

CONCLUSION**Summary of Findings**

The local government of the Third World in general and Bangladesh in particular are afflicted with severe nature of financial crises. Theoretically speaking, much-needed viability of these bodies can be achieved if appropriate policy measures are adopted regarding their own revenue, grant and expenditure variables. In this study, selected aspects of these variables are dealt with both theoretically and empirically --- apparently with greater weightage towards grant.

On the question of local revenue mobilisation, this study indicated that growth of local revenues will not only depend on the role of local tax administration but also on the fiscal policy of national government. Any comprehensive programme of improving financial viability of the local government should involve exploitation of any scope to decentralise revenues or authorise new sources to localities. Such a role of higher government may be an important step towards improving financial solvency of local public sector. Among the six revenue determinants (population, income, tax base, rate, assessment and collection rate) adopted from Schroeder-Dalton model, (i) population and (ii) income do not generally have significant statistical impact upon local revenues. This is due to opt-repeated allegation that higher government delegates to local public sector revenues with lower income and population elasticities. A liberal revenue decentralisation policy will, therefore, supplement resource mobilisation effort of local bodies in tiding over their financial ailments. Among the remaining four revenue determinants, (iii) tax base and (iv) tax rate are seldom revisable within authorised maximum due to adverse public reactions and therefore their potentials mostly remain unexploited. (v) assessment variable is likely to be additive to local revenues but it is not always so if collection rate variable does not fare well, (vi) collection rate, therefore, appears to be an important variable.

In this study, 'revenue effort' in the sense of seriousness in revenue collection drive has been introduced as a highly regulatory revenue determinant. It has strong potentials to influence not only collection rate but also other above-mentioned variables. Revenue effort, therefore, plays a pivotal role in local resource mobilisation. Underlying the revenue effort are the negative forces to dampen it and the positive forces to activate it and the balance of the two opposite forces will decide the strength of revenue effort.

To bridge the gap between local income and expenditure needs, grant has wider uses. Grant is also used to encourage specific expenditure in nationally-preferred lines. Such roles of grant in local finance are rather indispensable. There are, however, limits to exclusive or over-dependence on local grants, set mainly by (a) cost of local autonomy which is likely to vary with scale or nature of grant and (b) the possibility of local grant to be unstable and uncertain if that is tied to the erratic source of foreign assistance. It is, therefore, sensible to minimise dependence on grant through maximising reliance on internal revenues.

While the role of grants in local finance appears to be indispensable, it is a requirement to ensure that such grant does not in any way discourage local revenue effort. Theoretically, there is dual possibility of grant effects on local revenues --- substitutive or stimulative depending upon the nature of grant. Unconditional general purpose grant is likely to substitute local revenues in ideal conditions. If such conditions do not hold good, substitution effect may be partially or fully offset. On the contrary, matching grant based on specific activity may exert partial stimulative effect on local revenues but this purpose may be defeated if local counterpart fund is matched through diversion from other uses. So an aggregate revenue effort-based grant as proposed in the study (Chapter 6) appears to be an improved variety of revenue stimulative grant.

Higher expenditure propensity of grant compared to own revenue appears to reflect a representative behaviour of local public sector. The basic assumption underlying this is that the monetary and real cost of procuring grant is almost nil which is not applicable to own-source revenues. Given such lower perceived cost of achieving unconditional grant, local spenders tend to use up grant monies easily and quickly but not properly and productively in the maximum sense.

The standard of grant utilisation has some connection with its quantity. Given functional liabilities of a local government, as more of grants are pumped in, the less will be their productivity. When such productivity of local grants is at par with that of their alternative uses in national public sector (opportunity cost of local grant), the quantity of grant at such equilibrium represents optimality, as that maximises overall productivity of the national resources. In case grants flow to the localities in excess of this quantity, not only opportunity cost of grant will be higher but their uneconomic use may also be the result.

An ideal deficit grant calls for its distribution on the basis of expenditure needs variable discounted by expenditure capacity (local income) variable. But practical situation often marks a deviation from this principle when grant is allocated according to only one of these variables instead of two. In Bangladesh, only expenditure needs indicators (i.e. population, area) form the basis of grants allocated to the local units studied. Expenditure capacity cannot be weighted mainly for want of local revenue data. This is rather an imperfection for the so-called equity approach to grants distribution. Another finding regarding grant system of Bangladesh is its pro-urban bias. This, however, does not imply a redistribution of national funds from rural to urban area as the urban area contributes more revenues to national exchequer than their rural counterparts.

