tax and Non-tax Revenue

2.1 Introduction

The previous chapter has given us an overview about the macroeconomic picture of the state. The present chapter deals with the trends in tax and non-tax revenue of the state during the last decade. The discussion also covers issues related to tax capacity, tax efforts and measures to improve the tax-GSDP ratio in the state. At the end suggestions for enhancing revenue productivity and user charges have been given.

2.2 Trends in Own Tax Revenue (OTR)

Uttarakhand is a special category state and enjoys additional financial transfers from the Central Government. Despite these additional resources, a state must thrive to increase its own tax revenue for greater maneuverability in expenditure. Table 2.2 shows the trends in OTR of Uttarakhand government.

As is evident from the table, OTR increased more than six times in the last decade-from ` 894.7 crore in 2001-02 to ` 5615.6 crore in 2011-12. The CAGR of OTR was 18.84 percent during the period of 2001-02 to 2005-06, but declined marginally to 17.44 percent in the period 2006-07 to 2011-12. For the entire decade the growth rate was 17.69 percent.

Growth rate of different taxes has, however, varied from tax to tax (Table 2.3). Sales tax increased at a CAGR of 22.31 percent for the entire period. On the other hand, collections from state excise had a sluggish growth of 5.98 percent during the period 2001-02 to 2005-06, which improved to 17.74 percent in later half of the period under study (2006-07 to 2011-12). It has 13.78 percent for the entire period. Taxes and duties on electricity also improved during 2001-02 to 2011-12. Its growth rate jumped from a moderate level of 11.43 percent to 28.18 percent from 2002-06 to 2007-12 registering an overall growth of 39.96 percent for the entire period.

Table 2.1: Trends in Own Tax Revenue of Uttarakhand Government: 2002-12 (In crore `)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1.Taxes on Income (i+ii)	2.2	2.4	2.2	2.6	3.5	4.6	5.2	6.1	7.1	9.7	14.0
i)Agricultural Income Tax											
ii)Taxes on Professions, Trades, Callings & Employment	2.2	2.4	2.2	2.6	3.5	4.6	5.2	6.1	7.1	9.7	14.0
2.Taxes on Property and Capital Transaction (i to iii)	92.7	125.9	181.6	215.5	342.6	561.7	447.7	375.4	407.5	457.8	534.2
i)Land Revenue	3.3	2.5	12.6	7.7	9.2	15.4	23.4	17.9	8.8	18.3	10.2
ii)Stamps and Registration fees	89.5	123.4	168.9	207.8	333.4	546.3	424.3	357.5	398.7	439.5	524.1
iii)Urban Immovable Property Tax											
3.Taxes on Commodities and Services (i to vii) i) Sales Tax including Central sales tax	799.8	893.4	1042.1	1226.2	1438.5	1947.4	2285.8	2663.5	3144.4	3938.0	5067.3
	486.2	551.1	662.0	793.5	1014.3	1361.4	1627.4	1910.6	2246.8	2940.5	3643.5
ii)State Excise	232.0	245.9	273.4	292.0	292.8	372.9	441.6	528.4	704.6	755.9	843.7
iii) Taxes on Vehicles	67.4	71.7	86.1	98.9	114.9	141.5	155.3	167.0	184.6	227.3	334.7
iv)Taxes on Goods and Passengers											
v)Taxes and Duties on Electricity	7.9	18.1	16.5	37.5	12.2	66.2	55.2	51.6	2.1	2.2	229.0
vi)Entertainment Tax	5.7	6.7	4.2	4.3	4.5	5.5	6.5	5.9	6.3	12.2	16.5
vii)Other Taxes & Duties	0.5				-0.1	-0.1	-0.1				
A. State's Own Tax Revenue (1 to 3)	**894.7**	**1021.7**	**1226.0**	**1444.4**	**1784.6**	**2513.6**	**2738.7**	**3044.9**	**3559.0**	**4405.5**	**5615.6**

Source: RBI, Study on State Finances (Annual).

