

## ***Findings & Recommendations from Pilot Projects***

### **1. Overview**

Pilot registration projects have been conducted in five districts, covering seven VDCs. The pilot project areas have been selected to cover all development regions, and Himalayan, hill, and Terai areas.

A total of 76 registration units were deployed to cover the currently registered voting population in these areas of 58,364 voters.

The time period for the operation of registration centers was allocated as April 12 to April 26, 2010.

### **2. Registration Statistics**

Detailed registration statistics can be found attached to this report. Summarized statistics are as follow:

Registered Voters according to current voter list	58,364
Voters enumerated in pilot	35,583
Voters registered by pilot	34,569
Average voters registered per day by each registration unit	30.32
Days of registration	15 days

#### **Enumerated against Current List**

The door to door enumeration process registered 61% of the total number of voters on the current list. The lowest levels of enumeration against the current list were in the Himalayas (Salleri 35%, Salayan 47%) and Mid & Far West (Dang 55%, Dadeldhura 58%).

Whilst it was anticipated that enumeration would be lower than the current list due to migration and duplication, it was also anticipated that there would be a degree of balancing of the registration numbers due to the registration of 16 and 17 year olds.

The Himalayas, Mid West, and Far West areas are considered areas of high outward migration but more extensive research must be conducted to validate the large discrepancy seen in the pilot enumeration.

Other factors that must be considered as part of the analysis of the enumeration rates are:

- Efficiency of enumerators.
- Did enumerators visit every household?
- Efficiency of voter education programmes. Did voters know of the enumeration process and make themselves available in their household?
- Were voters interested in being registered?
- Did the requirement for citizenship certificate have an effect on the number of voters that could be enumerated?

- *Analysis must be conducted to validate the low enumeration rates in the Himalayan, Mid West, and Far West areas to determine the reason for low enumeration.*

### Voters Registered by Pilot

The number of voters digitally registered at registration centers through the pilot period was close to 100% of the enumerated voters. This indicates the willingness of enumerated voters to come to registration centers to complete their digital registration.

Several pilot locations registered over 100% of the enumerated population indicating that many voters came directly to registration centers to complete registration forms and be digitally registered. The reasons for this were that the voter was not available at the household during enumeration, or that they attained a citizenship certificate between the time of enumeration and opening of the registration center.

The rate of voter registration indicates that most voters registered in the first week of the opening the registration centers. No clear pattern emerged regarding specific day of the week, but registration centers were generally busiest in the early mornings and late afternoon.

The highest registration rates in the first week of registration were in the Himalayan region and Ramkot. The high registration rate in Ramkot was expected due to the semi-urban nature of the area and the high number of voters to be registered by each registration unit. The reason for the high registration rates in the Himalayan area is not clear.

Registration rates typically tapered off during the second week of the centers being opened and as full registration approached.

Rupendchi recorded only 84% registration of the enumerated voters within the registration period. A consistent level of registration was still being recorded up to the last day of registration indicating that if the registration center remained open beyond the designated period that voters may continue to present for registration.

- *Registration periods should remain flexible where enumerated voters remain to be registered.*
- *Consider leaving a small number of registration units in all localities beyond the designated registration period.*
- *The number of registration units in each location may be reduced in the second week if completed registration levels are high.*
- *The reason for the slower registration rate in Rupendchi must be investigated.*

An average of 30 voters was registered on each registration unit each day through the registration period. Whilst in some locations and in certain periods of the registration the rate was well above 40 voters per day per registration unit, these numbers are generally not sustainable through a full registration period due to the patterns of registration, relocation of registration teams, and training requirements.

### **3. Voter Education**

Voter awareness and education campaigns were conducted in the pilot areas using microphone, radio, poster, and pamphlet campaigns.

Most voters met in the registration centers understood that the registration was going on but did not understand why registration was important, why there was a new method of registration, and any linkage to National ID.

In the Sitapaila and Ramkot areas most voters heard of the programme initially through the microphone method.

Registration centers had little in the way of posters or banners and very few materials were displayed within the pilot areas or communities.

Most voters interviewed in the registration center supported the new registration process and believed that it will assist in protecting their entitlement to vote.