B) Policy Prescriptions

Guided by the findings summarised above, we recommend the following

policy prescriptions directed towards upgrading the financial viability of the local governments both in Bangladesh and other similar Third World nations.

i) To improve over-all elasticity of local taxes, the higher government should come forward with a fair and equitable revenue decentralisation policy. Under this programme, elastic taxes with local origin may be transferred to local bodies if there is no greater justification to the contrary. Moreover, potential sources of local revenues may also be authorised to these bodies.

ii) To develop buoyancy property of local revenues the national government should take periodic measures to revise tax bases and rates whenever that is justified to recoup any changes in local taxable capacity.

iii) As the most effective instrument for improving local resource mobilisation, revenue effort of the local governments should be toned up through both incentive and pressure measures (Figure 2). As an immediate measure to provide incentive, a regular system of award for achieving certain minimum collection target should be introduced. For the long run, revenue effort-based grant (as outlined in Chapter 6) may be installed phase-wise on experimental basis. Complementary to incentive measure, pressure measure should also be adopted, preferably by building that within the grant system i.e. lower grant for lower collection.

iv) In all expectations, incentive and pressure measures considered above would tempt a local government to apply innovation in resource mobilisation and exert pressures upon its taxing population towards promoting tax compliance through various means such as making tax payments as a pre-condition of getting certain local public services (i.e. certificate, relief goods etc.), introducing rebate for advance or timely payment of tax, fining tax defaulting or delinquency at least to the amount of tax liability, making the people convinced through expenditure programme that their tax monies are used up properly for their collective benefit etc.

v) In order to ensure productive utilisation of grant, a search for optimum size of local grant (detailed in Chapter 7) should be conducted, keeping in view the functional liabilities and productivity potentials of local bodies on the one hand and total national resources and productivity of national public sector investment on the other. Size distribution of local grant should have some relation with this optimum level.

vi) Another objective of grant distribution, as stated earlier, may be the filling of gap between standard revenue collection and standard expenditure. Actual practice with various distributional objectives mentioned above will depend on the policy of grantor government which may apply any of them exclusively or by way of trade-off among them.

vii) In order to make certain that local grant is used carefully and productively like own-source revenues, grantor government should lay greater stress upon qualitative use of local grant. To that end, legal provisions should not only be suitably amended but the auditing system should also be thoroughly overhauled. Such auditing should be conducted (a) regularly (b) by an external body of neutral and honest auditors (c) providing maximum possible coverage. It should (d) collate the accounting figures with visible traces of actual expenditure (i.e. reviewing work progress through personal visits to project site) and (e) be followed by corrective measures.

By giving effect to above-mentioned policies, mobilisation of local revenues can be maximised, dependence on grant may be reduced to a desirable minimum and productive expenditure of total revenues may be ensured and ultimately much-needed financial viability may be achieved for local government of developing countries like Bangladesh.

C) Direction for Future Research

This study leaves some gaps particularly relating to expenditure variable.

So there is scope to undertake further researches in the area of local expenditure, covering its various aspects. In particular, the following areas provide good candidature for research (i) In Bangladesh, extensive development expenditures carried out at the local level are believed to have positive impacts upon local income and hence on local taxable capacity. An study on this aspect may be instrumental in revising local tax schedule in the light of upto date taxable capacity (ii) Cost-benefit analysis of local expenditure projects may also be undertaken in order to judge the merit of local expenditure. If the results are found unfavourable, corrective measures may be adopted. (iii) There is also further scope to develop the optimum quantity theory of grant on theoretical plane.

Annexure - 1A

SOURCES OF LOCAL REVENUES IN MANIKGANJ POURASHAVA (IN TAKA)

Year	Holding Tax	Property transfer tax	Profession tax	Other taxes	Rates (user charges)	Fees	Property income	Miscellaneous	Total
1973-74	18260	20000	8140	8957	5693	25	2571	1540	65166
1974-75	60000	20000	9000	54800	4500	500	3025	2529	154354
1975-76	105369	16694	6500	109426	26246	124	124	16060	281660
1976-77	56117	26750	6087	90348	15878	25540	1175	4002	225897
1977-78	91726	45557	5447	93696	25458	50999	112212	1118	426213
1978-79	106847	49394	11962	100606	31429	28370	8370	14435	351413
1979-80	103965	54682	15938	97214	47196	51055	80	7251	377381
1980-81	167753	56137	46082	93542	75274	30946	18101	14823	502658
1981-82	226731	53911	14574	49825	104188	32558	20232	40926	542945
1982-83	244268	53816	14605	25118	149431	60257	24035	92276	663806
1983-84	109266	55867	27495	23689	53092	62950	14212	49386	395957
1984-85	168514	64554	75616	26570	66579	60300	-	164369	626502
1985-86	405051	99489	87197	33570	117696	96400	31200	87779	958382
1986-87	244874	124282	102565	66128	117538	94150	50173	120172	919882
1987-88	257347	90881	123700	44938	104990	97852	86400	140151	946259