Table 2.2: Compound Annual Growth Rate of Own Tax Revenue

Item	2001-02 to 2005-06	2006-07 to 2011-12	2001-02 to 2011-12
1.Taxes on Income (i+ii)	12.48	25.22	20.45
i)Agricultural Income Tax			
ii)Taxes on Professions, Trades, Callings and Employment	12.48	25.22	20.45
2.Taxes on Property and Capital Transactions (i to iii)	38.64	-1.00	19.14
i) Land Revenue	29.34	-7.97	11.99
ii) Stamps and Registration fees	38.95	-0.83	19.34
iii)Urban Immovable Property Tax			
3.Taxes on Commodities and Services (i to vii)	15.81	21.08	20.28
i) Sales Tax	20.18	21.76	22.31
ii) State Excise	5.98	17.74	13.78
iii) Taxes on Vehicles	14.25	18.80	17.38
iv) Taxes on Goods and Passengers	-	-	-
v) Taxes and Duties on Electricity	11.43	28.18	39.96
vi) Entertainment Tax	-5.91	24.47	11.21
vii) Other Taxes and Duties		-100.00	-100.00
State's Own Tax Revenue (1+2+3)	**18.84**	**17.44**	**20.16**

Source: Based on Table 2.1.

Variations in growth rates are reflected in the changes in the share of individual taxes in the total OTR (Table 2.3). Sales tax (including Central sales tax) is the main source of OTR. Its share rose from 54.34 percent in 2001-02 to 64.88 percent in 2011-12. The share of state excise declined mstkrfly from 25.94 percent in 2001-02 to 15.02 percent in 2011-12. On the other hand, the share of taxes and duties on electricity rose to 4.08 percent in 2011-12 from less than one percent in 2001-02. Revenue from stamp and registration fee shows a rise in their share till 2006-07, but the share has again come down to around 10 per cent.

Total tax revenue of the state including share in Central taxes for the period 2011-02 to 2011-12 is given in Table 2.4. Total tax revenue increased from ` 1246.98 crore in 2001-02 to ` 3645.67 crore in 2006-07 and further to ` 8481.66 crore in 2011-12 showing an average annual compound rate of growth of 19.40 percent. The state's share in central taxes rose much sharply to ` 2866.10 crore in 2011-12 from a level of ` 352.29 crore in 2001-02. The rapid increase in central transfer led to rise in share of central taxes from 28.25 to 33.79 percent during 2002-12.

Table 2.3: Percent Share of Individual Taxes in Total Tax Revenue

| Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1.Taxes on Income (i+ii)	0.24	0.24	0.18	0.18	0.20	0.18	0.19	0.20	0.20	0.22	0.25
i)Agricultural Income Tax											
ii)Taxes on Professions, Trades, Callings and Employment	0.24	0.24	0.18	0.18	0.20	0.18	0.19	0.20	0.20	0.22	0.25
2.Taxes on Property and Capital Transactions (i to iii)	10.36	12.32	14.81	14.92	19.20	22.35	16.35	12.33	11.45	10.39	9.51
i)Land Revenue	0.37	0.25	1.03	0.54	0.51	0.61	0.85	0.59	0.25	0.42	0.18
ii)Stamps and Registration fees	10.00	12.07	13.78	14.39	18.68	21.73	15.49	11.74	11.20	9.98	9.33
iii)Urban Immovable Property Tax											
3.Taxes on Commodities and Services (i to vii)	89.39	87.44	85.01	84.90	80.61	77.47	83.46	87.47	88.35	89.39	90.24
i)Sales Tax	54.34	53.94	54.00	54.94	56.84	54.16	59.42	62.75	63.13	66.75	64.88
ii)State Excise	25.94	24.06	22.30	20.22	16.40	14.84	16.12	17.35	19.80	17.16	15.02
iii) Taxes on Vehicles	7.53	7.02	7.02	6.85	6.44	5.63	5.67	5.48	5.19	5.16	5.96
iv)Taxes on Goods and Passengers											
v)Taxes and Duties on Electricity	0.89	1.77	1.34	2.60	0.69	2.63	2.02	1.69	0.06	0.05	4.08
vi)Entertainment Tax	0.64	0.66	0.35	0.30	0.25	0.22	0.24	0.19	0.18	0.28	0.29
vii)Other Taxes and Duties	0.05	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00

Source: Based on Table 2.1.

