

ABSTRACT

The present study was conducted to evaluate the environmental impact assessment of two grid station sites (Lar and Wapda) Town in district Multan, Punjab province through experimental works based on water quality, soil quality and by using environmental social screening checklists, meetings and collection of data from different sources. For this purpose water analysis of different parameters like pH, EC, TDS, carbonates, bicarbonates, chloride, sulfate, fluoride, sodium and soil analysis for unconfined compressive strength, direct shear and triaxial compression were conducted. All the parameters were well with in the range of permissible limits except EC, sodium and salinity. It was found that population is taking water from shallow water level and there is no proper sewage and water drainage system therefore EC, sodium and salinity levels were high. To have effective and result oriented approach during different phases viz, design, construction, post construction and operation phase of grid stations, Environmental Management & Monitoring Plan and Social Resettlement & Monitoring Plan was also prepared to find out how and when to mitigate the environmental and social impacts which can emerge during the course of work. It was found that during different activities in construction phase physical aspect relating to soil erosion, air pollution and surface water pollution, biological aspects relating to disturbance to flora and fauna, social and socioeconomic aspects relating to noise, vibration, access blockage aesthetics, gender, cultural, health hazards and mainly safety hazards can occur. During the post construction phase there will be problems relating to waste disposal and restoration of the camping sites. Land for these grid stations was purchased on willing seller – willing buyer basis thus to reduce any social problem. But during the construction of transmission line a total of 16020 m² land having crops of cotton in summer and wheat in winter season land will be affected. Eligibility of the compensation to be paid to the affected person (tenants, sharecroppers, those losing business & income, legal and non-legal title holders) is based on market price. Evaluation of the crop loss and compensation to the affected persons will be made on the market price which was Rs. 10.45/- per square meter and over all Rs. 97038/- will be paid to the affected person for crop damages. A total of five (05) wood trees (three of *Morus nigra* and Two of *Dalbergia sissoo*) will be cut and at a market unit price of Rs. 5000/- for *Morus nigra* and

Rs. 6500/- for *Dalbergia sissoo* will be paid to the owners of these trees. Overall findings of the study were that construction of these two grid stations was feasible but EMMP and SRMP have to be implemented effectively.