

Executive Summary of the UGC sponsored Minor Research Project

entitled

“ECONOMIC GROWTH OF GOA IN THE POST REFORMS PERIOD:
A SECTORAL ANALYSIS”

Principal Investigator

Ms Aparna Lolayekar,
Assistant Professor,
Department of Economics,
D.M's College of Arts, Science and Commerce,
Assagao, Bardez - Goa.

India's growth performance, especially across the states, since the late 1970s and early 1980s has been the subject of considerable research interest. From a closed economic set-up, India moved towards being a liberalized and a globalised economy. A series of policy reforms were followed and this opened up the economy and integrated it with the international markets. Within the country, the states have experienced different pace of economic growth, with some states showing fast progress and others languishing behind, although the national growth has been remarkable for the past two decade. Goa joined the Indian union in 1961 after nearly four and half centuries of Portuguese colonization and fourteen years of India's own tryst with freedom. Joining the national “mainstream” in economics could in one respect be interpreted as achieving “convergence” with other constituent states of the country.

Statement of the problem:

The pace of economic reforms has not been consistent over the last two decades across states and sectors because of various domestic and global compulsions. As such there has been variations in the growth among the states. Goa is in the club of high growth states that

have done significantly better than the national average. By 2009-10, per capita incomes in Goa rose to Rs 110379 at 2004 constant prices whereas the all India average was only Rs 34365 at 2004 constant prices (lower by about 1.5 times). But in Goa too, the coastal talukas of Tiswadi, Bardez, Mormogao and Salcete have benefited more in terms of development in comparison to the other talukas, such as Sattari, Sanguem, Quepem and Canacona situated in the foothill range. The total SDP is the sum of contribution of different sectors. Thus policies which affect even one sector will affect overall SDP growth through these sectors. A set of policies will in general have positive and negative effect on different sectors, with the net effect on overall SDP being an aggregation of these sectoral impacts. This report attempts to provide an overview of Goa's growth experience. It briefly touches upon some of the historical processes that shaped the growth, explores the varied explanations and addresses some of the critical aspects of the current growth process.

Objectives of the study:

- 1) To analyse the structural changes that has taken place in the Goan Economy from 1981 onwards.
- 2) To identify the contribution made by the primary, secondary and the tertiary sector in the growth process of the State.

Data Sources and Methods:

The data on Per Capita Net State Domestic Product data is drawn from the online electronic database supplied by the Economic and Political Weekly Research Foundation (EPWRF). In order to estimate the SDP, the economic activities are broadly classified into 13 sectors, which, in turn, are grouped under three major sectors, viz., Primary Sector, Secondary Sector and Tertiary Sector. The secondary sector comprises of Manufacturing

(registered and un-registered), Construction, Electricity, Gas and Water Supply, Mining and Quarrying. In Goa's databases emanating from DPSE, Mining and Quarrying has been included in the Primary sector output. However in this report, Mining and Quarrying has been considered as a part of the secondary sector to maintain parity with data from national government agencies like the Reserve Bank of India and Ministry of Finance. The NSDP data from 1981 to 2013 with the base year of 2004-5(constant price) is adopted. For the information on other variables, data is obtained from the following sources like Economic Surveys(various issues) provided by the Directorate of Planning, Statistics and Evaluation, Government of Goa.

A recent development in the econometrics has been estimation and testing for multiple structural breaks in linear models. This report uses the **methodology** of [Bai & Perron (1998, 2003)] to see the structural breaks in the NSDP and the sectoral data of Goa. Statistical Software - EViews 8 introduces these multiple breakpoint tests. Thus with the help of EViews 8, multiple break points are estimated.

Major Findings and Suggestions:

The economy has recorded substantial improvement in its NSDP growth performance over the past three decades with average rates of growth going up and fluctuations coming down.

The estimated breakdates and the growth rates for the associated sub-periods are presented in the tables, the breakdate has been estimated allowing for a shift in the intercept alongside a change in the slope coefficient, the case of a pure structural change. The break dates roughly coincide with the policy changes that occurred in the economy.

The results of the pure break model reveal that that the growth rate of NSDP shows four shifts, in 1993, 1998, 2004 and 2009, hence five distinct growth regimes over the past three

decades. These break dates broadly correspond respectively to the regimes of liberalization and globalization .

The first break in Goa's NSDP occurred at 1993-94. Break dates in the other sectors and sub-sectors presented focus on endogenously distinguished growth regimes in an economy. In the growth history of the Goan economy, it is always interesting and enlightening to know which sector turned first and which sectors followed.

All the main components of NSDP show acceleration at some point during the period of analysis. One of the interesting finding here is that the secondary sector led to the acceleration on growth in Goa because most of the sub sectors within the secondary sector experienced a trend break before the economy as a whole. The break date for the aggregate secondary sector is in 1988-89, for its sub sectors Mining and Quarrying, Manufacturing, Construction and Electricity, Gas, Water Supply is in 1992-93, 1993-94, 1989-90 and 1988-89 respectively, whereas the trend break for the economy as a whole was in 1993-94.

The overall services sector that includes, trade, transport, storage, hotels & restaurants, finance & banking, real estate, public administration and personal services shows four breaks with the ones in 1993, 1998, 2004 and 2009, with 1999 and 2004 showing acceleration; and the ones in 1998 and 2009 showing deceleration.

Decline in the agriculture production has been because the traditional methods of growing paddy have become very uneconomical due to high labour charges for various agricultural operations, besides there are uneconomic size of land holdings.

The acceleration of growth during the 1980s *relative* to that in the preceding decades could not be achieved without important policy changes. It was clearly noticed that reforms did increase Goa's rate of economic growth. The rise in the growth rate of 1980s could be because of the investment boom and liberal central policies. In contrast to the India's GDP,

where the contribution of the tertiary sector is higher, the secondary sector has played an important role in bringing about a growth transition in Goa growth story more particularly from 2003-04 onwards where the secondary sector remained the lead sector in this period. A worrying factor remains the decline in agriculture both in terms of food availability and also in terms of employment & rural livelihoods.

For sustainable development responsible decision making is required at the individual and collective levels. A balanced growth of the different sectors is thus a must.