



Sustainability of agriculture in Amravati district of Vidarbha, Maharashtra

PREMA BORKAR AND E.R. PATIL

See end of the article for authors' affiliations

Correspondence to :

PREMA BORKAR

Department of
Agricultural Economics
and Statistics, Anand
Niketan College of
Agriculture, Warora,
CHANDARPUR
(M.S.) INDIA

ABSTRACT

In this study, an attempt has been made to measure the sustainability of agriculture with the help of various indicators of sustainability in Amravati district of Vidarbha region. The study was based on the secondary data collected from various government publications pertaining to a period of 26 years *i.e.* from 1980-81 to 2005-06. The result showed that the sustainability index of Amravati district developed through principal component analysis which was seen declining over the years. Higher number of sustainability index represents higher sustainability whereas, lower number represents lower sustainability, which indicates that, the Amravati agriculture is tending towards unsustainability.

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INTRODUCTION

Agriculture is a complex of processes taking place within biophysical, socio-economic and political constraints, which control the sustainability of the farming activities (Yunlong and Smit, 1994). The concept of sustainable agriculture combines characteristics such as long term maintenance of natural systems, optimal production with minimum input, adequate income per farming unit, fulfillment of basic food needs, and provision for the demands and necessities of rural families and communities. The concept of sustainable agriculture is mostly aimed to promote environmental, economic and social harmony. The most relevant issue today is to design suitable technologies, as well as compatible strategies from the social, economic and ecological viewpoints that will bring about the necessary behavioral changes to achieve the objectives of sustainable agriculture. Sustainable agriculture is defined as a practice that meets current and long-term needs for food, fibre, and other related needs of society while maximizing net benefits through conservation of resources to maintain other ecosystem services and functions, and long-

term human development. It emphasizes multidimensional (economic, environment and social) goals for addressing the problems of sustainable agricultural development. Thus, while green-revolution agriculture addressed mainly productivity issues, sustainable agriculture must not only address productivity issues more intensively, but do so keeping multidimensional (economic, environmental and social) concerns of sustainability in sight.

Sustainability is a concept and cannot be measured directly. Appropriate indicators must be selected to determine levels and duration of sustainability (Zinck and Farshad, 1995). An indicator of sustainability is a variable that allows describing and monitoring the processes, states the tendencies of systems at the farm, regional, national or worldwide levels. It must be sensitive to temporal and spatial changes, predictable, measurable and interactive. They possess multidimensional attributes— economic, environmental and social. Indicators can be meaningfully integrated into an aggregated index. They allow integrated assessments after taking into account all information provided by indicators.

Amravati is one of the cotton growing

Key words :

Sustainability indicators,
Principal component analysis,
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