

# Econometric Budget Analysis of Remittance Inflow and Economic Growth of Nepal

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**ABSTRACT-** This paper examines how Nepal's annual budgets affect the country's economic development. Various econometric models, including linear, log-linear in a single equation system, multiple forms, and the Granger Causality test (1969), which employs annual data from 1974/75 to 2017/22 in both current and constant terms, are used to introduce the defining macroeconomic variables. According to the respective high average elasticity coefficients of manufactured GDP, GDP, GNP, and PCI, development expenditure plays a significant role in development. Due to the country's excessive reliance on foreign aid and the minimal role internal borrowing and revenue play in the economy, the country faces significant debt service obligations each year, necessitating an increase in tax burden.

## KEYWORDS

Annual Budget, Economic Development, Impact, Econometric Analysis, Nepal

## 1. INTRODUCTION

Development refers to the process of change which enhances quality of life or entails social and economic transformation through a fluid process that frequently proceeds in a well-defined order. However, countries in southeast Asia have attempted to overcome the significant challenges; Poverty, unemployment, politico-economic instability, racial discrimination, and gender inequality continue to be traps that economies face. In addition, the process of economic development has become precarious due to unchecked population growth.

On the basis of social and economic conditions, the economic world is divided into developing economies, which are still far behind in the process of development because they were unable to successfully apply modern technology and knowledge. In fact, efforts to overcome obstacles are failing miserably and are plagued by low productivity, unresolved high unemployment, inequality, and other critical issues. However, the implementation of an annual budget significantly accelerates a nation's economic growth; The government of Nepal has attempted nothing.

However, the private sectors have benefited from the implementation of privatization and liberalization policies, but they are operating in a cartel that lacks proper investment and entrepreneurial spirit. Having with the per capita pay of just US\$ 621 (MOF, 2013), Nepal's huge extent of populace actually stays underneath the neediness line with high pace of expansion. To beat these issues a sound financial plan is fundamental which plainly mirrors the yearly plans, projects and techniques of the public authority. Development is always the responsibility of the government; In addition to allocate and distribute, stabilization and adjustment have remained at the top of the policy agenda in recent years[1].

Nepal has prioritized building physical infrastructure to spread the benefits and connections of the development strategy throughout the country, to integrate domestic markets, and most importantly, to accelerate rural development despite its lack of basic infrastructure and political chaos. Diversifying the economy and expanding its export base, which typically

consists of only a few primary and manufactured goods, necessitates basic infrastructure as well.

Poverty reduction is a major concern in light of these circumstances. Poverty is seen in the larger context of rural-urban imbalance, incompatibility between environmental capacity and development intervention, disagreements over expenditure allocation between the social and economic sectors, and, most importantly, the widening gap between resources and expenditures. These imbalances must be corrected through measures that can increase the economy's productive capacity[2].

With the appearance of the vote based political framework in 1951A.D the monetary framework as applied by the main chosen government in 1958/59 is the primary logical spending plan. General Administration and Constitutional Bodies, Economic Administration and Planning, Social Services, Economic Services, Communication, Transport, Electricity, Other Economic Services, and Miscellaneous make up the regular expenditure as well as the development expenditure[3].

Over the past three decades, the development budget has grown at a slower rate than the regular budget. The pace of development has slowed down, as evidenced by the rising trend of regular expenditures on inefficient sectors and the falling trend of development expenditures. The budget, on the other hand, started to play a bigger role in managing the finances of the government, and especially after the political change in 1990, more people started to think about the status and effectiveness of the government's budgetary system. The government has become more serious about how to use limited resources in a more organized and efficient manner in response to the growing challenges posed by people's rising expectations (Sharma, 1999)[4].

Currently, the government budget is much more than just a statement of public authorities' income and expenditures. It is also a reflection of taxation and public expenditure policy, as well as a plan for the future that goes to the heart of individual prosperity, class relationships, and nation strength. Even though a budget is usually written for a year and is a plan for what will happen in the future, it shows how much money was spent, taxed, and borrowed over three years (Lekhi, 2006: 362). As a crucial policy document, the budget has evolved into an essential tool for resource mobilization and allocation.

