

THESIS

**ASSESSMENT OF DEFECTS, REMEDIAL MEASURES AND
DEVELOPMENT PROSPECTS OF SICK JAGLOT HYDROPOWER
PROJECT TO MEET THE FUTURE DEMAND**



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By

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ABSTRACT

Jaglot hydropower scheme having a power generation potential of 1 MW by two pairs of generator and turbines was developed on Sai Nullah a right tributary of Indus river by Northern Areas Public works department in 1993 to 1995. Jaglot being neighbouring town of Gilgit capital of Northern areas is located almost in the center of Silk Route i.e. Karakoram Highway has got its own strategic importance and future development potentials.

The history of this project is full of events like land sliding, frequent power channel breakages and choacking, damages to turbines and the greater due to various reasons primarily due to defective design of the power system. While laying out of plant the principle for site considerations have not been followed in the true letter and spirit, due to which two better sites having a number of technical and administrative advantages on the present site are missed out. Whether the non-consideration of these sites were intentional or non-intentional the fact is that wrong decision by the competent authority has landed this project into gagmire of repeated failures.

A decade old project whose non-functional days are more than the functional days and balance sheet shows more expenditure then earning. A runoff river plant which is unable to tap enough water and generate its full potential even if the enough water is available in the source. Besides this the major problems being faced by the plant is poor designing of its various components and missing essential structures which play vital role in the operation and safety of the plant and its operators.

The project if rightly assessed and executed would have served as a powerhouse for the region. The source of power generation i.e. Sai Nullah at the confluence of river

has a catchment area of 907 km² out of which only 670 km² is being utilized. If bulk potential with adequate safety is utilized then the power generation potential can minimum be doubled with optimum economy of effort? This can be achieved by increasing the discharge of power canal to 4 cumecs and using additional water for power generation at the previously left over site having a gross head of 95 m. In addition to that using the Damot Gah at right tributary of Sai Nullah.