6.2.1. Link for Institutional Strategic Plan

1. Use of Renewable Sources of Energy

Fig. Use of solar power panels in TU Campus

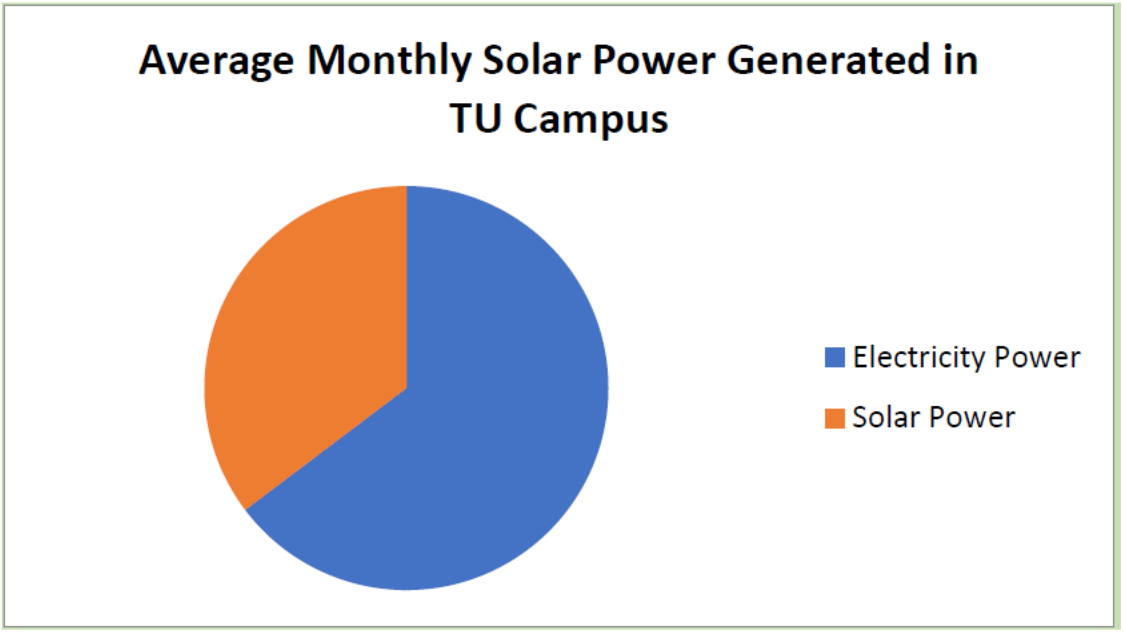
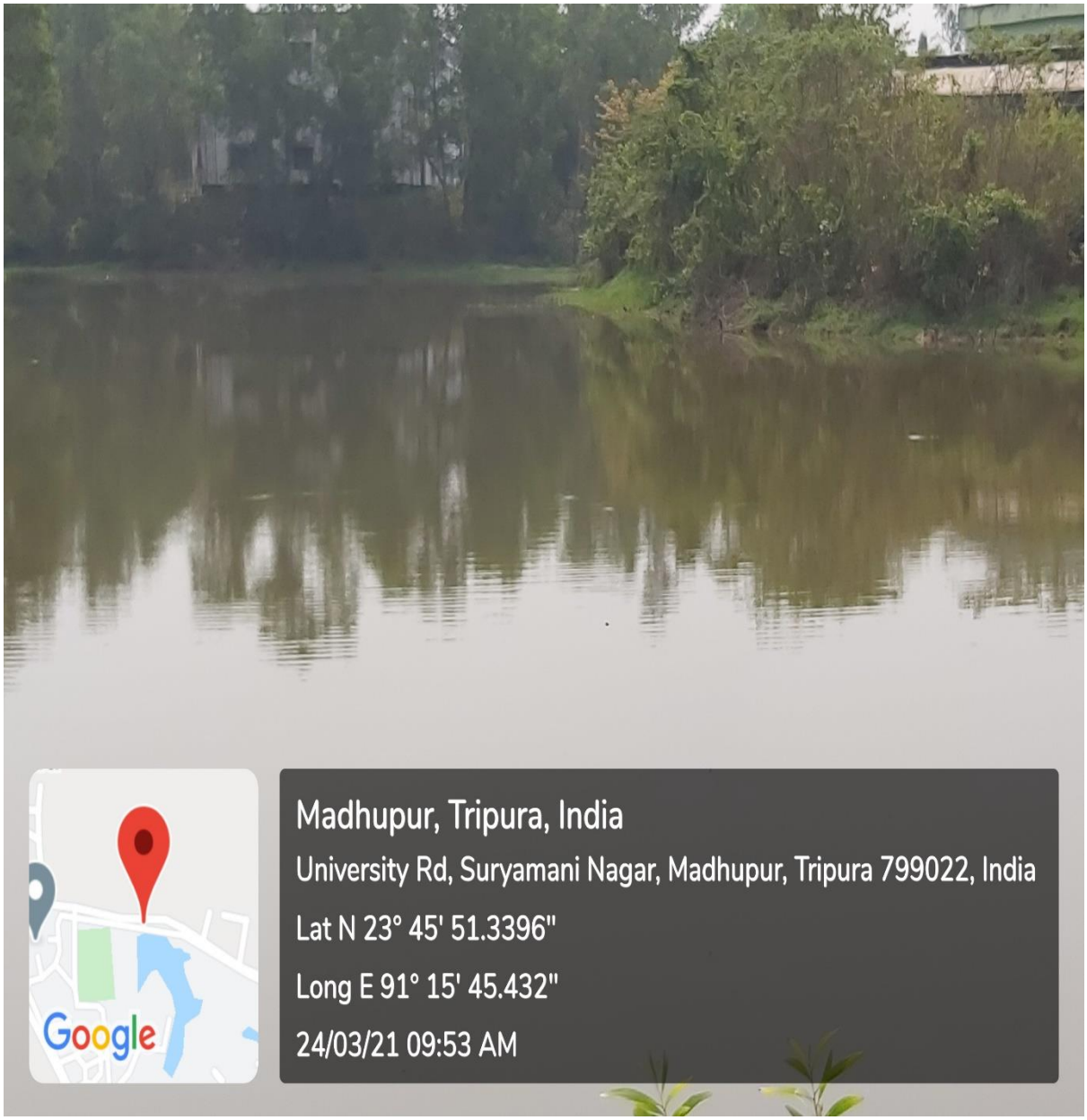
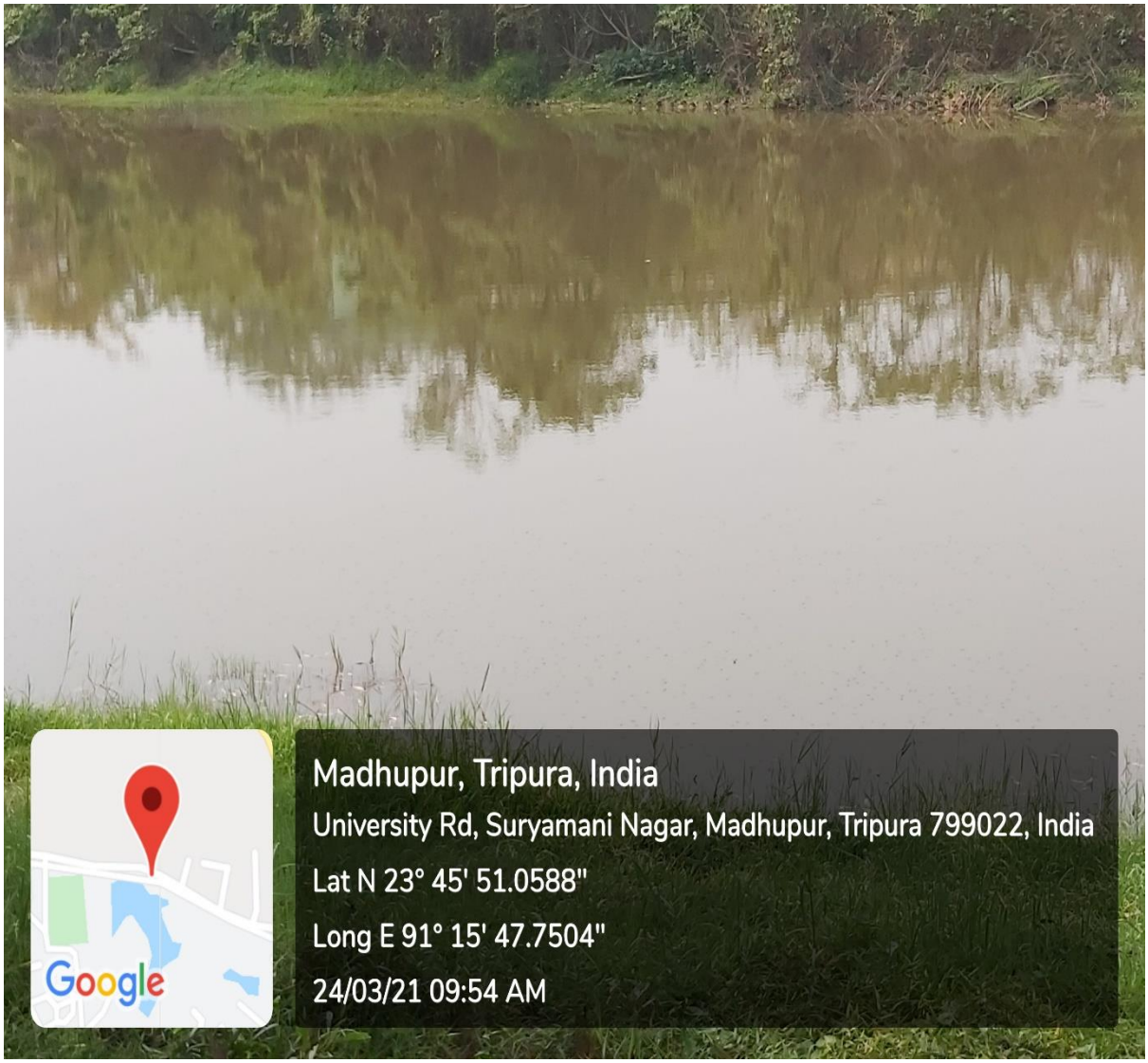


