

# Linkage between Irrigation, cropping pattern and employment: A Case Study of Gang Canal Region

Navpreet Kaur and Amanpreet Kaur<sup>1</sup>

This paper studies the inter-linkage between Irrigation, cropping pattern and employment. As the changes in the agricultural systems bring change in farm and non-farm sector employment opportunities through forward and backward linkages. For the purpose of this study a household level census survey was conducted in two villages in Gang canal region. One of the surveyed villages is in the middle reaches (25 F Gulabewala) and another one is situated at the tail end of the canal (63 F).<sup>2</sup>

The access to Irrigation resources (mainly canal) not only determines the structure of land ownership but also the social structure of the villages in the region. The village in the middle reaches has high level of land concentration and other means of production among the Jat Sikhs (land owning caste in the area). Jat sikhs, 26 per cent of the total households, owns and operates 98 per cent of the agricultural land in the middle reaches villages. On the other hand, Dailt are the primarily wage workers in 25 F. Even though the share of Dalit population is largest in both the villages. The Dalit households have largest share in the land ownership and operational holding in the tail end village (63 F). But these Dalit households belong to small and marginal size class of holding.<sup>3</sup> The workers from these Dalit households also work on wage employment in agricultural and non-agricultural tasks.

However, since 2011-12, with the rise in the crop prices of guar (cluster beans) and also because of uncertainty of irrigation, the cropping pattern of the region has changed from cotton to guar cultivation, a mechanised crop. The changes in the cropping pattern on the one hand and the increase in the cropping intensity on other, the employment in farm sector went down. Even with the new opportunities, such as employment in public works or in construction sector, the

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<sup>1</sup> Ph.D. scholars, JNU, email:maan.navpreet@gmail.com.

<sup>2</sup> 25 F was earlier survey by Foundation of Agrarian Studies (FAS) in 2007 as part of Project on Agrarian Relations in India (PARI).

<sup>3</sup> For the classification of farm size groups the definition of agricultural census has been used.

employment intensity of wage workers has still remained lower than the employment levels before the changes in the cropping pattern. The alternative sources of employment other than casual employment are also not wide spread in the surveyed village. The wage employment for female workers has decline drastically because of their larger dependency on agriculture for wage employment and also due to lack of mobility and skill development.

The agrarian structure of the country has been changing in the last two decades, with implications for employment. On the one hand, the rural rich have diversified sources of income by using their surplus and accumulation of agricultural income. On the other hand, the wage labourer, primarily Dalit households in both the villages, have been surviving by selling their labour in unfavourable conditions. Since the wage employment has declined due to structural change in agriculture, this paper discusses about the policies of government to maintain the livelihood of the rural labour and to create new labour opportunities for them.