



**Technical
Bulletin**

27

CROP DIVERSIFICATION POSSIBILITIES UNDER DIFFERENT AGRO-ECOSYSTEMS OF INDIA

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**Water Technology Centre for Eastern Region
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Correct citation:

Singh, Ravender , Chaudhari, S.K., and James, B.K., (2005) Crop diversification possibilities under different Agro-ecosystems of India. Technical Bulletin No.27. Water Technology Centre for Eastern Region, (Indian Council of Agricultural Research), Bhubaneswar, Orissa 751023, India. 60p.

Published by

Director

Water Technology Centre for Eastern Region
(*Indian Council of Agricultural Research*)

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Printed by

Sanjukta Creations

Nua Sahi, Rasulgarh, Bhubaneswar - 10

Ph.: (0674) 3091422, 9861014236

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Preface

India is a country of about one billion people. More than 70 percent of India's population lives in rural areas where the main occupation is agriculture. Due to diverse agro-climatic conditions in the country, a variety of agricultural production takes place. However, the agriculture sector in India is now faced with intense internal and external pressures arising from the impact of policies of economic liberalization. With the advent of WTO and India being a member and signatory to GATT, the scenario of the agricultural sector will not be the same as that of past. With the liberalization of trade and providing the market access of agricultural produce between the different countries, the country will be required to promote much more diversified agriculture.

The green revolution technologies have fomented, among other things, an increasing tendency towards crop specialization and commercialization of agriculture. While these developments have positive effects on land/labour productivity and net farm income, they have also endangered a number of undesirable side effects like reduced farm employment and crop imbalances. Although the expansion of commercialized agriculture has fomented new sets of rural non-farm activities and strengthened the rural-urban growth linkages, it has also weakened the traditional inter-sectoral linkages between the crop and livestock sectors. Besides, crop pattern changes also lead to serious environmental consequences that take such forms as groundwater depletion, soil fertility loss and waterlogging and salinity - all of which can reduce the productive capacity and growth potential of agriculture over the long-term.

For a large majority of farmers in different parts of the country gains from application of science and technology in agriculture have yet to be realized. As a result, the productivity levels of many major crops in India do not compare very favourably with the yields obtained in agriculturally advanced countries. Efficient and effective management of agriculture will be crucial in the years to come for acquiring self-reliance and ensuring sustainable growth with an emphasis on consideration of equity. Crop diversification is one of such options which intended to give a wider choice in the production of a variety of crops in a given agro-ecosystem so as to expand production related activities on various crops and also to reduce risk. Crop diversification in India is generally viewed as a shift from traditionally grown less remunerative crops to more remunerative crops. Crop diversification in different ecosystems of the country is taking the form of increased areas under commercial crops including vegetables and fruits since independence. However, this has gained momentum in the last decade favouring increased area under vegetables and fruits and also to some extent on commercial crops like sugarcane, cotton and oilseed crops, specially soybean. Crop pattern changes