

Enhancing Production Through Crop Pattern Changes

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INTRODUCTION

Aggregate crop production from a given resource of arable land can be expanded through one or more of the following four routes:

- (1) by bringing more of the land under plough for crop activity;
- (2) by enhancing yields of crops through research and diffusion processes;
- (3) by increasing intensity of cropping through a loosening of the production constraints of resources and social customs;
- (4) by altering crop-mix in favour of more valued crops.

For us in India, the route (1) is now almost blocked, with the possible exception of arid tracts of western India where irrigation is necessary for crop activity. But there is ample scope for expanding volume of crop output via the routes (2) and (3), though irrigation resource would be needed in good measure for boosting crop yields and for improving intensity of cropping from their present low levels. Of course, better management of existing farm inputs can also result in modest gains in crop yields and intensity of cropping. In particular, better management of public irrigation works on the one hand and on-farm scientific management of water by farmers on the other hand should considerably raise our yield levels, if not the level of intensity of cropping. It is not our purpose in this paper to explore the scope for such potential addition to crop output from our existing irrigation resources. Instead, our main interest presently is in the route (4), that is, enhancement of our aggregate crop output through the process of a mere shift in irrigation resource from more heavily-irrigated to lightly-irrigated crops.

Interest in the subject under investigation is heightened by the harsh fact of our irrigation endowment being much more limited than our endowment of arable land. In view of this comparatively greater scarcity of water resource, one ought to explore if utilisation of irrigation water for comparatively lightly-irrigated