In FY 2006/07, Nepal's agro-based economy contributed 36% of GDP at real prices (MoF; 2006/'07). In FY 2005/06, the MoF (MoF;) reported that GDP grew by a pitiful 3.3%. 2006/'07). Instead of the perceived geographic rigidity, open border, and landlocked as a major bottleneck, the primary factor that contributed to the rise in poverty and unemployment is a shift toward political orientation rather than development. The population grew despite a lack of education, a traditional culture, and religious orthodoxy. As a consequence of this, Nepal's budgets consistently failed to achieve the intended outcome [5].

It has been found that fiscal management is particularly disorderly and weak. Although public spending currently accounts for approximately 18% of GDP, centralized expenditures account for the majority of the causes of economic

instability. It is obvious that no single budget can address all of the current socioeconomic issues at once. However, for long-range planning, the budgets of various periods may be taken into consideration as the necessary momentum and appropriate vision for achieving the objectives or goals sequentially. The private sector has the potential to have a significant impact on economic growth, but only in a positive way [12].

The public authority monetary activity might be one of the panaceas for financial development. The viability of the spending plan could be estimated through the financial markers like Gross domestic product development, cost solidness, work age, per capita pay, financial foundation advancement, transport, correspondence, wellbeing administrations, energy advancement, further developed homegrown asset activation and diminished reliance on unfamiliar money, equilibrium of installment upgrades, neediness decrease, better regulation and security conditions, monetary government assistance improvement and so forth.

Under various political systems, various annual budgets are conducted with distinct priorities and strategies that incorporate resource mobilization, expenditure management, and fiscal structure with the goal of fully utilizing resources that could not match rigidities. The endeavors to build the personal satisfaction of individuals appear to be simple code and expansion in the pace of monetary development has stayed irrelevant in any case high possibilities of improvement. In this sense, it would be important and beneficial to examine the kinds of goals, policies, and targets included in budgets and their actual outcomes in order to determine the differences between investment and outcome and implement beneficial measures.

This study aims to address the gap between goals and accomplishments in Nepal's budgetary system by examining the current situation, constraints, and trends of government budgets and proposing solutions. As a result, the goal of this study is to look at the main financial accomplishments and policy frameworks of previous budgets. This study tries to figure out why every budgetary policy fails, which is a common topic among Nepalese policymakers, planners, experts, and social scientists.

The particular targets of this study are : a) To examine the relationship between Nepal's annual budget and economic growth; b) To examine the effects of Nepal's annual budget on Nepal's economy; and c) To make recommendations for budgetary policy based on the findings [6].

## 2. REVIEW LITERATURE

From Adam Smith to Marx and Keynes, the study of economic development has focused primarily on issues related to development's static nature. However, it was in the 20th century that economists first began to focus on problem analysis and the development of new theories and models focused on the role of capital formation in economic growth [13,14].

The idea of economic development cannot be defined by anyone. In the long run, it is the result of secular shifts. As time changes the pointers additionally change. Nonetheless, different advancement pointers have been advanced to find out about the condition of improvement. Kuznets (1955), Meier, and Baldwin's supposition of NI as a reliable measure alters the earlier concept of Gross National Product (GNP) as an indicator of economic development. PCI was viewed as a fundamental indicator by Higgins (1999), Leibenstein (1957), Lewis (1961), and Jacob (1977). The most recent accepted development indices are the Human Development Index (HDI) and the emphasis on non-economic social indicators like quality of life. Physiocrats developed the doctrine of agriculture as the sole source of wealth and others as sterile in opposition to Mercantilists' excessive emphasis on precious metals. According to Smith (1976), national production is an indicator of economic development, and Mill's (1848) cooperative society (Hajela;) views profit as the primary factor. 2001). However, the focus on GDP as an indicator of economic development is

placed on the experiences of developing nations, which are vastly different from those of developed nations in terms of socioeconomic structure. Per-capita income has been accepted as the process of economic development by Meier (1963) and Baron (1957) [6,7,11].

