MINUTES OF 5th STEERING COMMITTEE MEETING OF THE CITES MIKE SOUTH ASIA PROGRAMME

04-05 JUNE, 2009 THIMPHU, BHUTAN





1. Opening session and welcome addresses

The opening session opened with a special religious ceremony, called The Marchang Ceremony and the meeting was blessed by Bhutanese monks.

The Honorable Minister of Agriculture of Bhutan H.E. Dr. Pema Gyamtsho delivered the inaugural address by welcoming all delegates to the meeting, thanked the CITES MIKE Secretariat for holding the meeting in Thimphu, as the region was very important for the conservation of elephants in Bhutan and requested that the meeting take up important elephant issues that Bhutan experienced.

The Chief Forestry Officer, Ministry of Agriculture, Nature Conservation Division, Dr. Sonam Wangyel Wang, welcomed all steering committee (SC) members from the South Asian Sub-region and the CITES/MIKE staff. He also thanked the Ministry for their support in holding the meeting and looked forward to a productive output that could assist in conserving elephants in Bhutan and the entire sub-region. He requested that the meeting take up important human-elephant conflict issues that Bhutan experienced. He thanked the CITES/MIKE programme for providing technical assistance for furthering elephant conservation in the sub-region.

The Coordinator of the CITES/MIKE programme, Mr Tom De Meulenaer, reiterated his gratitude to the Government of Bhutan for its support in holding the meeting and briefly explained how the MIKE programme could be of assistance in the conservation of elephants.

2. <u>Minutes of the fourth Subregional Steering Committee meeting, CITES MIKE South Asia</u> (Katmandu, November 2007)

The minutes of the fourth Subregional Steering Committee meeting were distributed to the participants. The progress since the fourth meeting to the fifth meeting was discussed. The Asian elephant range States were reminded of their reports on MIKE data as follows:

- No reports have been received from Sri Lanka expect for a few reports from one MIKE Site in 2006
- Bangladesh has been sending reports in the form of hard copies in the Database version 1.05 and with incomplete information. Reports should be send in the version MIKE Database 1.06.
- Bhutan has not sent reports as yet but will do this soon.
- Nepal was earlier sending reports in the form of hardcopies in their own format till the fourth steering committee meeting and has stopped sending reports after that.
- India has been submitting reports but not from all the ten sites. Reporting has improved with time.

3. MIKE programme update

3.1. General Status of the MIKE programme

The MIKE Coordinator gave a presentation on the background and the development of MIKE; the purpose, objectives and *modus operandi* of MIKE; history of MIKE to date; the first output of MIKE in terms of baseline information; the MIKE analysis for South Asia; MIKE Phase II (2007-11) and the way forward; and the sustainability of MIKE in South Asia.

He informed that the MIKE had been design at a workshop after the 10th meeting of the Conference of the Parties in 1997. Phase I of the programme (2001-2005) was into establishing structures and processes. Then there had been a transition phase (2005-2006) during which Baseline Information was collected but insufficient funding was available to fully deploy MIKE. Phase II of the programme is ongoing (2007-11) staring with the identification of baseline levels of illegal killing .The MIKE programme has now been fully operational, with

MIKE also monitored trends in the illegal killing of elephants against baseline data. The CITES Secretariat signed a 5-year project with EU Commission to enhance MIKE in Africa (with focus on capacity building, strengthening MIKE structures, and improving the MIKE analysis). It was reminded that there is no similar long-term support for MIKE in Asia.

He described the MIKE implementation structure and the roles therein of the Conference of the Parties to CITES, the Standing Committee, the CITES Secretariat, the MIKE Central Coordinating Unit (CCU) and Subregional Support Units (SSU), the Technical Advisory Group (TAG), and the elephant range States. He mentioned that the MIKE CCU was based in Nairobi, with six Subregional Support Units, four in Africa and two in Asia. The MIKE activities in each subregion were overseen by a Subregional Steering Committee, composed of the elephant range States in the subregion that participated in the programme. Each elephant range States also appointed a National MIKE Officer and one MIKE Site Officer per MIKE site. These subregional governmental MIKE structures were assisted by the SSU

He highlighted Resolution Conf. 10.10 (Rev. CoP14) on *Trade in elephant specimens*, which governed MIKE and its sister programme ETIS (Elephant Trade Information System).

In accordance with the resolution, <u>elephant range States</u> in both Africa and Asia were expected to implement and participate in MIKE. Their CITES Management Authorities should report illegal hunting of elephants following standardized methodologies, and monitor elephants in specific sites or areas.

The <u>CITES Secretariat</u> should establish databases and reporting protocols in consultation with the elephant range States and the TAG, and collect data through active communication with range States. The resolution also provides that the Secretariat, with the advice of the TAG, requests experts to:

- a) Select sites for monitoring as representative samples;
- b) Develop standardized methodology for data collection analysis;
- c) Provide training to designate officials in countries with selected sites and to CITES Management Authorities;
- d) Collate and process all data and information from all sources identified;
- e) Provide a report to the CITES Secretariat for transmission to the Standing Committee and Parties to CITES

The Secretariat must provide a report on the information collected under the programme at each meeting of the Conference of the Parties.

The role of the <u>Standing Committee</u> was to ssupervise MIKE and ETIS. For this purpose, it re-established a MIKE-ETIS Subgroup in 2008, comprised of: China, Great Britain, USA, Kenya, Japan, DRC and Zambia (Chair). Its Terms of Reference were produced and adopted by the Subgroup in 2008. MIKE and ETIS were asked to produce quarterly progress reports for the Subgroup. The MIKE-ETIS Subgroup meets in the sidelines of meetings of the Standing Committee, the next one being the 58th meeting (SC58, Geneva, July 2009)

The role of MIKE CCU and MIKE SSU's was also discussed. It was informed that:

- The CCU, hosted by UNEP in Nairobi, provide regional and international inputs and supported the operations of all MIKE structures;
- Four SSU's in Africa ensured support to training, communications, data management, expertise, in situ assistance, etc. There were no equivalent SSU's in South Asia or Southeast Asia presently.