Fig. Monthly Solar power generated within TU campus

2. Wetland Conservation



Wetland in Tripura University



Wetland in Tripura University

3. Replacement of electrical appliance by energy efficient system

According to Energy Conservation Act, 2001, Energy Audit is the verification, monitoring, and analysis of the use of energy including submission of a technical report containing recommendations for improving energy efficiency with cost-benefit analysis and an action plan to reduce energy consumption.

The Energy and electricity audit aimed to cover the aggregate consumption of Electrical and Natural gas energy within the Tripura University campus including academic and administrative blocks. In different hostels, LPG cylinders are primarily used for cooking purposes and the number of uses was also counted. Domestic LPG connections were not included in the present study.

All the buildings of the University are designed and constructed in such a way that during day time no electricity is consumed for lighting of tube lights and other electric lights. Proper day light and ventilation facilities are available for every building.

Moreover, Tripura University is taking its initiative to utilize renewable energy has installed roof top solar panels of capacity 600 KWp in 14 buildings to compensate for the necessity of electrical energy within the campus. This has resulted tremendous curtailment in the electricity consumption. Tripura University has saved a substantial amount Rs. 62,57,087/- for the period of almost 2 years i.e., from January, 2019 to November, 2020. In addition to that, all the High Pressure Sodium Vapour lamps (HP-SV) and High Pressure Metal Halide (HP-MH) street lights have been replaced by the energy efficient LED street lights and mushroom head LED lights are installed to reduce the consumption of the electricity under the green initiatives schemes. The total number of energy efficient LED lights is 258 and total savings is Rs. 61,78,791.00 for the period of 3 years 6 months i.e., from May, 2017 to November, 2020. At present, TU has 500 numbers of LED bulbs and LED panels, LED outdoor streetlight as compared to 220 numbers CFL and 280 numbers Halogen bulbs in various academic and administrative blocks. There were 500 numbers of AC (Air Conditioner) and 3500 numbers of Fan installed in the different academic and administrative blocks. On the other hand, on an average 45 worth of natural gas (LPG cylinders) per month has been utilized in the different hostels and guest house within the campus.

On average, 110000 units per month of electricity were consumed by the University in the year 2019-20 including the residential quarters. In the previous year 2018-19, the average power

consumption was 220000 units per month. It has also been observed that there is a slight increase of around 46% in the monthly average electricity consumption during the current year which could be attributed to the installation of solar panels in some specific zones.