In addition, compared to GNP and per capita income, the direct provision of basic needs (health, education, food, water, sanitation, and housing) strategy has a shorter effect on poverty and requires fewer monetary resources. Life expectancy at birth, literacy, enrollment as a percentage of the population, calorie supply per head, infant mortality, and the percentage of the population that has access to portable water are some of the six social indicators that Hicks and Streeten (1979) take into consideration for basic needs. A rational weighting system-based composite index is difficult to construct due to the limitations of social indicators as a measure of economic development. In 1979, Morris D. Morris created a composite physical quality of life index (PQLI) for 23 developing nations. The PQLI combines the three components of infant mortality, life expectancy at age one, and basic literacy at age 15 to measure people's performance in meeting their most fundamental needs. This index covers a wide range of indicators, including nutrition, sanitation, drinking water, and health education. To arrive at the PQLI, the three indicators are averaged and given equal weight (Todaro; 1997)[15,16]. Even though the use of arbitrary weights in the index has been criticized, it can be used to identify specific causes of underdevelopment and social exclusion. Likewise, in 1990 the UNDP has introduced the estimation of human improvement as far as a Human Advancement Record (HDI), a composite file of three social pointers: life expectancy, adult literacy, and educational attainment, in addition to real GDP per capita. Similarly, Goldstein constructs "The plateau curve Index" using only infant mortality as a measure of basic needs. Hagon involves around eighteen factors in the estimation. Hence, issue emerges in developing a composite file in view of a levelheaded weighting framework. However, the basic needs strategy appears to be superior to GNP, PCI, and other welfare and social indicators of economic development if each nation selects its own list of social indicators and gives them rational weight. Economists and the United Nations use the per capita measure of economic development because these social indicators are based on value judgment [8, 9].

According to Singh (1976), in the context of Nepal, the ratio of expenditures to GDP has increased, but the growth rate of regular expenditures was comparatively slower. Khanal (1988) draws a few strategy suggestions on momentary financial adjustment and long haul improvement. The elasticity coefficient, which remained inelastic for direct, indirect, and land taxes, is measured by Sharma and colleagues (1988). With a negative land tax elasticity coefficient, the actual performance of collecting tax revenue exhibits a downward trend. As a result, it has been believed that the Nepalese budget has been operating in a perpetual state of financial crisis, leading to an excessive reliance on assistance from outside sources as a result of inadequate and inefficient use of the funds that are at its disposal. In fact, Nepal's public expenditures have increased steadily and clearly toward current transfers and subsidies, interest, and grant payments, all of which have higher growth rates than other expenditure categories (Sharma, 1999). As a result, according to Pyakuryal (2004), the economy no longer has the productive capacity to respond to sustained growth. In the long run, both development and non-development expenditures benefit from aid, according to Bhattarai (2007), but non-development expenditures benefit more. The possibility of aid fungibility remains. In point of fact, assistance is provided in the form of technical support with the goal of enhancing tax administration and the tax system's effectiveness. According to Chaudhary (1996), "the manner in which government budgets can affect the economy is varied" [10].

### 3. DATA AND METHODS

In this study, time series data have been applied for the period of 1974/'75 to 2006/'07. The secondary data used in this study have been collected by careful examination of reports published by the concerned authorities such as NRB, MOF, various budget speeches of Nepal government, books and journals. The trend functions in linear, quadratic and compound forms are shown to the time series data which may be stated below.

$$Y_i = a + b (t)$$

$$Y_i = a + b (t) + c (t)^2$$

$$Y_i = a b^{(t)}$$

The simple linear and log linear form (nominal and real prices) to examine the effects of aggregate development and aggregate regular expenditure on various development indices such as agriculture grossdomestic product (GDP<sub>ag</sub>), manufacturing gross domestic (GDP<sub>m</sub>), GDP, PCI, and GNP. The models may be expressed as:

$$Y_t = \alpha_0 + \alpha_1 X_t + u_t$$

$$\ln Y_t = \beta_0 + \beta_1 \ln X_t + u_t \text{ Where, } \alpha_1 > 0, \beta_1 \leq 0 \text{ or } > 1$$

Effects of different sub-groups of aggregate development expenditure (SS, EAP, E.C, and M), and aggregate regular expenditure on different development indices have also been examined through the application of following linear and log linear regression models in both nominal and real prices.

$$Y_t = \alpha_0 + \alpha_1 X_1 + \dots + \alpha_5 X_5 + u_t$$

$$\text{Where, } \alpha_1 > 0, \alpha_1 > 1$$

$$\ln Y_t = \beta_1 + \beta_1 \ln X_1 + \dots + \beta_1 \ln X_5 + u_t$$

$$\text{Where, } \beta_1 < 1 \text{ or } \beta_1 > 1$$

The Granger causality test is applied to a simple one-year lag between aggregate development expenditure and the development indices such as GDP<sub>ag</sub>, GDP<sub>m</sub>, GDP, PCI, and GNP. The functional equations for this purpose are:

$$GDP_t = \alpha + \beta DE_t + \gamma GDP_{t-1} + u_t \quad ADE_t = \theta + \lambda GDP_t + \eta DE_{t-1} + u_t$$

