# Observations On Some Agricultural Data In Nepal

# Nephil Matangi Maskay\* INTRODUCTION

In economics, numerous relationships come forward propelled quite often by conflicting theories. In the same way policy makers need to be able to interpret both past and present economic performance to put forward some viable policy measures. In both cases, the analysis of, and test for, relationships can be described as essentially an empirical question. However, the basis of any empirical analysis is determined by the availability and quality of the data. In developing countries poor infrastructure makes the quality questionable and the quantity limited; also, and most difficult, the data that are available are scattered and not easily obtainable. This is more so the case for Nepal, a least developed country in South Asia with a per capita income of roughly US\$ 200. Though some attempts have been made to compile information domestically, such as the Statistical Yearbooks published by the FNCCI and also by the Central Bureau of Statistics, as well as internationally, such as the International Financial Statistics of the International Monetary Fund, the quality of these data are not without question. The purpose of this short paper hopes to rectify this shortcoming by putting forward some short comments, obtained through discussion from a number of individuals, as well as the sources of information while collecting agricultural data in Nepal for Bajrachcharya and Maskay (1997a,b) to assist future researchers. The paper proceeds as follows: the next section discusses the quality, quantity and availability of agricultural data in Nepal, the third section discusses some sources of information while the last section put forward some concluding thoughts.

#### QUALITY, QUANTITY AND AVAILABILITY OF INFORMATION

Quality, quantity and availability of information are closely tied together in positive manner with the level of economic development. Unfortunately, this implies that Nepal, a developing country, is poor in all

<sup>\*</sup> Mr Maskay Belongs to the School of Politics and Economics, Claremont Graduate University, Claremont, California, USA.

three categories. Consider the quality of data where production figures for a district is constant over two years while those in the zone as a whole sharply moves in one direction or that production in a district drastically increases from one year to the next. This suggests a short comings called the *errors-in-variable* problem which calls into question results of statistical relationships. A Well known quotation which expresses this point is due to Josiah Stamp who stated:

"The Governments are very keen on amassing statistics - they collect them, add them, raise them to the nth power, take the cube root and prepare wonderful diagrams. But what you must never forget is that every one of those figures comes in the first instance from the village watchman, who just puts down what he damn pleases (Kennedy 1992 p.137)".

While there are no "watchmen" in Nepal a similar observation by Koirala (1994) shows the crude methods of sampling data collection :

".. the area and production data collected by the Department of Food and Agricultural Marketing Services (DFAMS) in the early years are based on eye observations of a limited area rather than on established crop cutting methods."

The official who gather the agricultural data in Nepal are non-gazzetted officers and are of questionable qualifications and motivation. Generally class ten passed persons are preferred for collection, compilation and analysis of agricultural statistics although no such courses or formal training is given. Similarly, the responsibility for agriculture data collection has been shifted from the Ministry of Agriculture to the Central Bureau of Statistics . For example, consider:

"Yield estimates were based on the reports of junior agricultural technicians based in the districts. In those districts with no agricultural staff data were collected from the Chief Districts Officer. Staff based in the central office in the capital, Kathmandu, were then responsible for examining the consistency of the data, discarding those that they thought to be unreliable and reporting the results" (Balogun 1994 p. 26).

He concludes that "this initial data set can, therefore, be characterised as both highly subjective and involving a great deal of guessing on the art of staff in Kathmandu as to what acceptable yields were". Likewise, the quantity of agricultural data, while present over a long period, should be viewed with caution. Consider that the scope of each regression

encompasses an increasing number of districts and places within a district also which may be due to the inaccessibility of different regions as well as there being frequent changes in district boundaries. Consider Balogun (1994 P. 27) who stated that unit collecting agricultural data sets on areas and yields with differing levels of precision. He concludes that:

".. it becomes difficult to separate out real trends in the data from artifacts caused by gradual changes in the level of precision of the estimates used over time.."

