Seventh Meeting of Forum of Election Management Bodies of South Asia
Bandos Island Resort I Male', Maldives I 02-04 August 2016

STEWARDSHIP REPORT 2016-2017

Contents

Acknowledgement

Elections Commission of Maldives (ECM) expresses its heartfelt joy at being given the opportunity to host the 7th meeting of Forum of Election Management Bodies of South Asia (FEMBoSA). It has been an unforgettable and wonderful experience to have successfully hosted the event.

ECM would like to acknowledge the continued support and guidance given by the Elections Commission of Sri Lanka during their chairmanship and would like to congratulate outgoing Chairperson, Chairman of Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya for his outstanding performance and for upholding this prestigious position so diligently.

The dynamic team of ECM has shown the true spirit of teamwork in all the processes of this event. The proactive roles played by the senior management have been commendable. ECM would like to take this opportunity to appreciate each and every role played by every official of this institute in making this event a huge success.

The enthusiastic spirit of the delegates made the work of ECM more enjoyable. Hence, a warm thank you to all the honorable delegates from Afghanistan, Bangladesh, Bhutan, India and Sri Lanka for actively participating at all the proceedings of this event.

A warm gratitude to the Prosecutor General Uz. Aishath Bisham for accepting the request to grace the 7th meeting of FEMBoSA as the chief guest.

Mr. Ahmed Sulaiman

Chairperson of Elections Commission of Maldives

I. Background

The Forum of the Election Management Bodies of South Asia (FEMBoSA) is a regional establishment for cooperation amongst the SAARC EMBs. The idea of instituting such Forum was conceived by the first meeting of Heads of Election Management Bodies of the SAARC held in Dhaka in 2010. The second meeting held in Pakistan in 2011 shared experiences and decided to take concrete steps towards formalizing the Forum of Heads of Election Management Bodies of the SAARC.

The third meeting of the Forum held in New Delhi in 2012 took a unanimous decision to rename itself as Forum of Election Management Bodies of South Asia; and the FEMBoSA Charter was signed in the same meeting.

The fourth meeting of the Forum was hosted by the Election Commission of Bhutan in October, 2013 on the theme: "Sharing Experiences and Resources for Better Electoral Practices in South Asia". Nepal hosted the fifth meeting of FEMBoSA in Kathmandu, Nepal, from 29th-30th November 2014. The theme of the fifth meeting was "Regulating Campaign Finance: Ensuring Free and Fair Elections". And the sixth meeting of FEMBoSA was held in Colombo, Sri Lanka from 1st-2nd October 2015 on the theme "Free and Fair Election – Pride of Nation".

As per the resolution of the sixth meeting, the Election Commission of Maldives hosted the 7th FEMBoSA meeting in Bandos Island Resort, Maldives from 02nd-04th August 2016. The theme of the 7th meeting was **"Technology for Credible Elections".**

II. Introduction

The 7th meeting of Forum of Election Management Bodies of South Asia (FEMBoSA) was held from 02-04 August 2016 at Bandos Island Resort, Maldives. Member countries of the forum; Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka participated in the meeting under the theme **"Technology for Credible Elections".**

This report gives an overview of the works undertaken by all the member countries from last year to this year. It shows the dedication and commitment displayed by all the member countries at strengthening the electoral management system of their respective countries and a commendable effort made to unite the knowledge of different EMBs to create a better perspective in managing certain aspects of this system.

During the passing down of the medallion of FEMBoSA, the Chairman of Elections Commission of Maldives, H.E Mr. Ahmed Sulaiman assumed the role of the chair of FEMBoSA for the following term with a promise to work hard towards a better outcome to all the member EMBS by uniting the knowledge of all the member EMBs and creating a platform for easy sharing of information.

III. Summary Report

The 7th meeting of Forum of Election Management Bodies of South Asia (FEMBoSA) was held from 02-04 August 2016 at Bandos Island Resort, Maldives. Member countries of the forum; Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka participated in the meeting. As decided on the previous FEMBoSA meeting, the theme for this year's forum was "Technology for Credible Elections". The proceedings of the seventh meeting of FEMBoSA are summarized below.

The Inaugural Session

The opening session of the seventh meeting of FEMBoSA was inaugurated by the chief guest, Prosecutor General Uz. Aishath Bisham. The inaugural session was facilitated by the Secretary General of Elections Commission of Maldives, Mr. Ahmed Ali and was attended by all the member states, invited guests and officials of Elections Commission of Maldives.

- Secretary General of Elections Commission of Maldives, Mr. Ahmed Ali welcomed all the delegates of the member countries. He focused his speech on the main theme of this year "Technology for credible elections" and the importance of modernizing election management processes to achieve a better outcome. Further on this, Mr. Ali explained about a web portal to be launched at this opening ceremony. This portal is designed to document all the activities of the forum, including a photo gallery, event news, participating countries information which are directly related to the forum. He stated that, the aim of this forum has been to go paperless or use minimum paper throughout the sessions.

- Keeping with the theme, a flag hoisting animation was orchestrated with national anthems of the member countries being played consecutively. The idea was to project the unity of member countries.

- The Chairperson of the FEMBoSA, Chairman of Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya gave the opening speech of the FEMBoSA seventh meeting. He showed a roadmap of how the events of the forum will be commencing. He then, thanked Maldives for the warm welcome and for working closely with Sri Lanka. He concluded his

speech by welcoming all the delegates and said he was looking forward for a very fruitful discussion.

- While addressing the opening ceremony, the Chairman of Elections Commission of Maldives, H.E Mr. Ahmed Sulaiman highlighted the importance of working towards disseminating the results of our current consultations to our citizens and to seek ways in conducting cost-effective elections for the benefit and advantage of the people. He also pointed that we have to seek ways to conduct elections in cost-effective ways for the benefit and advantage of the people. In this manner, it is now incumbent on us to develop electoral bodies with the help of modern conveniences and technology. And concluding requested all the member countries to make the most effective use of this time, to fill their travel trunks with knowledge and experience before returning home, and to commit firmly to the spirit of sharing and give-and-take right now, to utilize fully and in the most beneficial manner this golden opportunity which we have today.

- Chief Guest, Prosecutor General Uz. Aishath Bisham did the honors of launching the web portal of FEMBoSA. A video presentation of the portal was played which showed a glimpse of the portal interphase and what it consists of.

- In the speech of chief guest H.E. Uz Aishath Bisham, she expressed her gratitude for the opportunity presented to her and was proud to be part of the event. She highlighted the work towards introducing e-voting in Maldives and obstacles it could create. She also mentioned that consequences and difficulties arising from it will take some getting used to- and may even face oppositions to some extent. She believes that the Elections Commission will weigh in all aspects of that conversation before going ahead.

- Vice chairman of the Elections Commission of Maldives, Uz. Amjad Musthafa delivered the vote of thanks. In his speech, he thanked Sri Lanka for their kind assistance for this event, and the help they provided to efficaciously host this conference in Maldives. He also took the opportunity to extend his gratitude to the distinguished panel of speakers, delegates, distinguished participants and guests for participating at this event. Moreover, on behalf of Elections Commission of Maldives, he placed on record the excellent contributions and

support made by Bandos Island Resort and all supporting third parties in making this conference a successful event. And finally, he thanked all the members of the organizing committee at the Elections Commission of Maldives; without whom this conference would not have been possible.

General Session 1

The general session one was chaired by the outgoing Chairperson of FEMBoSA, Chairman of Elections Commission of Sri Lanka H.E, Mr. Mahinda Deshapriya. In opening the general session, he thanked all the member countries for participating in this meeting and welcomed the member counties for the seventh meeting of the FEMBoSA. He also thanked the Chairperson of FEMBoSA and Chairman of Elections Commission of Maldives H.E, Mr. Ahmed Sulaiman for making excellent arrangements for the meeting and the warm hospitality extended to them.

a) Opening statement:

The outgoing Chairperson, Chairman of Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya began by welcoming all the delegates to the seventh meeting of the Forum. He mentioned the important role FEMBoSA plays in bringing together the member countries Election Management Bodies (EMBs) to one platform. The purpose of which has been to discuss the experiences and incidents each country has encountered during election processes. In concluding his welcome note, H.E Mr. Deshapriya thanked Maldives for hosting this year's FEMBoSA meeting at Maldives.

b) Adoption of Agenda:

H.E, Mr. Mahinda Deshapriya read the current meeting's agenda and welcomed all the participants to make any inclusion, should they have any need for it. Since none of the participants proposed a change to agenda, the meeting agenda was adopted as it was.

c) Presenting the stewardship report:

Next, the outgoing Chairperson H.E Mr. Mahinda Deshapriya presented last year's stewardship report. H.E Mr. Deshapriya gave a status update on the tasks assigned to the member EMBs from last year's work plan. When a number of tasks were achieved, there was some member EMBs

whose tasks were yet to be completed. A fact he shared was some of the updates of the countries has not been incorporated into this report due time constraints. Therefore gave the assurance that they will share the final report with the final updates of the countries with the member EMBs.

d) Handing over of the Chair from Elections Commission of Sri Lanka to Elections Commission of Maldives:

The outgoing Chairperson of FEMBoSA, Chairman of Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya moved on to the next item on agenda, the handing over of the chair. It was done by; passing down the medallion representing the chair of FEMBoSA to the incoming Chairperson, the Chairman of the Elections Commission of Maldives, H.E Mr. Ahmed Sulaiman. And then a FEMBoSA logo memento was handed down to H.E, Mr. Sulaiman. The outgoing Chairperson H.E Mr. Deshapriya concluded by thanking all the participants for their support throughout all the endeavors of the past year. And wished the incoming chair a successful term

This event marked the transition of Chairmanship to Maldives for the period of 2016

e) Session Closing

To wrap up the session, Chairperson of FEMBoSA and Chairman of the Elections Commission of Maldives H.E, Mr. Ahmed Sulaiman thanked all the delegates for participating.

Technical Sessions

Technical Sessions were organized such that in each session member EMB is given a maximum of 45 minutes to present a pre-decided topic on the theme “Technology for Credible Elections”. The technical sessions were presented in the alphabetical order of the country representing member EMB’s. Each technical session was chaired by the EMB other than the one presenting, and the discussion of the presentation was facilitated by another EMB. An Additional session was also included as an add-on to the meeting. This session was presented by a former Elections Commissioner of Maldives.

All the technical sessions of the meeting were moderated by the Secretary General of Elections Commission of Maldives, Mr. Ahmed Ali.

A summary of nine technical sessions are as follows.

Technical Session 1

Topic: Use of GIS (Geographic Information System) in Elections
Presentation: Independent Elections Commission of Afghanistan
Presented by: Mr. Zmarai Qalamiar, Director of Operations
Chair: H.E, Dr. Ayodhee Prasad Yadav, Chief Elections Commissioner of Elections Commission of Nepal
Discussant: H.E, Mr. Ugyen Chewang, Commissioner of Elections Commission of Bhutan

Paper Summary:

(GIS), which is a computer-based database system that is used to store, analyze, and manipulate geographically referenced data. What makes a GIS so powerful is its ability to layer thematic maps vertically, such as a population density map over a city map, and calculate distances between two or more locations accurately. In GIS, thematic layers can be used to create a multidimensional view of a geographic area over time. This type of mapping can show changes in population density, fluctuations in air quality, or evolving political-party affiliation. If they are developing or debating a new piece of legislation, they can use GIS tools to run possible scenarios to get relative answers.

GIS Tool generates Maps, Graphs, Reports, administrative boundaries and population information. IEC collected the data on hardcopy forms from the field through district employees and then entered the information in the GIS database along with digital pictures. Electoral geography is interested in the study of elections to understand spatial variations of political phenomena. The results of spatial analysis are dependent on the locations of the objects being analyzed which seek to explain patterns of human behavior and its spatial expression in terms of mathematics and geometry. IEC used spatial analysis tool to determine the number of polling stations in reference to the population data and the GSM coverage on the map for field staff. In addition, IEC helped the security forces in showing the threat level on the map using different colors in the analysis. Future Plans include, Population data satellite imagery, Material tracking through GPS device and online access to voters.

Discussion:

The Director of Operations Mr. Zmarai Qalamiar, in his presentation stated that, GIS manages to capture the targeted audience in a very effective manner where, boundary delimitation was generated by considering a number of factors. He also said it empowered EMBs to do better planning and in taking informed decisions. One of the main problems they had previously faced was the allocation of the polling stations at the wrong locations which created confusions and conflicts among the people residing in these areas. Hence, to eliminate this problem they have been using GIS tool.

He also mentioned that they have created different types of maps that help in planning for security, polling center assigning and in dividing the polling station areas systematically. By creating different layers of maps over a region, they were able to better understand the situation and assess the vulnerability, on which targeted solutions were sorted. For example the population density of the locations gave them the opportunity to do delimitation accurately. Concluding the presentation, he said to further on GIS, they are planning to use small GPS devices on the election materials being transported to different locations for keeping track of the thinks and take actions promptly.

After the presentation by Afghanistan, session discussant Commissioner of Elections Commission of Bhutan H.E, Mr. Ugyen Chewang, opened the floor for discussion. To begin the floor he mentioned, that they are already on the verge of using GIS in allocating polling stations and requested Afghanistan for their technical advice on implementing it at Bhutan. They also stated that, apart from EMBs this tool is very effective at the policy level as well.

Chairman of Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya said that they have been facing the problem of Gerry Mandering effect that has created unfair opportunities for some and GIS tool can limit this effect substantially. Sri Lanka, under 19 amendments, has elected a permanent delimitation committee of which the TOR is being processed.

India delegate made a suggestion of, member EMBs to agree on standard layers and parameters in deciding the allocation of polling stations to be used on the GIS. This will maintain the uniformity among the EMBs.

To conclude, session chair Chief Elections Commissioner of Nepal H.E, Mr. Ayodhee Prasad Yadav, commented on the usefulness of the GIS tool. And given the insight they had on this tool he

believed that though it is useful not everyone is tech savy, hence, it would be more effective if everyone in the EMB were to be educated on it prior using it.

*Refer to the **Annex 6** for the paper*

Technical Session 2

Topic: Use of Technology in Elections Management in Bangladesh
Presentation: Elections Commission of Bangladesh
Presented by: H.E, Mr. Kazi Rakibuddin Ahmad, Chief Elections Commissioner
Chair: Mr. Amjad Musthafa, Vice Chairman of Elections Commission of Maldives
Discussant: H.E, Mr. Achal Kumar Joti, Elections Commissioner of Elections Commission of India

Paper Summary:

In the ECB the technological tools being used are database system, election management system and GIS. In 2007-2008, prepared electoral roll with photographs and biometric. It is now possible to provide National Identity Cards to all voters of Bangladesh. ECB introduced Electronic Voting Machine (EVM) in a small-scale.

A decision was taken that a National Identity Card (NID) for every voter would be issued through the registration process. Voters' data is collected through a prescribed form by the enumerators visiting door to door. A central database is prepared after merging Upazilla databases and pruning out duplicate records by AFIS (Automated Fingerprint Identification System) matching. Duplicate voters are automatically rejected by this process. To keep the database up to date all field offices receive application from voters for different types of corrections. The person, who wants to migrate, has to physically visit the concerned election office of migrated place. Voters can apply for migration through online also

CMS was used for collecting candidate's information, scanning candidate's asset disclosure and uploading data directly to website. CMIS is CMS with additional functionality. The System is designed to rapid result tabulation process and publication of result. In our election law it is clearly stated that returning officer should not select a polling station which is near by any candidate's

influential area. This is a web based application, field offices enter data which is centrally monitored by election branch and IT.

EC developed an election budget related database, so that it will be easy to forecast future elections. Election Budget System is a web based application where the users are head office and all field offices. Election Calendar is also a web based system, running on secured VPN. An inspection manual has also been developed and is in use. Head of the office login to the system with their user and send the report of office inspection for each month. ECS intranet was established to collect information speedily. Polling Station Information through SMS and website was first tested in local government bodies elections held in 2008. After that, ECB is providing this service in all local elections. ECB gives an access to Telecom operator/ service provider in main data center through secured Application Program Interface (API).Approximately 5%-10% of the total voters of each City Corporation avail this service.

ECB created a database of polling personnel, so that the panel can be re-used in subsequent elections. This is updated from time to time A PKI hash is used in the barcode as security feature, which cannot be regenerated by any unauthorized person. The issuance of national ID card now ECB has developed an integrated NID based access mechanisms that is integrated with different citizen e-service application like opening bank accounts, renewal of passport, SIM registration etc. ECB has decided to replace all paper based laminated cards by a smart card, which will ensure strengthening the e-governance and ensure service received by the correct person.

Discussion:

In his presentation, Chief Elections Commissioner of Bangladesh H.E Mr. Kazi Rakibuddin Ahmad said that the introduction of Smart Identification Cards (ID) with the 25 security features could be used as a secure travel document. The chip inside has the capacity to contain a number of important data on the individual. He further stressed on the security of the identification card where the possibility of hacking would be almost none.

He highlighted an issue on the Electronic Voting Machines (EVM). They had previously tried to integrate EVM into their election process and had used it on the city polls. However due to errors found in the systems they had to stop using it. He also talked about the importance they place on correcting their electoral rolls. Each year they make a camp at union council office or near polling

stations where pictures and biometric data are taken. And for disabled people they visit homes. Their electoral coverage is an impressive 60%.

Session Discussant Elections Commissioner of Elections commission of India H.E Mr. Achal Kumar Joti, opened the floor for discussion by complimenting Bangladesh for their gradual integration of technology into the election process. And of updating their electoral rolls each year as it is the basic data on which the free and fair election is built upon.

And regarding the EVM machine, India delegate related an incident they had during the introduction of EVM to India. When they had initially started using the EVM a lot of criticism and objections came from the public saying the machine was manipulative. Matter was taken to Supreme Court where the verdict was to make an EVM machine to verify and ensure the voters vote was correctly recorded. So after much deliberation a new EVM machine was introduced with a paper machine attached. ECI open challenged to all the Information Technology (IT) firms to show if the machines can be manipulated. None of the firms were able to do so and it was established the EVM cannot be manipulated. Hence, it all depends on the quality of the machines. India advised the delegates to use good quality EVM.

Chief Elections Commissioner of Elections Commission of Nepal, H.E, Mr. Ayodhee Prasad Yadav talked about an issue they have been facing regarding the electoral roll. The Nepalese living outside the country is not captured as the prime document used for registration is the citizen certificate. He inquired from Bangladesh how they are managing it. H.E Mr. Ahmad stated that in Bangladesh, though the person can fill the online forms, they still need to physically be present to take all the biometric data. Enumerators and neighbors will be used to verify the authenticity of the person. However, this still creates some gaps in capturing the entire segment. A law reform is needed to address this issue comprehensively.

At the conclusion of this session, Vice Chairman of Elections Commission of Maldives Mr. Amjad Musthafa, stated that Maldives too is considering the option of moving towards electronic voting system and requested technical support from all the member countries in undertaking this endeavor.

*Refer to the **Annex 7** for the paper*

Technical Session 3

Topic: SMS based Poll Information System – Prompt and Efficient Election Result Compilation
Presentation: Elections Commission of Bhutan
Presented by: H.E, Mr. Ugyen Chewang, Chief Elections Commissioner
Chair: Mr. Zafar Iqbal Hussain, Director General of Elections Commission of Pakistan
Discussant: H.E, Dr. Ayodhee Prasad Yadav, Chief Elections Commissioner of Elections Commission of Nepal

Paper Summary:

The Elections Commission of Bhutan considers SMS based poll information system as important technology for prompt and efficient election result compilation. Helps to compile and consolidate four hourly voter turnout reports, age wise category voter turnout and election results and ensures safe and secure maintenance of the records of election data for future reference. The system starts with a SMS gateway with the phone number 1919 registered with the local telephone companies and configured at the ECB Head office. The coding and key words were put in place to authenticate the authorize user before the SMS is recognized and taken for compilation to respective format by the SMS gateway.

When the system was first tried, all the mobile phone numbers of the election officials was registered in the SMS system. All the authentic SMS messages received from the registered mobile phone numbers are acknowledged and goes into a MYSQL Database table, which can be directly viewed by the respective Returning Officers, Commission and the general public with the turn out reports uploaded available on the Commission's website immediately.

List of features were added on to the SMS based Poll Information System to make it user friendly with shortened SMS Message formats and Developed Mobile Apps that enabled the users with smart phones to send voter turnout reports and election results from the EVM Machines by simply filling up a simple form.

New mobile app developed and coded with SMS system will be new way of relaying the information. EC is building core competencies in each district election officials with training on the SMS System which in turn will train Presiding and Counting Supervisors who would involve in relaying the information need by the commission. Our improved version will be used in 2016 Local

Government Elections. The mobile app which will run without internet facilities was tested recently and is ready for use

Discussion:

In his presentation Commissioner of Elections Commission of Bhutan H.E Mr. Ugyen Chewang, said SMS based poll information system has been effective in collecting election related information. It is a user friendly system that enables people without much IT knowledge to grasp it. Previously they used to communicate verbally by mobile phone. This created some miscommunication in transmission of the information. SMS based polling information system has so far been very effective in transferring information at real time.

Initially they wanted to use internet based information systems but due to low 3G coverage they had reverted to SMS based poll information system. Bhutan has 100% mobile coverage as of now making this system a convenient technology to use. Previously they relied on facsimile for information but with this system they have been able to get information faster and it has been more reliable as well.

By opening the floor for discussion, Chief Elections Commissioner of Elections Commission of Nepal H.E Mr. Ayodhee Prasad Yadav, said that SMS based polling information system has some limitations that we need to address. Sometimes due to technological errors and sometimes finger moving over the number key, gives a different figure from the intended one leading to wrong information being transferred. Also, it is an application that can be controlled.

H.E Mr. Chewang said to minimize the errors they have introduced a new feature to the system. When sending information, system will automatically ask to verify the information typed, giving the sender opportunity to double check before sending.

At the closing of this session, Director General of Elections Commission of Pakistan Mr. Zafar Iqbal Hussain complimented Bhutan for the technology they are applying to compile data as technology is needed for efficient result applications. And Nepal delegate added on to it saying they have used SMS based poll information system in their country which has been very useful for them as well.

*Refer to the **Annex 8** for the paper*

Technical Session 4

Topic: Some Observations and Considerations Regarding the Use of Technology in the Electoral Process
Presentation: Elections Commission of Maldives
Presented by: Ibrahim Waheed, Former Elections Commissioner of Maldives
Chair: Mr. Mohamed Shakeel, Commissioner, Elections Commission of Maldives

Paper Summary:

The processes involved in conducting elections, are always fraught with problems. This scenario makes the electoral process an imperfect tool. Despite its detractors, this imperfect tool remains the only viable one available by free choice to any community that aspires to true democracy. It is incumbent on us to endeavor to keep this tool as sharp as possible. This is where the much-touted magic pill called "technology" comes into the electoral process. I define technology as the development and use of any tool that humans use! Some basic considerations that need to be made before considering the modification of or change of technologies already in use in the electoral process are as follows.

A thorough evaluation of the smooth and efficient functioning of the EMB itself, any prudent EMB will address these basic considerations, and more as circumstances demand, and will find very positive indicators within the outcomes of all these evaluations before any changes are made. Some basic considerations that need to be made after specific areas for possible modification of technologies in use have been identified. Once the decision has been made that technological change must be considered within an electoral territory, I suggest that professional EMB's must give careful thought to a few ground realities before considering any modification to the technology already in use within an electoral territory. I would recommend that the following areas be addressed, with the attendant questions being asked and answered fully before going any further; Existing technology, paying for the upgrade or the new technology, the obsolescence factor, the usability and security factor, Suitability to the greater environment, Acceptability and transparency to stakeholders.

Some basic considerations that need to be made when commitments have been made with respect to technology modification or installation of new technology, Consult, consult, consult. Pilot first! Be prepared to course-correct! Once the modified of newly-installed technology is in place and

running. Continued vigilance is essential. Continued consultation and timely relevant action must be taken. Backup! Fallback.

A final recommendation I have is System-wide education, Technology training and widening the scope. The electoral process is an imperfect tool. It is still remains the most widely-subscribed-to tool, to keep this tool as useful and as sharp as possible without it being subjected to intentional or unintentional abuse. The magic of technology does not always and unfailingly solve problems. Something it can unfailingly do is to present challenges to its users

Discussion:

In his presentation, Former Elections Commissioner of Maldives, H.E, Mr. Ibrahim Waheed stated that the content of his presentation is entirely based on personal observations. He began his presentation with a brief introduction of what technology actually means. He said that technology is any new ideas, things and ways that seep into our society. Every innovation is a technology. He also said when integrating technology into the electoral system, there are a number of things we have to look into before leaping. As such, he recommended an internal assessment of the entire institute to identify the gaps which can determine the capacity of the institute when transitioning into a new way of doing things. And given we have the capacity, the question of how committed are we in actually doing it is an important thing to address. He said using technology should be a commitment but not just a consideration if we want to go ahead with it. If we are indeed committed, we need to educate our staff and all the stakeholder groups to become familiarized with the concept which will lead to a smooth transition. He made the suggestion of educating the children on the new concepts by integrating it into the school curriculum as well.

He further weighed on the pros and cons of using technology in the electoral system. Bhutan delegate stated that with the speed at which the world; the people; are moving towards technology, we might be lagging behind if we don't move with it. He also said we EMBs should not be afraid to move ahead with technology. If we fail, we will get up and move forward and that election comes with solutions but not problems. Nepal delegate said that for successful execution we need technology, though technology is not the answer to everything. He also said a challenge to most of the EMBs is the issue of bringing the political parties and voters onboard with the new changes and the legal limitations. Hence, we need a legal reform to implement technology in the electoral system more profoundly.

Another thing H.E, Mr. Waheed highlighted was why do we need technology? What is wrong with the current situation? And is technology the solution? He believes that unless there is something to be corrected there is no point in changing the things as it is.

At the conclusion of the session, Commissioner of Elections Commission of Maldives Mr. Mohamed Shakeel, thanked H.E Mr. Waheed for sharing his insightful knowledge on using technology in the election process and directing all the delegates' attentions towards the importance of looking at it at a more grass route level.

*Refer to the **Annex 9** for the paper*

Concluding for Day 1

To conclude for the day, the moderator, Secretary General of Elections Commission of Maldives Mr. Ahmed Ali noted the valued contributions and the constructive arguments by the member countries. As such, wrapping up the session he stated that technology helps to speed up our processes and makes the system more efficient. Furthermore he ended the session by highlighting the agenda for second day of the meeting.

Technical Session 5

To begin the second day of the meeting, moderator Secretary General of Elections Commission of Maldives Mr. Ahmed Ali welcomed the delegates back and recapped the previous day's sessions. To open for the next presentations, Mr. Ali said he was looking forward for more engaging discussions.

Topic: Information and knowledge sharing with stakeholders
Presentation: Elections Commission of India
Presented by: Dr. Sandeep Saxena, Deputy Commissioner
Chair: H.E Mr. Mahinda Deshapriya, Chairman of Elections Commission of Sri Lanka
Discussant: Mr. Ahmed Ali, Secretary General of Elections Commission of Maldives

Paper Summary:

ICT has three main purposes, namely providing easier access to electors for service delivery, greater transparency and better election management. Some of the ICT based systems used are, Electoral Rolls Management System (ERMS), National Voter Service Portal (NVSP), ECI Portal/ Web site, Public Grievance Forum (PGRMS), Political Party Information and Registration (Web), Web Portal for Candidates, Election Expenditure Monitoring System, and election related Complaint Monitoring System (Samadhan), Single window clearance for permission related to campaigning (Suvidha), Management of vehicles hiring and deployment system (Sugam), Web Casting and CCTV at Polling booth, SMS Poll day Events and Queue information System, Pre-Counting Genesys (General Election System) (Web), Counting Application (Window Application with Web services, Trends and Result Management System, Index card data Entry and Statistical report generation (Window Application with Web services), Geographic information system (GIS), ECI on Social Media and Mobile APPs to share information among stakeholders.

In Capturing of election related information (Pre-counting) from all over the Country, they capture information (Pre-Counting) from State headquarters and District headquarters. It is then disseminated through the official website and display of scanned copy of affidavits submitted by the contesting candidates along with nomination papers and ballot papers. There are various exception reports that can help the State's CEO to monitor the data entry.

Discussion:

In his presentation, Deputy Elections commissioner of Elections Commission of India Dr. Sandeep Saxena, highlighted in his presentation that ICT is the key for their success. He also mentioned that before, geo tagging was done for only polling stations however now geo tagging is being done for individual voters. He further stated that geo tagging; through GIS can make it possible to generate any information. And also his presentation highlighted that Geo tagging piloting has been done in India and they are trying to rope in youth to educate them over ethical voting, right to vote and etc.

After the presentation Secretary General of Elections Commission of Maldives Mr. Ahmed Ali, opened the floor for discussion.

