e-NIYANTRAN
Online Time Card System to save the migrating wildlife of Assam's Kaziranga National Park

e-Niyantran will replace the existing Manual Time Card System of regulating the vehicular movement on NH-37, the highway which runs parallel to the southern boundary of Kaziranga National Park. The system would help avoid accidental death of wild animals while they cross the highway, especially during migration.

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Golaghat District was carved out of the erstwhile Jorhat District in 1987. Located in the Upper Assam region, Golaghat has been witness to many political, historical and cultural events of significance. The NIC Golaghat District Centre was established in the year 1990 and since then, it has played a vital role in achieving proactive governance through the use of ICT.

The Kaziranga National Park (KNP) is situated on the northern bank of the Brahmaputra River covering a core area of 482 sq km and a buffer area of 548 sq km in the districts of Golaghat and Nagaon. The sanctuary, which hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site, and an amazing abode of precious flora and fauna. The national park also boasts of having the highest density of tigers among protected areas in the world.

PROJECT PROFILE

During the flood season, when the River Brahmaputra pours into Kaziranga's grasslands, the wild animals are forced to migrate to the hills of nearby Karbi Anglong by crossing the National Highway-37 which runs parallel on the southern boundary of the park. Many wild animals are accidentally killed while attempting to cross the NH-37 by speeding vehicles.

The National Park authorities have introduced a Time Card System to regulate vehicular movement on the NH-37 to ensure safety of the animals. Temporary check-posts have been set up at several places along the highway, including the animal corridors. All vehicles are issued a Time Card which mentions the time of entry of the vehicle at the starting check-post, and the time it should take to reach the intermediate posts and the final check-post at the other end. The Time Card is finally collected at the last exit check-post. All these were being done manually. After various discussions with the Golaghat District Administration and the District Forest Office (DFO), Eastern Assam Wildlife Division (EAWD), it was felt that the manual Time Card System should be replaced with a digital Time Card System to improve functioning and to facilitate better decision-making. This is the origin of Project e-Niyantran, an Online Time Card & Analytics System, which will be implemented as a pilot project during the coming flood season. The project implementation area, Kaziranga National Park, possesses a difficult terrain and, combined with the poor Line of Sight due to thick forest cover, poses a major challenge in implementing ICT projects.

PROJECT COMPONENTS

- Android mobile application to capture vehicle details and issue Electronic Time Card using SMS (SMS will be sent to driver/ passenger and officials posted at intermediate and exit check gates).

- Web application with Dashboard for Department officials for user management, vehicle monitoring and MIS Reports.

- Integration with NIC's standard national transport applications; Vahan & Sarathi.

PROJECT IMPLEMENTATION

Development of the Mobile App and the Web Application has been completed. The system is currently undergoing security audit at Centre of Excellence for Application Security, Guwahati. (*Snapshots of the system are given in figure 1 and figure 2*)

Fig.1 Mobile App Interface

Fig.2 Web Application Dashboard

FIELD TESTING AT KAZIRANGA

A team comprising District Informatics Officer (DIO) and Assistant DIO, NIC and two Assistant Conservators of Forest (ACFs) deputed by the DFO, EAWL had participated in field testing of the e-Niyantran System on July 11, 2018. First, the mobile devices of the ACFs were configured using the Admin portal at the DFO office. The team then moved to the field for testing of the Mobile app at all the four gates starting from the Amguri check gate located in the Burapahar Range.

The testing covered the very critical network coverage part and live demonstration of the process flow of the app. The app was found to be operational even in 2G network though 3G/ 4G network was also available. The officers expressed their satisfaction at the performance of the app. They also raised several queries which were addressed by

the NIC team. After carrying out successful testing from the Amguri check gate to the Kohora OP check gate on NH-37, the team moved to the DFO office, where a short discussion on implementation strategy was held.

TRAINING OF MASTER TRAINERS FOR E-NIYANTRAN PROJECT

Training of Master Trainers for the Kaziranga Time Card System Project (e-Niyantran) was organized at the office of the Deputy Commissioner, Golaghat on August 13, 2018. The training was imparted by DIO and ADIO, NIC Golaghat in the presence of Shri Shyamal K Gogoi, Additional Deputy Commissioner (e-Governance). Four Master Trainers (Forester I Grade) participated in the training programme.

WAY FORWARD

Wildlife is facing increasing threats such as habitat destruction, climate change and illegal wildlife trade and is to be conserved for generations to come. The project e-Niyantran is a low cost initiative to support and augment wildlife conservation efforts in the Kaziranga National Park.

The Government of Assam and KNP authorities have been taking initiatives to involve local people of nearby villages in community participation for conservation efforts. A citizen module is also planned to be added in e-Niyantran enable citizens to report animals stranded during floods by posting images and capturing geographical position of the area to expedite rescue efforts. Animals wandering out of the National Park perimeter may also be reported in a similar way to alert the authorities, thus saving them from falling prey to poachers.

Field Testing at check gates

Training the Master Trainers

For further information, please contact:

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