Annexure - 1B

SOURCES OF LOCAL REVENUES IN KAULTIA UNION PARISHAD (IN TAKA)

Year	Holding Based Taxes	Profession tax	Other taxes	Fees	Property income	Miscellaneous	Total
1977-78	8271	175	315	261	2393	708	12123
1978-79	18061	100	270	894	7534	2659	29518
1979-80	19625	-	345	724	1042	2118	23854
1980-81	18750	100	2503	4333	3094	453	29233
1981-82	24970	1620	1107	638	-	1640	29975
1982-83	22373	1100	3100	1386	-	50	28009
1983-84	13062	775	2140	8569	3113	1408	29067
1984-85	16109	2455	2910	1677	16683	5340	45174
1985-86	32216	4125	3815	3793	-	1762	45711
1986-87	22274	4800	5445	4650	-	11305	48474
1987-88	26454	4800	3410	4180	-	5610	44454

N.B. : Holding tax also includes Chowkidari rate (having identical tax base) as the available data did not permit their segregation.

Annexure - 2(A)

CATEGORIES OF GRANTS IN MANIKGANJ POURASHAVA (IN TAKA)

Year	General Grants			Total	Specific Grants	Grand Total
	Development	Salary	Octroi			
1973-74	47,000	31050	-	78050 (100%)	-	78050
1974-75	55,000	31050	-	86050 (100%)	-	86050
1975-76	78,000	32863	-	110863 (100%)	-	110863
1976-77	80,568	-	-	80568 (100%)	-	80568
1977-78	2,56,000	-	-	256000 (100%)	-	256000
1978-79	80,450	67738	-	148188 (39.98%)	222500 (60.02%)	370688
1979-80	1,65,600	19275	-	184875 (69.94%)	79475 (30.06%)	264350
1980-81	1,35,750	41030	-	176780 (12.46%)	1241600 (87.54%)	1418380
1981-82	2,27,500	54204	73875	355579 (87.13%)	52525 (12.87%)	408104
1982-83	2,70,000	31047	73875	374922 (100%)	-	374922
1983-84	2,60,000	31230	73875	365105 (28.41%)	920000 (71.59%)	1285105
1984-85	7,00,050	38230	302500	1040780 (95.80%)	45605 (4.20%)	1086385
1985-86	14,35,000	57000	206507	1698507 (100%)	-	1698507
1986-87	27,97,200	69000	213875	3080075 (100%)	-	3080075
1987-88	25,60,000	69000	213437	2842437 (100%)	-	2842437

N.B. : Figures in parentheses denote percentages of total grants.

Annexure - 2(B)

CATEGORIES OF GRANTS IN KAULTIA UNION PARISHAD (IN TAKA)

Year	Development Grant	Salary Grant	Total
1977-78	10503	14828	25331
1978-79	-	24953	24953
1979-80	-	16563	16563
1980-81	19000	25044	44044
1981-82	5235	50118	55353
1982-83	10930	24426	35356
1983-84	170413	24491	194904
1984-85	211587	23033	234620
1985-86	205118	35316	240434
1986-87	194079	43860	237939
1987-88	153337	45591	198928

N.B. : All grants are general grants as no specific grants are allocated to the Union Parishad.

Annexure - 3(A)

HEADS OF EXPENDITURE IN MANIKGANJ POURASHAVA (IN TAKA)

Year	Establi- shment	Utility Services	Other Services	Development Works	Total
1973-74	36718	33869	11328	58552	140467
1974-75	89932	37863	3851	56513	188159
1975-76	74127	38559	28892	130066	271644
1976-77	89823	55102	29777	143906	318608
1977-78	104593	68742	28651	373594	575580
1978-79	179461	115663	29320	390367	714811
1979-80	270870	78887	14579	171560	535896
1980-81	207431	70462	27405	1579350	1884648
1981-82	203803	169890	45169	481173	900035
1982-83	229351	104159	51514	584035	969059
1983-84	288259	149487	135051	946000	1518797
1984-85	463214	203841	152524	973853	1793432
1985-86	701737	255254	108513	1495000	2560504
1986-87	845914	268802	88336	2492300	3695352
1987-88	663696	213313	139430	3333808	4350247

N.B. : i) establishment expenses include salary, honorarium and various overhead expenditures.

ii) utility services include provision of water, lighting and conservancy services.