Chief Elections Commissioner of Elections Commission of Bangladesh H.E. Mr. Kazi Rakibuddin Ahmed questioned about the public grievance system of India. Whether the Elections Commission

of India gets clocked down by false complains or not. This was then answered by Dr. Saxena saying that they do get false complaints, and as an example he mentioned that 40% of complaints in one district were false. He stated that however they still follow up on the complaints as they consider each complain, and each complain is logged as a complain as through these complaints they capture a high proportion of voters.

Next, the Commissioner of Elections Commission of Maldives Mr.Ismail Habeeb Abdul Raheem inquired about how the security of the system is managed and how the trust among the stakeholders is being maintained. Responding to this Dr. Saxena stated that there are 5 layers of security in the system and that depending on the environment; they have disaster recovery remote servers. He also indicated that mirror images of the servers are made and 2 mirrors are available during elections. And if a scam does hit, they will be shutting down one of the mirror images. And he stated that to maintain the trust among the Stakeholders, Continuous dialogues with the stakeholders, electoral practices, conventional and non-conventional methods to pass messages, is being practiced to encourage stakeholders to try it. Delegate from Bhutan suggested that false complaints can be handled differently, to which Dr. Saxena responded that if they receive complaints continuously from the same number, they record it separately and keep track of it for future reference.

At the conclusion, session chair Chairman of the Elections Commission of Sri Lanka, H.E. Mr Mahinda Deshapriya agreed with the views shared by the member countries and encouraged the member EMBs to conduct capacity building programs for the election officials.

*Refer to the **Annex 10** for the paper*

Technical Session 6

Topic: Election Modernization
Presentation: Elections Commission of Maldives
Presented by: Mr. Mohamed Shakeel, Commissioner
Chair: H.E Dr. Abdul Rahman Hotaki, Acting Chairman & Deputy Commissioner of Independent Elections Commission of Afghanistan
Discussant: Mr. Mohamed Mahdoom Mohamed, Additional Commissioner of Elections Commission of Sri Lanka

Paper Summary:

ECM has the legal mandate to hold elections that are democratically acceptable for all stakeholders, so that results are considered a valid representation of the voters, while facing challenges in managing the different phases of the electoral process in an efficient way. To begin with the modernisation process, it is important to understand different areas of election process which is needed to be modernised and the while understanding the consequences of the changes. This paper highlights the current situation of the Maldives electoral process with reflect to the changes which are being made to achieve the modernized electoral process, and also how election modernization programs would be helpful pre-election, on election day and post-election.

ECM introduces voter list checking application to overcome the problem which shows significant improvement in the time taken to identify the voter. With current modernization plan introduces a more convenient and flexible hardware/software solution. With the introduction of Election Result Processing (ERP) module to existing EMS, ECM is able to reduce the result consolidation time considerably.

Discussion:

In the presentation, Commissioner of Elections Commission of Maldives Mr. Mohamed Shakeel, talked about election modernization concept. He said an election is acceptable when the process is secure and transparent. And that we should use multiple outcome indicators to determine the effectiveness of modernization of the election processes. He then stressed on the tools ECM uses in the election process. Election Management System (EMS) is the main platform to collect, compiles, generate and disseminate electoral data.

By opening the floor of the session, Additional Commissioner of Elections Commission of Sri Lanka Mr. Mohamed Mahdoom Mohamed, stated that the main activities of an election are casting of the vote, counting, tabulation, Electoral roll and other electoral roles. He said we should apply election modernization in the planning activities of electoral process. In Sri Lanka, voter registry has now been computerized as it is not stipulated in the election act. However, we are still not able to introduce EVM in the election process due to election process being clearly stipulated in the election act. Hence, an amendment to the legislation is required to fully adopt the modernization of election processes.

In Maldives, the number of parliamentary members is 85 and the constituency is created with a 5000 per constituency basis. One of the main concerns shared by Commissioner Mr. Shakeel was the media interference during the result announcement. In Maldives, media sometimes announces the results prior to ECM announcing the official results. This happens due to having multiple ballot boxes at different polling stations for the same constituency. Hence, ECM announces the cumulative results from all the relevant ballot boxes whereby, media announces the result of the ballot boxes in the polling station where they are observing. This creates confusion and sometimes a level of misconceptions. Bhutan delegate said that they too have a similar system but do not allow media to be present at the result counting time. Hence, the room for miscommunication is almost to none.

Session chair, Acting Chairman & Deputy Commissioner of Independent Elections Commission of Afghanistan H.E Dr. Abdul Rahman Hotaki, thanked the delegates for sharing their experiences in delimitation process in different contexts. And thanked Mr. Shakeel for a very interesting presentation.

*Refer to the **Annex 11** for the paper*

Technical Session 7

Topic: Use of Technology in Voter Registration in Nepal
Presentation: Elections Commission of Nepal
Presented by: H.E, Dr. Ayodhee Prasad Yadav, Chief Elections Commissioner
Chair: H.E, Mr. Kazi Rakibuddin Ahmad, Chief Elections Commissioner of Elections Commission of Bangladesh
Discussant: Mr. Zafar Iqbal Hussain, Director General (Elections) of Elections Commission of Pakistan

Paper Summary:

Voter lists essentially exist for the purpose of allowing individual voters to vote only within a given constituency and at a given polling station/center. A Biometrics and Photograph based voter registration system is in action since 2010. The electoral rolls of 16 districts were for the first time computerized and the election to the National Panchyat was held. The strategic plan of the Commission has emphasized to produce accurate, up-to-date and reliable voters' lists which will enable eligible voters to fully exercise their constitutional rights.

Interacted with stakeholders on voter registration based on Digital Data Capture System (DOCS) and implemented the VR with Photo Program. While enumerating and registering voters list, government requested to collect info for national ID from 16 years and above having citizenship certificate.

Voter registration with photograph and biometrics was conducted in the 7 VDCs of 5 districts to trial revealing 99% of the voters were registered during the program compared to the voters in 2007.d 2.Primary teachers were mobilized as an enumerator to collect names of the eligible voters and also potential voters of having age 16 years and above. Each voter had to produce citizenship certificate to fill up the registration form and to register his/her name in the computer at the registration center. Primary teachers were mobilized and a comprehensive voter education program conducted prior to enumeration. Registration centers were established in each polling location (around 10 thousand). All collected data has been stored and managed from the ECN Central Data Center. It was continued round the year, closing it only during the 75 days before Election Day. The Mobile Registration System has also been practiced.

The voter registration with photograph was implemented in different phases. In the first phase it was launched in 58 municipalities and in the second phase in all VDCs. The main challenge was identity in the Eastern Hill and issue of citizenship certificate in the Teri. And other issues are the difficulty with capturing fingerprint and photograph, not able to deliver required service in some remote areas effectively and timely, data security and transfer and the high cost.

Future challenges in the use of Technologies in voter registration are, online registration, registration of voters abroad, Printing and display for claim and objection, Fingerprint based de-duplication, Verification and correction, increasing cost etc.

Discussion:

In his presentation, Chief Elections Commissioner of the Elections Commission of Nepal, H.E Mr. Ayodhee Prasad Yadav said that Nepal has very stringent measures so that faults and errors in registration could be eliminated.

He also pointed out that Bhutan has already started the biometric voting election. However, many of the people had problems with the fingerprint where the finger prints were not recognized or identified by the machine. More, finger print of people who are handicapped cannot be also

captured. Due to this they have faced lot of difficulties in registration. H.E Mr. Yadav highlighted that Nepal has faced the same problem, and so, they have made changes to the software where if any finger is not captured by the fingerprint reader machine, a special comment is written regarding the issue.

Director General of Elections Commission of Pakistan Mr. Zafar Iqbal Hussain by opening the floor welcomed the delegates to discuss on the presentation of Nepal.

The delegate of India stated that Bangladesh and Nepal has similar biometric system to record voter registration and raised the question of the similarities and difference in these two systems and the technical details of both countries. In answering the question, H.E Mr. Yadav stated that there are duplication issues as they do not currently look at finger print analysis and they still compare photographs of voters to eliminate duplication.

H.E Mr. Yadav stated that methodology of applying the technology is different. Nepal collects data by going door to door campaign as well as collecting from particular polling stations and enumerators who were the teachers who undertook voter education previously.

Head of Policy and Planning Coordination Division of Elections Commission of Bhutan Mr. Mani Kumar stated that they are going down on biometrics. He also requested for some technical advice on the problem that many finger prints are not working and a lot of people cannot be identified at the polling station. In return, the Bangladesh delegation advised that the quality of the technology and machine also determines more error free situations and eliminate or resolve finger print issues.

H.E Mr. Yadav stated that they had problems at the beginning as without giving fingerprint they could not move forward. Hence, they made changed in the software that if none of the fingers are captured in the software, they insert a comment stating that. And as for the handicap people, software operators write in the comment box in it.

By concluding, Chief Elections Commissioner of Elections Commission of Bangladesh H.E, Mr. Kazi Rakibuddin Ahmad, commented that they have very robust software to compare finger prints which though is very expensive.

*Refer to the **Annex 12** for the paper*

Technical Session 8

Topic: Use of Mobile SMS for Broadcasting voting information
Presentation: Elections Commission of Pakistan
Presented by: Mr. Zafar Iqbal Hussain, Director General (Elections)
Chair: H.E, Mr. Ugyen Chewang, Commissioner of Elections Commission of Bhutan
Discussant: H.E, Dr. Abdul Rahman Hotaki, Acting Chairman & Deputy of Independent Elections Commission of Afghanistan

Paper Summary:

In June, 2011 ECP entered into a contract with NADRA for preparation of error-free electoral rolls through Computerized Electoral Rolls System (CERS). Establishing of camps near the polling stations should be banned forthwith, where candidate's gives perchis with their info printed on it on the day of polling issue. ECP decided to introduce the Electronic-extract (perchis). Hence, SMS based Electoral Rolls Verification Service (8300) on 30th November, 2011. SMS service includes CNIC number, census block code, serial number in the electoral roll, electoral area name, polling station name and location, constituency and district.

Virtual Display Centre" over SMS whereby Electoral Roll is displayed on mobile phone via SMS to facilitate the general public by allowing them to view their voting details in the Electoral Rolls. When a request is generated by the subscriber by sending his CNIC number to 8300, it passes through security layer to NADRA SMS center which generates the reply from National Data ware through internal security layer and provides the requisite voting details to the subscriber within few seconds.

Push (network sends SMS to client for info) and Pull (client sends SMS to network for info) SMS methods. Advantages include the most effective mode of communication, it addresses every citizen, It knocks every household of the nation, More concise than a phone conversation, Less Time – as compared to phone or e-mail, Convenient for all (hearing-impaired people), Message is delivered even if mobile is off and Availability 24hours, 7days a week, 365 days a Year.

SMS (8300) Project of Elections Commission of Pakistan is largest in the World in terms of its Data Density of more than 90 Million of Voters (at present) which is available in real time for around 135 Million mobile customers across the country.

Discussion:

In his presentation, Director General of the Elections Commission of Pakistan Mr. Zafar Iqbal Hussain, highlighted the use of mobile SMS for broadcasting voting information. While pointing out the two different types of SMS methods; Push (network sends SMS to client for info) and Pull (client sends SMS to network for info) method he also noted the advantages of the systems. However, the push system is faster since it is given more importance. Mr. Hussain also said that this system is only used for registration concerns and for users to get their registration details. For instance, the location of respected individual's polling station.

Opening the floor, Acting Chairman & Deputy of Independent Elections Commission of Afghanistan H.E, Dr. Abdul Rahman Hotaki, stated that the presentation gave a good basis to begin this system in Afghanistan, since they believe this to be a very effective system.

Chief Elections Commissioner of the Elections Commission of Nepal, H.E Mr. Ayodhee Prasad Yadav while questioning the effectiveness of this system in having a free and fair election, pointed out that only information on registration and polling station are provided and that the results are not put up through SMS; it is just information which is shared.

Head of Policy and Planning Division of Elections Commission of Bhutan Mr. Mani Kumar Ghalay stated that regarding push and pull; disseminating information is push button and push button is more effective as it is given more priority in Bhutan.

Chairman of the Elections Commission of Sri Lanka, H.E, Mr. Mahinda Deshapriya while sharing an experience related to SMS system stated that introducing the SMS system without contemplating the public's knowledge on how to text from a mobile phone, has caused a number of people to struggle in sending SMS causing jamming and polling officials being overburdened. Hence, they are considering including a junior polling staff to look into SMS issue. India shared their knowledge as a solution to the SMS issue of Sri Lanka by stating that the voter can give a miss call and receive the SMS consisting of the polling information.

By concluding session, Commissioner of Elections Commission of Bhutan H.E, Mr. Ugyen Chewang, complimented all the delegates for their insightful discussion.

*Refer to the **Annex 13** for the paper*

Technical Session 9

Topic: Use of ICT in the Elections Commission
Presentation: Elections Commission of Sri Lanka
Presented by: Mr. Rizan Manzil Abdul Hameed, Coordinating Secretary to the Chairman of the Elections
Chair: H.E, Mr. Achal Kumar Joti, Commissioner of Elections Commission of India
Discussant: Ms. Jesmin Tuli, Joint Secretary of Elections Commission of Bangladesh

Paper Summary:

This paper mainly consist of the use of ICTs, and how it can positively impact election management, especially in making some processes quicker and more efficient – and indeed accurate. It also highlights the ICTs solutions which carry risks, which often suffer from unrealistic expectations, and how it may not be appropriate in some contexts. This paper also briefly shares how the Sri Lankan Commission has employed ICT to enhance the democratic rights of the Sri Lankan people in exercising their free and unfettered franchise to choose representatives. It also highlights the challenges faced while adopting ICT, and some recommendations on how to overcome these challenges. The biggest challenge is ensuring a sustainable, appropriate, cost effective and transparent use of technology.

Rolls are revised annually with reference to the 1st of June as the qualifying date for enrolment every year. One polling card is given to each voter to avoid a fraudulent double vote. Incorporating details of a particular election, the polling station in addition to the voters' information available in the database has been very easy. Existing data in 25 electoral databases is to be imported to a single database structure in order to facilitate a centralized database management system. The Elections Commission of Sri Lanka does not heavily rely on election results processed by an electronic tabulation system. In order to tally the results obtained through a laborious manual calculation, computers are used. This is clear evidence that we still have a backup other than an electronic tabulation.

A special short code for tracking election violence was introduced and a considerable number of complaints were handled. This is being integrated into the new electronic complaints management system using GPS technology on-line. Active maps, using GPS data, will flash where the complaints are coming from and also indicate if abuses are focused on any particular area

The evaluation reports and related documents can also be used to increase transparency of the election, improve the dialogue between EMBs and voters, and increase the EMB's credibility. "Do we have a Plan-B if our Plan-A with the new technology malfunctions?" and most importantly "Does the contemplated technology enhance our democratic rights, especially with respect to voter participation?" opportunities vs. challenges

Discussion:

In his presentation, Coordinating Secretary to the Chairman of the Commission, Mr. Rizan Manzil Abdul Hameed said that an immediate action should be taken to resolve complaints to minimize the violence and tense during the elections. He pointed out the interest Sri Lankan Elections Commission has in introducing a disaster recovery system in the future. More, he also said that Sri Lanka is looking forward to get rid of the paper system which occupies a large number of space.

As per Mr. Hameed, Elections Commission of Sri Lanka is also planning to introduce a mobile application which will be available in Google Play, and this will be beneficial as this will provide more information. He also said that only 25% of the complaints lodged are genuine complaints, hence the tracking system they started will hit false sms and call complaints. More, he also highlighted the importance of having a real system, where the message can be given very fast and an action can be taken immediately. Hence, GIS will help the police to reach the polling station within 15 minutes. He highlighted that one of the main issues was frequent change of requirements has been the biggest challenge in this project.

Joint Secretary of Elections Commission of Bangladesh Ms. Jesmin Tuli opened the floor for discussion.

The India Delegate highlighted that the E system has no fixed solution and the whole South Asia has been facing the same challenges. They also raised the question as to how complaints could be reduced to make elections fair and free.

Chief Elections Commissioner of the Elections Commission of Nepal, H.E Mr. Ayodhee Prasad Yadav while questioning the rate of violence in the last elections of Sri Lanka pointed out the remark made by the Chairman of Elections Commission of Sri Lanka to shoot in the head of anyone who do violence in 2015. In answering the question, Mr. Hameed said that this remark had made a

remarkable change in the Presidential Elections of 2015, and also no major violence was recorded in the Parliament Elections.

In concluding the session, the Chair of the session Commissioner of Elections Commission of India H.E, Mr. Achal Kumar Joti, highlighted the need of an Electronic system for a free and fair election.

*Refer to the **Annex 14** for the paper*

General Session 2

Chairperson of FEMBoSA and Chairman of Elections Commission of Maldives, H.E, Mr. Ahmed Sulaiman noted that Bhutan has worked lengthy on making FEMBoSA a success throughout the years. He also said, Bhutan has hosted the most number of FEMBoSA meetings upto now. Hence to acknowledge this, he requested Chief Elections Commissioner of Elections Commission of Bhutan H.E, Mr. Ugyen Chewang to chair this session. This session was moderated by the Secretary General of Elections Commission of Maldives, Mr. Ahmed Ali.

a) Suggestions for Draft Work plan 2016-2017:

- Session chair, Commissioner of Elections Commission of Bhutan H.E, Mr. Ugyen Chewang, requested delegates to deliberate on the work plan activities progress and the way forward.
- Discussions were carried forward on the task allocations for 2016-2017 workplan and of how to tackle the problem of tasks unfinished in 2015-2016 workplan. It was discussed whether last year's FEMBoSA chair, Sri Lanka should complete the unfinished works of last year's tasks and then handover to Maldives in carrying forward the tasks of this year. As such, it was decided that Sri Lanka will only be finishing the tasks assigned to them and upon the finalization of this year's workplan, Maldives will handle all the unfinished works carried forward to this year. On behalf of Maldives, Vice Chairman of Elections Commission of Maldives Mr. Amjad Musthafa, stated that they are willing to handle the unfinished tasks of last year and assured the member EMBs that Maldives will monitor the progress of all the works and will work diligently to complete all the said tasks.
- Chief Elections Commissioner of Elections Commission of Nepal H.E Dr. Ayodhee Prasad Yadav, brought to notice the task of Nepal Research Institute that was part of last years

(2015-2016) work plan. He proposed to include this task in this year's (2016-2017) workplan and invited all member EMBs to discuss further on this. As such, member EMBs agreed that since it is a task assigned to Nepal, Nepal can carry it forward to this year's work plan and if they can allocate funds for it, over different phases they can carry out the task. Member EMBs also agreed that they will be providing technical assistance needed to undertake this task by Nepal.

- After the discussions, the activities were decided and work plan was finalized.
- The approved and finalized work plan was uploaded to the FEMBoSA web portal for all the delegates to view and the activities were assigned to countries who volunteered to do those activities.

b) Adoption of new theme:

- Session chair, Commissioner of Elections Commission of Bhutan H.E, Mr. Ugyen Chewang invited all the delegates to suggest a theme for the 8th FEMBoSA meeting to be held in the Afghanistan. India, Pakistan and Sri Lanka suggested for the next year theme, to select an all-inclusive election theme. And Nepal, Maldives, Bhutan and Bangladesh weighed on a theme that could address the difficult problem of dispute resolution.
- A list of proposed themes was compiled by the secretariat and uploaded on to the FEMBoSA web portal. Main themes proposed are as follows:

Themes for the Next Meeting	
Afghanistan	1. Result Management
	2. Enhancing Voters Participation in Elections
	3. Campaign Finance Management
Bangladesh	

Bhutan	1. Institutional strengthening and capacity development of EMBs
	2. Towards Greater Voter Turn-Out
	3. Role of EMBs in electoral and democratic reforms
	4. Strengthening/promoting participation of people with disabilities in elections and political processes
India	1. Healthy Electoral Rolls for ensuring free and fair Elections
	2. Code of conduct in Elections.
	3. Capacity building of stakeholders for inclusive Elections.
Maldives	1. Women Participation for all-inclusive Election
	2. Youth Empowerment and inclusivity
	3. Elimination of gender disparities in Elections
	4.Electoral Dispute Resolution
Nepal	1. Youth Engagement in Election
	2. Role of Media in Election
	3. Electoral Dispute Resolution
Pakistan	1. Strategies for encouraging women's participation in Electoral process.
	2. Transparent delimitation in basic requirement for credible elections.
	3. Monitoring of political finance.
Sri Lanka	

After a lengthy discussion the participants agreed to short list the themes to mellow mentioned 4 themes.

1. Theme 1: “No voter left behind”
2. Theme 2: “Elections and Dispute Resolutions”
3. Theme 3: “Youth Engagement in Elections”
4. Theme 4: “Campaign Finance”

- All the member EMBs agreed that if they focus on one topic the forum for discussion would become very narrow and all the countries will have to deliver similar content. After much deliberation, a vote was cast to nominate two topics. As such the topics agreed by the member countries for next year was **"No Voter to be Left Behind"** which was adopted by India, Bhutan, Bangladesh and Sri Lanka. And the second theme for next year was **"Elections and Dispute Resolution"** adopted by Afghanistan, Maldives, Nepal and Pakistan.

General Session 3

a) Plenary Session for Maldives Resolutions:

- The delegates of the member EMBs put forward their proposals during the plenary session for inclusion in the Maldives Resolution. The draft Maldives Resolution, after consultation and incorporating the appropriate amendments, was unanimously adopted on 3rd August 2016 during the concluding Session of the seventh FEMBoSA meeting held in Bandos Island Resort, Maldives.

- The unanimously Adopted Maldives Resolutions (2016) consist of the following:

1. Commended the excellent role played by the Elections Commission of Sri Lanka as Chair in Office during 2015-2016 in implementing the Work Plan and playing a pivotal and active role for effective coordination among EMBs;
2. Decided to implement the Work Plan as approved by the member EMBs in the seventh Meeting of FEMBoSA;
3. Agreed to develop and adopt modern technology for conducting free and fair elections in the member EMBs;
4. Agreed to make elections process further inclusive with special focus on differently abled electors;
5. Agreed to share mechanism on Elections Dispute Resolution (EDR) among the member EMBs;
6. Agreed to actively share knowledge in ICT tools and modules being used by the member EMBs and to develop standards for use of ICT in elections for sustainability;
7. Agreed that member EMBs may strengthen nodal cell for better coordination;
8. Agreed to share the information among the EMBs through the web portal;

IV. 7th FEMBoSA Work Plan Monitoring and Implementation

As the current chair of FEMBoSA, Maldives has monitored the work plan activities up close to get the maximum output from the member EMBs. The undertakings of Maldives to make this FEMBoSA more fruitful are as follows:

1. Created a timeline for the activities listed down in the Work Plan and shared the timeline among the member EMBs. It was to make it easy for the member EMBs to work within a time frame and generate an output in due time.
2. The timeline was shared with the EMBs on multiple counts to urge the EMBs to send their outputs at due deadlines mentioned in the timeline. While most EMBs have responded there were some EMBs; due to their more pressing engagements who were not able to respond. As such, the EMBs who responded kindly are India, Nepal, Pakistan and Bhutan. And the EMBs who sent their outputs, their outputs have been incorporated in the next segment of the report under the heading 'Work Plan 2016-2017; Achievements'.
3. Among the main activities of Maldives, Work Plan timeline and the report template has been prepared and shared among the member EMBs. And a thorough study on Introducing means of promoting Voter Education among females has been done and the output will be shared at the next FEMBoSA meeting.
4. Another highlighting fact was Maldives planned a capacity building training for the member EMBs within the year 2017. But, due to the impending Local Councils Election 2017, Maldives was unable to commit to the training.
5. Maldives as the current chair extends its gratitude to the member EMBs for working closely with Maldives to achieve the tasks agreed in the 7th FEMBoSA meeting. It has been a fruitful journey that enabled Maldives to flourish further.

V.Work Plan 2016 – 2017: Achievements

No	TASKS	EMBs	STATUS
1	Study on the current status of Campaign Finance; Organize Regional Seminar; Establish a Regional Research Network on Campaign Finance; Prepare the minimum requirements in the Member States	Bangladesh Bhutan India	• India: has conducted the campaign finance study and submitted a detailed report to the forum. • Bhutan: has conducted the study and has drafted the report which is being endorsed by their commission. And afterwards shall be circulated among the member EMBs. • Bangladesh: is currently conducting the study and would submit a draft shortly.
2	Study on the use of technology to conduct free and fair elections of EMBs; Prepare a Road Map on the way forward	Bhutan Maldives Nepal	• Maldives: A study was conducted and shared at the 7th FEMBoSA meeting • Prepared the roadmap on the way forward and circulated the document among the member EMBs. The final product will be delivered after incorporating the comments of all the EMBs. • Introduction of Online form application for Observers, Monitors, Candidate reps, and Officials. • Introduction of card (Pass) printing application • Upgraded EMS, VPRS and ERP data entry • Upgraded result website • Developing ballot paper generator • Nepal: New biometric voter registration software (BVRS) is about to be launched. • Online voter registration has been planned. • Application of the geographical information system in election ongoing • Application of event tracking system in election ongoing • Application of election result information system ongoing • Election risk management system ongoing *Refer to the **annex 3** for the roadmap*

3	Conduct a study on Media involvement, Media monitoring (including Social Media); Develop regulations in the Member States	Nepal India Afghanistan	• Nepal: Establishment of electoral education and Information Centre • Establishment and operation of Media Centre • Drafting of press office manual for election • Press training manual developed • Arrangement of spokesperson and information office in place • Use of social media for election information dissemination practiced • India: has submitted a detail status report stating the role of media in election at India. • No political advt is released to any internet based media/website including social media websites by political parties/candidates without pre-certification from MCMCs. • ECI has made it mandatory for candidates/political parties to include expenditure on advt on social media into their expenditure while submitting the statement of expenditure to the authorities.
4	Include gender equality in overall electoral processes in the Member States	Bangladesh Bhutan India	• India: Systematic Voters Education and Election Participation (SVEEP) project of 2016-2020 enacted • Gender Sensitization of election officials including BLO and Security personnel deployed during elections. • Design electoral literacy material at national level along with a trainers kit to be shared with CEOs; Translation of the literacy material and training of Trainers/Facilitators from CSOs, SHGs, ASHA, AWW, Village Premark's shall be done at CEOs level. • Awareness material on registration and voting at State Level in form of booklets, pamphlets, posters, A/V promos and other formats for different media and disseminate at suitable points. • More women to be members of Booth Awareness Groups (BAGs) • Partner with the Ministry/Department of Women and Child Development to have electoral education in all its outreach initiatives • Partner and collaboration with CSOs working with Women

			• Identify SHGs and cooperatives working with women for reaching out to them. • Use the existing local AIR and DD programs focused on women to spread electoral awareness.
5	Introduce systems to promote Voting Rights for citizens living out of the country	India	• India: An online Knowledge, Attitude and Practices KAP survey was taken up online to understand the segment and identify the gaps in their information to accordingly plan a voter education and outreach program for them • A quantifiable database of NRIs to be generated with the help of available data • Information about the provisions available for NRI Voters to be made known at all Embassies and Consulates. Further, special camps and campaign for NRI registration in identified embassies needs to be organized. • Design awareness content for NRIs from the inputs received in the online competition. Publicity material on electoral services to be made available to Emigration counters, Embassies, Consulates and Regional Passport offices, Publicity material may be kept and distributed inside Airport lounges. • Web advertising on social networking sites about the elections and e-portals where NRIs look for Local News about their home towns etc. Develop Viral Videos on You Tube, Promos for NRI in popular entertainment channels abroad • NRI associations to be targeted for dissemination of this information, Nodal persons to be appointed from among the foreign correspondents of the National Brodacster Prasar Bharati and also National Newspapers correspondents. • Families of NRIs in India to be targeted by local election machinery. • Popularize online voter registration portal to encourage online registration among NRIs. • Write articles for 'India Perspective' on a periodic basis, Special broadcast on External Services of AIR and DD India.