For the implementation of MIKE Phase II in Africa, 10,000,000 Euro had been secured from the European Commission. The funding needs for implementing MIKE in Asia during the same period were estimated as follows:

- South Asia: 3,000,000 USD [currently: 100,000 USD from France, UK and Japan, but no funding beyond July 2009]
- Southeast Asia: 4,000,000 USD [currently: 100,000 USD from France, UK, Japan for undertaking basic data collection tasks but no funding beyond December 2009]

The <u>TAG</u>, established by the CITES Secretariat, had held annual meetings during Phase II. The MIKE CCU and SSU implemented the technical and scientific recommendations of the TAG in deploying and implementing the MIKE programme

Terms of Reference of the <u>Subregional Steering Committees</u> were adopted since 2007 and applied to its meetings and work. The SSC meetings for South Asia (Bhutan) and Southeast Asia (Cambodia) were held in June 2009. Other recent annual SSC meetings were held in Central Africa (Douala, 07/08), East Africa (Kigali, 09/08), Southern Africa (Pretoria, 01/09) and West Africa (Accra, 04/09)

Each participating elephant range State should ensure that <u>National and Site officers</u> were nominated or replaced as necessary. The MIKE SSU and CCU should be informed about these changes. The participants were informed that in Africa, logistical and communication support was given to National and Site MIKE officers to enhance MIKE routines.

3.2. MIKE data collection and analysis

The MIKE Coordinator gave an overview of the compilation and analyses of MIKE data. Information on elephant populations, Law Enforcement Monitoring (LEM) and elephant carcasses was collected from the sites and is entered into a MIKE database, which in turn was transferred to a national MIKE database at the range State level and then to the central database at the subregional, continental or global level.

The first outputs of MIKE consisted of the baseline information and analysis in June 2007, for which data was used from 52 African sites and 18 Asian sites. All data (population, carcass, law enforcement and 30 factors influencing the sites and countries) was brought together and analyzed. Regarding levels of illegal killing, it was found that in South Asia this was 0.05% (i.e. out of 100 elephant carcasses, 0.05% were illegally killed). This illustrated that poaching in South Asia was very low compared to other parts of the world. A further analysis of MIKE data from Africa was conduced in 2008. Presently, data collection for presentation at the 15th meeting of the Conference of the Parties (CoP15, 2010) was ongoing. Little or no information had been reported from Asia as yet.

3.3. MIKE challenges in South Asia

The MIKE Coordinator highlighted the following issues:

Institutional challenges

- Financial sustainability in the immediate and long term
- Insufficient coordination and communication
- No or little national or local use of MIKE information
- High turnover in MIKE staff
- No sufficiently resourced SSU for South Asia or Asia
- No adequate information on intra-Asian funding opportunities

High capacity building and technical support needs

Technical challenges

- Delineation of MIKE sites
- Surveys, survey methodologies and quality of surveys
- · Poor/no MIKE data flow and reporting
- Poor data collection systems
- Lack of spatial referencing of patrol activities
- Identifying and addressing capacity building and training needs
- Updating and maintaining equipment

He also mentioned that the recommendations given by TAG members could be better used. The sites which did not function needed to be resolved, and cross-border communications encouraged. Regional and transborder elephant management and conservation issues needed to be addressed.

3.4. MIKE Phase II technical developments

The MIKE Data Analyst, Mr. Julian Blanc, gave a presentation on the future technical developments under MIKE Phase II.

MIKE Software and Hardware

The current MIKE Site Database was a data entry module. The features of the database were that it inputs GPS data, captures elephant carcass and patrol data based on standard MIKE forms and automatically produces monthly and annual reports which link to Arc GIS to produce maps. At the site level there was one database per site. These were transferred up the 'information' chain. At the national level there were one to 10 databases; at the subregional 7 to 17; and at the continental level 24 to 51 (one from each site). These databases were not integrated. As a data collection module, there were problems with the data flow from the Site Database to the National Database and from the National Database to the MIKE Database.

The challenges were to simplify data collection forms, make a database that is useful beyond MIKE sites, integrate data from multiple sites at national level, enhance analytical capacities at site and national levels, and facilitate the quality control of MIKE data.

The MIKE was therefore gradually moving away from the old and user-unfriendly MIKE database to MIST (Management Information System), which was fully compliant with the MIKE requirements. It was initially developed for Uganda's National Parks, and already deployed in 14 elephant range States in Africa and Asia. It had all the advantages of the MIKE database. It captured and integrated wildlife and law enforcement data at site and national levels. It could also be used to monitor any number of species and all illegal activities. It had also a user-friendly mapping interface for analysis. It used one form to enter records so the data collection forms remained simple. It had the facility for integrated built-in GPS data download; built in mapping; GIS functions; multi-user architecture; integration of multiple site databases; database synchronization; technical support and maintenance; custom reports and queries; spatial & trend analysis; existing user community; and included modules for annual operations, planning population surveys, a library, tourist activities, staff management; research management; etc. It was available free of cost whereas the MIKE database required an access license MIST could be run on the LINUX system which is a UNIX based operating system.

MIKE Analysis: African sites - 2008

An investigation of the continental trends in levels of illegal killing was completed with data from 2,316 carcasses in 47 MIKE sites, collected during the period 2000-2008. This focused on the evolution of the proportion of illegally killed elephants (PIKE). This had been analyzed against covariats such as the ratio of reliable elephant population data (a measure of conservation effort), the Corruption Perceptive Index (CPI), governance; the Human Development Index (HDI), etc. Analysis showed that PIKE and CPI were strongly linked, as was elephant density. The trend showed that there was an increase in the illegal killing of elephants in Africa.

Status of South Asian MIKE population data

A country by country presentation of the status of population data was provided. There was no data after 2006 in most countries.

MIKE Site boundaries in South Asia

Maps of each country's MIKE sites were shown. MIKE site boundaries were not well defined. They needed to be defined for quality control, site-level analysis of illegal activity and spatial analysis at the continental or global level.

3.5. Priorities for 2009 and 2010

The MIKE Coordinator indicated the following:

Administrative and institutional priorities:

- Reestablish SSUs in South Asia and Southeast Asia
- Sub-regional Steering Committee meetings; TAG meetings
- · Address poorly functioning Sites
- Encourage cross-border collaboration and communication: MIKE as a platform to discuss regional and trans border elephant management and conservation issues
- · Help address staff turn-over problems at National and Site level
- Disseminate MIKE information and analysis to range States, Parties, Standing Committee and CoP

Project proposals for Phase II in Asia and South Asia to:

- · Build capacity of range States to ensure a sustainable flow of monitoring data
- Develop standard routines for the collection, handling, analysis, integration, use and reporting of MIKE data
- Coordinate the programme effectively
- · Sustain data flows
- Simple standard routines for collection and handling of data
- Routine analysis of MIKE data and active use by range States
- Efficient and smooth MIKE structures

Empowerment of range States to ensure future sustainability of their MIKE programme

For MIKE to "work" in the long term

- MIKE data must be accurate, up-to-date and reliable.
- MIKE analyses must be scientifically robust and useful.
- MIKE programme must be owned and sustained by range States (Funding? Role in Resolution?)
- MIKE information must meaningfully contribute to local, national and regional elephant management and CITES trade decisions.