Table 2.4: Trends in Total Tax Revenue of Uttarakhand Government (in Crore `)

Item	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
A. State's Own Tax Revenue	894.7	1021.7	122650	1444.4	1784.6	2513.6	2738.7	3044.9	3559.0	4405.5	5615.6
As % of Total Tax Revenue	71.8	73.3	73.8	73.5	63.9	69.0	65.7	66.9	69.7	64.2	66.2
B. Share in Central Taxes	352.3	371.6	435.0	520.0	1010.0	1132.0	1427.8	1506.6	1550.0	2460.1	2866.1
As % of Total Tax Revenue	28.3	26.7	26.2	26.5	36.1	31.1	34.37	33.1	30.3	35.8	33.8
Total Tax Revenue (A+B)	1247.0	1393.2	1661.0	1964.3	2794.5	3645.6	4166.5	4551.5	5109.1	6865.6	8481.7

Source: RBI, *Study on State* Finances (annual)

Figure 2.1: Trends in Tax Revenue (` Crore)
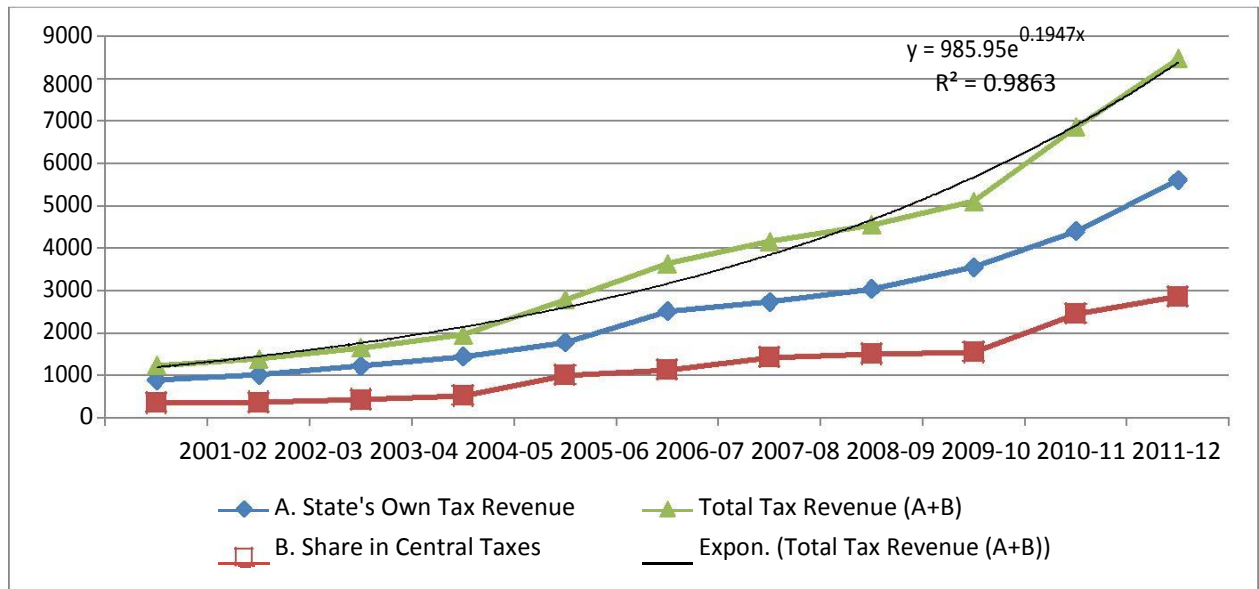
2.3 Tax Capacity and Efforts

We may now examine the tax efforts of Uttarakhand Government. One commonly used measure of tax effort is the level of tax revenue/GSDP ratio and changes in it over time. Table 2.5 shows Tax-GSDP in major states during the period 2004-05, 2005-06 and 2006-07. The Tax-GSDP ratio for Uttarakhand was 7.40 percent against all state average of 7.48 percent. Uttarakhand lies above the trend line showing better tax effort in relation to its per capita income (Figure 2.2). The correlation coefficient between per capita GSDP and Tax-GSDP ratio at the state level comes to 0.35 indicating that richer states are able to raise more resources through taxation. However, significant variations in the tax-GSDP ratio for same level of per capita GSDP can be observed indicating variation in tax efforts of the states.