6	Conduct capacity building programs for officials in the Electoral Administration	India	• India: conducted a Capacity Building Program on 'Voter Education' for election officials from 6 FEMBoSA member nations namely Afghanistan, Bangladesh, Maldives, Sri Lanka, Bhutan and Nepal from 19-23 June, 2017 • IIIDEM conducted a training program for officials of IEC-Afghanistan from 27th – 31st March, 2017, under joint venture ship of ECI-UNDP and the theme of the program was "Voter Registration" • IIIDEM has also planned International Conferences on Electoral Systems and Capacity Building of Political Parties. • Four international consultative workshops on Inclusion, Electoral Reforms, Electoral Technology and leveraging Electoral training facilities at the global level have also been planned.
7	Introduce means of promoting Voter Education among females	Bangladesh Nepal Maldives	• Nepal: Application of local level election legislation to elect about 50 percent women as representatives • Election code of conduct forbidding the use of gender biased language and making arrangements for gender sensitive campaigns • Gender and inclusion policy 2013 Is in-operation accompanied by gender and inclusion strategy • Trainings being conducted based on gender in election BRIDGE module • Women prioritized and gender sensitive programs such as prioritizing women for trainings for being election volunteers • Gender based budgeting system being practiced • Maldives: A study to identify the current activities undertaken by ECM to promote gender equality and identify the gaps • ECM Strategic Plan 2016-2020 was launched last year 2016 with a pillar exclusive for gender mainstreaming. And section work plans are being aligned with the plan. • Promoted equal opportunities for women to be

			recruited as election officials. • Allocated a gender focal point within ECM • To introduce a mobile application - Voters awareness application • Voter education video spots. Digital displays and posters targeted to women • BRIDGE training module on gender to be conducted to ECM staff *Refer to the **annex 4** for the study on means of promoting voter education among females*
8	Publish the Report of the 7th meeting of FEMBoSA	Maldives	• Maldives: Stewardship report drafted and sent for comments of member EMBs • Once the report gets finalized with comments, will be published and circulated among the member EMBs
9	Publish Research Papers prepared by the Member States, Academics and Professionals	Sri Lanka	•
10	Conduct the 8th meeting in 2017 on the theme: **Elections and Dispute Resolution** *(Maldives, Nepal, Afghanistan, Pakistan)* **No voter to be left behind** *(Sri Lanka, India, Bhutan, Bangladesh)*	Afghanistan	• Afghanistan: 8th meeting of FEMBoSA will commence on September at Afghanistan this year
11	Setting up of a mechanism of Members (i.e: Clearing House for dispute resolution). Consisting of nominees of the respective EMBs; Civil Society and relevant political parties for resolving of disputes among stakeholders	Sri Lanka	•
12	Prepare template for research papers and share to member countries of FEMBoSA (member countries will use their template based on their context)	Maldives	• Maldives: Template drafted and sent for comments of member EMBs • Once the template gets finalized with comments, will be circulated among the member EMBs and • Will be submitted to the Eighth FEMBoSA meeting to get it endorsed *Refer to the **annex 5** for the template*
13	Establish a research study institution in	Nepal	• Nepal: As per reflected in the resolution of the 5th

FEMBoSA countries		FEMBoSA meeting in Nepal, coordination with different concerned domestic ministries and agencies, interaction with concerned experts, and joint detailed study by experts from Nepal and India have been made so far for the establishment and operation of South Asia Institute for Democracy and Elections in Nepal.

VI. Resolutions adopted by the 7th meeting of FEMBoSA

- Agreed to develop and adopt modern technology for conducting free and fair elections in the member EMBs;

- Agreed to make elections process further inclusive with special focus on differently abled electors;

- Agreed to share mechanism on Elections Dispute Resolution (EDR) among the member EMBs;

- Agreed to actively share knowledge in ICT tools and modules being used by the member EMBs and to develop standards for use of ICT in elections for sustainability;

- Agreed that member EMBs may strengthen nodal cell for better coordination;

- Agreed to share the information among the EMBs through the web portal;

VII. Special Events

Web Portal

A web portal was launched at the opening ceremony of the 7th FEMBoSA meeting with the aim to go paperless throughout the sessions. As such, all the documents and updates were integrated into different sections of this portal to be viewed by the entire member EMBs. It served as a platform to review discussions and to incorporate each other's viewpoints to one single location. The main sections of the portal included, real time meeting agenda updates, news as it happened, delegates biographies and country profiles, public and private photo albums.

Welcoming event for the delegates

Delegates were welcomed at the VIP Lounge of the Velana International Airport with a cultural event. It was a glimpse into the History of Maldives. The delegates were escorted in a manner similar to that of kings and queens of Maldives.

Opening Ceremony

Opening ceremony of the 7th FEMBoSA meeting started with a flag hoisting event. With a display of each member country flag on the screen, each country's flag was animated with their national anthems. The idea was to depict the techno theme adapted for this meeting as agreed in the last meeting of FEMBoSA. The chief guest of the event was Prosecutor General Uz. Aishath Bisham of Maldives.

Official Dinner Night

An official Dinner hosted by the Chairperson of Elections Commission of Maldives, Mr. Ahmed Sulaiman was given at the beautiful setting of Bandos Island Resort. ECM had aimed to give a lasting taste to the delegates with a rich buffet of international cuisine as well as staying close to home with Maldivian dishes. The Dinner was further enriched with the cultural performance of "Bodu Beru" our traditional dance and a showdown of all the traditional dresses worn by Maldivians from the earliest of time. Gifts were exchanged, smiles shared with flourishing new friendships lighted up the whole event.

Hulhumale' Tour

Hulhumalé is a reclaimed island located 8km off the North East Coast of Malé, the capital of Maldives and 6.5km from Velana International Airport, Hulhulé. It is set to be developed as the first smarty city in

the Maldives encompassing all the services and ICT network in a complete smart grid. The aim of this visit was to give the delegates the opportunity to view this artificially created city of Maldives. Popular for our dried fish, MIFCO is one of the strongest players in this market. Delegates were welcomed at their stores to see up close the items and assorted goods they supply. After the tour, delegates were greeted at the Ghazee School where a dinner in their honor was hosted by Hulhumale' Development Corporation.

Press Conference

At the conclusion of the 7th FEMBoSA meeting, a press conference was held. The press conference was covered by all the major media groups of Maldives. Media was given the opportunity to ask questions relevant to the meeting. As such, all the delegates took turns in answering the queries of the media. This conference was aimed to make the public aware of the important work done by this forum for the betterment of the electoral system. Also, since the theme was technology, the main focus was towards electronic voting. The hype over the introduction of counting machines at Maldives next election was a topic of interest to many.

Excursion Trip to Meemu Atoll




An excursion trip was organized to the Meemu Atoll. Delegates visited each closely scattered island of the atoll. Each island had its unique display of traditional activities planned for the delegates, a colorful display of Maldivian tradition with a Maldivian feast to top it all. The enthusiastic islanders showered the delegates with kindness and friendliness as is the pride of our nation. Among the activities delegates got the opportunity to witness how “rihaakuru” (a well-known food product of Maldives) is made. Also, how women used to weave thundu kuna (traditional mat) and make “boavalhu” (Collar of dresses) of our traditional dresses.

Fishing Trip



Being a fishing nation, a tour would not have been completed without a night fishing trip. Hence, a fishing trip was planned for the delegates to show the favorite pastime of Maldivians as well as the main occupation of Maldives. The delegates enjoyed some fish catching and tasted the salty atmosphere of Maldives.

VIII. Annex

Annex 1: Master Schedule

DATE	TIME	DETAIL
01.08.2016, Monday		Arrival of delegates
02.08.2016, Tuesday	08:30 - 10:00	Opening ceremony
	10:00 - 10:30	*Coffee break*
	10:45 - 12:00	General session 1
	12:00 - 13:30	*Lunch Break*
	13:30 - 14:15	Technical session 1
	14:15 – 15:00	Technical session 2
	15:00-15:30	*Tea break*
	15:30 - 16:15	Technical session 3
	16:15 - 16:45	Technical session 4
	16:45 - 17:00	Day 1 concluding Session
	20:00 - 21:30	Official Dinner with cultural performance
03.08.2016, Wednesday	08:30 - 09:15	Technical session 5
	09:15 - 10:00	Technical session 6
	10:00 - 10:30	*Coffee break*
	10:30 - 11:15	Technical session 7
	11:15 - 12:00	Technical session 8
	12:00 - 13:30	*Lunch Break*
	13:30 - 14:15	Technical session 9
	14:15 - 15:15	General session 2
	15:15 - 15:45	*Tea Break*
	15:45 - 16:30	General session 3
	16:30 - 16:40	Concluding remarks and closing
	17:00 - 17:30	Press conference
	19:00 - 22:00	Courtesy Dinner by Housing Development Corporation

04.08.2016, Thursday	09:00 – 17:00	Meemu Atoll tour (Mulah, Naalaafushi and Veyvah)
05.08.2016, Friday		Departure of delegates

Annex 2: Stewardship Report presented at the 7th Meeting by Elections Commission of Sri Lanka

FEMBoSA Stewardship Report by the Chairperson, 2015-2016

The Commissioner of Elections of the Department of Election of Sri Lanka, assumed the Chair of Forum of Election Management Bodies of South Asia (FEMBoSA) at the Sixth Forum meeting held at Hotel Galadari in Colombo, Sri Lanka on 1st and 2nd October, 2015 on the theme **"Free and Fair Election - Pride of Nation**".

This report covers the FEMBoSA work plan and activities carried out by member EMBs for the period starting from October 2015 to August 2016.The EMBs assigned to carry out these tasks have done an excellent job in this regard. Due to some inconvenience encountered in communication, heavy work load or lack of time or for any other reason or reasons, the EMBs would not have been able to communicate, complete or carry out such tasks the way they had planned. I hope that all EMBs of FEMBoSA would still find time to collaborate and to continue carrying out these tasks in future.

Resolution No 1

Study on the current status of Campaign Finance, Organize Regional Seminar and establish a Regional Research Network on Campaign Finance;

Under this theme Elections Commission of India has submitted a detailed comprehensive report on Campaign finance in India. Elections Commission of India in collaboration with

International IDEA organized an International Conference on 'The Use of Money in Politics and its Effects on People's Representation on 15th and 16th December, 2015. Elections Commission of Bhutan has communicated that the Study on Campaign Finance has been completed and the report is being finalized by the Commission.

Resolution No 2

Study on the use of technology to conduct free and fair elections of EMBs;

The Election Commission of Maldives has done an extensive study on Election Modernization. The Election Commission of Bhutan has committed to work on this area and acknowledges the support rendered by the Elections Commission of India.

Resolution No 3

Study on the autonomy and independence of the Member EMBs for strengthening democracy;

Autonomy and independence of EMBs Constitutional and legal provisions in India regarding autonomy and independence of Election Commission of India is underway.

Resolution No 4

Conduct a study on Media involvement, Media monitoring (including Social Media), Develop regulations in the Member States;

Methods in Media monitoring (including Social Media) along with developing regulations in member states have been presented in detail by the Election Commission of India.

Resolution No 5

Introduce Voter Education curriculum in schools; Expand inclusive electoral literacy;

The Election Commission of Sri Lanka adopted a mechanism to introduce voter education curriculum in schools to expand the electoral literacy.

In collaboration with Ministry of Education, the Election Commission of Sri Lanka (ECSL) has been able to take initial step through Student Parliaments to create awareness on principles and practice of electoral democracy.

Resolution No 6

Include gender equality in overall electoral processes in the Member States;

Paper shall be carried forward to the next meeting.

Resolution No 7

Introduce measures to address Voter Registration among all sections of the society;

Election Commission of Sri Lanka is grateful to the Election Commission of India for the Systemized Voter Education Program SVEEP of which we put the best into practice.

In order to introduce Voters registration among all sector of the society, the Election Commission of Sri Lanka (ECSL) has launched several public awareness programs on the Revision of Electoral Registers while dedicating 1st of June , the qualifying day for registration as an elector as the Voters' Day.

All modes of communication and promotion have been utilized to promote the "Electoral process where no elector is left behind". Issues pertaining to encouraging of registration of women, indigenous people, estate sector workers, street dwellers, disabled people and marginalized groups had been addressed.

Election Commission of Sri Lanka, in collaboration with the International Foundation for Electoral Systems (IFES) launched the BRIDGE Training on Facilitation Skills in Voter Education in Colombo from of July 20th to 25th with the participation of delegates from the region.

Election Commission of Sri Lanka (ECSL) also decided to launch the campaign called "Kites for Rights "in the International Youth Day on 12th of August to highlight the

importance of engagement of youth in the electoral process while strengthening the democratic culture and values by implementing Youth Vote (Y V) program,

Resolution No 8

Introduce systems to promote Voting Rights for citizens living out of the country;

Election Commission of India Commission has identified Non- Resident Indians as a major Target group wherein wider outreach methods are required, accordingly, various meetings have been held wherein discussions have been made on outreach methods targeting Non Resident Indians.

Election Commission of Sri Lanka also has taken measures to look into the possibility of allowing an advanced voting system to persons engaging in essential services on the day of poll other than the polling staff or security services.

Resolution No 9

Conduct capacity building programs for officials in the Electoral Administration;

Election Commission of India in collaboration with Ministry of External Affairs conducted Training Courses for SAARC Countries on "Election Management – Role of Technology" at the IIIDEM from 15th to 25th September, 2015.

Training Course for Asian Countries in collaboration with IIIDEM-UNDP on "Election Management – Role of Technology" was held from 17th to 26th November, 2015. This program covered all aspects of an electoral cycle enabled the participants in understanding the overall processes and procedures involved in electoral management and global best practices.

IIIDEM conducted its 20th International Training Course –Capacity Development for Election Management – in close collaboration with the Indian Technical and Economic Cooperation (ITEC) division of the Ministry of External Affairs from 30th November to 11th December.

Resolution No 10

Introduce means of promoting Voter Education among females;

Lot of activities is being carried out in the region as a whole.

Resolution No 11

Publish the Report of the Sixth Meeting of FEMBoSA;

Draft version of the Summary Report had been shared among the EMBs on 22nd January, 2016. Corrected versions and subsequently the hard copies also had been posted to the Heads of EMBs.

Resolution No 12

Publish Research Papers prepared by the Member States, Academics and Professionals;

The Election Commission of Sri Lanka invited research papers on the "Use of Information Communication Technology in the Electoral System" from the member EMBs of FEMBoSA. EMBs have been encouraged to circulate this information among the Universities and relevant educational institutions and to forward the best research paper on or before 28th June, 2016.

Resolution No 13

Conduct the 7th meeting in 2016 on the theme: Technology for Credible Elections;

We are here today at this august gathering.

Resolution No 14

A comparative study on the Organizational Structures/Strategic Management Plan and functioning of the Election Commissions in the Member States;

Resolution No 15

Setting up of a mechanism of Members (i.e; Clearing House for dispute resolution) consisting of nominees of the respective EMBs; Civil Society and relevant political parties for resolving of disputes among stakeholders;

Election Commission of Sri Lanka is addressing public grievances related to elections in a tech – savvy manner with the help of the official website of the Election Commission through "Tell Commissioner" messaging, An EC team has been tasked to take note of all the complaints received through this site as well as the Facebook, letters, faxes and complaints received over telephone calls for redressed. Now, we are in the process of introducing Election Complaints Tracking System.

Election Commission of Nepal hosted the Regional Workshop on Electoral Dispute Resolution and Electoral Justice on 21st and 22nd July, 2016 in Kathmandu,Nepal.

2	1	#
VPRS	Online form application system	**Introduction**
Shorted the process of gathering vote station status	Atomize application Process	**Objective**
Heads of vote station sends predefined SMS and that data is validated and processed to populate voting station progress. System allows to log issues box wise, t Improves coordination and communication	Applicants fill an online form with validation and the system generates the form and is submitted online to the Elections Commission. External and internal stake holder can get update on the process of the application and less the paper usage while everything will be archived digitally via the system. Elections officials will be better informed and aware of the process and can answer inquiries faster	**Expected result**
Enhancing and revising existing modules	Adding additional registration and application forms, and enhancing existing modules	**Existing development programs**
VE Section / Elections Coordination Section / ICT Section	ICT Section / HR and Development Section / Planning and Statistics Section	**Organization & division of roles**
Development of new modules Enhancing Existing Modules Jul 2017 - Mar 2018	Development of new modules Enhancing Existing Modules Jul 2017 - Mar 2018	**Tasks & timetable**
100,000.00	0	**Budget**
Case testing prior to launching, Correcting bugs found while using. Feedback from users	Case testing prior to launching, Correcting bugs found while using. Feedback from users	**Monitoring & revision mechanisms**

5	4	3
Voter registration management application	Ballot paper generator	Card printing application
Eliminate and integrate the separate application and manual process used in re registration	Eliminate the manual designing and generation of ballot paper	Integrate exiting information systems gather relevant information to print various security passed
All data and process can be viewed in one application. Multiple data entry and supervisors can manage the process while keeping the track of the updates and relevant documents.	Existing data is used to generate the candidates' names and other details on the temple to be given to the ballot paper printers.	Existing data is used to generate the cards and print in batches for dispatch.
Development of new modules including decentralized voter registration application to be used in islands.	Project Completed	Project Completed
Registration Section / ICT Section	Elections Coordination Section / ICT Section	ICT Section / Planning and Statistics Section
Development of new modules Enhancing Existing Modules Jul 2017 - Mar 2018		
0	0	500,000.00
Case testing prior to launching, Correcting bugs found while using. Feedback from users	Case testing prior to launching, Correcting bugs found while using. Feedback from users	Case testing prior to launching, Correcting bugs found while using. Feedback from users

9	7	6
Result Website	ERP data entry (new)	EMS (revised)
To disseminate result update internally and externally	Redesign user interface to cater more flexible and ergonomic work flow.	Revised to generate reoccurring documents to eliminate manual work.
Eliminate time spent in disseminate via other sources and focus on result consolidation	Consolidate result faster and more accurately with fewer errors, System to identify errors with proper validations.	Existing data is used to generate the candidates' names and other details on the temple to be given to the document printing.
Project Completed	Changing Hardware used to collect results from remote ballot stations. Study on find more portable and efficient Hardware is underway.	Enhancing and revising existing modules, and introduction of new modules: Candidate Registration
ICT Section	ICT Section	ICT Section
	Development of new modules Enhancing Existing Modules Jul 2017 - Mar 2018	Development of new modules Enhancing Existing Modules Jul 2017 - Mar 2018
0	0	0
Case testing prior to launching, Correcting bugs found while using. Feedback from users	Case testing prior to launching, Correcting bugs found while using. Feedback from users	Case testing prior to launching, Correcting bugs found while using. Feedback from users

ANNEX 4: Study on Introducing Means of Promoting Voter Education among females - Maldives

Study of

Elections Commission of Maldives

1. Country Profile

The Republic of Maldives is located southwest of the Indian subcontinent and is made up of a chain of 1192 small coral islands, which form 26 natural atolls. The total population of the Maldives is approximately 350,000, which is distributed unevenly across different islands. Nearly one third of the population is concentrated in the capital, Malé. Maldives' administrative structure consists of 2 cities, 20 atolls, 182 inhabited islands, plus over 100 tourist resort islands and the capital city Malé.

Maldives implemented its new constitution on 7th August 2008. The new Constitution was ratified with the constitutional model of presidential republic. The president and the members of the legislative body (The Majlis) are directly elected by the people. With the new constitution and along with the new rights, many new problems that the Maldivians have not seen started to sprout. However, such problems are not unique only to Maldives. Researches show that most of the newly democratic countries do face such problems in the infant stages of their democracy.

Elections Commission of Maldives (ECM) is a constitutional body and functions as an independent institution. With the implementation of the new constitution ECM was formed in August 2008. Since then it has successfully held 2008 and 2013 Presidential elections, 2009 and 2014 Parliamentary elections and Local Council elections 2011, 2014 and 2017 that were considered by international observers as fair, free, peaceful, competitive, transparent and inclusive. ECM comprises of five independent Commissioners (a Chairperson, vice chairperson and three members).

2. Electoral System of Maldives

The President of Maldives is elected for a five-year term and can serve a maximum of two terms in office. The President is elected in a single national constituency on the basis of a majority system. A candidate has to achieve more than 50 percent of the votes cast in the election to win the election. If a candidate does not achieve more than 50 percent of the votes casted, then a run off is held between the first and second candidate no later than 21 days from the date of the first election. In the run off the candidate who secures most votes is declared the winner.

The members in the People's Majlis are elected in single-member c constituencies using the first past the post system. Each of the 20 administrative atolls and Malé are considered separate administrative divisions and have a minimum of two elected members, with additional members elected if the population of the administrative division is over 5,000 people. Currently the Majlis has 85 seats.

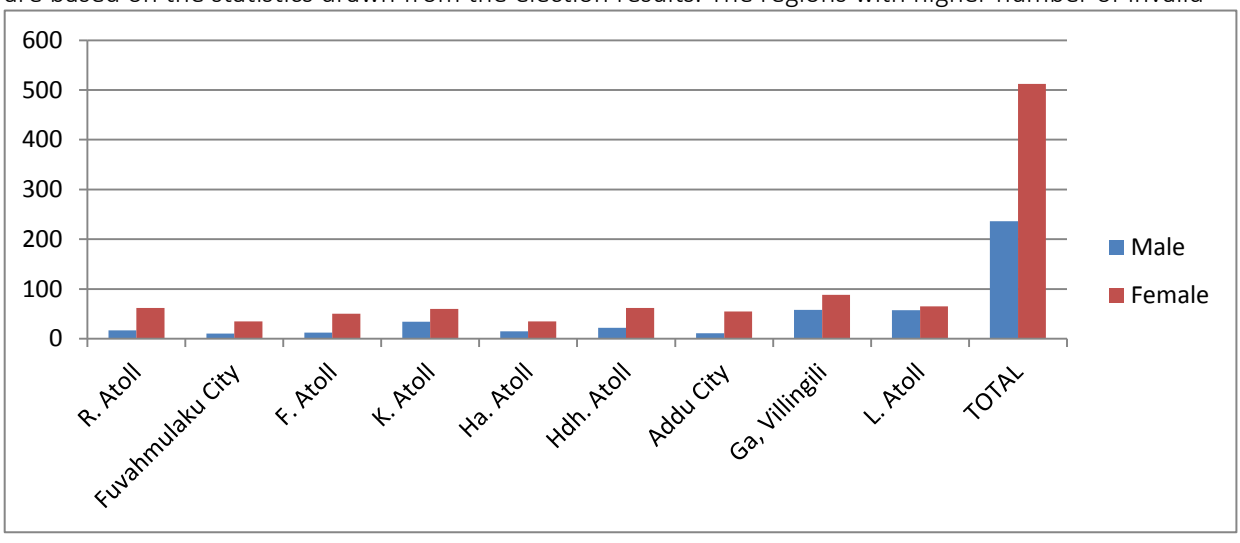


3. Existing means of promoting voter education in ECM

According to Elections General Act 2008, it is legally mandated to ECM to make aware the general public, political parties, candidates, polling officials, observer, monitors and candidate representative to the polling process.

In Maldives there is no difference between women and men in all political activities. However it's legally mandated to ECM to make aware the public regarding Electoral process in the Maldives. Hence, the awareness programs and events have been targeted to both men and women.

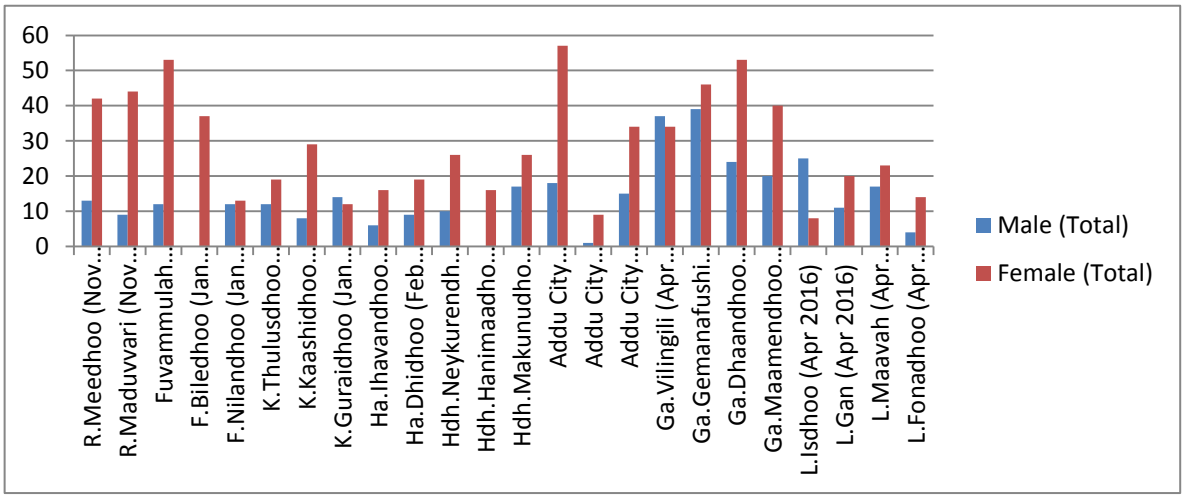
Each year a work plan is drawn with a schedule approved by the commissioners. The atolls selected are based on the statistics drawn from the election results. The regions with higher number of invalid



votes and most complaints lodged on issues like vote buying and anti-campaigning are considered as

most vulnerable. The target age group of school children is the 17 and 18 year age group who are the potential eligible voters. Politic parties being the major stakeholder in the election process, it becomes highly important to give them a platform to come together and share their experiences and issues, to which we gave our awareness training materials.

As such, it becomes a two way communication medium to enhance the election management process. And, through the trainings it becomes transparent the procedures we follow through during an election. Hence, it becomes easier to convince the political parties as well as the NGOs on the free and fairness of the election process



which we aimed to achieve.

These are the platforms or means ECM has employed during the recent years to generate maximum exposure. These platforms are organized and conducted in association with Political Parties and NGOs:-

1. Create awareness among public using video spots
2. Conduct Media Discussion Forums in collaboration with Media Association, Maldives Broadcasting Commission and all Media stations
3. Develop promotional materials like Flyers, Posters and Leaflets and disseminate these information in atolls and Male'
4. Create and use voting awareness posters that are used in the voting center on voting day to give information to voters
5. Digital Displays around the islands
6.

ideo spots are created with the assistance from international electoral bodies. And is telecasted and broadcasted during election period. During election period, these spots will be shown in frequent time intervals.

7. Discussion forums includes commission members, government stakeholder groups, NGOs, and political figures coming together to discuss on topics like transparency in voting process. It becomes exceedingly important that the general public be aware of how things are done and the role each stakeholder group plays. Hence, election commission of Maldives creates this platform to reach out to as many people as possible to deliver the message.

8. Flyers, posters and leaflets are good way to reach mass population within a limited time frame. These awareness materials are developed in the voter education section with the approval of the commission members.

And also there other technology friendly voter education awareness means employed by ECM. Such as, E-Training Video, Training Pack, Social Media and Elections Commission Website, EMS Software, 1414 helpline, Mobile Application.

Training here is referred to all the trainings conducted for observers, monitors, candidate representatives and polling officials. Trainings are conducted in a way that officials are given the opportunity to go through each step of the voting process physically. Including how to handle assisted voters etc. basically in the training they would be doing each and everything done on the actual voting day. It is available from the commission's YouTube link and website page where general public will be able to download the video. Which goes same for the video spots as well, it can be readily available.

Training pack includes a CD which contains all the training presentations. And this training video is used in the island wide trainings. This saves time and minimizes the workload of trainers and helps in maintaining uniformity in all the trainings. Whereby, limiting trainers from exercising their

own methods. Since, training involves physical demonstration, training packs includes sample of things that are used on the actual voting day from ballot papers to all the security envelopes and the posters. Etc

Currently our website is being upgraded to integrate a more user friendly and better interface for the public to access easily. As such, website carries details on all the trainings and awareness materials produced by the voter education section. And through twitter and Facebook account the media unit is able to keep tabs on the amount of views. This gives us the statistics on how effective our awareness campaigns have been.

EMS is software where almost all the sections have some degree of authority to feed data relevant to their sections. EMS software carries information about the candidates, officials, observers, monitors, candidate representatives as well as trainer's information and their track records. Hence, EMS software is a comprehensive data base where information is readily available in planning for trainings.

1414 helpline is a hotline that comes online when an election is being announced and is available 24/7. The call logs tells the extend of public knowledge and whether our messages has been reached to them and also their perceptions.

Previously civic education programs were conducted by following through a PowerPoint presentation. But now we have a 4 module structure and this program was conducted in more than 10 atolls within last 2 years. And it was mainly targeted to the youth, students who are currently studying in secondary education.

Each year a democracy camp is organized by transparency Maldives (Election observation group) and IFES where the ECM officials would visit these camps to answer election related questions. This camp is targeted for school children in creating more awareness and conjuring their interest.

Under the election Act 21 clause, it's mandatory for EC to create awareness on democracy. As such, from 2015 ECM has been organizing a series of events to celebrate democracy week. Each year this week was organized in different atolls of the country. It's a huge event that has got all the stakeholder groups involved in some form to conduct different activities which promotes democracy. And the main aim of this week also has been to create awareness among the public especially regarding democracy and election.

As we mentioned earlier also there are no such activities or events targeted for women in the Maldives. In Maldives there is no discrimination for women and men to compete in elections. However, we do find the amount of women who actively participate in election related activities are relatively less. Hence, to promote them NGO's like Hope for women, UNDP, IFES is playing a huge role to empower women and create the platforms for them to compete in elections.

Under the MOU signed with the Public Service Media (PSM) ECM shares civic education materials to the mass media where the medium of delivery is TV and Radio. In election period this was a continuous process.

Every year ECM is takes part in Maldives Inland Revenue (MIRA) tax week celebration to promote,

and disseminate elections related information among the general public. This is a huge platform for many state institutions to promote their information.

4. Introduce means to promote voter awareness and voter information among public

Although ECM is working very hard to create awareness in public, there are even greater things ECM is working to introduce in coming months before presidential election. As such, a mobile application is underway to be introduced soon, which has all the information regarding the upcoming elections, registration related information, etc.