Annexure - 3(B)

HEADS OF EXPENDITURE IN KAULTIA UNION PARISHAD (IN TAKA)

Year	Establishment	Development works	Miscellaneous services	Total
1977-78	22394	19893	1442	43729
1978-79	45908	20276	1210	67394
1979-80	23646	975	1000	25621
1980-81	45164	22210	1273	68647
1981-82	65240	14235	300	79775
1982-83	44410	19416	100	63926
1983-84	49907	170513	1485	221905
1984-85	41689	211587	4040	257316
1985-86	75996	205118	-	281114
1986-87	47945	190479	5750	244174
1987-88	65842	157705	4230	227777

N.B.: establishment expenses include salary/honorarium and various overhead expenditures.

Annexure - 4

TOTAL GRANT AS PERCENTAGE OF TOTAL REVENUE IN TWO LOCAL BODIES

Year	Manikganj Pourashava	Kaulia Union Parishad
1973-74	54.50	-
1974-75	44.04	-
1975-76	28.24	-
1976-77	26.29	-
1977-78	37.52	67.63
1978-79	51.33	45.81
1979-80	41.19	40.98
1980-81	73.83	60.11
1981-82	42.91	64.87
1982-83	36.09	55.80
1983-84	76.45	87.02
1984-85	63.42	83.85
1985-86	63.93	84.03
1986-87	77.00	83.08
1987-88	75.02	81.73
Mean	52.78	68.63

Annexure - 5(A)

**EXPLOITATION OF STATUTORY REVENUE SOURCES AND
RATES BY MANIKGANJ POURASHAVA (1987-88)**

Revenues	If exploited		If yes, rate applied	Maximum legal rate	Rate capacity utilisation
	Yes (Y)	No (N)			
1. Holding tax	Y	-	12.5%	7%	178.57%
2. Lighting rate	Y	-	3%	3%	100%
3. Water rate	Y	-	3%	250/00-5300/00	-
4. Conservancy rate	-	N	-	-	-
5. Property Transfer Tax	Y	-	1%	1%	100%
6. Erection & Re-erection of building Tax	Y	-	50/00-250/00 (av. 150/00)	50/00-450/00 (av. 250/00)	60%
7. Profession Tax	Y	-	25/00-500/00 (av. 262/50)	50/00-2000/00 (av. 1025/00)	25.61%
8. Marriage Tax	-	N	-	-	-
9. Advertisement Tax	Y	-	12/00-18/00 per square feet	12/00-18/00 per square feet	100%
10. Tax on Pet animals	-	N	-	-	-
11. Tax on cinema	Y	-	10%	15/00 on admission fee	-
12. Vehicle Tax	Y	-	20/00 fixed	5/00-50/00 (av. 27/50)	72.73%
13. Tax on fair/shows	-	N	-	-	-
14. Tax on slaughtering	-	N	-	-	-
9(64.29%) 5(35.71%)				Mean	90.99%

Annexure - 5B

**EXPLOITATION OF STATUTORY REVENUE SOURCES AND
RATES BY KAULTIA UNION PARISHAD (1987-88)**

Revenues	If exploited		If yes rate applied	Maximum legal rate	Rate capacity utilisation
	Yes (Y)	NO (N)			
1. Holding Tax	Y	-	4.50%	7%	64.29
2. Village Police Rate	Y	-	3%	Not fixed	-
3. Birth, feast & marriage rate	-	N	-	-	-
4. Community tax	-	N	-	-	-
5. Fees for welfare services	Y		Service-wise variable	not fixed	-
	3(60%)	2(40%)			64.29%

N.B. : Though only 60% of revenue sources are utilised, exploitation of revenues beyond statutory schedule (i.e. profession tax) are endorsed by the prescribed authority by way of approving budget.