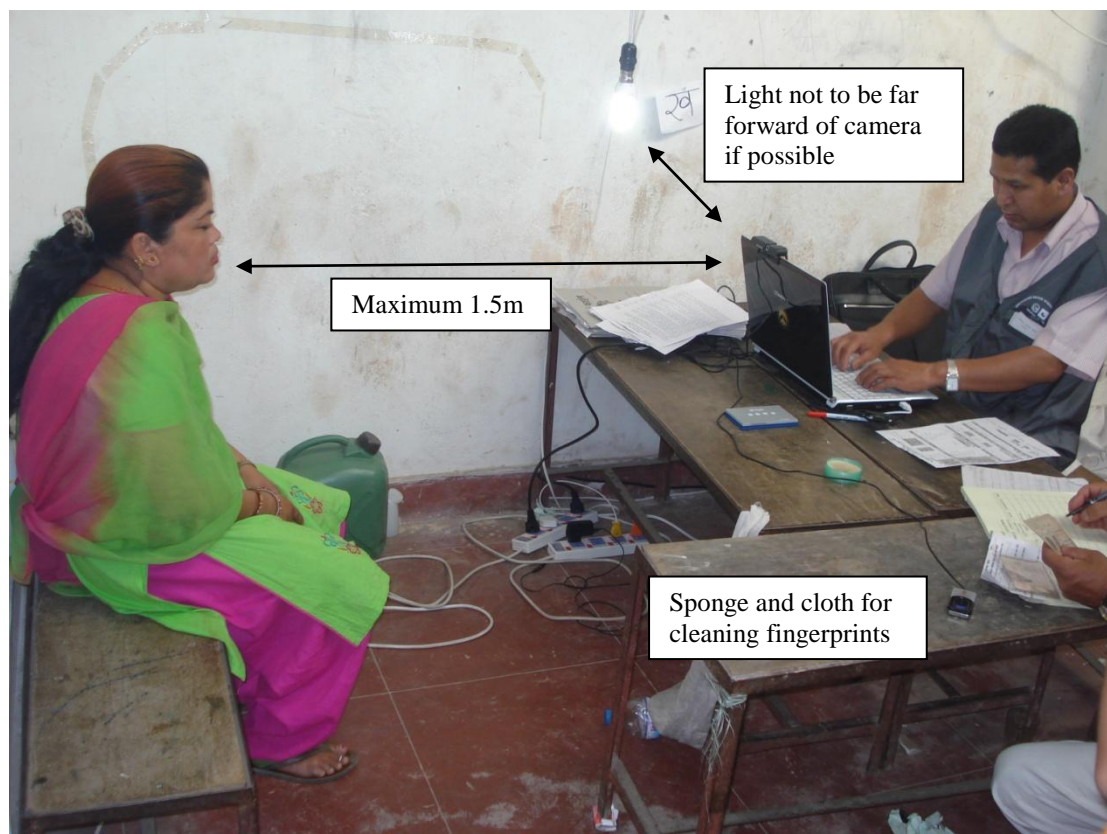
- *Refine the voter awareness/education campaign to provide more information on benefits of new registration process and linkages to other government initiatives.*
- *Find a way of using the positive experiences of voters from pilot areas in media and awareness campaigns.*
- *Use posters, banners, and other materials to create a more festive atmosphere in and around registration centers.*
- *Include information on citizenship requirements in all awareness campaigns.*

### **4. Set up and Operations**

Registration units were setup in various ways in different centers. This is both understandable and acceptable as the available space and infrastructure of each center will largely determine the options for establishing the registration units.

The most important factor in establishing each registration unit is to have the appropriate lighting for photograph capture. Natural lighting may appear in some locations to be sufficient for photo capture but shadow will appear across the voters face depending on the direction of lighting. This problem can be reduced by using the supplied electric lighting.

The following guidelines should be considered when establishing each registration unit.



## 5. Photographs

There are many inconsistencies in the standard of photographs being taken by data entry operators. This is particularly the case with the use of light and the positioning of the voter within the photo frame. The positioning of the voters face within the frame is critical for the use of photos for voter identification, National ID, travel documents, and the potential later utilization of facial recognition tools.



- *The data collection software must be adapted immediately (as per specifications) to include templates to assist with facial positioning.*
- *The template should be based on ICAO and ISO standards for travel document.*
- *All software modifications must be completed and tested prior to Himalayan registration.*

## 6. Fingerprint

Some issues are being experienced with the capture of fingerprints for citizens who have damaged fingerprints through long term manual labor. Each registration unit currently has the MegaMatcher AFIS software installed to develop fingerprint templates and to perform localized fingerprint matching.



- *Ensure that all registration staff have wet sponges and cloths available for fingerprint cleaning.*
- *Consider the requirement for AFIS software to be on all units. The scanner SDK may alternatively be used to develop templates and check print quality.*
- *Analyze data from the pilot to see the % of voters where fingerprints (one or more) were not captured.*

## 7. Signature

The capture of a clear and eligible signature is crucial for the National ID database. Whilst the registration procedures and budgets specify blank white paper and signature pen for signature capture, most operators during the pilot project were seen to capture signature directly from the registration form. This is not adequate for National ID purposes.