With the help of local consultant ECM has formulated voter education strategies. So now ECM is working on these strategies to be implemented in the coming months. Therefore, the civic education programs will henceforth be aligned with these VE strategies.

ANNEX 5: Study on Introducing Means of Promoting Voter Education among females - Maldives

Template for Research Papers

Elections Commission of Maldives

DOCUMENT TITLE <18 POINTS, BOLD>
DOCUMENT SUBTITE <16 POINTS>

Abstract

Type the abstract of the document here. The abstract is a short summary of contents of the document. <12 Points, Italic>

TABLE OF CONTENTS <16 POINTS, BOLD>

Type the table of contents here. Table of contents should include all the headings and subheadings <Style: Table 1 or 2, 12 Point, 1.5 Spacing, Numerical numbering, Separate page>

LIST OF TABLES, FIGURES, GRAPHS AND ABREVIATIONS<16 POINTS, BOLD>

Type the list of tables, figures, graphs and abbreviations here. List of tables, figures, graphs and abbreviation should be in separate lists. These will help the reader to quickly find the detail on the subject matter. <12 Point, 1.5 Spacing, Numerical numbering, Separate page>

1. COUNTRY PROFILE<16 POINTS, BOLD>

Type the country profile here. Country profile includes a short biography of the country including their history, culture and monumental facts. Also, the second para must carry a short profile of the respective EMB. EMB profile includes the establishment date, type of structure, designated members, mission and vision etc. <12 Point, 1.5 Spacing, Numerical numbering, Separate para>

2. INTRODUCTION <16 POINTS, BOLD>

Type the Introduction of the document here. Introduction contains, Brief history, Purpose of the paper, Scope of the paper, Method or tools applied. Etc. < 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

3. MAIN BODY<16 POINTS, BOLD>

Type the main body of the text here. The body of the text explains in detail how the study was conducted, your hypothesis, reports key findings and provides evidence supporting your conclusion.

The section can be further subdivided if more than one point is being discussed. < 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

4. HYPOTHESIS <14 POINTS, BOLD>

Type the Hypothesis here. Describe the approach or the direction of the report. It is the prediction and what you want to achieve from the methods applied. It is what you deem to be the cause. < 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

5. METHODS <14 POINTS, BOLD>

Type the methodology used here. Describe the project (elaboration), while explaining the key working principle applied. The method section elaborates on the methodology used and makes objective arguments to justify the approach taken< 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

6. KEY FINDINGS <14 POINTS, BOLD>

Type the key findings here. Results and analyses should be focused on key results and interpretations, acknowledging limitations and implications for the interpretation of results. The line of reasoning should be clear and well-supported and assumptions should be justified. < 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

7. CONCLUSION<16 POINTS, BOLD>

Type the conclusions here. Conclusion includes the whole final finding of the study based on the hypothesis. It also should wrap up the whole study summing up the purpose and the level of achievement of it. < 12 Points, Times New Roman, Paragraph justified, 1.5 point spacing>

8. REFERENCES<16 POINTS, BOLD>

Type the reference here. The reference section comprises a list of all sources that were cited in the text. The reference list should be alphabetical according to the first author's last name.

9. APPENDICES<16 POINTS, BOLD>

Insert the Appendices here. The appendices section comprises a list of all attachments and supporting documents giving weight to the study.

ANNEX 6: Use of GIS (Geographic Information System) in Elections - Afghanistan

FEMB South Asia

THE FORUM OF THE ELECTION MANAGEMENT BODIES OF SOUTH ASIA

Country Paper of

Independent Elections Commission of Afghanistan

Introduction:

New technologies have created a powerful paradigm shift in political campaigning .Elected officials are no longer merely pictures on a classroom wall or caricatures on a television screen. The convergence of the Internet, computers, and social media tools has made politics an immediate as well as interactive process. Candidates have an intimacy with their constituents on a large scale that would not have been possible without modern technology.

One of the most significant tools is a geographic information system (GIS), which is a sophisticated mapping technology. EMBs can review geographical hot spots at a glance or determine how to apply the geographical information in the planning process. The diverse applications of GIS have made its use attractive to people in business, industry, government, and education.

Definition:

Geographic Information Systems a geographic information system is a computer-based database system that is used to store, analyze, and manipulate geographically referenced data. The most common output of a GIS is a map, and the online website, MapQuest, is a familiar example. Spatial data stored in a GIS contain latitude and longitude or XY coordinates, which are used to draw roads, geographic borders (e.g., provincial boundaries or voting districts), and pinpoint locations such as fire hydrants, house addresses, or cities. Attribute fields can be used to add information such as the name of a city, which can be displayed onscreen or printed on a map. Inherent in any GIS application is the capability to enter data through actions such as scanning and digitizing maps, importing existing database information, or entering data directly into the system. What makes a GIS so powerful is its ability to layer thematic maps vertically, such as a population density map over a city map, and calculate distances between two or more locations accurately.

Using GIS to Connect with Constituents:

The power of a geographic information system is that it is not just a one-dimensional technology. Thematic layers can be used to create a multidimensional view of a geographic area over time. This type of mapping can show changes in population density, fluctuations in air quality, or evolving political-party affiliation. Consequently, administrators throughout the political system have found innovative ways in which to use the spatial and organizational capabilities of a GIS.

EMBs are recognizing the importance of voter outreach programs but, more importantly, they are realizing the integral role that technology can play in locating underrepresented communities with low

voter registration. They understand that GIS can make get-out-the-vote drives smarter, faster, and more cost-efficient.

GIS and Political Policies

Governments can use Census data to determine how their actions will affect their electorates. If they are developing or debating a new piece of legislation, they can use GIS tools to run possible scenarios to get answers to the following potential questions: Who will the new policy affect? Who will pay the taxes? Where do they live? Is it in my district? How will it affect the people who vote?

Maps:

A map is defined as a representation, usually on a flat surface, of a whole or part of an area. The job of a map is to describe spatial relationships of specific features that the map aims to represent. There are many different types of maps that attempt to represent specific things

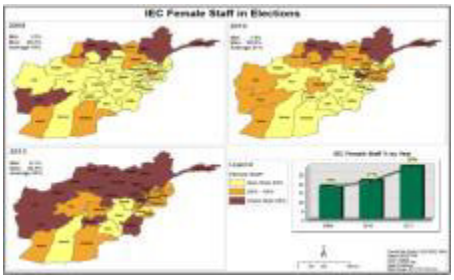
Maps can display constituencies, population, physical features, natural resources, roads, climates, elevation (topography), and economic activities.

Thematic map:

Is a type of map especially designed to show a particular theme connected with a specific geographic area. These maps "can portray physical, social, political, cultural, economic, sociological, agricultural, or any other aspects of a city, state, region, nation, or continent".

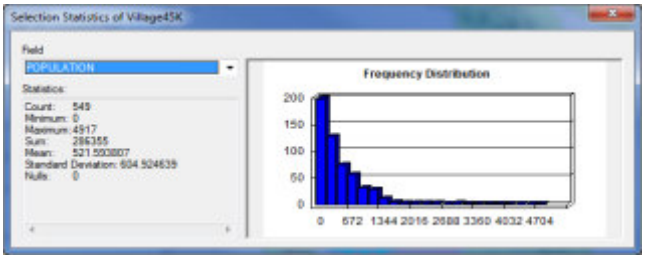
Statistical map:

Statistical map is one in which the variation in the quantity of a factor, such as percent of population within different geographic areas, is displayed. The three main types of statistical maps are choropleth maps, proportional symbol maps, and dot maps



Graphs:

A graph is a picture that represents data in an organized manner



A diagram showing the relation between variable quantities, typically of two variables, each measured along one of a pair of axes at right angles

It's a pictorial representation of the data

Graph is the best tool to understand the data in an easy way. A graph is drawn in a grid

A graph is drawn between X and Y axes, where X axis is a horizontal line while Y axis is a vertical line

GIS helps the EMBs generate deferent graphs (i.e voter turnout, gender participation rate etc) that help a lot in managing an effective electoral process. The difference between graphs and charts is mainly in the way the data is compiled and the way it is represented. Graphs are usually focused on raw data and showing the trends and changes in that data over time. Charts are best used when data can be categorized or averaged to create more simplistic and easily consumed figures

A GIS database is able to generate multiple visual illustrations of the data stored in it for comparison and future planning purposes.

Reports:

Reports offer a way to extract and present a specific subset of the information from a large database. Users who view database reports are spared having to view some extraneous data that is irrelevant to thinking about a particular question

It has been specifically designed to use data or code from another source, an Access database stores its tables in a single file, along with other objects, such as forms, reports, macros, and modules.

GIS is a very effective tool in generating report for the electoral administrators in order to understand the process and manage it in a more effective way.

Administrative boundaries:

Are administrative division, administrative unit, administrative entity, sub-national entity, constituent unit, constituent entity, subdivision, or country subdivision, is a portion of a country or other region delineated for the purpose of administration. Administrative divisions are granted a certain degree of autonomy and are usually required to manage themselves through their own local governments. Countries are divided up into these smaller units to make managing their land and the affairs of their people easier. For example, a country may be divided into provinces, which, in turn, are divided into counties, which, in turn, may be divided in whole or in part into municipalities; and so on.

Administrative boundaries setting process associated with voting areas (polling areas) needed for the purposes of assigning voters to polling places. These boundaries need to be adjusted periodically due to spatial demographic shifts over time and thus remain relevant to even the most established democracies.

Population information:

Population information is the use of statistics to analyze characteristics or changes to a population. It is related to social demography and demography. Population statistics can analyze anything from global demographic changes to local small scale changes.

Data collection:

Is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes; The data collection component of research is common to all fields of study including physical and social sciences, humanities and business.

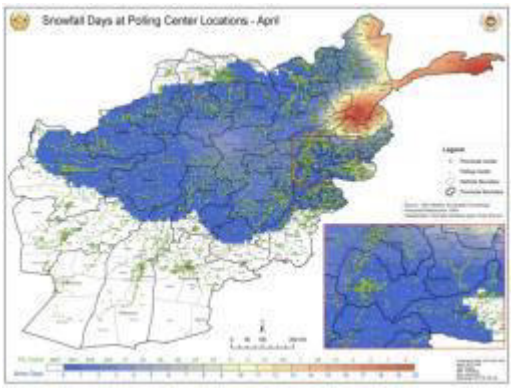
Field studies involve collecting data outside of an experimental or lab setting. This type of data collection is most often done in natural settings or environments and can be done in a variety of ways for various disciplines

IEC collected the data on hardcopy forms from the field through district employees and then entered the information in the GIS database. In addition to the forms, digital pictures were added to the database.

This information helped a lot in the planning and analysis of the polling centers and stations, especially in 2014 elections.

Spatial Analysis:

Spatial analysis is a set of techniques for analyzing spatial data. The results of spatial analysis are dependent on the locations of the objects being analyzed. Software that implements spatial analysis techniques requires access to both the locations of objects and their attributes



Spatial analysis is a type of geographical analysis which seeks to explain patterns of human behavior and its spatial expression in terms of mathematics and geometry, that is, locational analysis

Spatial Analysis for Election:

Electoral geography is interested in the study of elections to understand spatial variations of political phenomena, which are deeply embedded with the environment occurring at the time of election and the people's perception about various political parties. The voting behavior of the electorates is greatly influenced by their perception existing at the time of elections. The voters perception about election's environment and political parties are vary over one constituency to another constituency

IEC used spatial analysis tool to determine the number of polling stations in reference to the population data.

IEC also determined the GSM coverage on the map for field staff. In addition, IEC helped the security forces in showing the threat level on the map using deferent color through spatial analysis.

Future plans:

Population data satellite imagery: Afghanistan is working on a new project that will estimate the population data through satellite images. Although the population data is available for urban cities and some of the rural areas, the new project will be able to give a 100% population estimate for all the areas that will help in planning elections and other similar projects in the country.

Material tracking through GPS devices: IEC is working on a concept to use GPS devices to connect them to GIS and then send these GPS devices with material convoys and track the movement. This will help prevent misuse of the material as well as security of the convoys.

Online access to voters: IEC will introduce online access to voters to determine their polling center information, location and any changes made to them in order to stay up to date with the polling process.

ANNEX 7: Use of Technology in Election Management in Bangladesh - Bangladesh

Country Paper of

Elections Commission of Bangladesh

Introduction

Election Commission Bangladesh (ECB) has adopted different types of technology in electoral processes in the recent past. Database system (to support voter registration process and National Identity registration systems), Election Management System (candidature, election result and polling personnel management systems), Geographic Information Systems (GIS based delimitation tools) and some ICT based pertinent services are notable among them. ECB introduced Information & Communication Technology (ICT) in Election Management prior to 9th National Parliament Election in 2008. Since then ICT is being applied in all subsequent parliamentary and local bodies' elections effectively. In 2007-2008, ECB prepared electoral roll with photographs and biometric features (fingerprints). This task was completely based on ICT technology. A database was created having more than 81 million electors. As a bi-product of this exercise, it is now possible to provide National Identity Cards to all voters of Bangladesh. Since then electoral roll is being updated every year. The electoral roll was last updated in 2016. The database now contains more than 100 million records. In Bangladesh, updating of electoral roll is a routine type task/work and there is a legal framework guiding it.

Since the emerging field of electronic voting is new and exists primarily within the field of electoral administration, ECB introduced Electronic Voting Machine (EVM) in a small-scale. But following some problems with the earlier developed machines, ECB is trying to develop a new and more modern version.

Following the successful adoption of technology in voter registration, ECB started to introduce ICT in other election management areas, which opened up a new horizon. A significant change has taken place in election management by using above mentioned technology. Uses of technologies in election management are as follows:

1. Voter registration and preparation of Electoral Roll

1.1 Background

An accurate and dependable electoral roll is the prerequisite of a free, fair and credible election. Correct voter lists constitute foundation for an ideal electoral process. In 2007-2008 ECB decided to change the existing process of preparing voter list and introduced a computerized solution to prepare voter list with photographs and biometric information, in a realization that a voter list without photographs and adequate biometric features, there is a possibility to be enrolled more than one time. Then a decision was taken that a National Identity Card (NID) for every voter would be issued through the registration process and the data for the electoral rolls and NID would be collected through the same process and housed in the same database. EC is doing voter registration in two ways:-

1. Special Updating program in each year or in two years
2. Round the year at Election Offices

Recently EC introduced online registration also. An eligible voter can request for register as a voter.

1.2 System Overview

Voters' data is collected through a prescribed form by the enumerators visiting door to door. After that data is entered into a laptop in presence of voters at registration center and photographs & fingerprints with signatures are captured simultaneously. Then data is sent to Upazilla (sub-district) server for processing and processed data is uploaded in the central server. A central database is prepared after merging Upazilla databases and pruning out duplicate records by AFIS (Automated Fingerprint Identification System) matching. Duplicate voters are automatically rejected by this process.

Voter lists are printed and copied into CDs in pdf format. Voter list along with photographs is used for official purpose while voter list without photographs is provided to the candidates and political parties during elections. Privacy concern is considered.

1.3 Hardware/Software

Laptops, Digital Cameras, Fingerprint Scanners, and Signature Pad for capturing data are used at registration centers.High level desktop PC has been provided for Upazilla server station. Storage Area Network (SAN) uses at data center. Heavy duty printers are being used for large volume of printing of voter list.

Customized registration software for field level data capturing has been developed by C#. Server module for Upazilla and central server has been developed using ASP, PHP. Oracle database is being used for data storing.

2. Migration and Deletion of Voters

2.1 Background

During updating program, enumerators also collect information of migrated and deceased voters to update the voter list. Apart from updating program voters migrate from one area to another or death of voters happen round the year. To keep the database up to date all field offices receive application from voters for different types of corrections.

2.2 System Overview

The person, who wants to migrate, has to physically visit the concerned election office of migrated place, and then apply through a prescribed format with proper documents. Election officer examines the application and scans all documents with application and sends it to central server through VPN. Voters can apply for migration through online also.

3. Candidate Management Information System (CMIS)

3.1 Background

The Representation of The People Order, 1972 stipulates that all contesting candidates in the election must provide 8(eight) personal information for dissemination to the electors. For disseminating such

information, usually leaflet/poster is used. However, it was found more effective to make these available through website to can reach a larger number of electors across the country.

In this situation, ECB started to develop a web based application which is running in secured Virtual Private Network (VPN). Eventually, in the 9th Parliament Election (2008) and 3rd Upazilla Parishad Election (2009) information was collected using this version. That CMS version was used only for collecting candidate's information, scanning candidate's asset disclosure and uploading data directly to website. Before 10th National Parliament Election (2014) ECB developed and introduced a new and improved version of CMIS including some additional functionality. The application was used successfully during the 10th National Parliament Election, held on 5th January 2014, 4th Upzilla Parishad Election (2014), City corporation Election (2015) and the recent Union Parishad Election (2016).

3.2 System Overview

CMS helps Returning Officers (RO) & Assistant Returning Officers (ARO) in effectively managing the candidate nomination processes. The nomination process includes: screening of nominations in terms of compliance and completeness along with asset disclosure and other relevant candidates' information, recording decisions made by the court of law (if any appeal is lodged in the court of law), withdrawal of nominations, allocation of symbols etc.

CMS Helps Secretariat and field offices to work efficiently by generating official forms and MIS reports. By providing candidate's disclosures and publications in website, CMS ensures the transparency of election process.

3.3 Hardware and Software

Laptop and Scanners, Modem for wireless data network, In-house developed Software CMS based on ASP.net, MySQL, PHP and Crystal Report.

4. Result Management Information System (RMIS)

4.1 Background

Elections are very sensitive and contested events. Desire to learn results instantly and providing such information as soon as those are counted is a necessary obligation of election management body. In order to make results available a web interface was developed in 2008 and tested in four city corporation elections held in 2008. In this version, returning office sends the progressive result to Election Commission Secretariat. The results are approved by ECB and published in website.

Before 10th parliament election, ECB developed another new and improved version of RMIS with the support of foreign IT experts which is partially network independent. In this current version, RMIS is running both in Returning Office and Assistant Returning Office. As a result, using this version ECB is able to get the result from Assistant Returning Office, whenever Presiding Officer submits the result.

4.2 System Overview

The System is designed to rapid result tabulation process and publication of result; provide greater transparency, audit ability, security and accountability.

RMIS developed considering some basic features like user friendly data entry; eliminate manual calculation and aggregation, monitoring progression of results, detection of errors, tracking and auditing user activities, network independence, easy to consolidation of results.

4.3 Hardware and Software

Laptop, Scanner, Modem, Asp.net, C#, SQL Server

5. Polling Center Management

5.1 Background

Selection of Polling Station is very sensitive work during election period. In our election law it is clearly stated that returning officer should not select a polling station which is near by any candidate's influential area. Polling Station should not be affected by natural calamities.

As ECB conduct different type of election like Parliament, Local bodies, Presidential elections, and keeping history of all polling centers for all type of election is important and necessary, ECS developed a common polling center database to increase effective management.

5.2 System Overview

There is common database of all polling centers which are used in different election. This database contains detail information with picture of polling center like name, address, types of facilities available, flood affected or not, violence prone or not, accessibility etc. Returning officer can easily analyse and select the polling center from this database for different elections.

All information is updated from time to time by concerned election officers. This is a web based application, field offices enter data which is centrally monitored by Election branch and IT.

5.3 Hardware & Software

Laptop, PHP, MySQL

6. Election Budget System

6.1 Background

A huge amount of finance is always involved with conducting any kind of election. Election branch need to analyse the budget considering various factors. Past information is also required to predict the budget for upcoming elections. It is quite difficult and time consuming to find information of past elections from piles of files. And also difficult track how much of the distributed budget is adjusted or not. In this circumstance, EC developed an election budget related database, so that it will be easy to forecast future elections.

6.2 System Overview

Election Budget System is a web based application which has two type of user, one is from head office, who is responsible for budget allocation and another one is all field offices, who receive the allocated budget and adjust the amount after spending money with proper vouchers and supportive documents.

6.3 Hardware/ Software

ASP.NET, MySQL

7. Election Schedule Management System

7.1 Background

Election Commission Bangladesh conducts election almost round the year. Elections for more than 4553 unions, 489 upazillas, 11 city corporations, 300 seat parliament, 50 reserved women's seats in the parliament and bi-elections for vacant positions are held. To prepare an election calendar and to plan for conducting upcoming election, it is necessary to know the last date of tenure. It is troublesome to track all the elections manually. To overcome this situation and to make the task easier EC developed a system, where information of all type of elections like date of election, date of expiry etc. has been entered. And this helps to prepare an election calendar based on this data.

7.3 System Overview

This is a web based system, running on secured VPN. Whenever a schedule is declared, election branch enters information and concerned field election office receives. After the election, when the first meeting is held, concerned election officer enters the date into the system, so that the system can automatically calculate the date of expiry. Based on this date, system automatically creates an election calendar also.

8. Office Inspection Report Management

8.1 Background

Election Commission Secretariat has 42 sections and nearly 600 field offices. Officers in charge of sections and field office inspects their own offices and file reports. Supervising officers inspect their subordinate offices and file reports. This is monitored at different levels and corrective actions are taken. An inspection manual has also been developed and is in use.

8.2 System Overview

Head of the office login to the system with their user and send the report of office inspection for each month.

9. Internal Office Communication System

9.1 Background

ECS is responsible to provide necessary information. Most of such information is generated in the field or at the office of Returning Officers located all over the country. To collect such information it is needed to establish connectivity between ECS and all field offices. SO ECS intranet was established to collect information speedily. This is a nationwide online information sharing system, where users can share information, send notices, and organize meetings and events through secured VPN.

9.2 System Overview

Users have to register with registration form against their designation of that corresponding election office. User name is provided by the admin and users have to provide their password for login. After successful login users get their individual panel where they can send notice or message to a particular election office or a group with file attachment.

Users can fill up the budget, asset and personal information. They can see the important links and downloads. User can also access voter list and NID database also.

10. Polling Station Information through SMS and Website

10.1 Background

Polling Station is a place where voters require to go to cast their vote. Voters are allocated to different Polling Station on the basis of number of voter, gender and proximity of their place of stay. Without information of Polling Station together with one's voter serial number, one may find it difficult to vote on the polling day. This information was usually provided by the candidates or political parties earlier. ECB considered it as one of its responsibility and therefore, looked for ways to provide it. This was first tested in local government bodies elections held in 2008. After that, ECB is providing this service in all local elections.

10.2 Process

Voters can send their PIN number through SMS or can log into ECB's website and provide their PIN in a specific webpage with relevant particulars.

In return SMS from Telecom operator/ service provider provides the name of the voter, voter number, serial number and name of Polling Station.

ECB gives an access to Telecom operator/ service provider in main data center through secured Application Program Interface (API).

10.3 Hardware and Software

Server located in ECS, MySQL, PHP, XML

10.4 Outcome

Approximately 5%-10% of the total voters of each City Corporation avail this service. And the revenue from this service is deposited to Government treasury.

11. Polling Personnel Management System

11.1 Background

Election management is very sensitive and enormous job. Fair election largely depends on proper recruitment of polling personnel. Selection of polling personnel, assignment of specific polling station, budget for polling personnel, tracking them for next election etc. are very critical job. ECB created a database of polling personnel, so that the panel can be re-used in subsequent elections. This is updated from time to time.

11.2 Process

This is a web-based application. Field Officers can login to the system from their desk and prepare list of personnel for that area. When any election schedule is declared, officer will assign the person to a specific Polling Station and generate an appointment letter from the system. As well as after election, officer can produce the budget. As all this information isstored in main data center located in ECB, so higher authority also can monitor the recruitment procedure.

11.3 Hardware and Software

PHP, MySQL

12. GIS Based Delimitation Tools

12.1 Background

There are 300 constituencies in the National Parliament of Bangladesh. According to the provision of the Constitution of Bangladesh and the Delimitation of Constituencies Ordinance, 1976, the constituencies of parliament are to be delimitated after each census. The criteria for delimitation are set out in the law, population distribution; geographical boundaries all factors are considered for GIS based solution.

12.2 Process

GIS data and GEOCODE information were obtained from relevant government agency. To make the system Bi-lingual a Bengali description has been included by ECS. Population data was incorporated up to lowest level using Geo code. All legal conditions were incorporated in the system. Earlier, such exercise would have required plotting on a physical map many times and would have been time consuming. But automating it allowed arriving at a decision very quickly after having results on screen and holistically.

12.3 Hardware and Software

Arcinfo (GIS Software)

13. NID Card and NID System Service

The genesis of national ID card is linked with the preparation of electoral roll with photograph undertaken by the Election Commission Bangladesh in 2007. The voter list with Photograph requires information of all voters. However, it was found that some additional information would facilitate the issuance of National ID cards to all voters. This has become a new activity for the ECB. ID cards have been prepared by desktop printers in 8- gsm plain paper and simple lamination. A PKI hash is used in the barcode as security feature, which cannot be regenerated by any unauthorized person.

In addition with the issuance of national ID card now ECB has developed a integrated NID based access mechanisms that is integrated with different citizen e-service application like opening bank accounts, renewal of passport, SIM registration etc.

15. Smart NID Card

ECB has decided to replace all paper based laminated cards by a smart card, which will ensure strengthening the e-governance and good governance initiatives and activities and also ensure service received by the correct person. Our Smart card has about 25 different security features in 3 layers which is internationally recognized as an identity document. 100% polycarbonate material used for this card in five layers has a minimum 10 years of lifespan. Personal information with bearer's biometrics and photograph is stored inside the chip digitally. All the data is stored in compliance to International Civil Aviation Organization (ICAO) to use this card in future as Travel document. Very soon ECB is going to distribute the Smart card to the voters.

16. Inventory Control

A digital inventory database has been developed for the inventory control and soon it will be put in use.

17. NIKOSH Font and Converter

In the early stages of computer, ASCII character codes were used to represent characters. At that time, this scheme had no place for languages like Bangla. However, different vendors developed fonts by following different proprietary standards which caused problems of portability and interoperability. In this circumstance, ECB developed Unicode 5.1 compliant Bangla font which can be used in voter database. To convert the entire legacy documents prepared in Bangla using ASCII into Unicode 5.1., ECB also developed a converter. It can convert any MS Word Document, MS Excel, MS PowerPoint and database file using Microsoft Access or MySQL.Fontlab, Fontographer, and Adobe CS3 have been used to develop NIKOSH font and Nikosh Converters was developed using C#, Aspose and a new different conversion algorithms.

ANNEX 8: SMS Based Poll Information System – Prompt and Efficient Election Result Compilation – Bhutan

FEMB South Asia

THE FORUM OF THE ELECTION MANAGEMENT BODIES OF SOUTH ASIA

Country Paper of

Elections Commission of Bhutan

Introduction

The Election Commission of Bhutan is an Independent Constitutional Body, established in January 16 2006. Since its inception, the Commission made various effort to use technology in every aspect of Elections to make officials working in the Commission and the electorates as a whole to provide easiest mode of information dissemination and as well as scientific approach of working system. The Election Commission of Bhutan considers SMS based poll information system as important technology for prompt and efficient Election Result Compilation.

Given the wide usage of mobile phones in Bhutan, as indeed is the case all over the world, the technology has been tried for the collation of the periodic voter turnout reports and election results from the EVM machines at the end of the poll day during the local government elections in 2011, which was conducted in several phases.

It helps to compile and consolidate four hourly voter turnout reports, age wise category voter turnout and election results and ensures safe and secure maintenance of the records of election data for future reference.

How it was conceived

In accordance with the Election Act of the Kingdom of Bhutan 2008, which requires compilation and consolidation of voter turnout reports and election results on the poll day, the SMS-Based Poll Information System has been in developed for prompt and efficient Election Result Compilation. It was tried in 2011 First Local Government Election and later in 2013 Parliamentary Election.

The requirement of having to compile the periodic voter turnout reports and election results from the EVM Machines on the poll day has never been an easy task both for the polling officials as well as the Election Commission of Bhutan at the head office. The problem became worse when the polling officials had to send in the voter turnout reports while there is a crowd still waiting in queue at the polling station. The ECB in an effort to ease the workload of the polling officers, the SMS (Short Message Service or Text Messaging) technology was developed in 2011. It is a SMS-based system for relaying of secure data or information from the polling station and web-based interface for compilation and generation of instant voter turnout reports with accuracy, efficiency and minimum human error.

SMS Based Poll Information System

The system starts with a SMS gateway with the phone number 1919 registered with the local telephone companies and configured at the ECB Head office. The coding and key words were put in place to authenticate the authorize user before the SMS is recognized and taken for compilation to respective format by the SMS gateway.

During the LG Elections in 2010, when the system was first tried, all the mobile phone numbers of the Election Officials who would be involved in relay of information was registered along all the relevant information in the SMS System, related to Candidates, polling stations and constituency; and information related to voter registration, Political Parties, Returning officers and Presiding Officers with separate unique IDs assigned for each Counting Center.