4. Country reports on progress with the MIKE programme [Range state Steering Committee members and National Officers]

4.1. Bhutan

The National MIKE Officer from Bhutan, Mr Norbu Wangdi, provided a brief overview on elephant status and distribution in Bhutan.

He provided details on the biodiversity of Bhutan and mentioned that the survival of elephants had become a threat due to elephant—human conflict, which was a major problem and severe in resettlement areas, as elephants migrate. He also informed that several workshops had taken place towards this. He mentioned that the Nature Conservation Division was supported by a WWF programme. The last elephant census had taken place in 2006. Random block count to estimate elephant population had failed in their region. The individual recognition approach had also failed as elephant exhibited nocturnal crop raiding behavior. Camera trapping exercises were done but they provided very poor data as the elephants destroyed the camera. The major conflict causes mentioned were: loss of habitat, habitat fragmentation, resettlement, habitat disturbance due to competition with livestock grazing, and strict forest rules. Presently the measures taken were: night crop guarding, solar power fencing, local chasing, blank firing and community guarding. Present constraints were lack of technical expertise, inadequate funds, shortage of field equipment and inadequate human resources. Also the MIKE Site in Sipsu required solar fencing but there were no funds for that.

The following recommendations were made: (i) conduct field surveys, dung count survey (ii) assess the extent of human-elephant conflicts and create human-elephant conflict maps where problems arise in the belts (iii) measures to increase public awareness and acceptance of elephants (iv) installation of electric fences (v) build trenches (vi) provide powerful torchlight and other devices to deter elephants (vii) measures for improved habitat management like creating artificial salt lakes/water holes etc., and (viii) plant buffer crops that elephants do not like.

4.2. Bangladesh

The presentation was given by the National MIKE Officer from Bangladesh, Mr Ishtiaq Uddin Ahmad.

The MIKE site in Bangladesh, Chunati Wildlife Sanctuary, was designated in 2003 and was located in the southeast part of the country. Elephants were mostly in the southeastern part but some migratory activity took place along the Indian border in the north. He provided details on the distribution of Asian elephants in Bangladesh. The resident and local elephant populations were restricted to Chittagong, Cox's Bazaar, Bandarban, Rangamati, and Khagrachari. He also mentioned that IUCN conducted a survey in 2004 on the number of captive elephants, inventorying 94 animals. Wild elephants were between 196 and 227. The MIKE site Chunati Wildlife Sanctuary had 20 elephants. The loss in forest cover had been 0.3% (8,000 ha) per year during 2000-2005 (FAO 2005), with forest habitats fragmented and

scattered. No study has been carried out so far enumerating this fragmentation index. Also, the elephant habitat was surrounded by agriculture or settlements within and along the boundary.

Human elephant conflicts were a major concern. The reasons for HEC were found to be: habitat loss as there were no effective corridors; construction of hydroelectric dams, roads, etc.; shifting agriculture; and increased human activities. This leads to damage to houses and crops, loss of livestock and food scarcity. During 1997-2002, 162 people were killed and 360 injured.

Between 1992 and April 2009, 54 (27 male and 27 female) elephants deaths have been documented by the Forest Department of Bangladesh. Causes of death were: Fall from hilltop (13); electrocution (6); poachers (7); illness/diseases (20); unknown reason (3); fall in ditch (3); stuck in mud (1); killed by villagers (1).

He mentioned that the Wildlife Advisory Board acts as a scientific advisory board for CITES and that habitat restoration activities were taking place in all the protected areas. Also, under the umbrella of the Forestry Sector Project (FSP), a Conservation Management Plan was developed for 7 protected areas of Bangladesh including the Chunati Wildlife Sanctuary. IUCN was very involved with Asian elephants in Bangladesh. Poaching of elephants was not an important issue in Bangladesh.

The constraints that were being faced were: (i) fragmented habitats; (ii) shortage of trained and skilled manpower; (iii) discontinuity of MIKE staff; (iv) lack of trained community rangers; and (v) poor infrastructure and lack of funds leading to weak forest protection and inadequate control of encroachment.

The following recommendations were made: (i) a new population survey was required; (ii) local people needed to be involved as community rangers for the implementation of MIKE programme; (iii) more protected areas were required for the conservation of the elephants in Bangladesh; (iv) an additional MIKE site needed to be created in India in the Meghalaya state for the survival of the migratory elephant population; (v) as there were lot of deficiencies in filling out the database forms, refresher training needed to be given re. the use of the MIKE Database. The MIKE patrol report, monthly and carcass report had been translated in their native language Bengali for field use, for the benefit and understanding of the field staff on patrol.

4.3. India

The presentation was given by the Subregional Steering Committee member from India, Dr. A.N. Prasad, Inspector General of Forests (Wildlife).

He informed that MIKE started in 2002 with the meeting of the steering committee of project elephant endorsing MIKE. LEM forms were revised based on the management practices in India. He mentioned that MIKE is now an approved activity under Project Elephant with emphasis on (i) Establishment of a MIS (ii) Capacity building of field staff. He described the MIKE Organizational Chart for India as well as the area and number of elephants in all the ten MIKE sites in India. He informed that the total area in the ten MIKE sites in India was 30,121 km² and there were a total of 12,379 elephants. The Mysore E.R. has the largest population of elephants (4,452).

He mentioned that MIKE database training on DB version 1.06 has been given to all the 10 sites in India by Ms Anisha Arora, South Asia Programme Support Officer. The GIS training workshop have also been organized in Forest Survey of India (FSI), Dehradun and in all the other MIKE sites. Also, another GIS training workshop is being organized in June 2009 for all the range countries of South Asia at FSI, Dehradun.

