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To Whom It May Concern

This is to certify that Dr. Sarmistha Roy Chowdhury, Assistant Professor of Dum Dum Motijheel Rabindra Mahavidyalaya has collaborated with Susanta Pramanik of Taki Government College to publish a research paper titled 'Land Use / Land Cover Dynamics Using Remote Sensing and GIS Techniques Kalimpong Municipality. West Bengal' in the Calendar Year 2021.

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Land Use / Land Cover Dynamics Using Remote Sensing and GIS Techniques Kalimpong Municipality, West Bengal

Sarmistha Roy Chowdhury* and Susanta Pramanik**

Abstract : Land use/land cover has been rapidly changing in the Himalayan terrain due to anthropogenic and natural interferences and remotely sensed satellite images have been used to detect the changes. The municipality of Kalimpong has likewise experienced substantial changes in land use and land cover. The present study is aimed to identify those changes and model the future trend of Kalimpong municipality. SVM algorithm was applied to measure the changes in LULC for the years 1997, 2014, and 2020. For simulating the future LULC for the year 2030 Cellular Automata Machine Learning Algorithm was applied to GIS platforms. Error matrices were used to validate classification accuracies. The study revealed a rapid growth in the built-up area by 16.22percent and a slight increase in agricultural land by 1.46percent whereas forest land was decreased by 12.57percent from 1997 to 2020. The barren land areas also showed a net decrease of 5.11percent. The LULC prediction result for the year 2030 showed that built-up land will be increased to 41.36percent with respect to 19.52percent in 1997. The dynamics of land use and land cover of the area are controlled by human and natural driving forces like urbanization, climate change, etc. This research will provide broad information on LULC scenarios for the period in question, as well as aid in the development of a conservation plan for natural resource management and land use planning.

Key Words: LULC, RS and GIS, change detection, SVM, Cellular Automata, simulation

Introduction

Land use is a form of the earth's surface creating physical, chemical, biological systems, and the process of change takes place with socioeconomic transformation and behavior with respect to space and time. The altering nature of land use and land cover (LULC) creates varied natural and socio-economic problems. The monitoring of this complex system includes the diagnosis and prospects of changes of LULC in a holistic manner at local as well as regional levels. Land-use change, according to Stamp (1931), includes the conversion of forest, crop, and agricultural land, as well as the loss of productive land, wetlands, and other natural resources. Land use is affected by land-human interaction along with urbanization, livestock farming, tourism, and industrialization.

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This is to certify that Sri. Mithun Chowdhury, State Aided College Teacher of Dum Dum Motijheel Rabindra Mahavidyalaya has collaborated with Dr. Amal Kumar Chakrabarty of Raiganj University to publish a research paper titled 'A Study on Sex Workers Children in Lebuhanagan (North 24 Parganas, West Bengal)' in the Calendar Year 2021.

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A Study on Sex Workers Children in Lehubagan (North 24 Parganas, West Bengal)

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Abstract:

This paper identifies the indicators of the two most important components, health and education reflecting the quality of life of sex workers children based on primary survey conducted in Lehubagan red light area (North 24 parganas, West Bengal). It also examines the existence of gender disparity in that area.

Keywords: Sex Workers Children, Health, Education, Gender Disparity.

Introduction:

In recent times Sex Workers are regarded as a marginalised section in our society. They along with their family, especially their children live a gloomy, insecure, shameful, economically backward and poverty-drenched life. Prostitution is one of the oldest professions of the human civilization practiced since the birth of an organized society. Prostitution is practiced in almost all the countries and every kind of society. But since the very early times their main problems remain constant even in the present days. Presently though, directly several plans and policies have been taken for them but in reality these people are deviated from all kinds of social facilities. As a member of the society, they also have the same rights just like the other members. Sex workers should have right to build a family life and right to bring new generation and proper nourishment and healthy environment for their children. Health and Education are two pillars of human development. Ensuring the health of all sections of society, including all the marginalised class, is essential to poverty eradication efforts and attaining sustainable development. Health is a crucial human right according to the Universal Declaration of Human Rights, as long and healthy life of the people allows them to reach their full potential, children to be better able to live and learn and workforces to be more productive. On the other hand, Education is such an indicator that it can alter all the narrow thinking of men and society. Society can prosper if and only if education is spread out in every sphere of it.