The system not only keeps track of every incoming SMS from the polling station but also maintains details of individual polling/counting station but also maintains details of individual station, presiding and returning officers which ensures smooth and clear flow of information. It may be noted that in Bhutan the Polling Stations, after the close of Polls, are authorize as Counting Centers and the Presiding Officers as Counting Supervisors so the primary information on voter turnout and EVM results are generated and communicated from the Polling Station/Counting Centers

All the authentic SMS messages received from the registered mobile phone numbers are acknowledged and goes into a MYSQL Database table, which can be directly viewed by the respective Returning Officers, Commission and the general public with the turn out reports uploaded available on the Commission's website immediately.

Use of SMS in the first elections

The SMS result system was first launched in the first local government elections in 2011 and then later in the Second Parliamentary Elections in 2013. The presiding officers would relay voter turnout report for every two hours and election result thereafter using the cumulative figure of voter turnout. The formats used for composing the SMS are:

ECBE 1M * - Two hourly voter turnout Male**
ECBE 1F *- Two hourly voter turnout Female**
ECRE NA010001101 * - Result for Primary Round NA Election**
ECRE NC010000001 * - Result for NC Election**

The system made it possible to receive voter turnout data and election results directly from the polling station which helped in effective consolidation of results. However, the system's efficiency, upon analysis, was still found to be challenged by errors occurring from the long SMS code.

The old system of hard copy facsimile and email, further crosschecked over phone, was maintained and used as the primary source of information with the SMS as an experiment.

Improvement made after 2013 Parliamentary Election (Present)

Considering the problems and issues faced by the polling officers during the usage of the SMS based Poll Information Management System, the ECB decided to further improve the system with special focus on

the improvement of the user friendliness. A list of the features added on to the SMS based Poll Information System in this process are as follows;

1. **SMS Message Formats**

   The ECB reviewed and shortened the SMS Message formats to something that is comfortable for the users.

   New SMS Format for Voter Turnout Report

   REGU01**

   REMA0199**

   RETS0199**

2. **Mobile Apps**

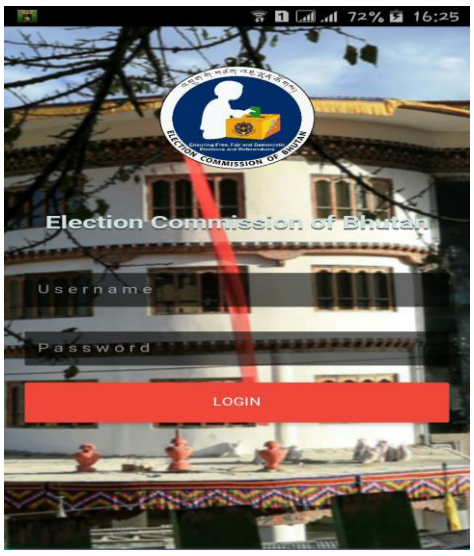
   The ECB with financial assistance from the G2C Office, a government undertaking to improve government to citizens' services, developed Mobile Apps that enables the users with smart phones to send voter turnout reports and Election results from the EVM Machines by simply filling up a simple form. The introduction of Mobile Apps totally eliminated the human errors that occurred during the typing of the SMS messages.

3. **Web Based Interface**

   The ECB converted the SMS method of collecting the Postal Voters Election Results to a web based user interface. The Returning Officer could use their Desktop PC or Laptops instead of their mobile phones to send in the election results of the postal voters.

4. **User Interface of the Administrators**

   The system administrators at the ECB Head office were provided with a web based user interface from where they could monitor and also share the poll day information with the rest of the officer of the ECB. Some screen shots of the mobile apps.



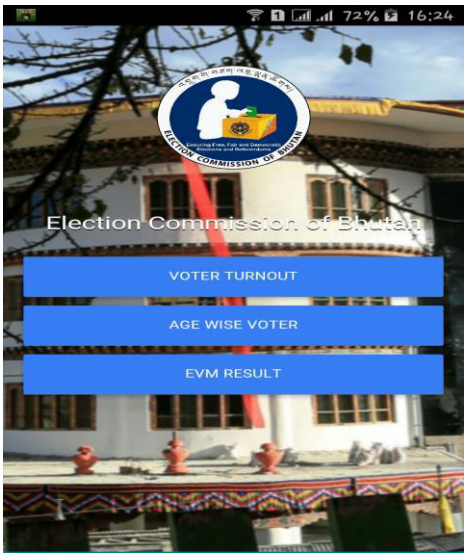
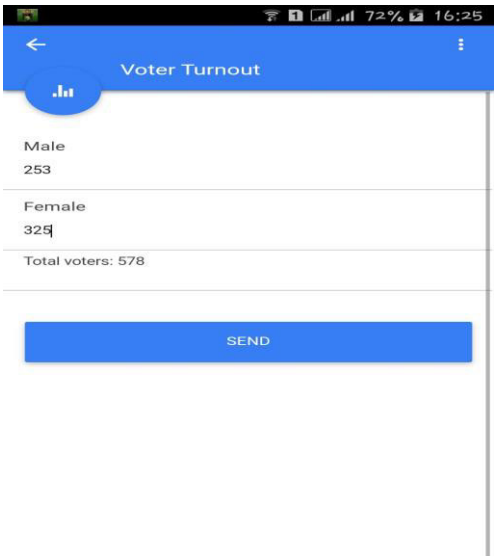


Fig.1 Login interface

Fig.2 Different module of interface



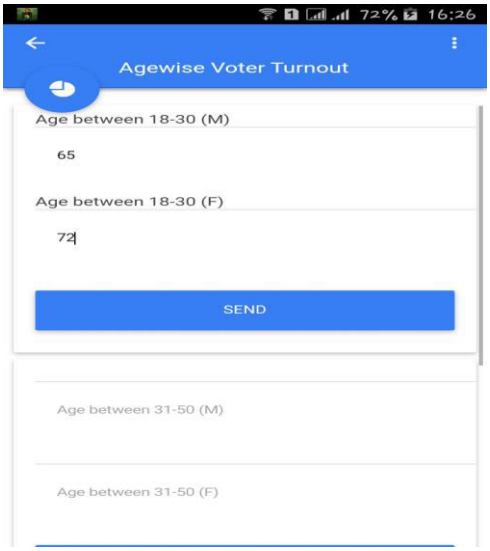
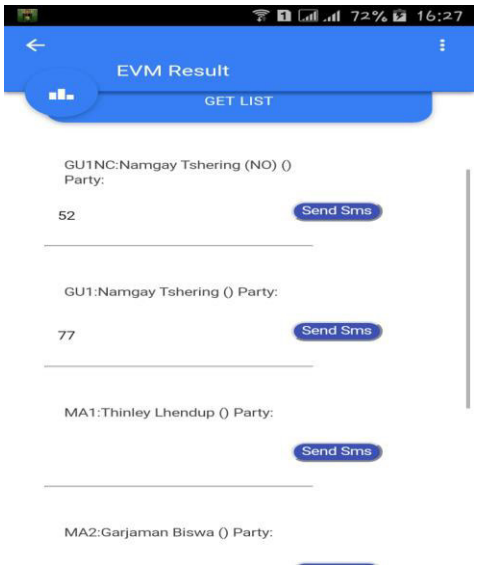


Fig.3 Voter turnout interface

Fig.4 Age wise voter turnout interface



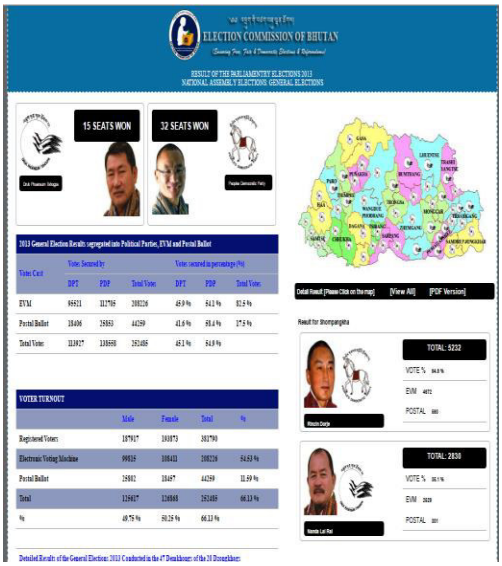


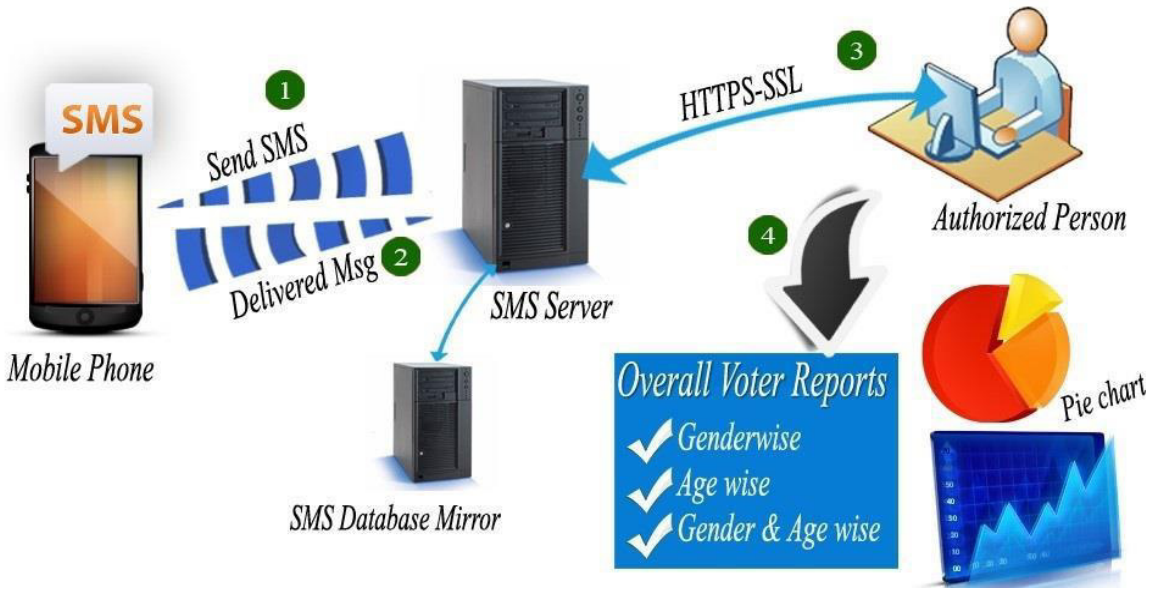
Fig.5 EVM result interface

Fig.6 Graphical representation of Election Results

How the system works?

The Presiding Officer and Counting Supervisor, as the primary source of information relays the Voter Turnout and EVM Result data for both male and female to the Central System Administrator, in ECB Head Office. The central database administrator compiles and consolidates these data with the Postal Ballot information received from the Returning Officer and generates periodic voter turnout reports. As per the requirement of the users the reports can be presented in several formats including the graphical representation that include use of bar and pie charts.

The data flow diagram of the system is as presented below;



The SMS system of poll information although is not a new tool for most of the election officials but with new mobile app developed and coded with SMS system will be new way of relaying the information. The Election Commission at the moment is in full swing building core competencies in each district election officials with training on the SMS System which in turn will train Presiding and Counting Supervisors who would involve in relaying the information need by the commission. This will help the commission have the SMS relayed and IT generated results as the primary source of data with the old system as a back-up during the current LG Election 2016.

Conclusion

Although the use of SMS technology was tried and tested in 2011 and later in 2013, our improved version will be used in 2016 LG Election. The new mobile app which is coded with the older version of SMS based poll information will give added advantages in making poll day more relaxed with most compilation of

result, voter turnout and male, female ratio automatically added and displayed to the general public without much human interference in record minimal time.

The mobile app which will run without internet facilities was tested recently and is ready for use and is introduced to the districts with proper training also being imparted. Therefore, we would like to conclude that the technology as simple as SMS in mobile can create wonders and make working easier on busy day like poll day with promise of accurate and timely information.

ANNEX 9: Some Observations and Considerations Regarding the Use of Technology in the Electoral Process - Maldives

FEMB South Asia

THE FORUM OF THE ELECTION MANAGEMENT BODIES OF SOUTH ASIA

Thematic Paper of

Elections Commission of Maldives

Some Observations and Considerations Regarding the Use of Technology in the Electoral Process

Ibrahim Waheed "Ogaru", Former Commissioner of Elections, Maldives

1. Disclaimer:

The contents of this paper comprise some of my observations and considerations the use of technology in the electoral process, presented from a highly personal point of view, based entirely on the experience and exposure to elections and electoral processes I have had in the Maldives and overseas.

My submissions here do not willfully reflect the views of the Elections Commission of the Maldives, any political parties, or other stakeholders in the electoral process. Any similarity, congruence or divergence of ideas or opinions between the contents of this paper and the aforesaid bodies and parties are entirely coincidental.

It must also be stressed that I make these submissions, not as an academically trained expert in the area of elections, but as a more humble and retired Commissioner who has garnered some knowledge and experience by dint of having worked in the area, by having had extensive exposure to and by having regular interactions with elections management bodies, by having observed actual electoral processes in various countries, and by having maintained professional and personal contact with related personnel, stakeholders, professionals and like-minded persons all over the world.

Making no claims to the possession of institution-endorsed formal credentials, I limit myself to a more grassroots, even a more pedestrian, set of observations and considerations. Consequently, the language I use may inevitably exhibit a few mundane traits, and the terminology I employ might deviate from textbook definitions, although I shall make all possible attempts to make myself understood by one and all, pedestrian, and grassroots or otherwise. I remain a firm and absolute believer in the fact that democracy can never be served fully, completely and meaningfully in any community until the needs, dreams and aspirations of the pedestrian and grassroots majority of that community are firmly and sincerely served and addressed. And that I shall, certainly endeavor to do!

I am also not specifically limiting myself to the Maldivian scenario, but to the electoral process in the world in general. If my submissions appear to take on a distinct Maldivian flavor, please forgive my humble origins and its effect on my outlook on life.

2. Introduction:

The processes involved in conducting elections, whether conducted in a small developing country or in a large developed nation, are always fraught with problems. A quick scan of all available media outlets in any given electoral territory immediately after the announcements of results will confirm this to anyone.

Some of those problems are very real, ranging from minor system imperfections to major malfunctions, small and unintentional mistakes to major and premeditated manipulations, and much overall suffering. These are borne out of personal conscience, external infliction or of causes officially unknown, attributable to anything from carelessness, lack of foresight and planning, dearth of adequate facilities and support, willful sabotage, or, at its worst, simple and unembellished unavoidability due to external circumstances.

Some are not real, but simply perceived. Some are just baseless accusations borne out of the frustration of loss. These problems can range from the non-existent, imaginary, suspected, accused, politically supported, and dangerous.

This scenario makes the electoral process an imperfect tool. However, I hasten to add that, despite its detractors, this imperfect tool remains the only viable one available by free choice to any community that aspires to true democracy. Therefore, it is incumbent on us to endeavor to keep this tool as sharp as possible without it running amok and causing injury. This is where the much-touted magic pill called "technology" comes into the electoral process.

In this paper, I shall include a basic definition of technology, some basic considerations that I feel need to be made before and after considering technology modification in the electoral process, and what to look out for when commitments have been made in the area.

3. A basic definition of technology:

Whenever the term "technology" is mentioned it readily conjures up in peoples' minds a kaleidoscope of images ranging from all-purpose smart phones, computers of all shapes and sizes, little boxes flashing of little lights or those complex, awe-inspiring machines with long names that save lives at intensive care facilities.

The way I recognize the term is different. I define technology as the development and use of any tool that humans use!

I see the invention of the wheel, the written script, the pen, and the harnessing of fire as major technological breakthroughs. The transitions from the hand cart to the power board, the bamboo stylus to the laser printer, and from a campfire to an underwater gas cutter are just transitions in a continuum. This seamless transition to the better is how I prefer to see technology modifications in our line of work. If a new form of technology comes without origin in the previously known, then I would tend to see it as a special but potentially dangerous creature. I would tend to handle it with great caution until proven safe.

4. Some basic considerations that need to be made before considering the modification of or change of technologies already in use in the electoral process:

At times, it is said that EMB's forget that they are just small cogs in the greater machine of democratic governance. In reality they don't. Any professional EMB, in considering any technology modifications will always carefully consider its roles, responsibilities and position in the greater democratic system and address many considerations including the following:

(Note: These are areas about which books can be written. In the interest of brevity and word limits, I shall cite some detail in 4.1 and leave 4.2 through 4.11 for examination by me in a more detailed document and for EMB's and interested parties to cogitate upon.)

4.1. A thorough evaluation of the smooth and efficient functioning of the EMB itself:

4.1.1. The physical personnel composition of the EMB institution (i.e., its members, the key staff of its permanent secretariat, and any key auxiliary staff it recruits for special assignments) must be carefully evaluated for competency, capacity, and commitment.

4.1.2. A thorough evaluation of the nomination, appointment, hiring and firing processes, background checks, previous performance evaluations, integrity checks, security clearances, educational level, experience requirements, acceptability to stakeholders etc. of everyone that would be involved in the entire electoral process is vital.

4.1.3. I reiterate that ALL persons associated with the with the electoral process need to be carefully vetted before they are assigned any responsibility.

4.2. A thorough evaluation of all technologies currently in use at the EMB.

4.3. A thorough evaluation and cognizance of how the elections management body itself fits into the mechanism of the process and practice of democracy in the territory it serves.

4.4. A thorough evaluation of the political system and political realities of the territory it serves.

4.5. A thorough evaluation and cognizance of the legal system with which the EMB empowers itself.

4.6. A thorough evaluation of the financial, infrastructure and personnel resources at the disposal of the EMB.

4.7. A thorough evaluation and cognizance of the immediate clients and stakeholders of the electoral process.

4.8. A thorough evaluation of the process by which all clients and stakeholders are kept informed, educated and included in the electoral process.

4.9. A thorough evaluation of the safety and security of the entire electorate, the electoral process and the EMB within all effective territories.

4.10. A thorough threats evaluation including force majeure, terrorism and sabotage

4.11. A thorough evaluation of the realities, the perceptions and the myths surrounding the electoral process and the EMB in the territory it serves.

Any prudent EMB will address these basic considerations, and more as circumstances demand, and will find very positive indicators within the outcomes of all these evaluations before any changes are made. Concurrently, it must see no unyielding red flags or insurmountable hurdles in any of them, before considering technology modifications or the mobilization of new technologies in an existing electoral process.

If significant red flags are raised in these and other areas deemed as crucial as per specific electoral territories, or if any major hurdles to development are noticed, my suggestion would be to seek satisfactory resolution of those situations first, and doing so on a priority basis. Resorting to relatively unfamiliar modifications to existing technology or bringing in entirely new technology with the hope that existing problems will somehow and miraculously go away is, at best reckless. I would certainly be more than careful especially where aggressive and highly persuasive external marketing of new technology or external pressurization for change is involved.

At the risk of sounding blasé, I would also like to make passing mention of the American adage, "If it ain't broke, don't fix it."

5. Some basic considerations that need to be made after specific areas for possible modification of technologies in use have been identified:

Once the decision has been made that technological change must be considered within an electoral territory, I would also suggest that due diligence must be exercised in not letting the word "consider" be subjected to abuse and be wrongly interpreted as "commit to".

Once again, I suggest that professional EMB's must give careful thought to a few ground realities before considering any modification to the technology already in use within an electoral territory. I would recommend that the following areas be addressed, with the attendant questions being asked and answered fully before going any further:

5.1. Existing technology:

5.1.1. What are the current technologies in use in the entire electoral process?
5.1.2. Have any of these technologies presented any serious problems to the efficient functioning of the electoral system?
5.1.3. Have these problems been identified and professionally addressed?
5.1.4. Have all avenues of tweaking, fine-tuning, making optimal use of, or upgrading of these technologies been ever explored and/or implemented?
5.1.5. Do you have a firm idea as to whether an upgrade will suffice or whether replacement is the only choice left?
5.1.6. Is there any pressure from within the EMB or from the outside to denigrate or abandon existing technology?

5.2. Paying for the upgrade or the new technology:

5.2.1. How much is it going to cost to modify existing technology or set up new technology? For example, what is the initial outlay for the basic equipment? Are add-ons recommended or advertised? Do specific premises and assorted equipment need to be secured and installed other than the basic equipment to enable any new systems to exhibit even basic functionality?

5.2.2. How much is it going to cost to keep any new upgrades or new systems running? For example, what are the requirements in terms of power, consumables, periodic maintenance, expert personnel, etc., that needs to be met on a daily or regular basis to maintain basic system functionality?

5.3. The obsolescence factor:

5.3.1. Is the new modification or new technology considered reasonably state-of-the-art by experts in the field?

5.3.2. Is the modification or new technology future-proof? How many months or years of service would the system remain in efficient and serviceable state before it is declared obsolete?

5.3.3. Is the modification or new modification highly susceptible to external factors outside the control of the EMB? For example, would any modifications or new technology be made inapplicable or even illegal by changes in legislation? Does the EMB depend on external funds to finance the technologies it uses, thus tying funding changes to survival of technology in use?

5.4. The usability and security factor:

5.4.1. Is the modification of the new technology so advanced, sophisticated or complicated that key members of the EMB are entirely unaware of how it works and have to depend on outside expertise to keep the system functioning? Alternatively, are EMB members and key staff of the secretariat entirely aware of exactly how the technology functions?

5.4.2. Is the technology so complex and/or associated hardware/firmware/software so complicated or obscure that none of the EMB chiefs and/or key staff of the secretariat are unaware/aware of the security risks it therefore poses?

5.4.3. Does the hardware/firmware/software require specially trained personnel from outside the EMB or outside perfect accountability to the EMB to run it? Does this flag any potential security-comprising situations?

5.5. Suitability to the greater environment:

5.5.1. Does the technology suit the physical environment where it is supposed to function? For example, are there temperature, humidity, atmospheric pollution, and other limitations that affect the reliable functionality of the technology in use?

5.5.2. Is the technology acceptable to the legal permissions and constraints of the territory it is expected to function in?

5.6. Acceptability and transparency to stakeholders:

5.6.1. Very often, one inherent problem within the high-stakes competition which is what the electoral process comprises, especially where election wins translates into winner-takes-all socio-economic systems, is that of suspicion. Even though I would not overstep my limits and make remarks as to why these suspicions can exist within an area much later than any area the electoral process can attempt to cover, I shall go as far as saying that any technology used within the electoral process must be entirely transparent to all of its clients and stakeholders – political parties, candidates, the voting electorate, the media, any interested parties, observers, etc.

5.6.2. My use of the term "any technology" is also intended to cover all existing, upgraded, modified and newly-installed technologies.

6. Some basic considerations that need to be made when commitments have been made with respect to technology modification or installation of new technology:

EMB's are not exempt from that tendency of many organizations that make public commitments to change – drawing parallels from the aviation industry and saying that their aircraft has flown beyond the point of no return and must therefore complete its journey. If doing so provides satisfaction to one and all, then reputations would be preserved, the "word" would have been kept, egos would have been protected, and democracy would have been served in the process.

In the rare instance that less than satisfaction has been served, I would hesitate to imagine and describe here all that could possibly happen in consequence.
Here are some basic considerations that need to be made when commitments have been made with respect to technology modification or installation of new technology. These can also be used to help avoid or mitigate the effects of the less-than-satisfactory scenario mentioned above, at least as preemptive measures:

6.1. Consult, consult, consult:

I cannot overstress the importance of the consultative process in the satisfactory, trustworthy and respect-worthy provision of electoral service to a community. To help create and sustain these qualities with respect to technology changes within the electoral process, I would most humbly

suggest any EMB to consider consulting the following segments of the community once a commitment has been made to make any technology-related modifications to the electoral process:

6.1.1. Organs of state, including the executive, the judiciary, the legislature, and other auxiliary arms and institutions of the state.

6.1.2. All registered political parties.

6.1.3. Immediate clients in the nature of potential candidates, including private and independent candidates.

6.1.4. The media, including independent print and online journalists.

6.1.5. If funding for the electoral process is controlled and/monitored from outside the EMB, any parties involved in the process.

6.1.6. If any crucial components of the electoral process (e.g., voter registration / citizen registration) are controlled/monitored by external bodies, then such bodies.

6.1.7. If security is provided by an external agency not within the command or control of the EMB during the entire electoral process, then the bodies responsible for the provision of security services.

6.1.8. Utility and service providers (e.g., water, electricity, communications services including internet service providers, transport services).

6.1.9. Suppliers of the technological upgrade, new equipment, and suppliers and providers of related auxiliary and ancillary services.

6.1.10. Any societal watchdogs.

6.1.11. Associations, non-governmental organizations, etc., especially those that conduct programs to increase and inculcate responsible political awareness within the community.

6.1.12. Community leaders and any individuals that express interest.

6.2. Pilot first!

Once again, I must state that once a system begins to show signs of weakness or failure, or when a system is perceived to be exhibit such symptoms, it becomes all too easy for some professional service vendors to resort to technology modification as a magic pill that will somehow cure it of all

the evil that besets it. This apparently route all too often becomes their undoing!

One more step than can be taken by an EMB to stop this from happening within the electoral process is to test and pilot any technology modifications before they are rolled out into real arenas of serious action.

Permit me to cite examples. I must reiterate here that these examples do not refer to any particular instances, places, institutions or countries:

6.2.1. In a given territory, current practice is for voters to tick a box against their chosen candidates' names on a ballot paper. A technology modification has been suggested that candidates can choose to use an optionally-available OCR-readable ballot paper on which they can mark their choice of candidate. This is supposed to speed up the counting process, eventually persuading the electorate to allow the phasing in of OCR-enabled ballot papers. The EMB decides to persuade a local NGO and a couple of public companies to use the OCR ballot paper to choose their office bearers and members of the company board, while publicizing their intent and inviting absolute transparency via the media and interested observers. The outcome of this pilot initiation will be evaluated by all stakeholders.

6.2.2. In a given territory, a tech-savvy EMB decides to roll out voting via mobile phone for those that subscribe to the service and integrate it into the entirely paper-based balloting process it currently uses. The EMB decides to persuade some local schools to utilize the system to elect their prefect board and student office bearers. Once again, the EMB announces their intent and invites absolute transparency via the media and interested observers. The outcome of this pilot initiation will be evaluated by all stakeholders.

6.2.3. In a given territory, an EMB has in place a system where paper ballots are cast in various villages, then collected and counted in a centralized location before aggregated results are announced. The EMB decides to transition to one of two systems. One is a completely paperless balloting system where voting is conducted territory-wide via press-button machines which transmit raw data via fiber network to a central procession station where aggregated results are announced. The other also comprises paperless balloting booths which process and announce results for each booth before the results are then endorsed by independent local officials before sent forward by fiber network for central aggregation. The EMB, for lack of willing local schools and the like, decides to pilot-test both processes in localized village leader elections. Once again, the EMB announces their intent and invites absolute transparency via the media and interested observers. The outcome of this pilot initiation will be evaluated by all stakeholders.

I will reiterate! A pilot program is exactly what it says it is – a pilot program. Not a precedent that automatically endorses the adoption of what it pilots.

6.3. Be prepared to course-correct!

I will keep this very short, even though the process itself may not be!
Any pilot program will qualify itself as one only if does what it says. A pilot project that concludes successfully and to the satisfaction of all is indeed a blessing! However, it must also be borne in mind that the success of a pilot program does not always lie in endorsing what it runs on. A pilot program is also successful if it declares itself unrealistic, unachievable, ill-timed, inappropriate to circumstances, unacceptable to stakeholders, or becomes unsuccessful itself by attempting to run: it has served the purpose of why it was run as nothing more than a pilot project.

I would humbly suggest to all EMB's interested in any technology modification to be prepared to professionally and decidedly course-correct their programs based on the findings of any real and serious pilot programs they run along the road to the adoption or abandonment of envisaged technology modification. Just like you would be happy to switch over to a more efficient system, be also prepared to course-correct and deviate from pre-drawn action plans to suit the lay of the ground, or even to say no to what turns out to be nothing more that inappropriate innovation.

7. Once the modified of newly-installed technology is in place and running:

It would be all too easy for EMB's and its clients and stakeholders to assume that once technology modification has taken place in the electoral process, all its problems are over. Hardly so! It goes without saying that a new set of playing rules will obviously bring in an entirely new set of issues and challenges.

Once again, in the interest of serving brevity, I will confine myself to making the following observations:

7.1. Continued vigilance is essential:

The EMB must be ever vigilant, even more than before the technology modification took place, to the inevitable issues and challenges that the new set of circumstances will raise. It must proactively monitor itself, the staff of its secretariat, and all support and ancillary service providers for any signs of positive outcomes of the changed circumstances as well as for any signs of stress, weakness, vulnerability, abuse and even potential threat.

7.2. Continued consultation and timely relevant action must be taken:

The EMB must also maintain a dynamic consultative process which includes all the parties mentioned in 6.1 above and use this process to affect any system modifications as circumstances demand.

7.3. Backup! Fallback.

In the immediate period following technology rollout, I shall also suggest putting in place something that most people would overlook, and that is a fallback if major glitches disrupt or halt the system. As

any good computer technical will agree, keeping a good backup of a working system (I believe Microsoft Windows currently refers to a Restore Point in like manner) might become helpful if a system crashes.