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Table 2.5: Per Capita GSDP and Tax-GSDP Ratio
(Average for 2004-05, 2005-06 and 2006-07)

STATE	Per Capita GSDP (in `)	Tax GSDP Ratio (in %)
Goa	90848	8.06
Haryana	43797	9.01
Maharashtra	43074	7.96
Himachal Pradesh	42218	5.41
Punjab	41180	7.87
Gujarat	40094	7.16
Kerala	38278	8.29
Tamil Nadu	36563	9.89
Karnataka	33433	10.61
Sikkim	32081	5.79
Andhra Pradesh	30561	8.11
Mizoram	30465	1.88
Tripura	28285	3.08
Uttarakhand	28200	7.40
West Bengal	27418	4.62
Meghalaya	27259	3.80
Arunachal Pradesh	26521	2.06
Jammu and Kashmir	25224	5.80
Nagaland	25108	1.91
Chhattisgarh	23757	7.69
Manipur	22585	1.92
Jharkhand	21984	4.34
Rajasthan	21779	7.39
Orissa	21280	6.16
Assam	20669	5.33
Madhya Pradesh	18187	7.60
Uttar Pradesh	15548	6.78
Bihar	8851	4.67
All States	**30902**	**7.48**

Source: *Report of the Twelfth Finance Commission*

**Figure 2.2: Tax GSDP Ratio and Per Capita GSDP of
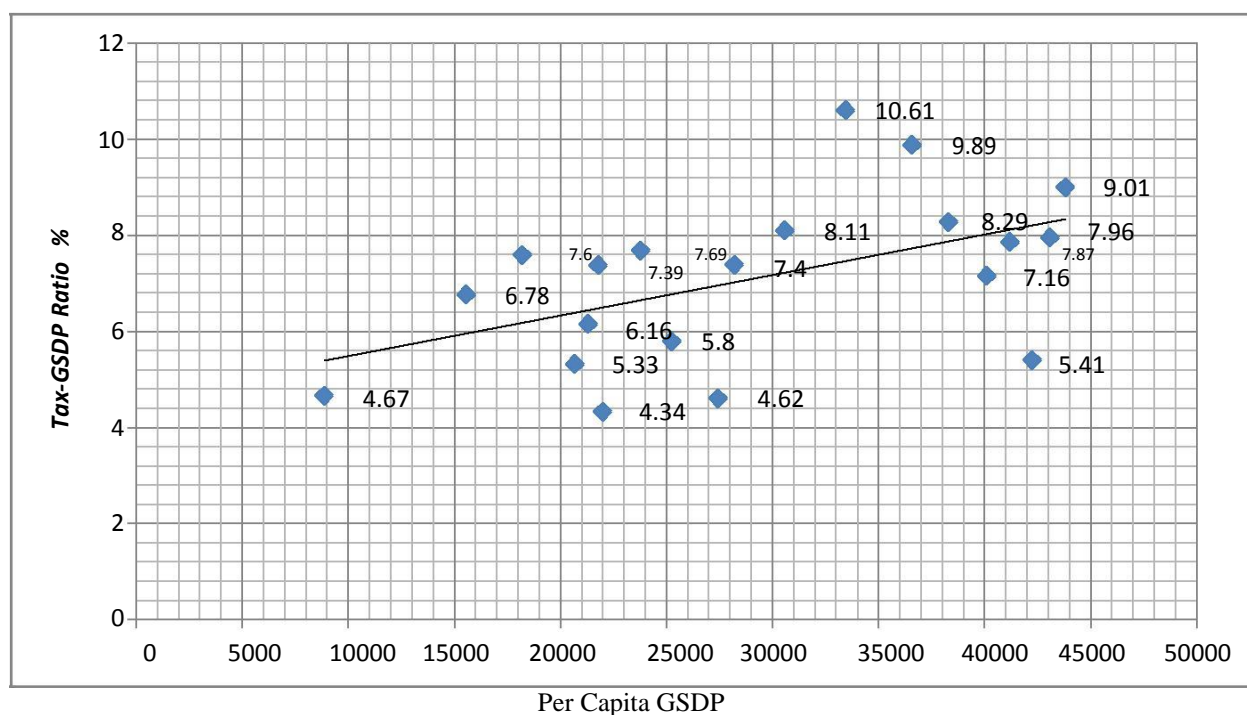States (Average for 2004-05, 2005-06 and 2006-07)**