He also went on to inform about the elephant status in India. It was informed that since the launch of Project Elephant there are a total of 26 Elephant reserves in India from the northeast, north, central and south of India notified covering approx 59,000 km² and six more

reserves are in the pipeline. Project Elephant & Project Tiger are the major flagship programme of the country under wildlife conservation. He mentioned that the focus of the scheme is conservation of habitat and corridors. Also, for the first time the estimation of elephant population in all ERs including all MIKE sites was done in 2005. The results of all India estimation of population on a 5 year cycle during 2007-08 shows an increase of 5% as compared to the census done in 2002. He informed that 500 people are killed each year by elephants and there is also a huge loss of property and crops. The damages total some 10-12 crores of Indian Rs annually which are given out as compensation to the people. Also, the financial support from Project Elephant to the sites was to the tune of Rs one crore for the MIKE programme in the last four years. He said that they expect INR 100 crore for the entire eleventh five year elephant plan. As for the elephant status poaching for ivory is on the decline and the cases of ivory trade are very sporadic. Also, it is not part of an organized crime for the most part and is opportunistic. Most seizures take place on the India/Bangladesh border which is a trade link. Deaths are due to electrocution & train accidents, which is a major concern. The registration and micro-chipping of captive elephants have been undertaken and training of mahouts and vets are ongoing. There are approx 4000 captive elephants in the country. Also, GPS and computers have been provided to all ERs and MIKE sites. As of now dedicated field directors at ER's are not there and action is being initiated for full time Field directors for ER's. He showed a graph on the trend in elephants killed for ivory by poachers, which showed that it has been reducing since 1999 and the population trend has been going up. He also mentioned that migrations largely occur for crop predation and the MIKE platform could be used for more regional co-operation like:

- Cooperating with each other in combating Elephant poaching & curbing illegal ivory trade.
- Monitoring Elephant populations and their corridors across international borders. (India & Nepal).
- Collaborating with each other in mitigation of human-elephant conflict.
- Cooperating with each other in capacity building programmes for population monitoring.

The constraints that they are facing presently are:

- Shortage of frontline staff
- Fragmentation of habitats/corridors
- Local disturbances in some areas
- Lack of trained staff and hardware at Range Level
- Dispersal of population to new areas.
- Lack of capacity in mass capture & translocation and husbandry.
- Increased human -elephant conflict.

The following <u>recommendations</u> were made:

- MIKE should revise the monitoring forms and database software
- Capacity building of field staff is required in translocation process.
- Trans-boundary issues and regional cooperation needs to looked into
- Human-Elephant conflict issues also need to be addressed

4.4. Nepal

The presentation was given by the delegate from Bangladesh, <u>Ramesh Chandra Aryal</u>, representing the Steering Committee member for Nepal.

He informed that the MIKE site in Nepal is the Suklaphanta Wildlife Reserve, which has a core area of 305 km² and a buffer zone of 244 km² including 17 community forests in its buffer zone along with logging and settlements, but no mining takes place. Involved in protection were 76 Reserve staff, 800 army staff, 7 informants 7, 1 buffer zone management committee, 9 sub-committees, 456 user groups, and 17 forest groups. He also provided details on the land use, administration, budget, community level conservation and enforcement strategies of the MIKE site.

The resources for patrols were: elephants (5), vehicles (2), motorbikes (3), bicycles (300) and foot patrols by more than 200 individuals. There were around 4 resident elephants and 35 seasonal migrants from India. In the last 12 years there had been no reports of carcasses in the reserve.

The constraints that they were facing presently included: (i) rising human-elephant conflicts due to increase in incidents of crop raiding, property damage and human killing; and (ii) local people needed to be sensitized towards conservation of elephants. Trans-border cooperation was urgently required. He requested the MIKE programme to fund solar fencing, bio-fences, trenches and other mitigation measures.

4.5. Sri Lanka

A presentation was given by the National Officer of Sri Lanka, Mr Dissanayake, Assistant Director of the Department of Wildlife Conservation, on behalf of the SC member and himself.

He informed about the two MIKE sites: Yala and Wilpattu. Regarding population surveys, the first population survey was conducted in 1993, which was an island wide survey; the second population survey was conducted in 2004 in the northwestern region and in 2008 the third population survey was conducted in the Mahaweli region. Also, there are no elephants in the western side.

Their objectives were (i) population structure of elephants (ii) Population trend (iii) Distribution pattern (iv) Heavily used areas (v) Moderately used areas (vi) Abundance of Tuskers (vii) Breeding performance

It was informed that the Population trend has increased from 1967 - 5,350 (minimum) in 2008, but down from 10,000 in 1900. 90% of the elephant population is outside of protected areas. Abundance of tuskers is of concern as only 10% of adult male population have tusk. Breeding performance has also been tracked and the largest population is found in the Mahaweli region: around 2,149 elephants.

It was mentioned that the number of human deaths were 52 in 2008 and 50 in 2007. Elephant deaths were 189 in 2007 and 224 in 2008. The causes of death in 2008 were due to gunshot injuries – 55%, poisoned 5%, electrocuted 9%, accidents 8%, unknown 13%, natural 10%, other 0%.

The actions taken by Department of Wildlife Conservation to reduce Human- Elephant conflict are: 1.(a) Legal protection: the legislation was amended in 2008 to increase penalties from 1-1.5 lacks to 1.5-5 lacks Srilankan Rs., for injury, electrocution and any harassment to elephants & no bail out. (b) Registration of domesticated elephants was done to stop illegal captures. 2. (a) Physical barriers: till 2007, electric fences were constructed up to 660 km; by 2009, 1037 km needs to be completed. (b) Elephant holding grounds were there in both MIKE sites. (c) Habitat improvements need to be done, such as creation of waterholes and removal of lantana invasive species, water hyacinth. 3. Setting up of Elephant transit homes: 65 orphaned elephants have been released since 1998. Some have bred once they were released back into the wild; they re-socialized and integrated into a herd.

He also informed that compensation was being given for life, crop and property damage done by elephants 50% of the damage is now paid within a month. Also immediate payment of Srilankan Rs 15,000 is paid for funeral arrangements. Elephant control units were also increased from 3 to 11.

Way forward: (a) habitat enrichment (b) programme to mitigate Human- Elephant conflict (c) capacity building

5. Discussion on the country reports

(1). A lot of focus needs to be taken on Human- Elephant conflict. (2). Capacity building (3). Site boundaries need to be demarcated. (4). Measures need to be taken to standardize MIST in all the range states. (5). Measures need to be taken to control habitat loss. (6) As the area in the MIKE sites was large, it was requested that a sample size could be taken instead for the MIKE Database.