8. A final recommendation:

There is one vital activity that I feel all EMB's must conduct throughout the entire process of technology modification within the electoral process. If I may be permitted, I must also say that all stakeholders (please see 6.1 above) must undertake this commitment. And that is the commitment to education. As a believer in the worth of formal, non-formal, informal and entirely personal education, I may suggest the following:

8.1. System-wide education:

In our chosen area today, I feel that a bare minimal subscription to an education program initiated by stakeholders in the electoral process would include the an understanding of human freedoms and responsibilities, the values of democracy, constitutional and legal rights and limits and obligations of citizens, electoral systems and practices both in a global sense and in the specific community one lives in, and all the contents of what a sensible international voter education program. If that can also include an understanding of the technology (ies) in use, it would be most appropriate to the topic under discussion.

8.2. Technology training:

In addition to this, education programs must be run continuously to keep the EMB (including members), its staff and support cadres updated on elections-related technology in the widest interpretation of the expression as well as in the running of any technology in use that has been modified or newly installed.

8.3. Widening the scope:

If, perhaps outside the scope of this paper, if I may be permitted to suggest that the involvement of the school education system and even national curriculums to include democracy studies and a commitment to it, I shall be grateful. I would argue, arguably, that that is also technology.

9. In conclusion:

The electoral process is an imperfect tool. However, despite its apparent detractors, and those that might call it the bane of their lives, it is still remains the most widely-subscribed-to tool, and I would even argue the only truly viable tool which remains available as a freely-made choice to any community whose members aspire to contribute meaningfully to and participate fully in the selection of its policy makers and decision wielders.

Therefore, it is our duty-bound task, as users and purveyors of this tool, to endeavor to keep this tool as useful and as sharp as possible without it being subjected to intentional or unintentional abuse. In this endeavor, it sometimes becomes all too easy for some of us and some often well-meaning stakeholders to keep persuading us to begin to use what is sometimes widely referred to as "technology" to solve the bluntness and shortcomings all of see in the process.

The magic of technology does not always and unfailingly solve problems. Something it can unfailingly do is to present challenges to its users, to the wary and the unwary alike, to the prepared and the unprepared in varying degrees perhaps. This is what I have tried to address in this paper, entirely from my own perspective as a former elections commissioner and as a continuing and well-meaning stakeholder who would like to stay connected and informed. I pretend to be no more.
If I have been of help, then I am thankful to the Creator for having made that possible. If you say that I have been enlightening, then that is your graciousness and kindness.

I thank the Elections Commission of the Maldives for having kindly considered me fit for this task and for having given me this opportunity. I thank each and every Commissioner and every member of the Secretariat of the Elections Commission of the Maldives, some of them former colleagues in this and other professions, all of them colleagues and compatriots in our subscription to the greater good of democracy.

I thank you, Your Excellences, for having listened to me. I wish your deliberations great success. May we meet again!

ANNEX 10: Information and Knowledge sharing with stakeholders - India

FEMB South Asia

THE FORUM OF THE ELECTION MANAGEMENT BODIES OF SOUTH ASIA

Country Paper of

Elections Commission of India

भारत निर्वाचन आयोग ELECTION COMMISSION OF INDIA

TRANSFORMING INDIAN ELECTIONS:

Role of ICT in Information and Knowledge Sharing

The Election Commission of India (ECI) is a permanent, independent, Constitutional body vested with the powers and responsibility for superintendence, direction and control of all elections to both Houses of the Parliament and to the Legislative Bodies of the States and the Union Territories and to the offices of the President and the Vice-President of India. Election Commission decides the election schedules for the conduct of elections – both General elections and Bye-elections. It prepares, maintains and periodically updates the Electoral Rolls, supervises the nominations of candidates, registers political parties, monitors the election campaigns, including funding of candidates. It also facilitates the coverage of the election process by the media, undertakes campaigns/programmes for spreading awareness among the voters to increase their participation in the democratic processes as well as on the electoral processes, organizes the polling booths to ensure easy accessibility to the electors, and conducts secure counting of votes and the declaration of results of each election.

The Election Commission has been keeping itself abreast of technological changes and in introducing IT to share information and knowledge with stakeholders for improved transparency and credibility in electoral process. Commission uses Information Technology (IT) and Information and Communications Technologies (ICT) in a big way for three important purposes, namely providing easier access to electors for service delivery, greater transparency and better election management. Examples of easier access to service delivery include on-line application forms for inclusion of names and modifications and deletion of entries in electoral rolls; facility for electoral search on the website of Chief Electoral Officers (CEOs) of the states and through SMS; Polling Station locations on maps on ECI website; use of Call centre with 1950 as the phone number for public grievances, etc. IT is used to increase transparency by putting affidavits of candidates on website, electoral rolls in PDF form on the website, use of webcasting from Polling Stations, etc. Commission uses IT for better management of elections by applications such as Observer Management system, SMS based poll monitoring, Election Monitoring dashboard for officers at all levels, EVM tracking through software, Pre-counting and counting day data collection for trends and result dissemination application etc. With the 100 % use of Electronic Voting Machine (EVM) in all the polling stations and setting up IT applications with quality infrastructure successful, incident free and transparent elections could be conducted and results could be compiled in just few hours rather than number of days, which use to happen in past with paper ballots. ECI website is robust enough to handle 480 million hits on 16th May 2014 - the day Lok Sabha results were declared to display live trends and Results to general public. During recent State Assemblies elections trends and result dissemination observed 68 million hits in a single day on 19th May 2016. During noon election period also National Voter Service Portal (NVSP) of ECI receives about 6 to 8 lacs of hits every day. Through NVSP highly efficient and speedy search facility for searching their name in existing National Electoral Roll data base is provided to electors, citizens, political patties and other stake holders.

ECI is in the verge of finalizing Mission mode projects for IT revolution in Election Process in world largest democracy and has planned its IT vision for 5 years for implementing projects like Unified Electoral Roll, Centralised Portal & Applications, GIS & Data Analytics, Mobile applications, Social Media Solutions, Knowledge Management, Learning Management System, National Election Contact Centre, Re-engineering of Election Processes, Transformation of IT Divisions, Integrated Back-Office Solutions etc to achieve its goal and the aim to handle gigantic electoral and political volume of India.

ICT in Elections implemented by ECI

To overcome the challenges to obtain, store and share data, information and knowledge with stakeholders' viz. Citizens, Electors, Political Parties, Media, Civil Societies Organizations, Governmental Agencies, Election Commission of India uses ICT solutions in almost every activity of electioneering. Chart below indicates major challenges of election processes, IT solutions solving them and benefitting as end result.

Challenge	Solution	Result and Benefits
• **To Monitor Election process at every level by the ECI.** • **To ensure free and fair poll.**	• **Observer Portal:** • **ECI Portal:** • **Election Monitoring Dashboard:** • **Poll monitoring dashboard:** • **Data Entry and Slot Creation:**	• Computerized tracking of the election Monitoring process with the critically important objective of being able to take timely action in real time. • Activity can be of predetermined nature or non-predetermined nature (e.g. Incidents of violence). Both types of events need to trigger action on getting recorded into the system. • Automatic sending of SMSs to the persons who are not reporting within scheduled / expected time limits. • Automatic sending of SMSs to police stations, magistrates etc. on receipt of reports of events like violence etc. from polling booths, sector officers etc • Current Poll day Activities • Critical Incident
• **To Track and fill requirement of EVM in advance to ensure smooth poll over India using centralized database.**	• **EVM Monitoring system (EMS)** • **EMS Mobile App** • **EMS Training**	• Computerized tracking of the EVM with the critically important objective of being able to take timely action in real time. • Automatic sending of SMSs/Emails to the persons who are not

		reporting within scheduled / expected time limits.
• **To maintain history of every elections as well as current election in centralized database.** • **To show the trends and Results Dissemination to the public with high performance and accuracy.** • **To show candidate affidavit to public** • **To provide several statistical reports to the public for Election analysis purpose.**	• **A General election management System (Genesys) was developed to face these challenges.** • **Pre-Counting AND Counting Application:** • **Trends & Results Portal:** • **Index card data Entry and Statistical report generation:** • **Polling Party Registration:** • **Archive Affidavit:**	• Computerized tracking of the election process with the critically important objective of being able to take timely action in real time. • Activity can be of predetermined nature or non-predetermined nature (eg. Incidents of violence). Both types of events need to trigger action on getting recorded into the system. • Automatic sending of SMSs/Emails to the persons who are not reporting within scheduled / expected time limits.
• **To give all facility related to Election to the general Public**	• **Electoral Roll Management System (ERMS)**: • **Public Grievance Redressal system (PGRS)**: • **National Voter Service Portal**:	• Computerized facilities given to public to get the information or registering complain in real time.

Overview of IT Applications in ECI for Effective Knowledge Management

Some of the major Information and Communications Technology systems developed and used by stake holders are described below:

1. Electoral Rolls Management System (ERMS): - The ERMS covers the entire process of Electoral Roll preparation for the state from Electoral Roll Revision data management to final Electoral Roll publishing.
Salient Features of the system are

- It's a cluster of window/web based applications developed based web services.
- It covers the entire process of Electoral Roll preparation in the states from electoral roll revision, data management process, electors' registration, correction and data modification to final publication of Electoral Roll and preparation of Electors Photo Identity Card (EPIC).
- The following tools have been integrated for providing citizen services i.e. Search Facility and Voter

Slip (Online/Mobile based), and Tracking status of your application, Format 1 to 8 reporting module, Database Error finding module and Rationalizations of Polling Station etc.

2. National Voter Service Portal (NVSP):- ECI NVSP provides on single window all information, knowledge and services related to Electoral Registration and Electoral Rolls. Elector Search IT tool has been developed for the use by Common Man to search their name in electoral roll and get to know the polling booth where they are expected to cast their votes during election. Considering about 850 million size of Indian electorate, this IT application has hosted on cloud uses BIG DATA of multilingual nature. The electors can online file the electoral forms in fourteen Indian languages.

The information and services provided on NVSP are Electoral Search, online application to get registered in Electoral Rolls (ERs), to correct details and delete entry in the ERs, to know about the Polling stations, Constituency details and the officers responsible to maintain ERs.

3. ECI Portal/ Web site: - The web portal of ECI is the gateway to all relevant information and knowledge to the stakeholders. It contains information on latest happenings in the ECI, the knowledge and information about past elections, historical data in election results, Election Laws and rules, Instructions of the ECI, information on trainings and capacity building with useful link to various other portal such as NVSP, Voter Awareness, voter Education and Electoral Participation, Citizen corner, Political Parties, Candidates, Election expenditure monitoring, Model Code of Conduct, Electoral Rolls etc.

4. Public Grievance Forum (PGRMS) :- A comprehensive Public Grievance Redress System has been developed by the Election Commission. This system has been developed in such a manner that in addition to providing redress to the complaints of the pubic, it is also aimed as a complete Government to Citizen (G to C) interface to provide seamless services to the citizens on election related matters.

Salient Features of the system are

1. Monitor complaints filed by citizens for quick and definite resolutions
2. Complainant can monitor the progress of resolution and track the status.
3. SMS based information system for communicating with complainant and the officers responsible for resolution.
4. Analysis on complaints recorded for election process improvement.
5. Facility of accepting images and video along with complaints filed.

5. Political Party Information and Registration (Web):- This for use of political party registration division within election commission. New political parties are entered and assigned with some symbol and existing parties can be deleted or edited. The information on List of Political Parties, Election Symbol, Constitutions of Political Parties, Organizational Election, Recognition & De-recognition of parties, political party Disputes, Merger etc, political party Contribution Reports, Expenditure Reports, Annual Audit Reports of political parties, Miscellaneous Orders, Notices, etc, Transparency Guidelines applicable to

political parties and Current Instructions relevant to Political Parties are made available in public domain.

6. Web Portal for Candidates: - This portal provides comprehensive information required by the candidates about various forms, the legal provision on qualification and disqualifications to become a candidate, security deposit and the process pertaining to filing conditions for an election. It helps contesting candidates to know salient provisions of election law and procedure so that he may not experience any difficulty or inconvenience in connection with his candidature. This web portal also creates a static Website (Html Only) to display Candidate Affidavits to the public to give access to personal details of candidates which have been furnished in affidavit as per law. The affidavits of candidates in past elections are also made available to general public in pdf format.

7. Election Expenditure Monitoring System: - Online monitoring and tracking system for election expenditure accounts lodged by the candidates during elections to check for its correctness. The system helps in the scrutiny of the accounts submitted as per the defects found.

Salient Features of the system are

1. Monitor Candidate total expenses
2. Monitor Funds given by political party to the candidate
3. Monitor Funds given by others to the candidate
4. Monitor Expense understated or not
5. Monitor Candidate expenses exceed ceiling amount or not
6. EEMS Dashboard with graphs, charts and MIS analysis reports

8. Election related Complaint Monitoring System (Samadhan) - It is a Public Grievance Redressal System, conceptualized for prompt disposal of any complaint regarding conduct of elections, violation of model code of conduct by the candidates and Political parties, sharing of information on election expenses, instances of electors' inducement and intimidation apart from getting the ERs or Polling Station related information, suggestions and redressal of the individual grievances.

Samadhan is a Comprehensive system with multiple modes for receiving complaints, information, suggestions and queries (through online, telephonic, email, mobile application, fax, post, SMS) and online processing of complaints. Monitoring and alert mechanism features are also built-in. the Complainants can track and see Action Taken on their complaints.

9. Single window clearance for permission related to campaigning (Suvidha) – It is a single window clearance system for Candidates and Political Parties to apply for various permissions such as permissions for Public meetings, Rallies, use of vehicles, establishing temporary election offices, use of loudspeakers, helicopters and helipads etc. It provisions for applying, processing, granting and monitoring permissions for the candidates and Political parties by respective authority. It uses IT to link all authorities on a single platform to streamline process of disposing requests in a very transparent manner on first come first serve basis. Also, the information of availability of a place etc well before applying reducing chances of dispute, if any.

10. Management of vehicles hiring and deployment system (Sugam)- It is a Vehicle Management System with the facility of Issuance of requisition letters for vehicles, maintaining details of vehicle details with address, mobile number and bank details of Owner & Driver, Transfer of vehicles from one district to another district etc. Sugam helps the citizens to promptly know about requisitioning of their vehicles for election purposes and smooth's the process of payments toward vehicle hiring.

11. Web Casting and CCTV at Polling booth:- Frame work for web casting of video picked up from within the polling booth has been created using open source software tools to display the happenings in the polling station. Where connectivity is not available, CCTV is used to display the video stream from inside the polling booth. It keeps a check on untoward activities and help bringing about complete transparency in the voting process. Being a live telecast, it builds confidence in the entire poll process and to bring in transparency in the poll process. It may be used for AWARENESS to the users as well.

12. SMS Poll day Events and Queue information System: - A comprehensive system with the use of mobile technology has been developed to send, receive, monitor and share the information related to the activities that have to be done on poll day by the different level of officers engaged in elections apart from collecting the information on the important events taking place at polling booth. Information and Reports for Poll Day Monitoring have been customized for users to submit/view in real time using mobile phones through Mobile Web Interface techniques. It also helps the officials working in the field in getting the alert messages and the decisions taken straight away on their mobiles within few seconds so that timely action can be taken providing a mechanism of smart governance of elections. The polling booth information such as voters turn out and status of queue is shared with the stakeholders on web, alerts and SMS.

13. Pre-Counting Genesys (General Election System) (Web):- This portal is for entering the information of contesting candidates. The project involves capturing of election related information (Pre-counting) from all over the Country during the General elections (Parliamentary as well as Assembly elections and Bye Election) held in India, processing the same; satisfying various statutory requirements; and publishing it for public dissemination.

Salient Features –

1. To capture information (Pre-Counting) from State head quarters, District head quarters and to disseminate the same through the official website.
2. Capture and display of scanned copy of affidavits submitted by the contesting candidates along with nomination papers and ballot papers.
3. There are various exception reports that can help the State's CEO to monitor the data entry.

14. Counting Application (Window Application with Web services):- This application is used on the Counting Day only. The Counting Application is designed for data entry and calculation of EVM votes & postal Ballot votes polled for each contesting candidate, round wise from each counting center.

Salient Features –

4. Capturing information Round Wise Votes from Counting centres
5. Capturing Postal Ballot information and finalizing Postal Ballot Information.
6. Final Result declaration of AC.

7. All Data Entry operations are available at the RO level.
8. System provides various administrative reports at DEO & CEO level, which are extremely helpful in ensuring correctness of information at various stages.

15. Trends and Result Management System: - Static html page generation for trends and Results Dissemination as per the records is being entered in the counting application. The project involves creating Html files for trends and Results Dissemination during the General elections (Parliamentary as well as Assembly elections and Bye Election) held in India. To Create Static files and host for the public to minimise the database access.

16. Index card data Entry and Statistical report generation (Window Application with Web services):- Statistical reports are generated displaying analysis of the Election results. The Index Card Application for Election is meant for entering complete Election Related information like Candidate-wise Nominated, Rejected, Male-Female voters/Electors etc. User can get the statistical reports for current election as well as past election.

17. Geographic information system (GIS): GIS technology is effectively being harnessed in helping the stakeholders to locate their polling station using GIS tools and applications made available on web and on mobile App. ECI has mapped all polling stations on GIS platform and the use of GIS is being now extended to the mapping of polling stations' boundaries to facilitate easy access to polling stations located in the nearest building.

18. ECI on Social Media: Since younger generation is social media savvy, the voter education promotion and ethical voting education is carried out through social media like Facebook, twitter and U-tube. Training sessions and public addresses are delivered through U-tube as open data. During elections, what's app group are created and used effectively for immediate sharing of information.

19. Mobile APPs to share information among stakeholders: -

- Matdata –App for voters' facilitation for search in Electoral Roll, Location of Polling Station etc.
- Matdaan –App for Poll day monitoring of events at PS and its sharing
- ELECOM – Android App for releasing election news / press release
- SMS Poll Monitoring – For collection of various types of information through SMS from Presiding Officer / Sector Officer
- E-Counting – Android App for viewing counting trends / result

Stakeholders' Empowerment through ECI-Net:

System integration, Process Automation and seamless connectivity with internal and external stakeholders is being done by ECI on a framework called ECI Net. ECI Net is an architecture and mechanism planned under NERP 2016 mission for 3 major activities.

1. Purification of electoral roll for error corrections, multiple entries identification and correction

and photo matching on approximate scale.

2. Correction of polling station lat long, creation of possible polling stations and tool for creation of part boundaries and section boundaries.
3. Monitoring of progress through dashboard.

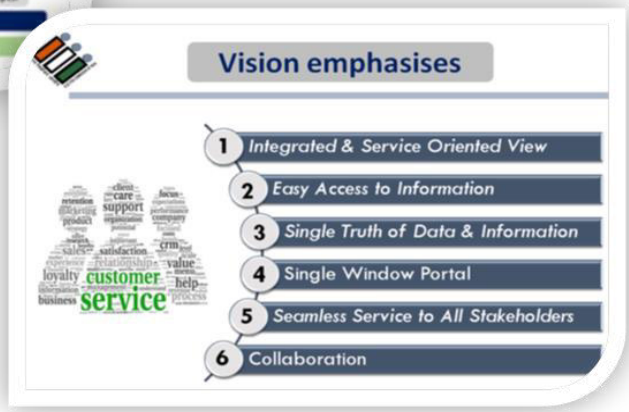
IT Team will build base data for errors and multiple entries for ER data, build Access mechanism for process these errors and multiplicity, build Mechanism for uploading Errors and Multiplicity obtained from other sources (Door 2 Door or voluntary disclosure by stakeholders), build Report Generation and Dashboard/s, support in Polling Station location Corrections and PS facilities mapping, support in creating Boundaries for Parts and Sections.

The Mechanism would be Cloud services of NVSP, ERO Net for Access mechanism to operation people, ECI Net mechanism for Monitoring people, Use of GIS tools – AutoCAD, use of Google Maps and tools, creation of Layers for Google Map.

Way Forward: FUTURISTIC IT VISION

"Voter Centric IT Vision for effective, simple and stake holder friendly Election Management with the use of Global Standard ICT"

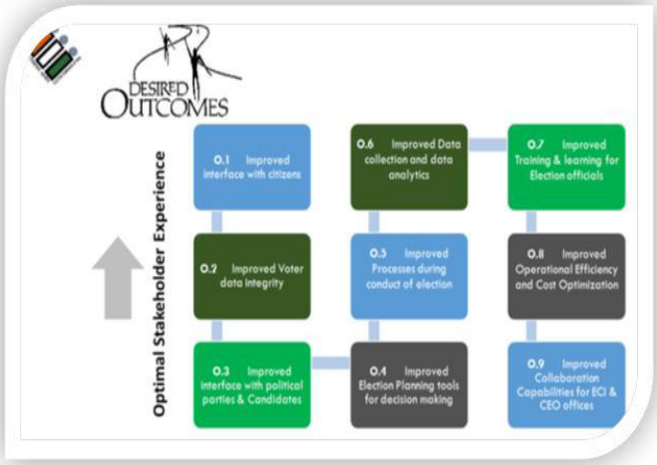
I-Election Management (a combination of the words internet and democracy), or internet democracy, incorporates 21st-century information and communications technology to promote democracy.



I-Election Management offers greater internet community access to elections processes and reforms. It seems to be the easiest way citizens can interact with their election officials. People have all Electoral process information at their fingertips and easy access to contact their election officials. In this new generation where internet and networking rules everyone's daily lives, it is more convenient that people can be informed of the Electoral reforms and policies through this form of communication.

Conduct of Elections in India is an event that involves gargantuan complexity and rigorous planning considering electorate size of over 840 million, geographical spread and topography of India. The Election Commission of India is on a mission to integrate ICTs in the Indian electoral process within constitutional provisions and a commitment to hold regular, free and fair elections.

ECI IT division has been associated with E-democracy initiatives and has been extending advice & support at various levels. From the process of elector registration to polling booth management, voting process management, counting, trends and results dissemination requires voluminous data crunching and effective process management. ECI is progressing planning and using IT solutions for this aspect. With the help of World Bank



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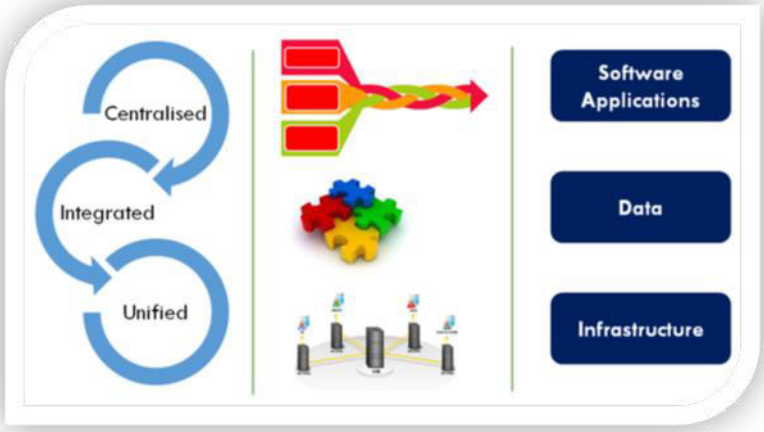


support, ECI is executing a project titled "National e-service for ECI "through Department of Electronics and IT, Govt of India. CDAC has been chosen implementing agency for this project. The aim of project is to provide bunch of services to Electors and voters all over the country. Although duration of the project is two years and it started in February 2014, ECI has been able to launch single window services through " National voter Service Portal (nvsp)" which allows electors to search their names in the electoral rolls, find the geographic locations of the polling stations assigned to them for casting their votes on polling day, get the details of contact numbers of concerned election officials, submit the formatted online application for addition of their names to the electoral roll, submit similar online forms

for deletion of their names, apply online for modification in their addresses etc. Also voters can submit their Aadhaar number assigned to them based on their biometric unification, get to know about Electronic voting Machines and lection processes. Not only users but election officials can also use this portal for processing online the requests and handle electoral roll. The portal has gained large amount of appreciation from citizens and officials. ECI also plans to progress in internet voting area. Particularly ECI is keen to offer e-voting facility to Non Residential Indians and officials from Forces who find it difficult to visit polling stations to cast their votes. In this connection ECI has constituted committees to prepare administrative and technical road map. ECI also submitted its proposal to Govt of India to make necessary changes in Law to enable e-voting mechanism, so that it can progress fast and can be used first as a prototype proof of concept in smaller election. Based on the strength of the technology it can then be extended to others in due course of time and with improvement in technology and its deployment.

Different nations across the globe have experimented with Innovation, new ideas new ICT tools for different aspects of conduct of successful elections. Many countries in the continents of Americas, Africa, Asia and Europe have computerized the entire process or parts thereof for successful conduction of elections.

The dawn of ICT in Indian Elections has once again underlined the fact, how technology is the advantage to the entire mankind. With a view to capture the best practices and successful case-studies of innovative use of ICT Tools and new ideas, Vision and mission for deployment of technology solution and professionals involved has been documented.

ANNEX 11: Election Modernization - Maldives

Country Paper of

Elections Commission of Maldives

Content

Introduction

Since the formation of Independent Election Commission in Maldives, information technology is being gradually introduced to electoral process. Different software based solutions are introduced to replace traditional approaches which are later integrated to form a comprehensive Election Management System (EMS). Since the inception of Current Election Commission in 2013, it is missioned to introduce efficient and inexpensive mechanism to all the phases of electoral process, hence the target of modernising election process is set with the ultimate goal of introducing E-Voting in the Maldives. This paper highlights the current situation of the Maldives electoral process with reflect to the changes which are being made to achieve the modernized electoral process.

ECM has the legal mandate to hold elections that are democratically acceptable for all stakeholders, so that results are considered a valid representation of the voters, while facing challenges in managing the different phases of the electoral process in an efficient way.

To begin with the modernisation process, it is important to understand different areas of election process which is needed to be modernised and the while understanding the consequences of the changes. The acceptability of elections is dependent on:

- Ensuring full process security and transparency to eliminate fraud and enhance trust:
    - Accuracy of voter registration
    - Convenience and security of casting ballots
    - Accuracy and integrity of result consolidation and reporting.
    - Overall transparency and auditability of the process, including financing of electoral operations and political campaigns
- Making the voting process efficient:
    - Increasing the speed of vote counting process
    - Minimising delays in publication of election results
    - Streamlining post-election audit process
    - Eliminating duplication of voter registration records
    - Reducing ballot printing and logistic costs

    Efficiency is important EMB's that are eager to modernise their election process and will effectively reduce government expenditure.

    "The 2014 parliamentary and local council election in Maldives was carried out with introduction of digitized result sheets, which reduced the time of result tabulation process and reduced cost effectively"

As ECM carries out the modernization process, different parts of electoral process is being switched to digitized process. Information technology solution have the potential to improve electoral operations across the end-to-end process by reducing risks and costs, enhancing transparency and convenience, both for voters and officials managing the process.

Election Modernization

Applying information technology solutions to support election modernisation expands beyond the scope of electronic voting.. It refers to the options of using electronic means to manage the electoral process from pre-elections activities, such as elections configuration and voter registration, to election activities, such as casting the vote, to post-election reporting and auditing. As a result, assessing the effectiveness of election modernization programs would require the analyzing of all phases, by looking at multiple outcome indicators, such as disability-or-illness-related voting problems, turnout, and completeness and accuracy of data.

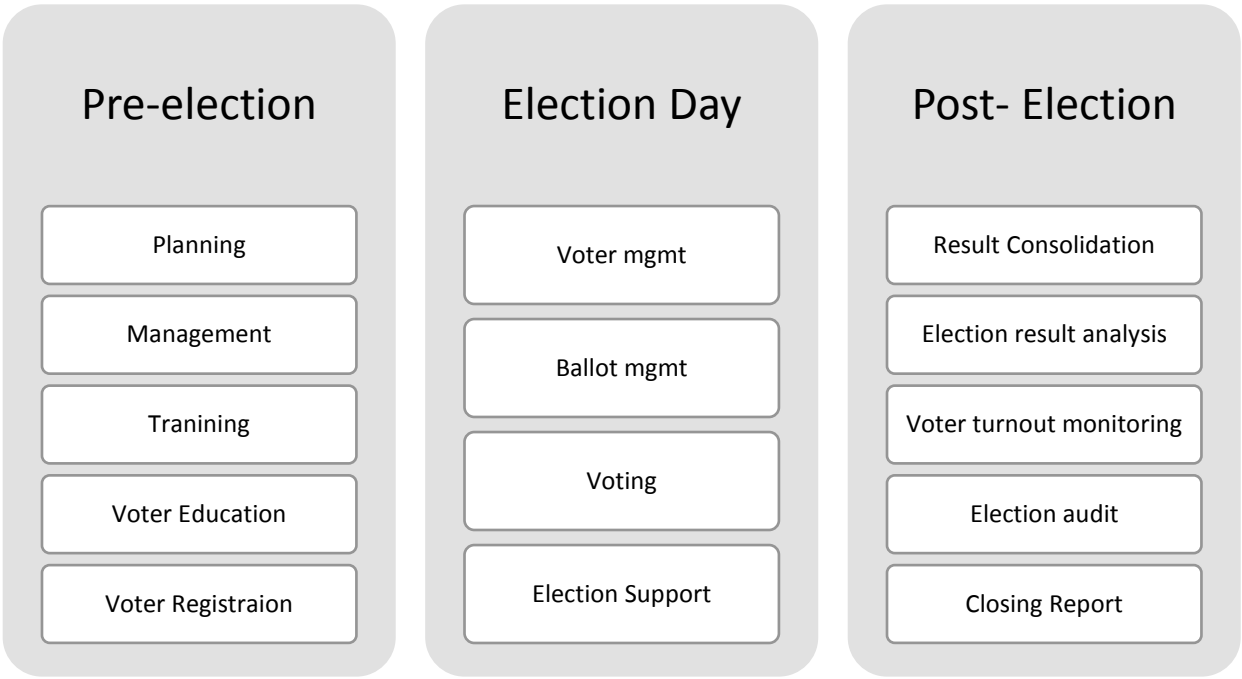


Figure 1 The End-to-End Election Process - Map of Key Activities for the Three Main Phases

Pre-election

Planning

ECM mostly uses spreadsheets or project management systems for election planning activities. But since planning involves multiple people and sometimes multiple elections on the same day, there is an increasing need for online collaboration, rigorous version control, and the ability to check availability and performance of staff in different scenarios through simulation. Legacy standalone applications do not fully cater to these requirements.

