

M.Sc. Thesis

IMPACT OF SATPARA DAM ON AGRICULTURE, IRRIGATION
PRACTICES AND SOCIO-ECONOMIC DEVELOPMENT OF
SKARDU TOWN, GILGIT- BALTISTAN



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(2013-MS-WRE-08)

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2016

ABSTRACT

An effort was made under this study to investigate the impact of Satpara Dam on the agricultural aspects, irrigation practices and overall socioeconomic conditions of the farmers before and after commissioning of the dam. The historical satellite imageries and data, required for land cover and land use analysis of Skardu Valley were downloaded from the URL earthexplorer.usgs.gov and classified images by using ERDAS Imagine. Primary data regarding household characteristics, land possessing, prevailing irrigation practices, agriculture, irrigation and farm related information were collected through field visits, interviews/discussions and using specifically designed questionnaires, while the secondary data includes published documents such as feasibility studies, PC-II, PC-I, GB Development Statistics, GB Annual Development Program, evaluation reports etc. The sources for the secondary data were Water Management Department and Agriculture Department. A sample size of 320 respondents was selected using statistical technique. The farmers were interviewed randomly while 03 different sittings (Jirga) were made for group discussions with elderly farmers. Besides, field visits were also conducted to physically verify the statements/data recorded against the questionnaires and amend/rectify wherever necessary. The main objective of the research was to assess the positive and adverse impacts of Dam on the study area.

After the construction of dam in the study area, the annual income of the farmer has significantly increased. The conventional cropping pattern has been shifted to the market oriented crops while yield of almost every crop has been improved. The keeping of livestock has also been increased. Before the dam construction, people were facing health, education, domestic water usage, electricity crises in the study

area, while after the commissioning of the dam the overall standards of living of the people have improved. The comfort level has increased and the level of drudgery reduced. Before the dam a faction of the people of the study area remained involved in various crimes. However, after the dam, they got opportunities to make them employed in positive activities and initiated a new life, as the majority of the people turned their otherwise barren lands into productive agricultural land. Certain issues, as observed during the study were highlighted that there were uneven distribution of water, lack of water user's association, lack of agricultural extension support services and credit facilities. Improper maintenance of the canal has been rendering towards higher conveyance losses of irrigation water. However, if these problems are addressed and removed, more benefits can be taken from the dam reservoir water and overall socioeconomic growth of the people can be further enhanced.