- *Each operator should have small pieces of plain white paper, approximately 25% of A4 size.*
- *Each operator must have black felt tipped pens suitable for the voter to sign the paper.*
- *This image must then be captured by the web camera using the clipboard to hold the paper still.*
- *Operators must ensure that the signature paper is held within the focal length of the camera to ensure clear capture.*

## 8. Pilot Project Data

The pilot project has developed a valuable resource of registration data and biometric information for almost 35,000 voters from seven VDC. At this point in time the district office server database application has not been completed so this data remains on registration units and backup media around the country.

It is essential that all data is consolidated at the ECN office in Katmandu ASAP. This is essential for the security and integrity of this data and to provide the opportunity for qualitative analysis of the data.

- *Consolidate all pilot data to ECN Kathmandu.*
- *Perform qualitative data analysis.*
- *Ensure that data for each district is pre-loaded onto district servers before they are deployed.*

Qualitative analysis of registration data should include:

- Quality of data including the completion of all data fields with logical data.
- Take samples of photographs from all locations to view quality and usability of images including lighting, shadow, focus, visibility of face, and positioning of the face in the photo frame.
- Clarity and legibility of signatures.
- The number and percentage of voter records with one or more missing fingerprints.
- Ensure that the number of data records received matches the reported enumeration and registration statistics for each area.
- Gender analysis to view % of male and female registration by locality.
- Age analysis to see the % of registration by location and age bracket. Analysis should be conducted to verify that this breakdown is logical by each location and reflects the patterns as determined by the latest census.
- Number of voters registered between the ages of 16 and 18.
- Analysis by name if possible.
  - Do male names appear with registered male voters?
  - Do female names appear with registered female voters?
  - Are name patterns logical, for example do common names appear frequently?
  - Do all voters have three names, or what % have less than three names?
  - Do voters surnames match their father's or grandfather's surnames?
- Perform AFIS (fingerprint) matching across data at the district and national level.
  - Report and review reported matches to ensure AFIS functionality based on recorded fingerprint data.
  - Review matching patterns and analyze against registration procedures.
  - Analyze performance of AFIS software and develop projections for time and resource requirements for later district and central level AFIS matching.

## **9. Process and Training**

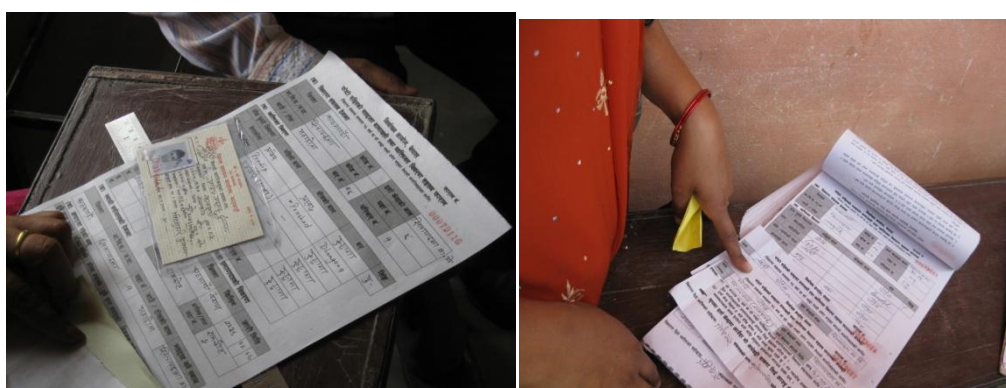
DEO from the pilot areas and Himalayan districts have received training from ECN in the new voter registration process. Discussions with various DEO indicate that they



now have a good understanding of the concepts and general processes of voter registration.

The pilot project has however highlighted some inconsistencies in the implementation of some of the detailed aspects of the project including registration unit setup and process, and the handling of forms and receipts. These inconsistencies can be expected in a pilot project, but must be addressed in training and procedural documents for the main project implementation.

- *Refine and further develop training and procedural documents to include clear and tangible guides for each step of the process.*
- *Circulate an instruction on registration unit set-up including detailed instructions on data, photo, fingerprint, and signature capture.*
- *Develop a training video on enumeration and registration center processes.*
- *Ensure that DEO have the opportunity to visit other registration areas before commencing operations in their own district.*



## 10. Staffing Levels

The ECN deployment strategy for the Himalayan area is based on the large number of smaller registration teams. Under this strategy teams will be working concurrently in a larger number of registration areas, but each team will be smaller and may comprise of one to three registration units.

The staffing configuration and budgets proposed for this project were based on teams of five or six registration units, and therefore a larger supervisory, management, and coordination requirement.

Smaller registration teams should therefore have reduced staffing, with perhaps from two to four staff members in each center. Each registration unit requires one computer operator and may be assisted by a second staff member or volunteer. One or two staff members are required to greet staff and assist in finding and allocating the voter's registration form.

If required, and depending on the distance between registration centers a supervisor could be responsible for more than one registration center.