Management

Election management activities are sometimes handled through spreadsheet-based systems. These enable supervision of election operational expenses, but with limited flexibility to consistently track costs related

to changes in the number of polling stations, ballot configuration, ballot reprinting, and itemization of campaign funding.

Voter Education

Voter education activities have historically taken place through traditional media, such as TV news, newspaper and traveling to local locations, but with increased availability and integration of Internet and mobile technologies to our the daily life gives ECM opportunity to push information to targeted audience through multiple social media platforms and other technologies Which will make the process more effective.

ECM introduced voter education content in its website and it is planned to introduce mobile for applications with the voter education contents.

ECM introduced relevant voter registry related modules to existing EMS and its planned to create new integrated voter registry with possible biometric information which will later cater to address current issues in the voter registration and identification process and will lead to facilitate voter identification process for possible E-Voting solution.

Election Day

Voter Management

Voter list management activities are currently mostly paper-based. This translates into significant costs for printing and shipping. Also identification of a voter takes a lot of time, which creates long waiting times.

ECM introduces voter list checking application to overcome the problem which shows significant improvement in the time taken to identify the voter. With current modernization plan introduces a more convenient and flexible hardware/software solution.

Voting

Currently vote is casted in traditional more conventional by casting votes into a ballot box. While ECM is committed to introduce e-voting, voting activities can be supported by electronic means in two main ways:

- Through onsite, supervised electronic voting, which includes votes marked by hand, but registered and counted electronically through punch cards, precinct count optical scanners (PCOS), and digital pens, and votes marked electronically through electronic voting machines, typically with buttons, touchscreen, or audio command. These systems reduce the cost of printing, and delivering them while accelerating the vote counting process.

- Beyond accessibility, electronic voting can also be more convenient in terms of the quality of the vote. For instance, automatic feedback can be provided to the voter as it helps detect potential problems, such as under-voting and over-voting, which could result in a spoiled ballot.

Post-Election

Result tabulation

Result consolidation activities usually take several days, and are vulnerable to manual errors and tampering. Current process requires voting station officials to fax the station result to the result center, where a consolidated provisional result is prepared. Later after collecting the ballot boxes from all the stations across the country the original copy of provisional result is used to prepare the consolidated final result of the election. Having a system in place that can handle result consolidation electronically speeds up the process and helps avoid election fraud. In the case of particularly turbulent elections, publishing results within a few hours or days can help avoid election violence.

With the introduction of Election Result Processing (ERP) module to existing EMS, ECM is able to reduce the result consolidation time considerably.

Election Audit

Election audit activities can be supported by case management systems that enable election officials to verify election outcomes and identify hindering factors and fix weaknesses in the procedures and identify recurring voter mistakes, making the process fairer and more reliable.

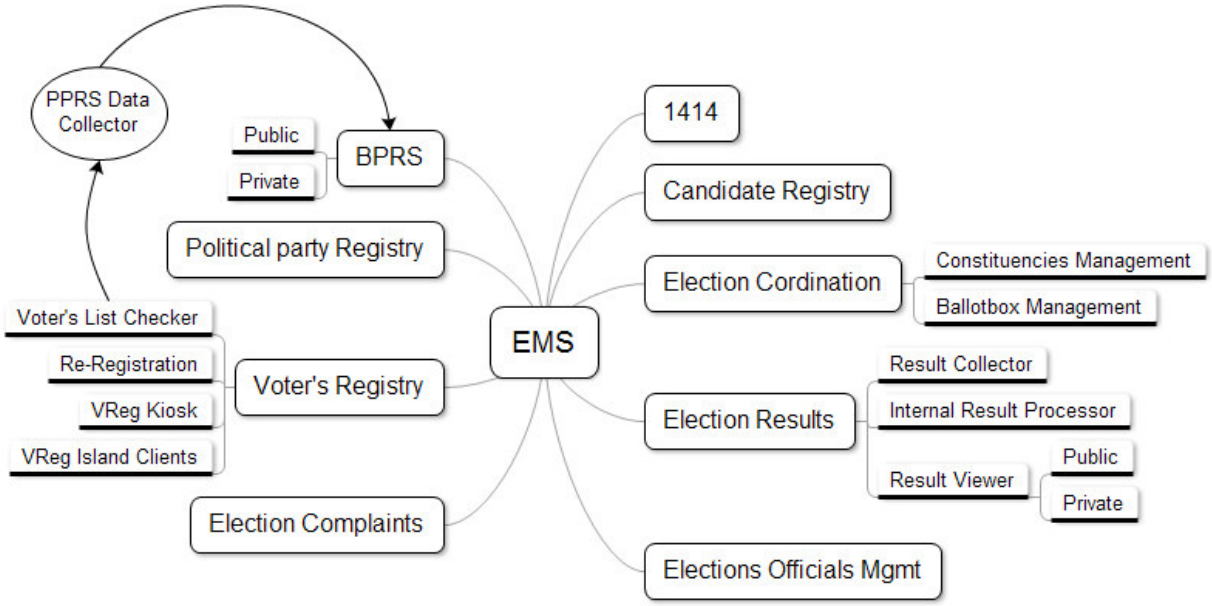


Figure 2 : Current ECM election managment system

Election Modernization, Key Concerns.

The modernization of any process will always have a number of inherent challenges, particularly when new technologies are used to underpin that process; election modernization is no different. ECM takes following concerns into account while moving towards fully digitized election process.

Security

Security is the primary concern and ECM should be aware of when undertaking this type of process. Given the importance of a free and fair election process as a core principle for any democracy, there is an understandable wariness from voters when that election is run using an underlying technology platform for the first time. A reliable election modernization system should ensure the following key areas are covered as it specifically relates to security:

- Vote integrity and authenticity. This is critical for the overall credibility of the outcome of the election. Digital signatures ensure that the votes cannot be modified without detection, thus ensuring their integrity. The use of digital certificates and strong voter authentication methods guarantee the authenticity of the cast votes, so that it can be verified that they have been cast by eligible voters. Voters' personal credentials, which are used to digitally sign the votes, have only to be accessible for them in order to guarantee the integrity and authenticity of the votes.

- Voter privacy. One of the most sophisticated techniques to ensure voter privacy is hemimorphic tallying, which ensures that encrypted votes are not individually decrypted and cannot be correlated with the options selected by each individual voter. The result is the decryption of the operation of all encrypted votes.

- Audit. This is about ensuring that both election auditors and voters can accurately audit the election by leveraging the following technologies:
    - Immutable logs that ensure all sensitive operations are registered in cryptographically protected logs that cannot be manipulated.
    - The combination of individual and universal verification provides end-to-end verification to ensure an accurate audit of the entire election process

- Results accuracy. The key focal point in terms of counting the votes at the end of the election is transmission of the results to a central location. In this area, ECM is focusing on network encryption, where voting options are only encrypted while transmitted through the network but processed in clear at the voting server where they are received.

Other Concerns

There are a range of other areas that need to be addressed in terms of running an election on a technology platform, such as integration with legacy systems and processes, change management in

terms of election staffs and polling station workers in how to use new technologies and educating citizens on how to use and trust new technologies. Additional costs may be incurred in terms of additional equipment maintenance and storage expenses for technologies such as voting machines. Finally, legislation will have to be adapted to allow the use of technologies such as electronic voting.

- Change management and governance. As with the majority of information technology programs, election modernization is accompanied by a significant amount of technical processes but, most importantly, organizational changes, both in terms of process workflows and competences, resources, and motivation of election staffs that are necessary to create the capabilities to manage new processes. They can also create significant political and reputational risks; therefore there is a need to involve much higher levels of management to define and negotiate outcomes and to make someone accountable for training, communication, and documenting changes in business processes.

- Market fragmentation. The wide range of available hardware and software solutions make the election modernization ecosystem market very fragmented, few companies having developed end-to-end commercial off-the-shelf packages that encompass comprehensive workflows and analytical capabilities.

- Usability concerns. Particularly with less-IT-literate groups of voters, electronic voting solutions can present challenges if appropriate training for agents and education for voters and helpdesks are not provided. Usability concerns can be overcome by proper training and design.

- Need for regulatory changes. Allowing election processes to be carried out electronically requires changes to the Maldives electoral legislation. Considering the critical aspect of elections, Maldives should approach these legal changes gradually, starting with small scale implementations before considering a change in the legislation.

Consideration for Election Modernization

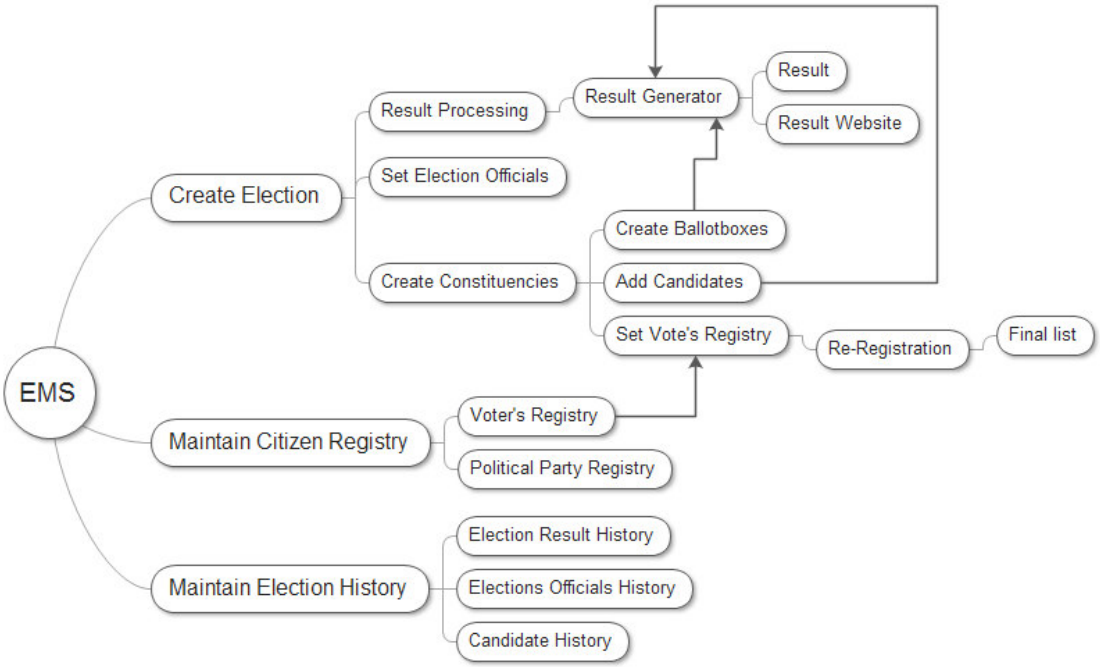
ECM consideration for an election modernization process is based on the following:

- It has to be a comprehensive solution for entire election process.
    - While migrating towards electronic based system ECM should consider implementing a system which will take the entire process of election (pre-election, Election Day, Post-election) under its umbrella. Where data is interdepended and process run concurrently shortening the time and effort put in to have a credible election.
    - Part of the election process functioning in the conventional system will not give the full advantage of the modernization software. And process may get further more

hindered since it will cost more time and effort to bridge the modernization approaches and the conventional approaches.

- It has to be developed uniquely to cater Maldivian Electoral process and legal framework.
    - Every election process being unique and customized to the local custom laws and regulations ECM cannot use an off-the-shelf product or import a system which is being used in another country, however successful that system maybe in that particular country.
    - ECM cannot conduct a credible election by trying to adopt a full foreign system. By ignoring locally norms and processes that has been followed and accepted by the general public will raise the discomfort and trust issues

- It has to be fully secured and trustworthy.
    - With the existing security technologies ECM may be able to keep the security threats to the minimum. However the real question to a credible election lays on the trust that the stakeholders have on the system. A detailed plan to should be implemented and executed to migrate to the system, where gradually different components are exposed to the stake holders.
    - This will help the entire stakeholder to cope with the change and understand what is happening and what will end result of the introduced or proposed change will be
    - The plan should give utmost importance to educate the stakeholders by keeping in mind the level of understanding each group of stakeholder has, since the proposed or implemented modernization system will require a lot of technical knowledge.



- Figure 3. Current ECM election systems basic flow

Challenges

Following are the challenges for ECM:

- Budgetary constraints cater end-to-end full solution.

  A full system that will cater the needs for Maldives will not be available off-the-shelf; therefore a system will need to be built specifically to meet the needs of Maldives as per laws, regulation and customs. Such customized solutions are more expensive then readily available or imported system. Therefore it will put a major burden on the budget. ECM being a government independent body and the budget is allocated and approved by the parliament for the proposed activities. To initiate a massive task of end to end modernization will require government commitment for long-term.

- Migration and discontinuation of current EMS to new solution.
  - Though ECM does not have a full fledge system to cater entire process of election from pre-election to post-election, ECM do have electronic tools used to modernize the current system. When ECM migrates to new system data stored in these multiple tools will need to be migrated this may cause incompatibility and loss of data.
  - Resistance by the ECM employees also lead to failure

- Public acceptance.
  - Though the system maybe most update and secured system and make the election flow less costly and efficient if the public does not accept the system the modernization process will be a failure.
  - The acceptance of such system will depend on the knowledge disseminated by ECM to the stake and the ability of the ECM to convince stakeholders.

Conclusion

Election modernization is a process which is a must to incorporate in this technological era. With the challenges and concerns highlighted in this paper, ECM is committed to perform necessary steps towards an end-to-end

To successful implement modernization process depends on

- ECM ability to implement an agile system with end to end solution
- ECM ability to convince stakeholders to trust new system
- ECM ability to get long-term government commitment

ANNEX 12: Use of Technology in Voter Registration in Nepal – Nepal

FEMB South Asia

THE FORUM OF THE ELECTION MANAGEMENT BODIES OF SOUTH ASIA

Country Paper of

Elections Commission of Nepal

Discussion Paper on

Use of Technology in Voter Registration in Nepal

Dr. Ayodhee Prasad Yadav
Chief Election Commissioner
Election Commission of Nepal

Introduction

Voter registration is the cornerstone of an election. No registration-no voting, is the maxim of the modern democratic election system. In Nepal, this practice has been well-accepted and applied in all parliamentary elections and even local elections.

Voter lists are meant of recording the enfranchisement of voters and facilitating the voting operation by which the citizens eligible to vote; with given age and legal condition, exercise their right to suffrage on a periodic basis. Voter lists are the tangible proof of enfranchisement.

Voter lists should not be considered *per se* as registries of citizens or of residents. Voter lists are intended neither to help with identification of citizens, nor to serve as a resource for the quantification of the population of a given country. Voter lists essentially exist for the purpose of allowing individual voters to vote only within a given constituency and at a given polling station/center.

The process of registering voters and producing voter lists is one of the most important and time-consuming activities carried out by election management bodies. The use of modern technologies in the Voter Registration (VR) System has made the work easier. Database management system, geographic information systems (GIS), biometrics system, imaging technologies, telecommunications technologies and data storage media are major technologies that are used in VR system worldwide.

Nepal has made a subsequent development in using technologies in VR in the recent years. A Biometrics and Photograph based voter registration system is in action since 2010. This has enabled ECN to produce new, accurate, up-to-date and reliable voters' lists with photo and fingerprints.

Voter Registration in the Historical Perspective

The history of voter registration goes along with the history of democracy. As the older and developed democracy, so is the voter registration. In Nepal the constitutional history without democracy began since 1947 but the first parliament election held in 1959. Below a brief review of the proviso of elections and voter registration in different constitutions are outlined.

Nepal Government Act, 1947	•Does not mention anything about which body is to hold the election and collect or prepare electoral rolls.
Constitution of the Kingdom of Nepal,1990	•Directives were issued under the Election Commission Act, 1990; and collection and finalization of electoral rolls was made in consonance with the previously adopted procedures.
Voter Registration Act, 1995	•New electoral rolls were collected in 1996A.D. by visiting at doorsteps of voters, periodic voter registration system conducted by the Election Commission.
The Interim Constitution of Nepal, 2006	•The Election Commission is provisioned as an independent constitutional body in the constitution, part (14) which shall conduct, supervise, direct and control the election to the constituent assembly, any referendum and the local government body election and shall prepare the voters' rolls"
The Voter List Act, 2006	•The Voter List Act, 2006 is promulgated by erasing the prevailing Voter Registration Act, 2095
Voter list Regulations, 2006	•Election commission makes necessary rules and regulations by using the rights given by Voter List Act, 2006 section 44 to imply its objectives

Processing and consolidation of electoral rolls prior to 2006

- In the beginning, data collected using paper forms were carried to the district headquarters i.e. District Administration Office.
- Voter lists were completed manually using carbon paper. Later on, type writer machines were used.
- At the special initiation of the Election Commission, the electoral rolls of 16 districts were for the first time computerized and the election to the National Panchyat was held.
- It took 6 months to prepare the electoral rolls at that time. 1 MB floppy disks and image writer printers were available for data storage and printing respectively.
- 75 District Election Offices were established by the Election Commission (5 districts in 1997, 25 districts in 1999 and the remaining 45 districts in 2004). The electoral rolls of these districts were updated in the respective districts and data were brought to the Election Commission for the integration purpose.

Voter Registration Assessment, 2008

Following the suggestions, comments regarding voter list by the concerning stakeholders and the internal evaluation and assessment by the Election Commission per se the Election Commission in August 2008, initiated an assessment of the voter registry and voter registration process which would include the voter identification process linked to the voter registry.

The Election Commission requested IFES to assist in its assessment efforts in order to highlight different areas of the voter registration and voter identification process that could be improved upon, as well as work with the commission on improvement recommendations. With funding from USAID, IFES had worked with the Commission on voter registration assessment, 2008.

The Assessment team made a list of Recommendations including the following list focusing in The Use of Technology in Voter Registration System

- Create and maintain a **completely new voter registry database through a reliable and sustainable registration process**.
- **Store the data in modern computer** characters that allow for proper Nepali script, alphabetical order and searching.
- **Use a printer voter list that contains the photo of each voter** for use in identification during polling.
- **Allocate every voter with a unique identification number** that never changes for that individual.
- **Record biometric data (photo and finger prints) of each voter** to allow for the removal of duplicates through finger print matching and the creation of a voter list with photos of each voter printed next to each voter's name.

Voter Registration with Photograph Program: A New approach

After the historical election of the Constituent Assembly, the Election commission had organized several consultations with various concerned stakeholders and international communities and observers as well as an assessment of the existing voter list in order to review the voter registration process.

It was revealed that the Election Commission has to produce a new voter roll in order to mitigate inconsistencies and duplication in voter roll saying that "if the roll is right, the poll will be right''. Similarly the strategic plan of the Commission has emphasized to produce accurate, up-to-date and reliable voters' lists which will enable eligible voters to fully exercise their constitutional rights. In light of these considerations, the ECN started collection and updating voter roll to produce new, accurate, up-to-date and reliable voters' lists with photo and fingerprints.

The Interim Constitution has also ensured this very right i.e. to prepare electoral roll. According to the Constitution "The Election Commission shall, subject to the provision of the Interim Constitution and other laws, conduct, supervise, direct and control the election to the Constituent Assembly or any referendum to be held under article 157 of the constitution and elections to the Local Authorities. For these purposes, the Election Commission shall prepare the electoral rolls

Provisions in the Strategic Plan (2008/09-2012/13)

The Election Commission, Nepal has adopted the following target with regard to electoral roll in its strategic plan 2009:

- Make the local electoral bodies responsible for collecting an updating the electoral rolls.
- Start the process of preparing the electoral register to include the voter photograph.
- Increase the accuracy of the electoral register to more than 95 percent.
- Update the electoral register throughout the year, closing it only during the 75 days before Election Day.

Implementation of the Program

In order to implement the voter registration with photograph program effectively, the ECN developed a phase-wise plan, beginning in April 2010. A Joint Appraisal of the "Voter List with Photograph" concept and pilot was commissioned by a group of international stakeholders (Danida HUGOU, DFID/ESP, IFES/USAID). This joint appraisal culminated in a report which made a number of recommendations to improve the effectiveness of the project. These recommendations potentially have implications on the budget, implementation, schedule, and other technical aspects of the project. The ECN reviewed the recommendations and adopted most of them.

The adoption of a modern registration process and development of a Voter List Database with Photograph and Fingerprints has significant benefits. These benefits include the clear identification of voters on Election Day, the deterrence of false voting, the ability to detect and remove duplicate registrations, and the ability to manage internal migration of voters between locations.

Interaction with Stakeholders

The Election Commission made an interaction and discussion with the political party's representatives and civil society members about the voter registration based on Digital Data Capture System (DOCS). Following the suggestions the Election Commission decided to implement the VR with Photo Program.

Requests from the Government of Nepal

The Government of Nepal on January 10, 2006 had requested the Election Commission, Nepal to collect the data of Nepali citizens who are 16 years and above and having citizenship while enumerating and registering voters list. The purpose of this action is expected to be used in developing National ID. As per the request the Election Commission, Nepal decided to collect the data of citizen of Nepal of 16 years of age and above having citizenship certificate.

Pilot Program

Prior to the finalization of full program, pilot program of the voter registration with photograph was conducted in the 7 VDCs of 5 districts to trial and refine the methodology, coordination mechanisms, equipment, training, and operational processes of the program. It was revealed from the pilot that 58 99% of the voters were registered during the program compared to the voters in 2007.

Volunteer/Enumerator Mobilized

During pilot project Primary school teachers, particularly female and local, were deployed for 10 days to disseminate the voter education to each household through brochure, handbill, and poster. They were then mobilized as an enumerator to collect names of the eligible voters and also potential voters of having age 16 years and above. Their enumeration work was observed by the supervisor.

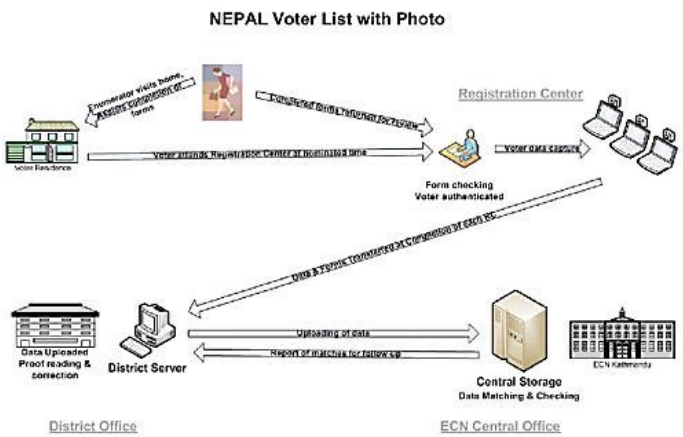
Cost incurred in the Pilot Project

The total cost incurred on pilot project was NRs. 21 .6 million. The outlay was supported by Danida/HUGOU.

After thorough Appraisals of the Pilot project, the Joint Appraisal Team (UNDP/ESP) made recommendations which led to the concept of photograph and biometrics based Voter Registration System

Methodology of the voter Registration

Following the aforesaid recommendations, the methodology for this voter registration program had been designed to make the voter registration with photograph and biometrics more reliable, effective and credible. These following procedures were adopted by the ECN·



Voter's Identity document

As per the verdict of the Apex court and also the decision of the Election Commission, each voter had to produce citizenship certificate to fill up the registration form and to register his/her name in the computer at the registration center. No any other documents except citizenship certificate were accepted for identification.

Enumeration Method

School teachers (especially female teachers) were deployed for household enumeration. A comprehensive voter education program was conducted prior to the enumeration to ensure that all voters in the locality have knowledge of the process and understand the importance of attending the Registration Center.

Registration Center

Registration centers were established in each polling location (around 10 thousand) and it was opened one week to two weeks in each location.

ECN Central Data Center

The ECN server room has been enhanced to function as the central data center for the new Voter List. All collected data has been stored and managed from the ECN Central Data Center.

Continuous Registration

The Election Commission decided to run voter registration throughout the year in the District Election Office and casually in the District Administration Offices and Ilaka Administration Offices. The registration and updating in the District Election Office will be continued round the year, closing it only during the 75 days before Election Day. The Mobile Registration System has also been practiced.

The voter registration with photograph was implemented in different phases. In the first phase it was launched in 58 municipalities and in the second phase in all VDCs. The registration process started in September 15, 2010. Despite obstructions from some Political parties, nationwide voter registration was completed in March 2012.

Current Voter Registration Process

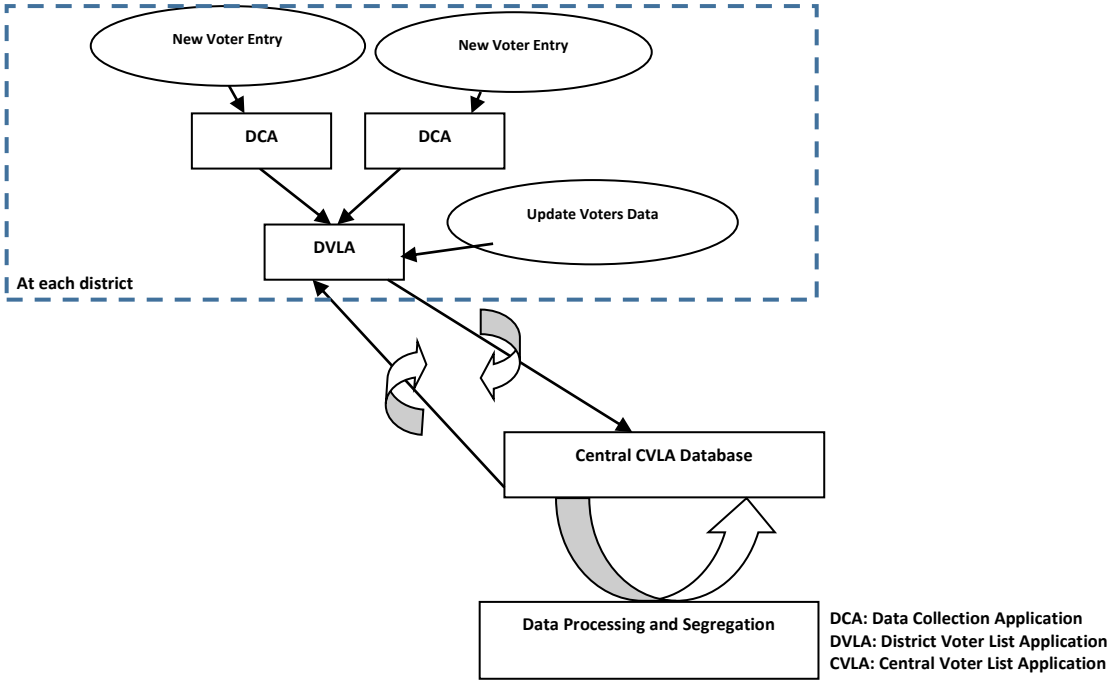
- The voter proceeds to the registration unit with his/her form. Each registration unit comprises of a laptop computer, wave camera, fingerprint scanner, lighting, and photo screen.

- The data entry operator enters the basic voter information from the registration form into the

computer.

- The data entry operator captured the voter's photo, fingerprint, and signature into the computer.
- Enumerator do not visit home to home after the commencement of Continuous voter registration program

Voter Registration Process Diagram



Voter List with Photograph & Voter ID

Voters' List

Voter ID card

Technological Advancement

- UNDP/ESP has supported ECN with the 600 Rugged Laptops that can be used in the extreme weather conditions. These laptops are durable and dust/shock/ water resistant which makes it appropriate for geographically complicated place like Nepal. At the same time, the new laptops come with extra batteries which are perfect solution for current power crisis that we are facing.