### 4. PRESENTATION AND ANALYSIS OF RESULTS

#### 4.1 Trend Analysis of Selected Development Indicators

In a broader sense, development expenditures are regarded as the engine that propels the economy toward growth and play a crucial role in the overall development of the economy. Ordinary use is caused generally on ineffective areas like compensations and wages, credit and interest installment, mileage and so forth. This section of the study tries to look at how certain development variables like agricultural GDP, manufacturing GDP, per capita income, gross national product, GDP, capital formation at nominal prices, and expenditures like DE, RE, and TE compare to GDP are trending. The trend function particularly demonstrates the long-term trend and prediction of persistent growth, decline, or both. If the time series are in fact realizations of non-stationary processes, then trend is no longer an inference about stationary processes. The Table depicts the growth rates of various indicators.

Table 1: Growth rates of Various Indicators (1974/75-2006/07)

Equa.	Dependents	Compound Growth Rate(%) naturallog	t-value	R <sup>2</sup>	SEE
1.1	GDP <sub>ag</sub>	8.9	154.1	0.86	0.354
1.2	GDP <sub>m</sub>	14.2	266.8	0.98	0.200
1.3	GDP	11.8	248.8	0.96	0.219
1.4	GNP	12.7	385.4	0.98	0.140
1.5	PCI	9.6	238.9	0.94	0.228
1.6	Pop	2.2	4638.8	0.99	0.011
1.7	K	13.9	307.7	0.98	0.170
1.8	DE	10.9	152.3	0.89	0.350
1.9	DE/GDP	-0.009	194.5	0.10	0.281
2.1	RE	16.2	433.3	0.99	0.126
2.2	RE/GDP	4.3	337.8	0.91	0.128
2.3	TE	13.9	308.2	0.98	0.177
2.4	TE/GDP	2.0	337.4	0.60	0.162

Source: Computed on the basis of the results of trend functions.

The improvement in agricultural production is represented by the agricultural GDP. The build development pace of farming Gross domestic product stays 8.9 percent per annum during the survey time frame. However, the nominal manufactured GDP is rising at a remarkable rate of 14.2% per year, which is not consistent. GDP grows at an annual rate of 11.8 percent. The nominal GNP is also rising at a non-linear rate. The pattern of each year's growth is somewhat observable, but the civil war prevented ADE from growing. In point of fact, the lower trade-off in development spending by Nepal does not significantly contribute to the growth of the country's gross domestic product, as Khanal (1988) found from 1965 to 1981.

In a similar vein, the nominal manufactured GDP, total GDP, GNP, PCI, capital formation, population, aggregate development expenditure, aggregate regular expenditure, and total expenditures were all incorporated into a compound function with annual growth rates of 14.2, 11.8, 12.7, 9.6, 13.9, 2.2, 10.9, 16.2 and 13.9 percent, respectively. In a similar vein, the growth rates of the DE/GDP, RE/GDP, and TE/GDP ratios appear to be -0.009, 4.3, and 2.0 percent, respectively. According to Gaudel (2007), social services continue to account for 30.8% of total spending, while capital expenditures are

expected to account for 26.67% of total spending, down from 67.8% in FY 1990/91. 2004/05.

#### 4.2 The Impact of Annual Budget

The models have been tested in a variety of forms, including linear, log-linear, and first order difference form, as the primary objective of this analysis is to examine the relationship between the amount of expenditure made by the government under various headings, such as development expenditure and regular expenditure. Using internationally recognized development indicators, empirical analysis has been sought to determine the effects of development spending. Regardless of some improvement in autocorrelation in first distinction structure the low made sense of percent of variety actuate for additional treatment. Despite the absence of serial correlation, the low degree of association prevents policies from being developed and implemented in accordance with development indicators.

The empirical evidence that a positive relationship exists between development expenditure and development indices is supported by the application of the first difference form in log linear models to a nominal database. The model's validity is indicated by the high degree of association and the positive sign

and magnitude of the average elasticity coefficient. All development indices, with the exception of agricultural GDP, have elasticity coefficients greater than unity. This indicates that any increase in development expenditure is accompanied by a greater-than-proportional increase in manufactured GDP, GDP, GNP, and PCI. On the other hand, the GDP and GNP elasticity coefficients appear to be more responsive to development spending ( $e=1.42$ ). In a similar vein, the high average elasticity coefficients of manufactured GDP, GDP, GNP, and PCI— $e=1.227, 1.42, 1.43, \text{ and } 1.06$ —indicate that development expenditure plays a significant role in determining nominal development indices. On the other hand, the D-W values of agricultural GDP, manufactured GDP, total GDP, GNP, and PCI in equations indicate that there is no autocorrelation following the remedial measure diagnosis.