Table 2.6 shows the trends in OTR/GSDP ratio for Uttarakhand for the priod 2001-02 to 2011-12. The ratio has fluctuated from year to year. On the whole, there has been a moderate rise in OTR/GSDP ratio from 5.41 percent in 2001-02 to 6.83 percent in 2006-07. The ratio declined to 5.03 percent in 2009-10, but again increased to 6.03 percent in 2011-12.

Table 2.6: Trends in Own Tax Revenue and GSDP of Uttarakhand: 2001-02 to 2011-12

Year	Own Tax Revenue (` crore)	GSDP (`crore)	Tax/GSDP Ratio (%)
2001-02	894.69	16536.77	5.41
2002-03	1021.69	19303.14	5.29
2003-04	1225.96	21357.03	5.74
2004-05	1444.36	24785.67	5.83
2005-06	1784.55	29967.53	5.95
2006-07	2513.64	36795.42	6.83
2007-08	2738.65	45855.64	5.97
2008-09	3044.91	56024.76	5.43
2009-10	3559.04	70736.34	5.03
2010-11	4405.48	82917.95	5.31
2011-12	5615.56	93161.72	6.03

Source: GSDP figures have been taken from CSO GSDP series for states and own tax revenue figures have been taken from budget documents of UP Government.

2.3.1 Tax buoyancy

Tax buoyancy is a widely used measure of tax effort of national or sub-national economies. Tax buoyancy measures the percentage response of tax revenue to a one percent change in the tax base, usually proxied by gross domestic product. Double log regression method is used to estimate the tax buoyancy. The relationship can be shown by the following equation:

Equation 1: $\quad$ $\text{Ln } (OTR_t) = \alpha_1 + \beta_1 (\ln GSDP_t) + \mu_t$

Following estimates were derived by applying the equation to tax revenue and GSDP data for Uttarakhand for the period 2001-02 to 2011-12:

$$\text{Ln } (OTR_t) = -2.786 + 0.992 \ln GSDP_t$$

The equation yielded a tax buoyancy of 0.992 for the entire period. The R square value was found to be very high (0.981). However, the problem of serial correlation was found to be present. To take care of the problem of serial correlation the technique of structural break has been used by scholars by using a time dummy (Rajaraman et. al. 2005).

We have taken 2006-07 as the year of structural break as Uttarakhand adopted VAT system in October 2005 and full impact on tax collections can only be seen from next financial year i.e. 2006-07. The following equation was estimated for Uttarakhand for the period 2001-02 to 2011-12:

Equation 2: $\text{In } (OTR_t) = \alpha_1 + (\alpha_2 - \alpha_1)D + \beta_1 (\ln GSDP_t) + \{(\beta_2 - \beta_1)D*(\ln GSDP_t)\} + u_t$

In the equation β2 is the value of taxe buoyancy. The equation yielded a tax buoyancy of 0.956, which is derived from the second dummy term coefficient (β2-β1). The R square was very high at 0.992. DW statistics was 1.651. The serial correlation was found to be present but not very significant.