Also, there have been a number of data shocks dealing with how numbers are accounted for in national accounts (Shrestha 1994), and this may have an effect at the micro level accounting. Thus, the error bias for data quality not only varies across a time period but over a time series in a non-systematic way overtime.

A differentiation between the real and the monetary sector data for the Nepalese economy is brought forward which resulted from Maskay (1997) and some earlier studies. For the monetary sector, the data has been consistently compiled by the Nepal Rastra Bank (NRB) since her inception as well as having a standard format for accounting. On the other hand, the real sector data is problematic given the poor infrastructure and the quality of the people who obtain the data and , as noted in Shretha (1994), the standard of accounting has changed a number of times. The later relationship came forward in Maskay (1997) where the Nepalese and Indian monetary sector showed a strong relationship however, the real sector (i.e. BOP, deficit etc.) for both countries appears disconnected. This goes contrary to the contiguous border which has both free labour and capital mobility.

Lastly, data is difficult to obtain and are scattered as well as being in poor condition. On one hand, this problem may be attributed to the low level of development where there has been no precedent in maintaining public information enforced by a scarcity of funds. On the other hand, anecdotal evidence suggests another stumbling block where individuals guard the data so as to increase their importance in the organisation. Consider Koirala (1994 P.4) who states:

".. in the context of the Nepalese market information system, the owners do not regard current information as a public good to be widely distributed."

Thus, the physical aspect, i.e. footwork, of obtaining data in Nepal takes a large portion of time for any research, and surprisingly enough the human relationship aspect takes an important aspect.

### SOME SOURCES OF DATA

This section in part tries to address some of the short comings pointed out above for the difficulty of obtaining data from experience garnered in course of developing Bajracharya and Maskay (1997 a,b). First, the Central Library at Tribhuvan University is a wealth of knowledge since it has reference to numerous unpublished dissertations, namely for the degree in economics which point the way to other research materials. Secondly, libraries such as those at the Center for Development and Administration, AEC, APROSC and FNCCI maintain government publications such as the Central Bureau of Statistics Yearbook by the National Planning Commission and Economic Survey by the Ministry of Finance; surprisingly some of the sources of information, such as the Ministry of Finance, do not maintain old records. Thirdly, some individual institutions have their own publications, which are not well known such as the Agricultural Marketing Information Bulletin of the Ministry of Agriculture and the Agricultural Census and Statistics of the National Planning Commission. Again, the last example simply gives data for years of those particular periods. On the whole, it appears that availability of information is directly proportional to the number of discussions and personal approaches with the persons holding the information in different organisations.

#### CONCLUSION

There is a stark difference with a developed country where most of the efforts goes into the analysis as contrasted to a developing country where most of the effort goes into data collection. Also, the quality of primary data is questionable, by virtue of the caveats enumerated above, thus any regression results should be interpreted with great caution although it would be safe to say that quality of data has improved markedly over the last five years. Yet the following proposal will make more improvement:

—A centralised information center with reference to current and past works supplementing existing organisations to assist in the management and networking of information system must be maintained.

——A data base of economic data available for statistical analysis and basic applied research must be maintained.

Such institution could be a autonomous *satellite* of an existing organisation, such as the National Planning Commission. Hopefully, future policy makers shall benefit from this application as well as open to the experience garnered in developed countries dealing with data.

