



TERMS OF REFERENCE FOR SURVEY CONSULTANT

Contract Duration: 30 days
Position: Survey Consultant
Place: Biratnagar Metropolitan City, Nepal

Title of Research: “Sustainable Biratnagar City Rickshaw Stand and Shade with Open Public Space”

PROJECT BACKGROUND:

Digo Bikas Institute (DBI) wants to promote sustainable energy and advocates for open public space. In order to promote and showcase how the current city rickshaw charging process can be changed from individual charging ports at rider’s home to a charging station at various selected places in Biratnagar where more than 1 city rickshaw can charge their batteries while waiting for their customer at a shade made by solar PV roofing. This will build up their travel capacity range per day and decrease their operation cost. Also, the selection of space must be considered with few things like no shading issue for the solar PV modules and Chowks/ roundabouts of certain areas where the space is public and could be further built into open public space as well. This project report will be shared with Biratnagar Municipality and ward offices and used as a reference document to promote such activities and projects in other parts of the country. The scope of public space elements in their stations, to encourage social life and outdoor activity in the region is also an interest of the study. Public space will ensure safe community-based activity and outdoor space for youths and other residents in the area.

TERMS OF REFERENCE:

Consultant will act as the nodal person of the project and contribute to all stages of research, survey and studies. She/he will receive instructions from Team Leader of Digo Bikas Institute present at field as well as at Digo Bikas Institute’s office at Kathmandu, and will be required to undertake the following activities: -

- Find out a municipal or Public space in every chowk surveyed to find out if our project could be implemented in the selected space
- Conduct detailed survey of areas most suitable for solar based shading area with open public space in at least 30 most suitable chowks based on random sampling of data for probable chowks in liaison with local ward offices and Municipality

- Identify how the surrounding areas are being used and define the different kinds of users of the space (e.g. Bike parking, street vendors etc.) and surrounding area.
- List out the total space available for the project implementation in Length x breadth, provide a rough sketch of the selected area and mark it in google maps for easy identification
- Find out the current situation of the selected space after (COVID-19) and its previous condition
- Choose the area which receives sunshine throughout the day and has no shading issues on the area selected from east and south direction
- Conduct key informant interviews with the Rickshaw riders, related stakeholders of the relevant wards, pedestrians and the adjacent community to know about their view of the selected area and its legal status
- Survey for the nos. of batteries used, its Ampere Hour capacity, C-rating, warranty, current charging practice and devices used and all related technical information for all kinds and types of city rickshaw used inside Biratnagar City
- Conduct research on the total bills they pay per month for charging the batteries, total units consumed per month and battery life
- If the areas selected already have a shading structure, collect the structural information (made of RCC, CGI Sheet, Wooden etc.) and the total area covered by the space
- Use the GPS given by DBI to geolocate the selected area as well as the surveyed area for future reference
- Visit the City Rickshaw vendor to find out technical details about the rickshaw including its price, electrical information etc.
- Visit the battery vendor to gather the specification sheet of the battery used in city Rickshaw
- Prepare a detailed report on the findings and use the template given by DBI for the survey to be filled at each site along with suggestions and recommendations collected from the community, municipality and rickshaw riders
- Collect photos of rickshaw, its batteries and the site visited to be included in the report
- Prepare a brief questionnaire by going through the TOR and finalize in consultation with the Team
- Contribute to the analysis of data and report writing
- Any other task assigned by the Team leader

Place of Assignment: Based in Biratnagar City area

Duration: One-month period with possible extension subject with resource available

Estimated Dates: 15th September 2020-15th October 2020

Personal Qualifications:

Education: Any sort of technical education, preference will be given to people with at least Intermediate in Engineering/ Bachelor of Engineering in Electrical and Civils

Experience:

Minimum 1 year of relevant experience (survey and report writing) and experience of conducting social research will be a plus point

Other Qualifications:

Languages Required: Nepali, English (Maithili, Bhojpuri & Tharu will be a plus point)

IT Skills: MS Office, Maps (photoshop will be a plus point)

Technical Skill: GPS (Training will be provided)