6. Sub-regional Support Unit's progress report on the implementation of MIKE in South Asia

Activities and progress since the fourth meeting:

The (Acting) SSO, Ms Anisha Arora, South Asia Programme Support Officer, presented the progress of the MIKE programme from the last Steering Committee meeting held in Nov, 2007. A brief summary of status of MIKE reporting and impediments faced during implementation were mentioned. It was informed that MIKE database training has been imparted to all the sites on the use of MIKE database 1.06, data storage, management & security, virus management, data transmission. It was also informed that all the sites were using pirated software (Microsoft XP, Windows 2000 etc.), because of which most of the components in the database were not being reflected and the reports were getting affected because of that. Also, all the sites need a dedicated computer for MIKE database as most of the divisions in the sites were using only one computer for the entire office. Internet access in most of the divisions in the site were not available to get regular downloads, virus updates.

For MIKE officers from Bhutan, training was imparted in Samtse in Bhutan, in February, 2009 by the (Acting) SSO), refresher courses on MIKE DB 1.06 were also given in 6 sites in India during 2008 and 2009. For India training was delivered for each forest division in each site, as these would be the basic units of data collection. This was followed with – training at Forest Division level in each site. Database is being used in Bhutan and at selected sites in India. General problems faced at sites are: issue of frequent transfers, and lack of computer savvy individuals at site.

It was informed that a GIS training workshop is being organized in Forest Survey of India (FSI) ,Dehradun from 22nd June - 26th June 2009 for South Asia again and can be attended by the participants from all the range countries. The participants from the Indian MIKE sites were funded by Project Elephant and MIKE had offered to fund one participant from the other range states, due to shortage of funds. It was requested that other countries assist in funding. Srilanka mentioned that it can not tap government resources. Bhutan mentioned that MIKE should vigorously fund raise for this sort of training. The MIKE Coordinator informed the Steering Committee that they have several proposals in pocket, and need endorsement from governments. He mentioned that there were misperceptions about how donors work and they restrict funding packages to specific countries and regions (On why Africa has specific funds? It was informed that the donor has a pot of money that can only be spent there). Bhutan mentioned that MIKE needs to be more aggressive in fundraising and that the committee would want to see a road map/plan about how MIKE will proceed. India proposed that a plan should be put together and then a donor workshop should be convened with the participation of all the member countries. Bhutan proposed that some local funds can be tapped if the Steering Committee has a plan and it is agreed by all the member countries. The MIKE Coordinator mentioned that MIKE has shown the Asia proposal to some of the MIKE-ETIS Sub-Group proposals, but they have not approved it as yet

The (Acting) SSO went on to inform that GIS & GPS training workshops for Eastern Duars ER was organized in Jaldapara Sanctuary in March 2009, which was funded by the reserve itself. The training was given by a GIS specialist from the Forest Survey of India (FSI), Dehradun. The status of data for all the five countries was presented. Bangladesh: has been reporting, but in the old format and the data was not being filled as per the direction. Bhutan: reports have not been received after 2007, but after the recent database training it was informed that data is being entered in the database and will be sent in due course. India: partial reporting is being done from several sites but only from part of the designated site that have many forest divisions within and no forms are being received by the NO from several sites. The data remains at sites and is not passed on. Nepal: No reports have been sent after July 2007. Srilankan: no reports have been sent since the beginning of the programme and there is no information whether reporting is being done at both the sites.

The following impediments were indicated by the (Acting) SSO.

- Poor data flow from sites to National Officer and SSO. Data is stuck at some point and is not in the right format etc.
- Lack of communication between SSO, MIKE site officers and range states on training and other needs.
- Lack of means at the SSU to support training and other activities.

The MIKE Coordinator informed the Steering Committee that MIKE wants to supply support wherever it can and the range states have also agreed to supply information, but it is not coming. He mentioned that countries are seen struggling with the complexities of the task. Also, he urged the SC members to try to see the MIKE programme beyond the CITES dimension.

Also, the immediate issue before MIKE is CoP15, where we will have to report on the status of MIKE and how it is being implemented. He informed that we need to show a good result and need to see what activities we can do over the next three months to meet the CoP15 deadlines and prepare an analysis and submit the required documentation to CoP15. He went on to say that we then need to focus on mid- to longer-term activities and subsequently move forward with larger funding proposals. He mentioned that MIKE recognizes that the data collection process is cumbersome and we need to reform it, but we can't do it yet. He also said that MIST is a good step forward and in Africa we are deploying MIST but it will be slow for the other sub-regions, as we need to get a regional budget for that.

To this, Srilankan mentioned that they spent 40-50% of their field officers time on HEC issues and it was a huge government commitment.

Bangladesh said, let's prioritize our activities and see what we can do over the next few months.

To this, there was a discussion on the things <u>for immediate attention</u> (for completion over the next three or four months; <u>June-October 2009</u>):

Technical

- Carcass data is required on a specific template created on an excel spreadsheet which
 has been sent to all the range states. The form requires bare minimum of data
 requirements. It would be useful if this form can be accompanied by the LEM data on
 man hours on patrol.
- 2. Survey data updates Population and status surveys have transpired but are not known to MIKE. It would be useful if these reports can be sent by the range states.
- 3. Site evaluations Descriptions about the site are required.

- 4. Site boundaries Analysis can be improved with more credible boundaries.
- 5. Patrol effort forms

Institutional

- 6. Funding proposals Need support and endorsements from range states to help in identifying target donors. It was suggested that a donor conference might be a good idea and the draft proposals can be circulated to the five countries for their comments. Once it is agreed by the range states then there would no problem with getting a letter of support.
- 7. Road map for moving forward with MIKE in South Asia.
- 8. SSU Unit How to maintain, strengthens and further develops it.
- Partnerships To assess NGO and other institutional alignments that might help to move MIKE forward.
- 10.MIKE National officer The issue of the right country contact was discussed. It was mentioned that the MIKE national officer is sometimes too junior and there are communication disconnects, so, higher level contacts were needed.
- 11. Copy Correspondence- Also, all correspondence should be copied to National Officers and also to the Steering Committee members. It was suggested that the SSU re-circulate all forms, excel spreadsheets and instructions to the range states.