#### SELECTED REFERENCES

- Bajracharya, Bhuban Bajra and Nephil Matang Maskay (1997a) "The Aggregate Supply Response for Nepalese Agriculture for the Period 1967- 1994/95", forthcoming in the Journal of Development and Administrative Studies, Kathmandu.
- Bajracharya, Bhuban Bajra and Nephil Matangi Maskay (1997b) "Some Data and Statistics of Nepalese Agriculture for the Period 1967/68-1994/95", Unpublished Paper by the Authors, Kathmandu.
- Balogun, Paul (1994) "A Review of Published Agricultural Statistics in the Western Development Region of Nepal" Agricultural Statistics in Nepal, A Users Guides Gerard J. Gill, Ganesh B. Thapa, Govind P. Koirala and Paul K. Balogun (eds.), Printing Support Pvt. Ltd., Kathmandu.
- Fedration Nepalese Chambers of Commerce and Industry. (1997) Nepal and World: A Statistical Profile 1997, FNCCI Teku, Kathmandu, Nepal.
- Kennedy, Peter (1992) A Guide to Econometrics, The MIT Press, Massachusetts.
- Koirala, Govind (1994) "A Macro-level Agricultural and Related Statistics and Their Use in Nepal: A Survey", Agricultural Statistics in Nepal, A Users Guides Gerard J. Gill, Ganesh B. Thapa, Govid P. Koirala and Paul K. Balogun (eds.), Printing Support Pvt. Ltd., Kathmandu.
- Maskay, Nephil Matang (1997) "The Impact of the Indian Monetary Policy and the Official Exchange Rate on Nepal Rastra Bank Policy" forthcoming in *Economic Review*, Nepal Rastra Bank, Kathmandu.
- National Planning Commission (1961/62-91/92) Agricultural Census 1961/1992, NPC, HMG/N, Ramshahpath, Thapathali, Kathmandu, Nepal.
- National Planning Commission Secretariat (1995) Agricultural Statistics 1994/95, NPC, HMG/N, Ramshahpath, Thapathali, Kathmandu, Nepal.
- Shrestha, Manik Lal (1994) The Revised GDP Series of Nepal (1984/85 1993/94)." National Planning Commission Secretariat, HMG/N, Kathmandu.

## **BOOK REVIEW**

Rana, S.S. (1997) South Asia Economic Co-operation Problems And Prospects (ed.), Academic Research and Development Action Council (ARDAC), Kathmandu. PP. V+121, Price not mentioned.

The idea of a South Asian Regional Co-operation, floated from one and half decade ago, came into existence as the SAARC. Though, nothing remarkable has been achieved since its emancipation, the leaders of the poorest region of the planet are hopeful that something may yet turn up. So they have at least started talking about co-operation which is the achievement of fifteen years effort and devotion.

The book under review is divided into three chapters in which different authors have contributed in different areas. The first chapter deals with the problems and prospects in the SAARC region. This chapter comprises the supply demand scenario of energy in the SAARC countries with a brief scenario of population and per capita energy consumption as well as comparisions with respect to energy consumption within the countries of SAARC region and other developed countries of the world. The chapter concludes that the energy situation in the region is characterised by traditional energy consumption of a very low per capita consumption, and thus sees potential of developing hydropower which is considered as the most strategic regional source and suggests for establishment of a regional energy centre within the SAARC countries.

The second chapter analyses the South Asian Preferential Trade Arrangement (SAPTA). This chapter exclusively deals with the subject and successfully proves that South Asians should co-operate economically on complementary grounds rather than on commonality leaving the issue of game and power. This chapter also deals various provision under SAPTA and gives suggestions for future implementation suggesting the preferential treatment on sectoral basis according to the comparative advantages, establishment of the network of stock exchange markets within the SAARC coutries and establishment of SAARC credit system for long term purchase of capital goods.

The last chapter of the book deals with the political commitment for South Asian Regional Co-operation. This chapter dwells on the often repeated diagnosis of political commitment for its sickness and points out the deliberate diversion of the issues of the core areas of co-operation into relatively lesser ones like exchange programmes of journalists, judges, speakers and so on by the leadership. Big advantage sought by its members through bilateral deals in core areas has refuted its to a statutory club. Inspite of these, the book is of importance to those who are working on the regional co-operation of the SAARC nation and useful for those who are eager to identity the factors for working harmonica.

Centeral Department of Economics Tribhuvan University Kirtipur Kamal Raj Dhungel Lecturer