**HOLDING TAX COLLECTION AS PERCENTAGE OF
ASSESSMENT IN TWO LOCAL BODIES**

Year	Manikganj Pourashava	Kaultia U.P.
1973-74	12.93	-
1974-75	42.48	-
1975-76	74.60	-
1976-77	39.23	-
1977-78	64.12	21.70
1978-79	37.29	47.38
1979-80	36.25	49.39
1980-81	58.47	47.19
1981-82	78.91	62.85
1982-83	84.87	56.31
1983-84	37.56	32.66
1984-85	28.68	30.91
1985-86	68.87	61.81
1986-87	41.30	42.73
1987-88	40.57	50.75
	Mean	
	49.74	45.79

N.B. : Actual assessment and collection data in Table 1.

Annexure - 7

COLLECTION COST AS PERCENTAGE OF HOLDING
BASED TAXES IN TWO LOCAL BODIES

Year	Manikganj Pourashava	Kaultia Union Parishad
1973-74	25.89	-
1974-75	28.72	-
1975-76	8.12	-
1976-77	24.00	-
1977-78	19.13	20.98
1978-79	19.11	21.22
1979-80	20.59	19.39
1980-81	15.96	21.97
1981-82	16.63	21.49
1982-83	16.02	22.65
1983-84	42.93	23.11
1984-85	29.51	6.29
1985-86	21.44	24.82
1986-87	32.95	19.39
1987-88	22.05	21.24
	22.87	20.23

N.B. : Holding based taxes include holding tax and user charges for water, lighting and conservancy in Manikganj while these are holding tax and chowkidari rate in kaultia.

Annexure - 8

**USERS' CHARGES AS PERCENTAGE OF UTILITY SERVICES
COST IN MANIKGANJ POURASHAVA**

Year	Water	Lighting	Conservancy
1973-74	0	13.83	23.88
1974-75	0	7.07	19.04
1975-76	0	155.32	23.72
1976-77	0	80.94	14.67
1977-78	0	81.10	15.00
1978-79	1.77	64.17	12.92
1979-80	103.66	63.76	24.98
1980-81	202.64	254.88	18.87
1981-82	227.76	39.19	13.20
1982-83	262.26	144.99	15.92
1983-84	29.87	36.64	52.05
1984-85	53.20	32.35	5.51
1985-86	67.70	100.68	0
1986-87	71.60	34.82	0
1987-88	61.79	43.10	21.73
Mean	72.15%	76.86	17.43

Annexure - 9

**POPULATION, PER CAPITA NATIONAL INCOME AND
INFLATION RATE IN BANGLADESH**

Year	Population (1000)	Per capita National Income (Tk.)	Inflation rate (%)
1973-74	71479	853	-
1974-75	73530	1502	67.17
1975-76	75640	1192	- 8.36
1976-77	77811	1148	2.42
1977-78	80044	1562	12.62
1978-79	82342	1804	8.24
1979-80	84705	2028	18.46
1980-81	87100	2337	12.54
1981-82	89599	2616	16.29
1982-83	92171	2815	9.94
1983-84	94816	3310	9.67
1984-85	97537	-	10.95
1985-86	100336	-	9.82
1986-87	103216	-	7.67

- N.B.:** i) Inter-census population data were computed on the basis of compound growth rate method and hence these are approximations rather than actual figures.
- ii) Source of per capita national income data is **Statistical Year Book of Bangladesh**, various years. Inflation data are derived from **Economic Trends**, Bangladesh Bank.

Annexure - 10

**AGGREGATE LOCAL REVENUES, GRANTS AND EXPENDITURES OF
LOCAL GOVERNMENT IN BANGLADESH (ml. taka)**

Year	Local Revenues	Grants		Expenditure
		Development	Normal	
1973-74	198.02	31.44	34.90	251.90
1974-75	239.89	29.60	30.54	306.95
1975-76	328.92	81.14	22.08	450.97
1976-77	264.95	68.17	44.78	415.81
1977-78	342.49	73.55	104.41	526.88
1978-79	417.68	86.71	113.58	632.87
1979-80	488.42	101.29	120.85	710.83
1980-81	573.66	117.72	137.70	843.44
1981-82	655.67	288.21	155.95	1032.18
1982-83	941.84	169.99	119.86	1186.30
1983-84	886.97	190.92	263.12	1322.67

N.B.: Statistical Year Book of Bangladesh, various years.