- UNDP/ESP has assisted ECN to develop the new software requirement specification for continuous voter registration process. UNDP/ESP is in process for the development of the new software.

Challenges faced

Some major challenges that the program has faced can be categorized in the following three domains:

a) Political

During the implementation of the program, some of the political parties created obstacles raising political issues of the new registration process adopted by the ECN. The registration process was hindered in some districts of Eastern Hill and Western and mid-western Terai district by some political parties. The basic reason was the question of identity in the Eastern Hill and issue of citizenship certificate in the Terai. The issue of the citizenship certificate to be shown for voter registration was filed writ petition in the Apex court. During the trial great controversy among the parties, between the ECN and parties was raised regarding the issue of citizenship certificate. The Supreme Court issued a stay order which stalled the program activities for two weeks. Later on, the Supreme Court gave the final verdict that voter registration should be conducted on the basis of citizenship certificate.

Following the verdict of the Supreme Court, the ECN managed to resolve the issue and the program was continued. The verdict of the Supreme Court and the initiative taken by the ECN has been well-supported by all the political parties, voters and stakeholders.

b) Technological

Major technological challenges that the program faced are

i) Difficulty with capturing fingerprint and photograph

The software for capturing photo and fingerprint is configured for certain biometric (photo and fingerprint) quality thresholds level. These quality thresholds had to be adjusted in the early phases of the program. The main issue was fingerprint quality thresholds due to problem in capturing fingerprints from the person with worn-out fingerprints.

ii) Support and maintenance

The equipment has to be operated in remote areas by people who have limited knowledge and skill. There is lack of adequate training and support in remote areas which causes sometimes trouble in smooth technical operations in these remote areas. However, ECN has deployed regional IT officers with the support of UNDP/ESP, at each region in order to coordinate raining, support and maintenance activities. But it is also not able to deliver required service in some remote areas effectively and timely.

iii) Data security and transfer

Security of data collected in registration centers and its transfer to DEOs is also a challenge. Currently, data are transferred using portable hard drives which are vulnerable to data loss or sometimes loss of device itself.

iv) Cost of technology

Cost of maintenance and support for the technology has been a major challenge for ECN. For the same reason, ECN has decided to transfer its database from proprietary database management system to open source platform.

c) Administrative

Some of the administrative challenges are:

- Resource constraints, and are supported by donor funding.
- Inadequate technical manpower in remote districts
- Problem in conducting regular training
- Problem in retention of the manpower particularly in Officer level

d) Miscellaneous

a. Electricity supply
b. Fast changing technology
c. Problem caused by the delay in procurement of registration kits
d. Large portion of EMB cost involved in the voter registration process.

Some of the future challenges in the use of Technologies in Voter Registration are:

a. Online Registration
b. Registration of Voters abroad
c. Printing and display for claim and objection
d. Fingerprint based deduplication
e. Verification and correction
f. Increasing cost etc.
g. Big data handling (fingerprint, photograph and citizenship certificate)

(To be presented at the Seventh Meeting of the Forum of Elections Management Bodies of South Asia (FEMBoSA), Male, Maldives, 2nd to 4th August, 2016)

ANNEX 13: Use of Mobile SMS for broadcasting voting information – Pakistan

Country Paper of

Elections Commission of Pakistan

USE OF MOBILE SMS FOR BROADCASTING VOTING INFORMATION

(By Zafar Iqbal Hussain, Additional Secretary, ECP)

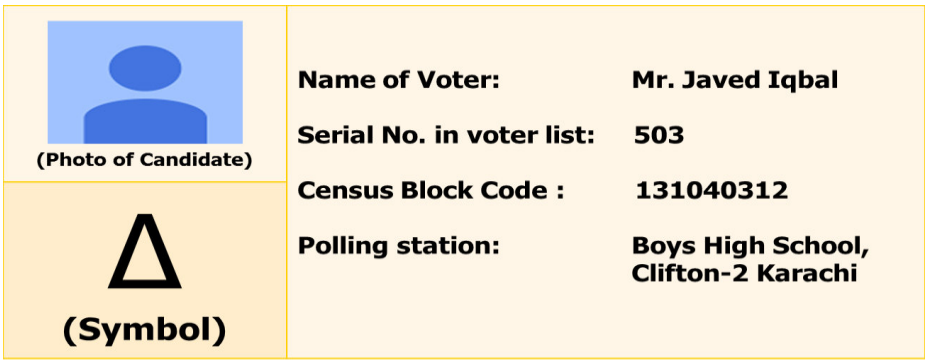
In Pakistan, for many years, the manual electoral rolls were being used. In 2011, when Civil Registry of Pakistan i.e. National Database and Registration Authority (NADRA) achieved more than 90% registration of the Pakistani population by issuing them Computerized National Identity Cards (CNIC), the ECP decided to use the database of NADRA in order to prepare error-free electoral rolls. It was considered that to improve the quality of the electoral rolls, multiple and bogus registration needs to be removed; and this could only be achieved if each voter is uniquely identified. The CNIC issued by NADRA provides exactly this kind of unique citizen identification, and for this reason, the ECP had decided to explore the possibility of collaboration with NADRA in order to produce high quality electoral rolls without duplicate or bogus records. As a first step in that regard, in April 2011, through a Gazette Notification, CNIC issued by the NADRA was declared mandatory for the registration as voter or casting vote at a poll.

2. In June, 2011 ECP entered into a contract with NADRA for preparation of error-free electoral rolls through Computerized Electoral Rolls System (CERS). In this regard, in step-I, the existing voter records were compared with the NADRA's citizen database on the basis of CNIC number. Wherever the same voter was matched in both ECP and NADRA databases, the electoral roll record for that voter was updated in CERS database. The citizens who possessed CNIC but were not found to be registered as voters, such records were supplied to the ECP for verification/augmentation into the electoral rolls as potential voters. As a result of step-I, Draft Electoral Rolls (DER) were prepared. In step-II, the DER were verified through door-to-door verification exercise.

3. After incorporation of data of voters obtained after door-to-door verification, Preliminary Electoral Rolls (PER) were printed and displayed at Display Centers across the country inviting objections etc. which were decided by Revising Authorities. During this display period, ECP launched first ever service of SMS for provision of particulars of voters appearing on PER. This unique service proved to be very successful in the backdrop of the fact that previously a voter used to visit the Display Center in order to check his particulars in the electoral rolls. After incorporation of decisions of Revising Authorities, FER were published by ECP on 31st July, 2012. The statistics of FER-2012 used in General Elections- 2013 are as under:

Province / Area	Male	Female	Total
Balochistan	1,915,395	1,421,274	3,336,669
Khyber Pakhtunkhwa	7,008,536	5,257,626	12,266,162
FATA	1,142,237	596,079	1,738,316
Punjab	27,697,779	21,561,563	49,259,342
Federal Area	337,909	288,060	625,969
Sindh	10,490,636	8,472,741	18,963,377
Total	48,592,492	37,597,343	86,189,835
TOTAL	56.38%	43.62%	

4. Traditionally candidates used to issue voter extracts (called perchis) to the voters outside the polling stations by establishing their camps. They used to help the voters to locate their names in the electoral rolls and it was alleged that such extracts were used by the candidates for their election campaign as well despite the fact that law prohibits the campaign on the poll day as they used to print their pictures and party name / symbols on the same perchi. The format of this perchi is given below:



5. The ECP considered this aspect at length in the light of the directions of the Apex Court in one of its judgment wherein the Court directed as under:

"As regards the handing over of Perchis to the voters at election camps, the Election Commission must take steps to provide the requisite information to the voters by other means as discussed hereinabove. Therefore, to ensure strict compliance with section 84 of Representation of the People Act, 1976 in letter and in spirit, establishing of camps near the polling stations should be banned forthwith. The Election Commission may manage to dispatch extracts from the voters' list in the name of one or more persons living in a house at least 7 days before the polling day by post, or to save the postage by annexing such extracts with any of the utility bill"

6. The above said direction of the Apex Court was implemented by the ECP in some Bye-elections and extract were printed and delivered through post. Only in one constituency, an amount of Rs.37,00,000/- (approximately) was spent on printing of these extracts (perchis) and their distribution through postal services and establishment of facilitation centers. However, More than 9000 out of 3,00,000 extracts could not be delivered to the voters as they were not traceable/available at the addresses mentioned in the electoral rolls.

7. Keeping in view the limitations of delivering of perchis to voters through post and the fact that the Apex Court's direction was binding in nature and in Pakistan the cell phone density was reached more than 120 million, ECP decided to introduce the Electronic-extract (perchi) i.e. SMS based Electoral Rolls Verification Service (8300) on 30th November, 2011. Through this service, SMS is sent to the voter informing him about his voting details.

8. ECP signed contract with ECP in this regard on 27th February, 2012 and SMS 8300 service was launched on 29th February, 2012 during the display period of PER as aforesaid. According to contract, ECP is responsible to provide updated content about Electoral Rolls with corresponding Polling Stations data for the SMS whereas NADRA is responsible for the development, procurement, provision,

establishment, installation, commissioning, operation, integration, optimization, and maintenance and testing and support (24/7) of the platform required for the SMS service. As per other provisions of the contract, telecommunication companies shall provide uninterrupted connection facilities with the NADRA's SMSC services and shall charge the Rs.2/- (equal to 2 cent) plus tax from the subscribers per SMS which amount will be equally shared among ECP, NADRA and Telecommunication Company.

9. This system, to a great extent, helped the citizens to confirm their registration as voter and locate the designated polling station. Around 51.8 million citizens, out of them about 39.5 million were male voters and 12.3 million were female voters, used this SMS facility for finding out the voting details during the General Elections 2013 as per detail given below:

a. CNIC number
b. census block code;
c. serial number in the electoral roll;
d. electoral area name;
e. polling station name and location;
f. constituency;
g. District.

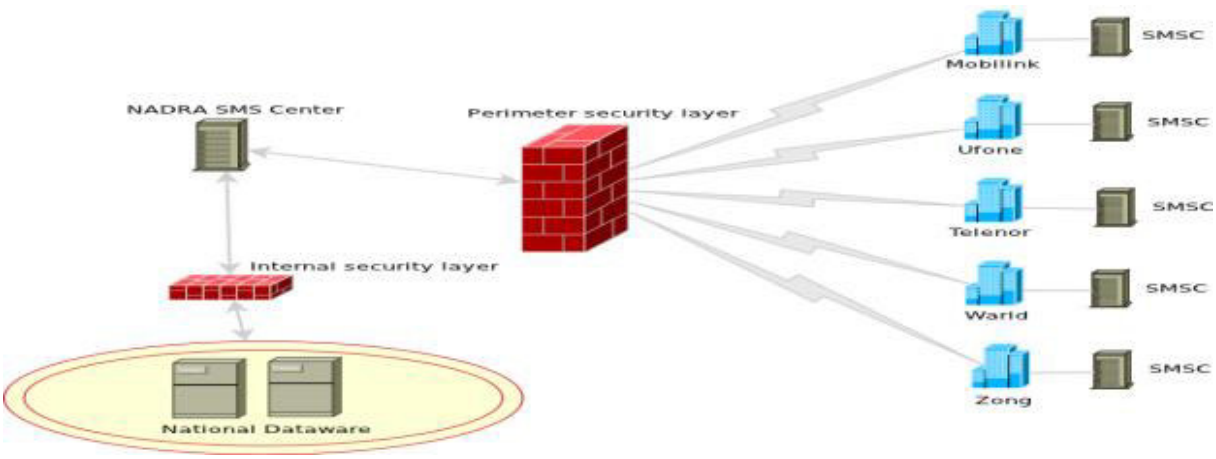
10. ECP also used this service for voting education during General Elections-2013 whereby millions of messages were pushed to the registered users on their mobiles encouraging them to use their right of franchise during the elections. Such efforts reinforced by other measures resulted in the unprecedented turnout of around 55% during the General Elections-2013 which was recorded for first time in history of Pakistan.

11. The Commonwealth Observers' Mission has highlighted this fact in its report saying that:

"The ECP's use of SMS to enable voters to verify their registration and identify their polling station was also an excellent innovation".

12. This vision of ECP was recognized internationally and ECP won International Electoral Award-2013 from International Center for Parliamentary Studies (ICPS) for the "Innovative Use of Technology (i.e. 8300 SMS Service). This Win was announced at the International Electoral Awards 2013 ceremony held in Kuala Lumpur, Malaysia on 4th December, 2013.

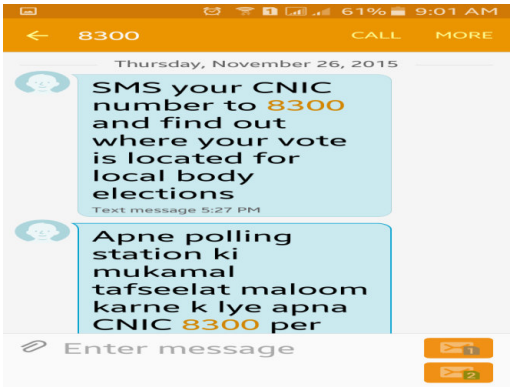
13. So far as the technical aspect of this service is concerned, it may be termed as a "Virtual Display Centre" over SMS whereby Electoral Roll is displayed on mobile phone via SMS to facilitate the general public by allowing them to view their voting details in the Electoral Rolls. As to how this virtual display center works, it may be pointed out that in Pakistan there are five cellular companies namely Mobilink, Telenor, Zong, Ufone and Warid whose number of subscribers are 38, 36, 27, 22, and 12 Million respectively. The total tele-density hence comes to around 135 Million. The systems of all these cellular companies are connected to the NADRA SMS center through perimeter security layer. The NADRA SMS center is connected to National Data ware through internal security layer. An illustration of this link is given below:



14. When a request is generated by the subscriber by sending his CNIC number to 8300, it passes through security layer to NADRA SMS center which generates the reply from National Dataware through internal security layer and provides the requisite voting details to the subscriber within few seconds.

15. Technically use of SMS for furnishing voting information can be used in two ways. The first one is called “Push” (or "server-push") which is the delivery of information on the target mobile that is initiated by the information server rather than by user or client. The second method is called as “Pull coding” or “client pull” is a style of network communication where the initial request for data originates from the client, and then is responded to by the server.

16. The ECP is using both Push and Pull methods to furnish voting information and promote voter education. The example of Push message is given as under:



17. The example of pull code message is also given as under:

18. The furnishing of voting details and voter education on SMS has many advantages over the conventional means of acquisition of such details. An epitome of such advantages is as under:

a. The most effective mode of communication.
b. It addresses every citizen.
c. It knocks every household of the nation.
d. More concise than a phone conversation.
e. Less Time – as compared to phone or e-mail.
f. Convenient for all (hearing-impaired people).
g. Message is delivered even if mobile is off.
h. Availability 24hours, 7days a week, 365 days a Year.

19. Similarly, SMS based broadcasting of voting information has many edge over web-based broadcast of such information, the detail of which is as under:

WEB	SMS
Hacking Factor Very High Risk	Hacking Factor None
Un-controlled Environment	Controlled Environment
Cyber Attack Very High	Cyber Attack None
Fake Users	Registered Users
The whole World	The Nation only
Time consuming	Instant information
High bandwidth required	Low bandwidth required

20. Before conclusion, I would like to mention that SMS (8300) Project of Election Commission of Pakistan is largest in the World in terms of its Data Density of more than 90 Million of Voters (at present) which is available in real time for around 135 Million mobile customers across the country. ECP hopes that its precedent will also be followed throughout the world so that voters may become well informed about their voting details. Well informed voters are likely to use their right of franchise at every election with optimum level of ease and comfort as compared to such voters who use conventional mode of obtaining such details.

ANNEX 14: Use of ICT in the Elections Commission of Sri Lanka – Sri Lanka

Country Paper of

Department of Elections, Sri Lanka

Use of ICT in the Work of Election Commissions

Introduction

The past decade has seen an enormous increase in the use of Information and Communications Technologies (ICTs) in election management, which has considerably changed election administration in many countries. The use of ICTs can positively impact election management, especially in making some processes quicker and more efficient – and indeed accurate. But ICTs solutions also carry risks, they often suffer from unrealistic expectations, and they may not be appropriate in some contexts.

Why "Elections and Technology"?

In many countries, technology is present in activities related to the electoral process, and in some cases it is essential to the conduct of free and fair elections. Technology is used, for example, to compile voter lists, to draw electoral boundaries, to manage and train staff, to print ballots, to conduct voter education campaigns, to record votes cast, to count and consolidate vote results and to publish election results. ICT solutions in the electoral process should be cost-effective, transparent, sustainable, inclusive, accurate, flexible and credible. ICTs can help to speed up and streamline several procedures in the electoral cycle, such as voter registration, casting the vote, processing results and many other processes such as tracking incidents of violence and violations of election laws. The appropriate application of technology to elections can increase administrative efficiency, reduce long-term costs and enhance political transparency through better accuracy.

The biggest challenge is ensuring a sustainable, appropriate, cost effective and transparent use of technology. There is no fixed solution that can be applicable everywhere: different situations require different solutions. In general, the level of technological upgrades suitable for a given partner country should always be directly related not only to the capacity, but also to the trust and independence enjoyed by its EMB. These elements – trust and independence – are decisive to the acceptance of the use of ICTs by the public and, as a consequence, influence the level of trust in the electoral process.

Within this framework of possibly conflicting interests, EMBs, development agencies, practitioners, academics and electoral assistance providers have an important role to play in influencing the technological choices to be adopted in a given electoral process, so that it meets the appropriate needs of the country.

Any effort to make electoral assistance more effective must also tackle the issue of the increasing use of technology in electoral processes. The accelerating development of ICT applications available for electoral purposes and the appeal that such applications have for partner countries' EMB are factors to be considered by all EMBs, development agencies, electoral assistance providers and practitioners.

ICTs have already dramatically changed the way elections are conducted in many developed countries.

This process is likely to continue and affect more and more improving democracies which we all are, regardless of their level of preparedness to introduce such applications, and despite the fact that the cost implications can be enormous.

Using computer technology for Sri Lankan Elections

This paper briefly shares how the Sri Lankan Commission has employed ICT to enhance the democratic rights of the Sri Lankan people in exercising their free and unfettered franchise to choose representatives. I hope that you will consider this sharing useful.

In order to serve the election practitioners and stakeholders, Election Commission of Sri Lanka uses ICTs in several stages of electoral process such as

1. Voter registration
2. Preparation of results
3. Use of open source technology in election administration
    - E staffing
    - Election Complaints Tracking System
4. Online data publication by electoral management bodies

1. Voter Registration

Fidelity of electoral roll is most important for free and fair elections. An election cannot be called free and fair if names of eligible electors are left out from the roll or the roll is stuffed with names of ineligible persons. The Commission lays a lot of emphasis on the maintenance of a clean roll and spends a lot of time and effort on it. Rolls are revised annually with reference to the 1st of June as the qualifying date for enrolment every year. This is however a difficult task, which has been simplified by the use of technology.

Clearly these above tasks involve a data-rich, information heavy process that benefits from ICT. The Elections Commission, then the Department of Elections, was quick to recognize the benefits of ICT in enhancing the rights of Sri Lankans to operate in a fair and efficient electoral system and grasped those benefits by making use of ICT. Indeed, the importance of embracing the concept of distributed protected data though ICT was brought to the fore when the Tsunami of Boxing Day in 2004 inundated and thereby obliterated many electoral records in Galle that were available in the form of hard copies as volumes of books that consisted of typed and duplicated sheets of paper.

Automated Electoral Registers System (AERS)-Phase I and Phase II

AERS was introduced to the Colombo City Office of the then Department of Elections in 1997. Using the AERS application software, initially the Dehiwala-Mt. Lavinia Municipal Council area was computerized in 1998. All Disk Operating Systems (DOS) based data was migrated to the Windows based AERS in 1999. Furthermore, AERS was thereafter extended to the remaining polling divisions of Colombo District and the transition was completed at all 15 polling divisions by the year 2000.

It has taken almost a decade to introduce AERS to three electoral districts, namely Colombo, Gampaha, and Kalutara in the Western Province. There were other areas to be streamlined such as preparation of postal voter registers, printing of poll cards, and trouble-shooting for mistakes in the form of multiple registrations using National Identity Card (NIC) numbers etc.

Therefore, a project proposal was prepared to computerize the remaining 19 districts. It was not an easy task to find financial support only from the government agencies so the search for funds was widened to international organizations as well.

Representatives of the International Foundation for Electoral System (IFES) went through the existing AERS system and extended their support through the United States Agency for International Development (USAID).

The Advantages of AERS compared to typing registers on stencils

Digitization of forms received on paper have many advantages.

- Shifting of data from non-secure to secure database upon approval of Electoral District Officers
- It is easy to prepare A-lists (names to be removed), with B-lists (names to be included) For. Only 10% of total names are to be typed into the AERS database unlike all as in a manual system.
- Processing A-lists against existing registers and deleting them in one instance and processing B-lists for a particular household and preparation of the draft electoral registers are done automatically.
- While processing the B-lists, the system will generate a report on duplication and multiple registration of voter, based on their NIC number. Finding possible duplicate electors in electoral rolls and their deletion after due verification is a tremendously advantageous task.
- Incorporating all claims and objections in one database.
- Final checking, serializing, and printing electoral registers are facilitated.
- Making copies using digital copiers at the district election offices is facilitated.

Preparation of official Poll Cards

One polling card is given to each voter to avoid a fraudulent double vote. This needs great care. The traditional way of preparation of poll cards was manual. After the introduction of the AERS, incorporating details of a particular election, the polling station in addition to the voters' information available in the database has been very easy.

Fifty percent of the total cost for this process is saved now as a result of computerization and the process significantly speeded up.

Centralized Electoral Management System

The de-centralized electoral databases were used to update registration details of electors until the annual enumeration of the year 2015. Annual updating of electoral databases has been done at the relevant district election offices in order to prepare electoral registers island wide. According to the new system design, a centralized electoral management system will overcome the drawbacks. Existing data in 25 electoral databases is to be imported to a single database structure in order to facilitate a centralized database management system. The Election Commission expects to introduce the new system in 2016 after annual enumeration forms are received from Grama Niladaris (Village Officers) island wide/or Special Enumerators who engage in the distribution and collection of the enumeration forms.

2. Preparation of Results

Information and communication technologies play a vital role in the administration and organization of modern elections. Any breakdown of an election technology, security breach or programming error can incur tremendous cost for the electoral management body (EMB)—and may undermine voters' trust, reduce voter participation or even cause national unrest. Not all these problems are avoidable, but in most cases, good quality control can significantly reduce the likelihood that they will occur. The Election Commission of Sri Lanka does not heavily rely on election results processed by an electronic tabulation system. In order to tally the results obtained through a laborious manual calculation, computers are used. This is clear evidence that we still have a back up other than an electronic tabulation. There is always a Plan B – what to do if our Plan A does not work.

3. Use of open source technology in election administration

- E staffing
- Election Complaints Tracking System

With the introduction of the new system, several e-services are also planned to be implemented to provide more efficient services to stakeholders.

E- Staffing

Currently measures have been taken to develop an on-line database of election staff efficiently to manage staff requirements for conducting elections. With the implementation of the new information system for the Election Commission, the process of applying for postal votes is planned to be carried out online. Naturally therefore the postal vote application process would be more efficient.

Election Complaints Tracking System (ECTS)

As complaints come in during a poll, they need to be acted upon immediately to ensure that the validity of the election is not marred. Prior to the last Parliamentary Election (2015), election related complaints were handled manually. The complaints were made over the phone, sent through letters and faxes, and through the Commissioner's official website or Facebook page. Those complaints were directed to the relevant district officers and to the head office. The complaints management unit operated at the head office directly under the Commissioner of Elections. Heads of units coordinated with the relevant authorities to mitigate situations alluded to in the complaints as needed, as soon as possible.

For the last elections in 2015, the SMS Complaints Tracking System was introduced for the very first time at the department. A special short code for tracking election violence was introduced and a considerable number of complaints were handled. This is being integrated into the new electronic complaints management system. With this change, election related complaints would be handled a lot more effectively using GPS technology on-line. Active maps, using GPS data, will flash where the complaints are coming from and also indicate if abuses are focused on any particular area. This would indicate if any violence is organized and therefore needs special attention.

Goals and objectives of using ECTS are as follows.

To provide solutions in identifying the problematic area by Local Election Officers and the relevant staff at the Election Head Office by capturing the problematic areas using GIS technology.

To require to record/identify the problematic areas within the system and record accurate data via GIS technology using mobile phones and to prioritize the deployment of relevant officers to vulnerable areas where they are expected to investigate complaints of violence, take rapid action to solve the problem and report and follow up on the developments.

To file all working records in digital format for easy retrieval, transmission and storage for future reference and reduce paper work and minimize unnecessary working steps and to facilitate graphical review of the problematic areas.

Furthermore, if internet facilities for an officer's mobile are not provided, it will be saved automatically and only synchronize with the server once the connection is established with the internet. This may cause in problems in certain vulnerable areas where there are weak mobile signals. In such situations, the main Coordination Centre located at the Election Head Office can respond to the situation via any other communication device/media though the system would update immediately once internet connection is established.

4. Online Information Sharing

All important information is published in the Election Commission website in a user friendly manner. The general public can search for names, telephones numbers and contact details of all the staff officers of the Election Commission, District Election Offices etc. All Press Releases of the Election Commission, Voter Awareness Programme, media Guidelines, FAQ's, Circulars, Procurement notices, Recruitments, Vacant positions and important letters of the Commission, instructions and laws & rules relating to Elections Acts are available on the Commission's website.

Challenges and Recommendations

ICT offers many opportunities to make the electoral process more effective and efficient, while enhancing the democratic right of our citizen to choose freely our representatives and government through free and fair elections. New opportunities are offered through the many technologies coming on to the market and waiting to be harnessed to improve our democratic framework through credible elections.

An EMB should consider quality control early in the process of introducing new technologies, starting during the feasibility study, especially if it is bound by law to provide such a certification. The evaluation reports and related documents can also be used to increase transparency of the election, improve the dialogue between EMBs and voters, and increase the EMB's credibility.

Conclusion

ICT like all technologies offers many benefits and the potential to enhance our democratic rights. It needs to be embraced but with careful considerations such as "Do we have a Plan-B if our Plan-A with the new technology malfunctions?" and most importantly "Does the contemplated technology enhance our democratic rights, especially with respect to voter participation?" These opportunities come with challenges as their concomitants. For example cost has to be borne in mind. Technologies that increase voter participation, accuracy of voter choices, diminishing impersonation, etc. should be preferred to fanciful choices like automated faster processing of ballot papers in place of manual counting. We must always ask ourselves what we will forego to incur the expense of acquiring a new technology. Just saying something is good is just not enough.

ANNEX 15: List of Delegates

Independent Elections Commission of Afghanistan

H.E, Dr. Abdul Rahman Hotaki, IEC acting Chairman & Deputy

Mr. Abdul Rahim Nawakhtyar, Head of External Relations Department

Mr. Zmarai Qalamiar, Director of Operations

Elections Commission of Bangladesh

H. E, Mr. Kazi Rakibuddin Ahmad, Chief Elections Commissioner

Mr. Mohammad Abdul Mobarak, Elections Commissioner

Ms. Jesmin Tuli, Joint Secretary

Elections Commission of Bhutan

H.E, Mr. Ugyen Chewang, Commissioner

Mr. Mani Kumar Ghalay, Head of Policy & Planning Coordination Division

Mrs. Dema, Electoral Registration Officer

Elections Commission of India

H.E, Mr. Achal Kumar K. C. Joti, Elections Commissioner

Dr. Sandeep Saxena, Deputy Elections Commissioner

Mr. Rajesh Lakhani, Chief Electoral Officer

Elections Commission of Nepal

H.E, Dr. Ayodhee Prasad Yadav, Chief Elections Commissioner

Mr. Govinda Ram Paneru, Senior Computer Officer

Mr. Ram Krishna Aryal, Section Officer

Elections Commission of Pakistan

Mr. Zafar Iqbal Hussain, Director General (Elections)

Mr. Naeem Ahmed, Deputy Director

Department of Elections, Sri Lanka

H.E, Mr. W. W. Mahinda Deshapriya, Chairman of the Elections Commission

Mr. Mohamed Mahdoom Mohamed, Additional Commissioner of Elections

Mr. Rizan Manzil Abdul Hameed, Coordinating Secretary to the Chairman of the Commission

Elections Commission of the Maldives

H.E, Mr. Ahmed Sulaiman, Chairman and Commissioner of the Elections Commission

Mr. Amjad Musthafa, Vice Chairman and Commissioner of the Elections Commission

Mr. Ismail Habeeb Abdul Raheem, Commissioner, Elections Commission

Mr. Mohamed Shakeel, Commissioner, Elections Commission

Mr. Ahmed Akram, Commissioner, Elections Commission

Mr. Ahmed Ali, Secretary General, Elections Commission

Special Invitee

As a guest presenter,

Mr. Ibrahim Waheed, Former Elections Commissioner of Maldives