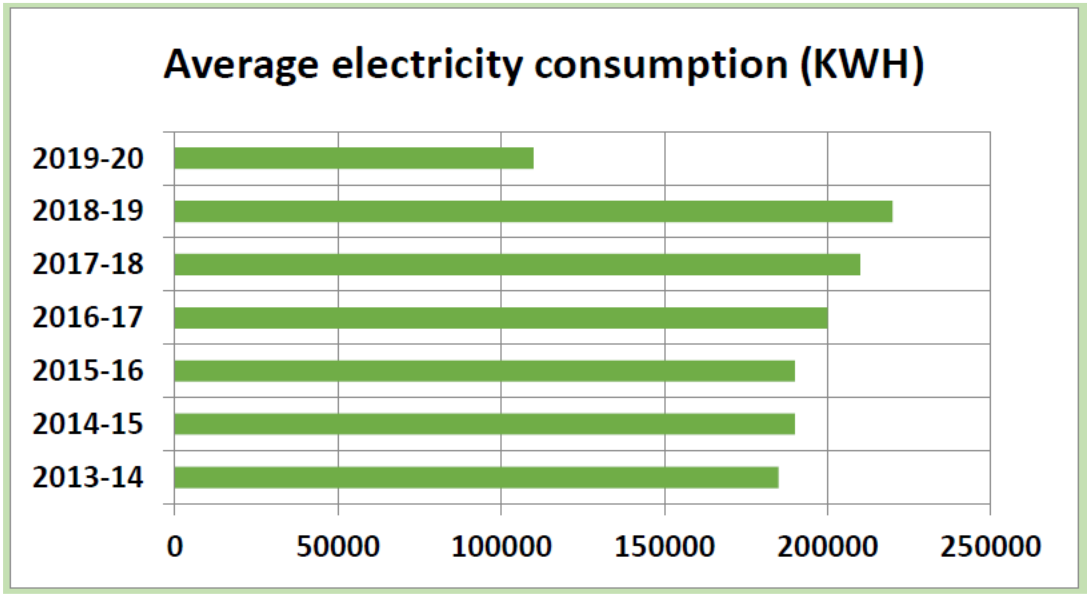


Fig. Average electricity consumption in TU campus from 2013-14 to 2019-20

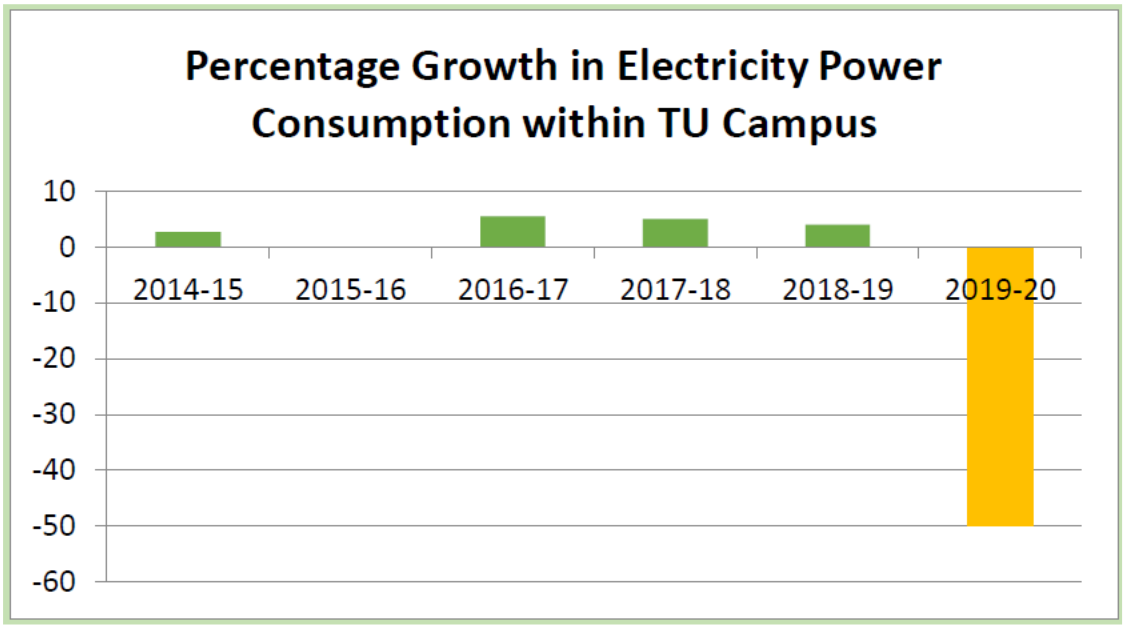


Fig. Percentage growth in Electric Power consumption in TU campus from 2014-15 to 2019-20