In addition, the positive sign and magnitude of the coefficients of the aforementioned development indices suggest that the elasticity coefficients of total GDP and GNP are more responsible for development expenditure, with  $e=1.39$ . In addition to these satisfactory results, reliable conclusions can be drawn from the F statistic and the D-W statistic for agricultural GDP and PCI that fall within acceptable ranges. In any case, with respect to fabricated Gross domestic product, Gross domestic product and GNP, there perseveres sequential

relationship.

As a result, the empirical analysis of real and nominal data using log-linear models of first-order difference expenditure raises development indices. A 1.3% change in agriculture GDP is shown to result from a unit change in development expenditure in the log linear regression model. The manufactured GDP, GDP, GNP, and PCI also change by 1.8, 1.39, 1.39, and 1.02, respectively. The augmentation in previously mentioned advancement files by more than proportionate rate suggest that the public authority ought to give more thought for making further speculation on improvement consumption in Nepal in order to raise agrarian Gross domestic product, made Gross domestic product, Gross domestic product, GNP and PCI.

Granger Causality Test Because the results of the first difference form were not appropriate, the Granger Causality test was used. Reverse causation may also exist. According to Sharmi, 2001, the Granger causality test makes the assumption that the time series data are the sole source of information necessary for predicting the particular variables. Variables are compared to nominal and real data in this context to determine whether an increase in development indices leads to an increase in government development expenditure, or whether an increase in government development expenditure causes an increase in development indices.

Table 2: Granger Causality Test (current & Constant Price): 1974/075-2006/07

Equ.	Dep. Vari.	$\alpha$	$\beta$	$\gamma$	$R^2$	F	D-W	SEE
2.5	GDP <sub>mt</sub>	-1023.6	1.19DE <sub>t-1</sub> (3.41)***	0.941GDP <sub>mt-1</sub> . (25.78)***	0.99	2391.3	2.67	8742.2
2.6	DE <sub>t</sub>	944.7	9.878E03GDP <sub>mt-1</sub> . (0.96)	0.947DE <sub>t-1</sub> (9.59)***	0.95	313.7	1.42	2462.9
2.7	GDP <sub>t</sub>	-32960.7	4.214 DE <sub>t-1</sub> (3.992)***	0.732 GDP <sub>t-1</sub> (9.953)***	0.974	571.7	2.47	25493.6
2.8	DE <sub>t</sub>	685.4	-1.01E-3 GDP <sub>t-1</sub> (-0.140)*	1.047 DE <sub>t-1</sub> (10.116)***	0.953	303.9	1.50	2500.4
2.9	GNP <sub>t</sub>	1361.1	0.832 DE <sub>t-1</sub> (2.552)**	1.036 GNP <sub>t-1</sub> (55.062)***	0.998	8815.2	1.50	8404.9
3.1	DE <sub>t</sub>	989.3	7.925E-03GNP <sub>t-1</sub> (1.466)	0.909 DE <sub>t-1</sub> (9.707)***	0.956	326.8	1.43	2415.3
3.2	PCI <sub>t</sub>	227.9	0.216DE <sub>t-1</sub> (4.397)***	0.627 PCI <sub>t-1</sub> (7.341)***	0.975	590.0	2.37	987.0
3.3	DE <sub>t</sub>	703.1	0.169 PCI <sub>t-1</sub> (-0.790)	1.126 DE <sub>t-1</sub> (9.134)***	0.954	310.2	1.66	2475.9
3.4	RGDP <sub>t</sub>	2391.6	1.321 DE <sub>t-1</sub> (1.683)*	0.828GDP <sub>t-1</sub> (12.573)***	0.913	157.3	2.02	3597.9
3.5	RDE <sub>t</sub>	581.0	-5.36E-03GDP <sub>t-1</sub> (-0.862)	0.895DE <sub>t-1</sub> (12.123)***	0.883	113.4	2.22	338.3
3.6	RPCI <sub>t</sub>	361.7	6.639E-02DE <sub>t-1</sub> (1.859)*	0.669PCI <sub>t-1</sub> (6.358)***	0.797	58.9	1.66	150.7
3.7	RDE <sub>t</sub>	779.1	-0.295PCI <sub>t-1</sub> (-1.2.67)	0.933 DE <sub>t-1</sub> (11.790)***	0.889	116.9	2.39	333.8