The following mid-term objectives till 2011 were also discussed:

Technical/Scientific:

- Deploy Mist*
- ID Capacity Building needs and opportunities* ("Frontline"; "Upstream"; "Tropical")
- Provide / arrange Capacity Building & training*(MIKE routines; Management; Surveys...)
- Site selection evaluation
- Site software & hardware*
- Collaborate in /support population surveys* (Prioritized)
- Site Support for data collection & transfer & use
- Enhance analytical capacity
- Adapting MIKE to Asian context
- Simplify reporting systems

Institutional / Human Resource Management:

- Targeted fundraising / donor conference
- MIKE Asian Elephant management forum
- Cross boundary team(s)*

- Partnerships
- Stabilize MIKE staff
- MIKE feedback to managers/decision makers
- Viable SSU*
- Sub-Regional Steering Committee Meeting (Srilankan? India?)*
- HEC & MIKE
- Enhance communication
- Implement road map and proposal(s)*
- Work towards sustainability
- Review relevance of MIKE to South Asia

SC members Discussion

Prof Sukumar (TAG member) mentioned that we need to stay focused upon the core objectives of MIKE and make it work at the field sites. The expansion of mandate and activities is not yet warranted. He said that he doesn't think that population estimates is important. We roughly know how many elephants are there in a particular area. Also in his opinion LEM is also not a priority. He said that a simple way should be used for measuring effort. Data flow from the sites is becoming a challenge and this is now clogging up the system. Also, we are not getting the right data. He expressed that carcass data information is what is important. He mentioned that in Asia, there are no major changes in sex ratio as only males are targeted for ivory.

Mr Prasad, SC member for India, mentioned that we now have the experience of the last five years and we realize what we can do. We need to change the database formats and also need to stay focused on the objectives of MIKE.

Mr Julian Blanc, Data Analyst for MIKE mentioned that the GPS trackers which the rangers carry, when switched on provides the information on the track and where the live elephant or carcass was found. Prof Sukumar said, that it will never work as there are hundreds of people involved and there is no way that all the field staff could be equipped properly, and it would not be worthwhile to expect illiterate people to use them. Mr Sonam Wang, SC member for Bhutan queried on who would be providing all of this equipment? He mentioned that we need to look at Mike's relevance to South Asia and review and see what it has achieved and what needs to be done to address South Asian elephant issues. He suggested that the following parameters are looked into- delivery, leadership, funding, common platform etc. He went on to say that we need to be clear and TAG should review this matter.

It was also discussed whether it was necessary to amend Resolution Conf. 10.10? To this Mr Tom Milliken, ETIS Director, mentioned that at the last TAG meeting, it was specifically thought that it was not necessary to open amendment of the resolution as other agendas, other considerations could potentially hijack the process. But, if there is another way to do it, it would be best to go that route. Mr Prasad also mentioned that there was no reason to tamper with the resolution. Also, the fourth bullet point on capacity building is generic and covers what we need to do in terms of dealing with other core elephant issues.

7. Discussion on impediments to programme requiring Steering Committee intervention

Poor data flow from MIKE sites to National MIKE Officers and Sub-regional Support Unit (SSU)

Lack of communication between SSU and range States on training, other needs:

Incomplete reporting from several sites in India:

Carcass reports to be made mandatory along with patrol reports

8. ETIS (Elephant Trade Information System) in South Asia

The presentation was given by the the Director of ETIS, Mr Tom Milliken. He gave a brief history of ETIS. ETIS started in June 1997, and it was formed at the 10th meeting of the Conference of Parties to CITES, in Harare, Zimbabwe. A negotiated CITES CoP process resulted in Resolution Conf. 10.10. ETIS comprises of CITES and TRAFFIC's BIDS (Bad Ivory Database System). He also mentioned that for ETIS, MIKE was a half brother. ETIS was conceived to create a comprehensive picture of the trade in elephant products and it has a global mandate as elephant seizure can take place anywhere in the world.

The objectives of ETIS:

- To measure and record levels and trends, and changes in levels and trends, of illegal trade in ivory;
- to assess whether and to what extent the observed trends are related to CITES decisions;
- to establish an information base to support the making of decisions on appropriate management, protection and enforcement needs; and
- · to build capacity in elephant range States.

The Difference between ETIS & MIKE

ETIS monitors the illegal trade in ivory and elephant products worldwide. MIKE tracks the situation on the ground at some 60 sites in Africa and Asia. He mentioned that within 90 days the seizure needs to be reported to the CITES Secretariat. TRAFFIC does the data entry and analysis.

The ETIS Reporting Mechanism

The ETIS form was first sent to all Parties on 31 March 1998 by the CITES Secretariat as Notification 1998/10. The forms ensure that vital information on seizures is recorded in a standardized and efficient manner.

The Conceptual Framework for ETIS

Actual level of illegal trade in ivory - Seizures - ETIS records

ETIS Subsidiary Databases

He informed that there was a Central Database where Information on seizures of ivory and elephant products are stored since 1989.

He informed that ETIS has a focused niche within a linked partnership to assess elephants. He also mentioned that a chain is constructed based on the records of seizures in and seizures out. The number of seizure records in ETIS since 1989 till date were 13500 cases. He informed that raw ivory is cut into blocks and then into a worked item. 35 tonnes of ivory is seized globally and two ivory seizures occur everyday anywhere in the world. He also mentioned that Japan used to be the centre for the biggest ivory trade but by 2000 China was declared the biggest centre for ivory trade. There has been a steep increase in ivory trade since 2005. The CoP allowed a one- off ivory sale in 1999 which was the world's largest collection of ivory seizures. He went on to inform that there are Domestic Ivory markets in Africa, Kinshasa, and Democratic Republic of Congo. Domestic Ivory markets in Asia, Beijing, China.

As per CoP14 Decision 13.28 (Rev. CoP14), the action plan for the control of trade in African elephant ivory was made, which mentions that "Prohibit all unregulated domestic sale of ivory (raw, semi-worked or worked); if permitted must be in compliance with Resolution Conf. 10.10 (Rev. CoP14)"

Resolution 10.10 (Rev. CoP14) requires:

- Compulsory trade controls over raw ivory; the registration of all importers, manufacturers, wholesalers and retailers dealing in raw, semi-worked and worked ivory products;
- the dissemination of public awareness materials, particularly in retail outlets, informing tourists and other non-nationals that they should not purchase ivory in cases where it is illegal for them to import it into their own home countries:
- the introduction of recording and inspection procedures to enable the CITES MA and other appropriate government agencies to monitor the flow of ivory within the State;
- the introduction of a comprehensive and demonstrably effective reporting and enforcement system for worked ivory;

He informed that one study has estimated between 4,000 and 12,000 elephants are killed annually to supply Africa and Asia's unregulated ivory markets.