A third variant of the equation was also used by adding the per cent share of industry sector in GSDP into the equation as a larger share of industry implies a higher tax potential. The equation yielded a tax buoyancy of 1.290. The tax buoyancy for last decade is found to be slightly lower than the tax buoyancy of 1.34 for UP state as a whole for the period 1995-2003 (Rajaraman et. al. 2005).

2.3.2 Tax efforts

Tax effort is defined as the ratio of actual tax revenue of a government to its taxable capacity. Various method have been used by the researchers to estimate tax efforts. In general there are two major approaches – the regression approach and the representative tax system approach.

Under regression approach, regression equation attempts to capture the variation across different variables. With the help of regression equation potential values are obtained and then, comparison with actuals is made which provides the extent of tax effort by the state. The structure of the model and variables used for the estimation depend upon the purpose and the dependent variable. To estimate taxable capacity of state government, following variables are generally used by the researchers – ratio of state's own tax revenue to GSDP, share of agriculture, share of manufacturing, share of services and per capita income. Another form of this approach, quintile regression approach, has also been used by many researchers (Lotz, 1971; Reddy, 1975; Oommen 1987).

Another approach to examine the relative tax effort of a state is to estimate the representative tax system approach. In this approach instead of taking proxies for potential tax bases such as degree of urbanisation, share of agriculture in GSDP, etc, the attempt is to select potential bases of individual taxes (Purohit, 2006). For each tax an appropriate base is identified and a representative set of tax rates is generated. This representative rate can be regarded as the average of the effective rate (ER) of the tax. The effective rate is the ratio of actual revenue (RA) and potential base (PB) of the tax. The average effective rate so obtained is multiplied with the potential base for each tax and the revenue yielding capacity of that tax is derived. The relative taxable capacity of each state can be obtained by summing up the revenue yielding capacity of individual taxes. Using this approach Purohit has estimated state-wise the actual and potential tax yield of individual taxes for the year 2002-03.

The present study adopts the regression approach to estimate potential taxable capacity of the state. The following form of equation has been used:

$$OTR/GSDP = \alpha + \beta_1(SDP_A/GSDP) + \beta_2(SDP_I/GSDP) + \beta_3(SDP_S/GSDP) + \beta_4(PCI) + \mu$$ Where,

OTR = Own tax revenue
GSDP = Gross state Domestic Product
SDP_A = State domestic product from
agriculture SDP_I = State domestic product from
Industry SDP_S = State domestic product from
services PCI = State per capita income

Table 2.7: Regression results

Variables	Value
α	-43.782 (-0.882)
β_1	0.753 (1.483)
β_2	0.686 (1.400)
β_3	0.252 (0.501)
β_4	.0000576 (2.235)
R^2	0.756
Adjusted R^2	0.593
DW	2.216
F Value	4.648 (p = 0.047)

Note- Parentheses indicate t-values.

On the basis of estimated regression equation, the potential taxable capacity and tax efforts of the state has been presented in Table 2.8.

Table 2.8: Taxable Capacity and Tax Efforts of Uttarakhand Government

Year	Actual Revenue (` Crore)	Taxable Capacity (` Crore)	Tax Efforts (%)
2001-02	894.70	851.97	105.02
2002-03	1021.70	1021.14	100.06
2003-04	1226.00	1252.49	97.88
2004-05	1444.40	1538.33	93.89
2005-06	1784.60	1803.68	98.94
2006-07	2513.60	2338.89	107.47
2007-08	2738.70	2781.46	98.46
2008-09	3044.90	2955.98	103.01
2009-10	3559.00	3760.06	94.65
2010-11	4405.50	4572.45	96.35
2011-12	5615.60	5365.92	104.65

It can be seen from the table that the Uttarakhand government is able to realize its tax potential for most of the years. Even in the years in which actual tax revenue is less than taxable capacity, it is not very significant. Except 2004-05, the variation is not more than 5 percent. Finally, the non-availability of required data and the reliability of some sectoral data posed some limitations to the accurate assessment of some aspects of the tax-wise taxable capacity and tax efforts. We hope that future research will be able to overcome these limitations not addressed explicitly by this study.