- *Reduce staffing allocation for small registration centers.*
- *One supervisor may be responsible for more than one registration center depending on proximity.*

## 11. Configuration and Storage

ECN is about to receive a large allocation of equipment which must be received, registered, configured, and distributed. It is essential that all equipment can be tracked throughout the country and stored in appropriate and secure facilities.

The following processes and facilities must be implemented prior to the equipment arriving:

- Storage facilities must be prepared for the equipment. The facilities must be secure, dry, and have low levels of dust. The equipment should not be subject to direct sunlight and must be stored off the ground in wooden or metal shelving.
- Each piece of equipment must be marked as a project asset including description, model number, and serial number. The equipment must then be tracked throughout the country with a sign-off process each time the equipment is moved between districts.
- Each registration unit (carry bag) should have a visible external tag providing details of the equipment in the bag including model and serial number.
- A production line facility must be established to prepare and configure laptop computers for deployment. The project budget allocated a sum of up to \$10,000 to pay temporary staff (estimated to be 50) for this purpose.
- Configuration staff must sit in a well lit area and each have a DVD containing all required system and registration software and other training materials which must be preloaded to each registration unit.
- The configuration staff will follow these steps:
  - Receive each laptop and ensure that it is registered as a project asset.
  - Review the package to ensure that all accessories are included and functioning such as power cord, power supply, mouse, documentation, carry bag, drivers.
  - Power up the laptop using the power supply and attach all accessories to ensure functionality.
  - Receive a fingerprint scanner and web camera and connect to the laptop computer.
  - Use the provided DVD to upload the registration software and training materials.





- Test the software following standard procedures provided by the software vendor. Tests to include fingerprint and photographic functions.
- Disconnect the power supply to ensure battery operability.
- Record the model and serial numbers of the fingerprint scanner and web camera and pack in the provided laptop carry bag.
- Move the laptop to the storage facility designated for equipment available for deployment.

## ANNEX A – Pilot Registration Statistics

Location	Salleri	Salayan	Sitapaila	Ramkot	Rupendchi	Dang	Dadeldhura	Total	Day Rate
Reg Voters	4,377	4,547	5,888	5,046	13,287	12,441	12,778	<b>58,364</b>	
Reg Units	6	5	8	6	17	16	18	<b>76</b>	
Enumerated Voters	1,530	2,129	4,723	3,776	9,218	6,781	7,426	<b>35,583</b>	
Enum % of reg. Voters	35%	47%	80%	75%	69%	55%	58%	<b>61%</b>	
Registered									
12-Apr-10	276	245	243	231	547	566	678	<b>2,786</b>	36.66
13-Apr-10	245	336	321	279	599	639	757	<b>3,176</b>	41.79
14-Apr-10	314	357	300	307	542	355	1,116	<b>3,291</b>	43.30
15-Apr-10	237	201	335	343	779	591	1,039	<b>3,525</b>	46.38
16-Apr-10	221	190	330	354	701	663	1,107	<b>3,566</b>	46.92
17-Apr-10	80	223	496	469	729	526	1,020	<b>3,543</b>	46.62
18-Apr-10	58	203	394	370	716	531	549	<b>2,821</b>	37.12
19-Apr-10	25	204	496	303	502	519	312	<b>2,361</b>	31.07
20-Apr-10	12	83	350	302	418	398	211	<b>1,774</b>	23.34
21-Apr-10	8	77	299	244	464	333	202	<b>1,627</b>	21.41
22-Apr-10	11	13	233	171	308	307	84	<b>1,127</b>	14.83
23-Apr-10	16	5	149	149	329	328	293	<b>1,269</b>	16.70
24-Apr-10	24	26	254	245	390	309	274	<b>1,522</b>	20.03
25-Apr-10	40	33	180	123	338	428	89	<b>1,231</b>	16.20
26-Apr-10	24	21	215	176	399	98	17	<b>950</b>	12.50
<b>Total Registered</b>	<b>1,591</b>	<b>2,217</b>	<b>4,595</b>	<b>4,066</b>	<b>7,761</b>	<b>6,591</b>	<b>7,748</b>	<b>34,569</b>	
% of enumerated	104%	104%	97%	108%	84%	97%	104%	97%	
% of Reg Voters	36%	49%	78%	81%	58%	53%	61%	59%	
<b>Reg Rate/day/unit</b>	<b>17.68</b>	<b>29.56</b>	<b>38.29</b>	<b>45.18</b>	<b>30.44</b>	<b>27.46</b>	<b>28.70</b>	<b>30.32</b>	
Enum Voters/Reg unit	255.00	425.80	590.38	629.33	542.24	423.81	412.56	468.20	

Start Date           12-Apr-10  
 Current Date        27-Apr-10  
 Days of Reg           15