He also said that large-scale Ivory seizures mean changing trade dynamics (i) Better planning, organization and intelligence (ii) Greater levels of finance (iii) Investment in facilities and equipment for storage and shipping purposes (iv) Ability to exploit trading links and networks between source countries in Africa and end-use markets in Asia (v) Likelihood of higher levels of corruption, collusion between private sector and government regulatory agencies: all of this equals to emergence of organized crime operations.

He informed that South Asia is not part of the illegal trade and the trade route is through South East Asia (China, Macao, Taiwan, Hong Kong, Philippines, Japan, and Thailand) which is the ddestination of large-scale Ivory seizures. Also, ETIS capabilities lie in identification of key players in illicit ivory trade. China is frequently involved in seizures and there is a very low market in India. Europe has good law enforcement. South Asia is completely out of the ivory trade. Overall, the performance in East and Southern Africa is much better although some countries need to exert more effort. He went on to say that there were serious governance issues like: failure to manage government stocks of ivory. Ivory Stockpiles in Mozambique disappeared and were later found in: Pemba, Niassa GR, Lichinga, Tete, Gorongosa NP, Beira, Maputo and other places.

9. Technical Advisory Group (TAG) and TAG issues regarding South Asia

The MIKE Coordinator introduces the SC by giving a brief description of the TAG background and the issues related with it. He mentioned that the members of TAG meet once a year and since its initiation 7 meetings have been held so far. The 8th meeting is likely to be held in Dec 2009. He explained that MIST was first vetted through the TAG before being introduced to range states in meetings such as this one. He mentioned that he hoped to do a Central African analysis that links MIKE data directly with ETIS data.

Prof Sukumar (TAG member) mentioned that there are various Database management issues and informed that MIKE was first launched in Africa and then came to Asia. He also said that although he was TAG member things developed without him, but began to advocate for simplicity. He stressed on the fact that what works in Africa may not work in Asia. For instance the measure of effort is required, but a simplified form can be used against that used for Africa. On how much data comes in about effort? He mentioned that population can remain high in the face of serious poaching of males, i.e. for e.g. in Periyar NP it went from 1 male to 5 females to 1 to about 100, fewer males servicing more females. Thus, population numbers may not be critical to TAG issue.

10. The MIKE programme in South Asia and Asia :issues of sub-regional concern

Discussed under point number six above

11. Other issues relevant to CITES and Elephant

- It was mentioned that at the last CoP14 Botswana, Namibia, South Africa and Zimbabwe were allowed to trade but agreed to not ask for trade for 9 years.
- To assesses controls on unregulated domestic ivory markets; forensic ivory ID, etc.
- To develop an African Elephant strategic plan; very different views about elephant conservation. Strategic framework for an African elephant action plan was vetted in March 2009.
- African elephant fund some donors could engage if Africa can agree a plan; also do meetings in June 2008 and March 2009.
- An agreement on future ivory trade CITES Secretariat to under take a feasibility study. For this approx USD 50,000-60,000 was required and funds are not available for the same.
- Ivory auctions During October- November 2008 Botswana, Namibia, South Africa and Zimbabwe auctioned 102 tonnes of ivory for USD 15,400,000 which must be invested in elephant conservation. On an average the price was low USD150/kg and economic crisis clearly impacted the auction. There was some level of collusion.

It was informed that in July 2009 the 58th meeting of the Standing Committee will be held. There are already six documents to be discussed concerning elephants. The discussions would be related to MIKE-ETIS Sub-Group meeting to review information on the conservation status of and trade in elephants, implementation of ivory action plan, report on African elephant action plan, progress in developing decision making mechanism.

12. Any Other Business

There was a request from the Ministry of Agriculture, Bhutan for HEC discussion. It was decided that all the comments from the SC members on the HEC issue will be sent to Mr Sonam Wang, SC member for Bhutan.

13. Date and venue of next meeting

It was decided that the next Sub-regional Steering Committee meeting which will be the 6th Steering Committee meeting will be held in India in 2010 (summer) after CoP15 so that the feedback on CoP outcomes and discussions can be part of the agenda.

14. Main Conclusions of the Meeting

Immediate conclusions: The MIKE Coordinator mentioned that actions were identified and conclusions were straight forward.

15. Closing Remarks

The MIKE Coordinator mentioned that the SC had come quite a way from the last meeting in Nepal and was very pleased with how the countries have responded and targeted. He felt that there is a very serious commitment to elephant conservation in South Asia, and a very coherent view on what to do with elephants. Also there was a unified concurrence on management strategies from all the countries. He felt that all the five countries were very unanimous in comments and in critiques. He said that we need to look positively on MIKE and ETIS. He was pleased that the meeting has been open and bold, and every member has made their views known, and will try to implement the aspirations of the region. He also said that he wanted to build on the momentum of this meeting to build on the potential of India and Bhutan, Bangladesh, Nepal

and Sri Lanka, and it is clear that all are trying very hard to make it work. He finally mentioned that it would be beneficial to turn into a workable MIKE programme.

The meeting was closed by the Chairman and SC member of the fifth SC meeting who expressed his gratitude to the range states for their participation and also mentioned that the meeting was very educative and he learned a lot. He thanked all the participants for sharing the knowledge. He said that he was not an elephant expert, but he thinks that the meeting has been very successful. He mentioned that the healthy and exhaustive participations by all the members bode well for achieving a positive outcome for elephants. He hoped that the there could be more frequent contact between all the members not only on elephants but on a wide range of conservation issues. He expressed that Bhutan was privileged to have hosted the meeting. He ended the meeting by saying that conservation may be at the losing end of global change, so we need to work together and ensure that conservation wins right across the world. He lastly thanked all the SC members and the MIKE staff.