(\* , \*\* , &\*\*\*) allude huge at 10%, 5% and 1% degree of importance. When the functional equations of the nominal and real database included in Tables 1 are compared to the empirical evidence, it is evident that lag period's aggregate development expenditure (DE<sub>t-1</sub>) plays a significant role in increasing current GDP and PCI, similar to the results where causation leads from real agricultural GDP and manufactured GDP to aggregate development expenditure. Parentheses refer to t- values.

As a result, the aforementioned analysis suggests that there is a bilateral causality because the lagged coefficients of aggregate development expenditure, manufactured GDP, GDP, and PCI are all significantly different from zero. In order to solve autocorrelation, the log-linear models have also been compared to the nominal and real database in first order difference form. Table 3 details the outcomes following the diagnosis of first order difference form.



Table 3: Results of Log linear models in First Order Difference Form: (1974/75-2006/07)

Eq <sup>n</sup>	Dep. Vari. (Real)	lnRE (constant price)		Statistics			
		Constant	Coefficients	R <sup>2</sup>	F	DW	SEE
4.6	lnGDP <sub>ag</sub>	-0.102	1.447 (54.2)***	0.990	2935.9	1.897	0.92E-02
4.7	lnGDP <sub>m</sub>	-5.73E-02	1.341 (101.1)***	0.997	10224.1	2.361	4.59E-02
4.8	lnGDP	-8.37E-02	1.515 (65.7)***	0.993	4316.4	1.906	8.09E-02
4.9	lnGNP	-7.79E-02	1.514 (68.1)***	0.993	4635.5	1.839	7.84E-02
5.1	lnPCI	-6.15E-02	1.107 (60.8)***	0.992	3700.8	1.964	6.03E-02

Note: Figures in (...) and asterisks confer the same meanings as explained in Table 1

With regard to the preceding results, it could be argued that the positive sign and magnitude of the coefficients show that an increase in regular expenditures has a positive effect on all development indices. The development indices like agricultural GDP, manufactured GDP, GDP, GNP, and PCI rise more than proportionally with a one percent increase in regular expenditure, all other things being equal. Not just the illustrative powers of the models sufficiently high; however, the coefficients are also significant up to 1%. In addition, the D-W statistic is within the acceptable bounds and the results of all other necessary statistical tests are quite satisfactory. In contrast, regular expenditure elasticity coefficients for GDP and GNP appear to be more responsive. (1.550 > 1 and 1.554 > 1).

### 4.3 Multiple Regression Analysis

At this point, the primary endeavor is to investigate the connection between economic expansion and the annual budget. An effort has been made to test the role that the annual budget plays in the Nepalese economy because, in comparison to the private domestic sector, NGOs, and INGOs, it serves as an engine of economic growth.

At current and constant prices, the development expenditure and regular expenditure have been taken into account as dependent variables. In a similar vein, the various sectors of development and regular expenditures—general administration (GA), economic administration and planning (EAP), social services

(SS), economic services (ES), communication (C), transportation (T), electricity (E), other economic services (OES), and miscellaneous expenditure (ME)—have been taken into account as independent variables in both constant and current prices. Since multicollinearity is realized while it is exemplified in partial correlation with the development indices, it is worth noting that GA, ES, T, SS, and OES are combined in social services (SS), and their collective relation with development and regular expenditures has been extracted.

Sub-factors of Development Expenditure The necessary statistics and the sub-factors of development expenditure, with the exception of miscellaneous expenditure (ME), demonstrate the model's high explanatory power. The model's positive sign and magnitude of the elasticity coefficient show that development expenditure changes by 0.67 percent and 0.14 percent for every one percent change in social services (SS) and electricity (E). The less elastic relationship to development expenditure is suggested by the low coefficients of the other independent variables. Except for miscellaneous expenditure (MD), the necessary statistics are significant at a 1% level. The model's good fit is demonstrated by the model's low standard error of estimate and the positive sign and magnitude of the coefficient of the explanatory variables. In a nutshell, the model has been given the satisfactory result that allows it to draw inferences from the DW statistic.