Annexure - 11

**CROSS SECTION REGRESSION DATA (1980-81) FOR SELECTED
POURASHAVAS (IN TAKA)**

A) General Grant & Holding Tax Regression			(B) General Grant & Profession Tax Regression		
Pourashava	Grant (x)	Tax (y)	Pourashava	Grant (x)	Tax (y)
1. Chuadanga	332347	139383	1. Nawabganj	306987	19904
2. Netrokona	634626	135616	2. Bajitpur	114126	6226
3. Choumuhoni	361462	436820	3. Sherpur	161455	8486
4. Kishoreganj	228622	300475	4. Pirojpur	228851	157685
5. Borguna	87100	123700	5. Mongla Port	149242	10811
6. B. Baria	382502	308288	6. Jessore	832801	52862
7. Sirajganj	450356	601106	7. Kotchandpur	164109	16749
8. Natore	45864	164368	8. Meherpur	140818	37063
9. Bhairab	303358	222273			
10. Feni	653391	216166			

C) General Grant & Fees			(D) General Grant & Property Income		
Pourashava	Grant (x)	Fees (y)	Pourashava	Grant (x)	Property Income (y)
1. Netrokona	634626	21372	1. C. Nawabganj	306987	34871
2. K. Chandpur	164109	3523	2. Sherpur	161455	43631
3. Tongi	485881	22070	3. Kotchandpur	164109	2790
4. Bhairab	303358	15993	4. Pabna	1389286	25395
5. Feni	653391	26615	5. Khulna	2274315	72950
6. Choumuhoni	361462	45127	6. Sreemangal	262926	6950
7. B. Baria	382502	37456	7. Parbatipur	88235	32059
8. Gaibandha	172695	60395	8. Meherpur	140818	18045
9. Narail	196903	11539	9. Jessore	832801	111014
10. Pirojpur	228851	25407			

Contd...

Annexure - 11 (Continued)

E. General Grant & Expenditure Regression		
Pourashava	Grant (x)	Expenditure (y)
1. Narsingdi	234350	1859929
2. Netrokona	634626	549927
3. Gouripur	98955	206565
4. Bhairab	303358	1547286
5. Habiganj	27878	513531
6. Natore	45864	632073
7. Gaibandha	172695	727599
8. Chuadanga	332347	805953
9. Bhola	13435	313511
10. Sirajganj	450356	1603228

Source - Report of the Auditor and Comptroller General Regarding 1980-81 Accounts of Local and Autonomous Bodies, Government of Bangladesh.

Addendum

Reasons for using simple linear regression instead of multiple regression in the model of the determinants of local revenues.

Schroeder and Dalton (1986) explains the determinants of local revenue in the form of the following accounting identity :

$$R = c.t.a.b. \frac{y}{p} . p$$

where R = tax revenue

p = population

y = income

b = base

a = assessment

t = tax rate

c = collection rate

Thus local revenue depends on six variables as per the above model. Of these six variables, base (b) and tax rate (t) remain more or less constant as explained in the text. Since variation over time is important for a variable to be considered as an explanatory variable, only four variables in the model are considered to explain the variability of local revenue (R) and these are : population (p), income (y), assessment (a) and collection rate (c). To discern the quantitative effects of the explanatory variables on the local revenue (R) two alternative methods of estimation can be used :

(a) Simple linear regression, where the effect of individual explanatory variable is obtained separately.

(b) Multiple regression, where the effects of all the explanatory variables are measured simultaneously.

In the text simple linear regression has been used to measure the impact of the explanatory variables individually (Table 2A and Table 2B in the text). Instead of using multiple regression, simple linear regression has been used because of the following reasons :

First, since Bangladesh was born in 1971, long time series of economic variables are not available. For holding tax in Manikgaj Pourashava, the time series of all the relevant variables is of the period 1977-78 to 1985-86. Thus the sample period being only nine years, estimation of multiple regression with four explanatory variables will leave the degree of freedom very poor. The estimators thus obtained will not be statistically significant.

Second, some of the explanatory variables are highly correlated. As for example, population and income are highly correlated since income here is aggregate annual income of people living within the pourshava limit. Further, the correlation between assessment and collection rate is high, since the procedure of assessment is to make an estimate of valuation of the base and then impose the ruling rate on the valuation. Given the character of the explanatory variable, if multiple regression is used, it should suffer from the problem of multicollinearity. The only solution to this problem of multicollinearity is not to use multiple regression model. This again gives inducement for the use of simple linear regression.

As a statistical tool, multiple regression technique is superior to the simple linear regression when the sample size is sufficiently large and multicollinearity among the explanatory variables is absent. But the reasons stated above make it imperative for the present study that simple linear regression should be used. Therefore, simple linear regression has been used for the estimation of the effects of the above-mentioned explanatory variables on local revenue (R).