AGENDA

Opening ceremony

- Registration of participants
- Arrival of Chief Guest
- Marchang Ceremony (Inaugural Ceremony)
- 1. Welcome addresses
 - Director, Department of Forest, Ministry of Agriculture, Royal Government of Bhutan and Chairperson of Sub-regional Steering Committee, CITES-MIKE South Asia
 - Coordinator, CITES/MIKE Programme
 - Key Note Address: Chief Guest, H.E Dr.Pema Gyamtsho, Honorable Minister for Agriculture
 - Vote of thanks
 - Chief Forestry Officer, Nature Conservation Division, Department of Forest, Royal Government of Bhutan and Chairperson of Sub-regional Steering Committee, CITES/MIKE South Asia
- 2. Minutes of the fourth Sub-regional Steering Committee meeting, CITES-MIKE South Asia (Katmandu, November 2007)
- 3. MIKE Programme update
 - General status of the MIKE programme
 - MIKE Phase II technical developments
- 4. Country reports on progress with the MIKE programme [Range state Steering Committee members and National Officers]
 - a. Bhutan
 - b. Bangladesh
 - c. India
 - d. Nepal
 - e. Sri Lanka
- 5. Discussion on the country reports
- 6. Sub-regional Support Unit's progress report on the implementation of MIKE in South Asia
 - Activities and progress since the fourth till now
 - Proposed work programme until CoP15 (March 2010)
- 7. Discussion on impediments to programme requiring Steering Committee intervention

- Poor data flow from MIKE sites to National MIKE Officers and Sub-regional Support Unit (SSU)
- Lack of communication between SSU and range States on training and other needs to be addressed (particularly Bangladesh, Nepal and Sri Lanka)
- Incomplete reporting from several sites in India
- Carcass reports to be made mandatory along with patrol reports
- Capacity and human resource issues in the MIKE sites
- Logistical and technical issues in the MIKE sites
- 8. ETIS (Elephant trade Information System) in South Asia
- 9. The Technical Advisory Group (TAG) and TAG issues regarding South Asia
- 10. The MIKE programme in South Asia and Asia: issues of sub-regional concern
 - What are the benefits of MIKE for the range States and the sub-region?
 - What are the major implementation challenges and problems encountered by range States?
 - Can the programme be implemented without a MIKE Sub-regional Support Unit (funding ends in July 2009)? If yes: how can the functional role of the SSU be maintained? If no: how can de MIKE SSU be supported?
- 11. Future direction of the MIKE programme in Asia and South Asia
- 12. Other issues relevant to CITES and elephants
- 13. Any other business
- 14. Date and Venue of next meeting
- 15. Main conclusions of the meeting
- 16. Closing remarks

PARTICIPANTS AT THE 5TH SUBREGIONAL STEERING COMMITTEE MEETING, CITES MIKE SOUTH ASIA

Bangladesh

1. Mr Ishtiaquddin Ahmad

Conservator of Forests,

Office of the Chief Conservator of Forests,

Bana Bhaban, Agargaon

Sher-e-banglanagar

Dhaka

Bangladesh

Tel: +88-02-8127222 Fax: +88-02-8119453 Mobile: +88-01712-085944

E-mail: iuahmad55@gmail.com

Bhutan

2. Dr. Sonam Wangyel Wang

Chief Forestry Officer

Nature Conservation Division,

Department of Forestry Services,

Ministry of Agriculture,

Tashichodzong,

Thimphu,

Bhutan

Tel: +975 2-335807 Fax: +975-2-335806 Mobile: +975-17111009

E-mail: wangsonam@moa.gov.bt

3. Mr Norbu Wangdi

Forestry Officer

And National Officer, CITES MIKE, Bhutan

Nature Conservation Division,

Department of Forestry Services,

Ministry of Agriculture,

Tashichodzong,

Thimphu,

Bhutan

Tel: +975 2-325563 Fax: +975-2-335806 Mobile: +975-17655649

E-mail: norwnags@gmail.com

<u>India</u>

4. Dr. A.N. Prasad

Inspector General of Forests (Wildlife)

And Director, Project Elephant

Ministry of Environment and Forests

Government of India

Paryavaran Bhawan

CGO Complex, Lodhi Road

New Delhi-110003

Tel/Fax: +91-011-24360957 Mobile: +91-9868837779 E-mail 1: gajendra@nic.in

E-mail 2: anprasad79@gmail.com

Nepal

5. Mr Ramesh Chandra Aryal

Under Secretary

Ministry of Forests and Soil Conservation

Government of Nepal

P.O. Box 860,

Babar Mahal

Kathmandu

Nepal

Tel: +977-1-4211881 Fax: +977-1-4227675 Mobile: +977-9841209897

Sri Lanka

6. Mr. Ananda Wijesooriya

Director General

Department of Wildlife Conservation

18, Gregory's Road

Colombo-7

Sri Lanka.

Tel: +94-11- 25603171 Fax: +94-11-2744299 Mobile: +94-718323672

E-mail: wadawijesooriya@gmail.com

7. Mr S.R.B.Dissanayake

Deputy Director (Research & Training)
And National Officer CITES MIKE, Sri Lanka
Department of Wildlife Conservation
18, Gregory's Road
Colombo-7
Sri Lanka.

Tel: +94-11-2560375 Fax: +94-11-2744299

E-mail: sarathdisa@yahoo.com

8. Mr Tom Milliken

Director, TRAFFIC East/Southern Africa TRAFFIC, C/o WWF

P/O/ Box CY 1409

Causeway,

Harare

Zimbabwe

Tel: + 263-4-252533/4 Fax: + 263-4-703902

E-mail: milliken@wwfsarpo.org

9. Prof. Raman Sukumar

South Asia Representative - CITES MIKE TAG member

Centre of Ecological Sciences,

Indian Institute of Science

Bangalore

India

Tel: +91-80-23600382/22933102 Fax: +91-80-23602280/23601428

Mobile: +91-9448275600 Email: rsuku@ces.iisc.ernet.in

CITES MIKE Programme

10. Mr. Tom De Meulenaer

MIKE Coordinator

CITES Secretariat, CITES MIKE Programme

P. O. Box 30552 (00100)

Nairobi,

Kenya

Tel: +254-20-7625175 Fax: +254-20-7623926

Mobile: +254 (0) 721 727688

Email: tom.de-meulenaer@unep.org

11. Mr. Julian Blanc

MIKE Data Analyst

CITES Secretariat, CITES MIKE Programme

P. O. Box 47074

Nairobi,

Kenya

Tel: +254-20-7625174 Fax: +254-20-7623926

Mobile: +254 (0) 722885724 Email: julian.blanc@unep.org

12. Ms Anisha Arora

South Asia Programme Support Officer CITES MIKE Programme-South Asia C-589, Ground Floor Defence Colony New Delhi-110024 India.

Telefax: +91-11- 41555798 Mobile: +91-9811913900

E-mail: anishaarora@citesmike.org E-mail 2: anishaarora@rediffmail.com