Table 4: Regular expenditure with its sub-factors

Models	5.2 Linear (Nominal)	3 Linear(Real)	Log-linear (Nominal)	Log-linear(Real)
Dependent Variable	RE	RE	RE	RE
Indep. Variables	Coefficients & t-values			
SS	1.416 (25.178)***	1.366 (21.739)***	0.668 (13.982)***	0.598 (14.56)***
EAP	-3.565 (-2.274)**	-3.780 (-2.125)**	-1.41E-05	1.412E-02 (0.39)
E	-93.067 (-7.993)***	-67.03 (-7.02)***	-7.72E-02 (-4.16)***	-7.32E-02 (-4.27)***
C	7.299 (10.25)***	6.18 (7.9)***	4.336E-02 (4.42)***	4.057E-02 (4.29)***
M	2.267 (14.808)***	1.87 (12.13)***	0.287 (8.68)***	0.276 (8.62)***
R <sup>2</sup>	0.99	0.99	0.99	0.998
SEE	758.03	107.8	5.033E-02	4.760E-02
F-statistics	5290.4	2384.6	5999.00	1639.94
D-W	2.17	1.81	1.63	1.60

Note: Figures in (..) & asterisks confer the same meanings as explained in Table 1

According to the regression results for regular expenditure and its sub-factors, miscellaneous expenditures, social services, and

communication are the primary factors that linearly stimulate Nepal's RE in current and real price. In a similar vein, in log-

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linear form, current and real prices, social services and other expenditures are found to be less elastic to stimulate the RE of

the nation. The models are well-justified by the absence of serial correlation.

Table 5: Multiple Regression analyses (1974/75-2006/07)

Models		Dep. Variables	Independent Variables		R <sup>2</sup>	F	SEE	D-W
			DE	RE				
5.6	Log-Linear (Nominal)	GDPag	0.85 (2.5)**	6.173E-2 (0.264)	0.53	16.7	0.27	1.45
5.7	Log-linear (Real)	GDPag	1.24 (4.6)***	0.109 (0.49)	0.54	17.64	0.26	1.54
5.8	Linear (Nominal)	GDPm	2.0 (2.8)***	3.51 (9.96)***	0.95	267.7	2438.6	1.64
5.9	Linear (Real)	GDPm	1.24 (1.86)*	3.55 (11.14)***	0.83	71.53	1510.6	1.63
6.1	Log-linear (Nominal)	GDPm	0.36 (3.14)***	0.628 (8.24)***	0.96	412.9	9.287E-02	1.45
6.2	Log-linear (Real)	GDPm	0.48 (4.13)***	0.64 (10.0)***	0.85	86.1	9.195E-02	1.53
6.3	Linear (Nominal)	GDP	2.35 (1.02)	4.347 (3.82)***	0.67	34.6	34833.3	1.57
6.4	Linear (Real)	GDP	0.765 (0.43)	3.38 (3.88)***	0.35	8.19	3833.2	1.64
6.5	Log-linear (Real)	GDP	0.993 (5.91)***	0.440 (3.51)***	0.75	44.82	0.15	1.44
6.6	Linear (Nominal)	GNP	4.361 (10.73)***	6.709 (33.87)***	0.99	3618.2	13103.1	1.49
6.7	Linear (Real)	GNP	2.32 (4.38)***	6.30 (26.84)***	0.96	461.08	1632.5	1.82
6.8	Linear (Nominal)	PCI	0.145 (1.40)	0.121 (2.36)**	0.564	19.37	1501.3	1.40
6.9	Log-linear (Nominal)	PCI	0.750 (4.71)***	0.229 (1.86)*	0.833	74.61	0.14	1.51
7.1	Log-linear (Real)	PCI	0.849 (6.62)***	0.282 (2.21)**	0.837	77.14	0.13	1.64

Note: Figures in (...) and asterisks confer the same meanings as explained in Table 1

The consequences of the log direct models concerning the outlined advancement records adjust the priori speculation that the improvement use of Nepal during 1974/'75 to 2006/'07 helps to increment rural Gross domestic product at consistent cost by more than proportionately for example 124. All other development indices have responded less than the agricultural GDP. In a similar vein, it appears that regular expenditures are the primary driver of nominal manufactured GDP. Nominal GDP rises by approximately 4.3 units for every increase in regular expenditures (RE). Despite this, regular expenditure in a linear mode has been shown to have an incremental tendency in real manufactured GDP. However, DE cannot be expected to be a more significant driver of real GDP growth because a 100% increase in DE only results in a 99% increase. However, the linear model demonstrates that both expenditures play a significant role in determining the country's nominal and real GNP. According to the preceding findings, a 1% increase in RE results in a 6.3% increase in GNP. In the log-linear form of the model, the coefficients of DE (85%) are greater than the

coefficients of RE (28%) at current and constant prices. As a result, more money will be diverted to new agricultural development projects.

