

GREEN REVOLUTION IN INDIA

BY

SARDAR YADVENDRA SINGH

M.Sc.(Agri), College of Agriculture, Rajendranagar
Andhra Pradesh Agricultural University, India, 1965

9984

A MASTER'S REPORT

submitted in partial fulfillment of the
requirement for the degree

MASTER OF SCIENCE

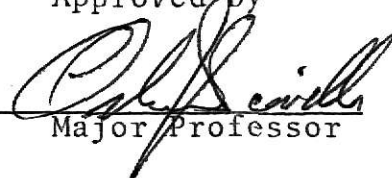
Department of Agricultural Economics

KANSAS STATE UNIVERSITY

Manhattan, Kansas

1972

Approved by


Major Professor

LD
2668
R4
1972
S561
copy 2

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
THE PROGRAM	8
IADP in Operation	13
Early Accomplishments	15
The Drought and After	17
THE ANALYSIS	20
Spectacular Growth	20
Problems of Growth: Economic Problems	22
Social and Political Problems	25

INTRODUCTION

When India became independent in 1947, agriculture was the main source of livelihood for three-fourths of its population of 350 million. Though independent, the country comprised of 540 princely states. Its per capita income and literacy were among the lowest in the world. Its infrastructure essential to agricultural progress were at a low level of development.

This report is an effort to study the pros and cons of "Green Revolution"-- a word coined for the success of the Intensive Agricultural District (Development) Program, which came into operation as a result of the 'Food Crisis Report' submitted by the Ford Foundation Team in India.

At independence, Indian agriculture was traditional in three respects. It was pre-scientific -- carried on mostly with kinds of inputs that had changed little for many generations. Secondly, it was pre-market-- carried on mainly for internal village consumption plus enough to pay taxes, often paid in kind. Thirdly, as a correlative of its self-sufficiency, agriculture was also pre-market in that custom, tradition and authority had long been important sources of allocative and distributive directives.¹

In 1947, India had yet to develop its institutions for a rapid growth in agriculture. It had to develop (1) economic sources of supply and distributive systems for modern farm inputs; (2) a rapidly growing non-farm sector as a market for

¹INDIA -Directorate of Economics & Statistics, India's Agricultural Progress in the 1950's and 1960's. Apr. 1970, p. 1

sustained increase in production beyond that needed to meet farmer's consumption needs; (3) modern transport and marketing facilities and services needed for linking farmers more closely to non-farm markets; and (4) strong research, education, extension, credit, and other institutions vital for dynamic agriculture.²

Agriculture was the main occupation of over 70 percent of the population, and productivity was exceedingly low in this sector.³ The rural population of about 83 percent, living in over half a million villages, suffered from under-employment and low incomes. The population had increased by more than 50 percent since 1900, but there was no significant increase in the growth of alternative occupations. The country had both unemployed and under-employed manpower on one hand and unexploited resources on the other.

Agriculture in India faced many problems which led to lower productivity. The modes of cultivation were out of date. Only 43 percent of the 615 million acres of cultivable area was cultivated.⁴ There was need for improving the cultivation methods and also extending it to other cultivable lands which were not cultivated. The productivity of both foodcrops and cash crops was among the lowest in the world.

²INDIA -Directorate of Economics & Statistics, op cit., p.3.

³INDIA -Planning Commission, First Five Year Plan-New Delhi, 1952, p.12.

⁴Ibid, p. 153.

The foodgrains production was 57.6 million tons which went down to 52.2 million tons from 1949-'50 to 1950-'51. This included the cereals and pulses. According to an old saying, 'Indian agriculture is a gamble in monsoons', the agricultural production was dependent mostly on rain water. Only about 450 million acre feet out of about 1,356 million acre feet of the available river water resources could be used because of physiographical conditions.⁵ There was great potential for increasing irrigated area.

The fertilizer use was very insignificant. Most of the foodcrops were only manured but not fertilized. Even for those crops which were fertilized, the dosage was far below the recommended dose. The seed material was not given much attention. Usually, the seed material was from the harvests of the previous years. Improvement of seed quality was not considered vital for increasing crop yields. Practically, no hybrid or high-yielding seeds were used.

The cultivation practices were so obsolete that weeding and other inter-culture operations were not taken up seriously. The harvesting of crops was no better operation and some produce was lost in the process. The produce was not processed with a view to prepare for the market but most of the output of small farmers was for their own family consumption. The marketable surplus of foodgrains was not properly stored as also the farmers' own supplies for the future. The spoilage and infestation due to improper storage was quite significant.

⁵INDIA -Planning Commission, Third Five Year Plan - New Delhi, 1961, p.380.