The annual budget (DE and RE) has been used as a supporting model alongside foreign aid, internal loans, and internal revenue, which are the primary factors in determining the annual budget. Foreign aid, internal loans, and internal revenues are also discussed, but only reliable and significant results without serial correlation, significant at a level of 1 to 10 percent, and with a high degree of association are included. The most important factor in determining the nominal and real costs of development is foreign aid. The nominal and real development expenditures increase by 1.69 percent and 1.41 percent, respectively, when foreign aid (FA) is increased by one percent. On the contrary, foreign aid is seen as more responsive to stimulating the country's actual DE; Internal revenue has a negative impact, increasing regular expenditure by 11% while decreasing DE by 16% to 18%.

Table 6 : Multiple Regression Results 1974/75-2006/07

Models	Dep.Vari.	Independent Variables						
		FA	IL	IR	R <sup>2</sup>	F	SEE	D-W
7.2 Linear (Nominal)	DE	1.69 (9.28)***	0.662 (2.0)*	-0.178 (-2.3)**	0.94	147.8	1974.9	1.43
7.3 Linear (Real)	DE	1.41 (8.62)***	0.503 (2.3)***	-0.157 (-3.0)***	0.76	31.1	270.59	1.47
7.4 Linear (Real)	RE	3.763E-02 (0.19)	-6.73E-02 (-0.30)	0.816 (12.4)***	0.89	81.2	270.72	1.48
7.5 Log-linear (Nominal)	RE	6.642E-03(0.76)	6.053E-02(1.46)	0.977 (12.2)***	0.98	733.4	8.138E-02	2.14
7.6 Log-linear (Real)	RE	5.602E-02(0.73)	5.431E-02(1.3)	1.210 (18.2)***	0.97	348.4	8.433E-02	1.88

Note: Figures in parentheses and asterisks confer the same meaning as explained in Table 1

The majority of developing nations concur with the study's findings. This is due to the fact that development projects are longer-term and cannot be abandoned once they have begun, and aid is mostly provided for development expenditures. It implies that assistance will be greater for longer development projects. As a result, the aforementioned findings indicate that the Nepalese economy may become less effective at development activities without the assistance of Foreign Aid (FA). Based on data from FY 1975 to FY 2002, Bhattarai (2007) also finds a strong correlation between foreign aid and development spending.

## 5. CONCLUSION AND SUGGESTIONS

The annual budget is regarded as a prerequisite for any modern government, and developing nations have adopted a government budgetary system as a means of accelerating economic growth. The budgeting process is widely recognized as an effective method for achieving the nation's development objectives. The supply side of the development process is implied by the idea of the effect of the annual budget.

At the course of pattern investigation, the different factors have been brought to inspect the large scale design. In addition to capital formation, agricultural GDP, manufactured GDP, total GDP, GNP, and PCI are regarded as macro development indicators. The GDP ratio and trend of DE, RE, and TE have been deemed satisfactory. Because the country's planning system has been largely ineffective, it is necessary to establish targets using empirical programs rather than ad hoc decisions. In satisfying the goals and focuses, since institutional variables assume basic part approaches must be at the same time developed in improving foundations to really execute programs. Projects and programs that align with production goals must be envisioned in a more operational and realistic manner. Standardizing project planning is equally important given that the majority of internal resources are primarily used to finance consumption-type expenditures. Even though aid from abroad is an externally determined factor, some of it is used for wasteful consumption; Its usage pattern needs to be significantly altered. The predominant trend in regular spending reflects the alarming state of fiscal discipline and the country's overall development plan. In order to allow private investment in the various fields, the government needs to create the right environment. Due to the country's excessive reliance on foreign aid and the negligible contribution that internal borrowing and internal revenue make to the economy, it has incurred significant debt service

obligations each year, necessitating an additional tax burden. As a result, the government ought to fully engage in the search for potential mobilization prospects and opportunities from additional domestic sources. The countries' open borders have a significant impact on development efforts. As a result, in the greater economic interest of the nation and its people, it is necessary to implement border control measures.

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