



European Commission United Nations Development Programme International IDEA

***Joint Training on
Effective Electoral Assistance***

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Introduction to Electronic Voting

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Introduction to Electronic Voting

- ❑ Two main categories of e-voting**
- ❑ E-voting in controlled environments (EVM or DRE voting)**
- ❑ E-voting in uncontrolled environments (internet voting, PDA or mobile telephone voting)**



E-voting in uncontrolled environments

- ☐ **Internet voting is being piloted in more than 30 established democracies**
- ☐ **Estonia, October 2005, first country-wide elections with the possibility to vote through internet**
- ☐ **Tests on Internet voting have not given yet a definite answer on how to ensure the secrecy of the vote and eliminate the potential coercion exerted on remote voters**
- ☐ **Internet voting will soon be available for countries which enjoy a deep trust in their respective EMB and have a relatively conflict-free society, where the secrecy issue has a more limited weight than in other younger democracies, where the trust in the institutions and in the EMB might not be a given.**



E-voting in controlled environments

- ☐ **More than half billion voters in the world already use this form of voting in two of the most populous world democracies (India and Brazil)**
- ☐ **Does not present the same range of advantages normally attributed to uncontrolled internet e-voting (better turnout, enable voters' mobility, facilitate disadvantaged categories)**
- ☐ **It does not endanger the fundamental requisite of the secrecy of the vote**
- ☐ **It does offer some important answers on the issue of transparency through a development of various forms of auditing mechanisms. Possibility to introduce Voter Verified Audit Trails (VVATs)**
- ☐ **Increase in requests by EU partner countries**



Indian Voting Machines

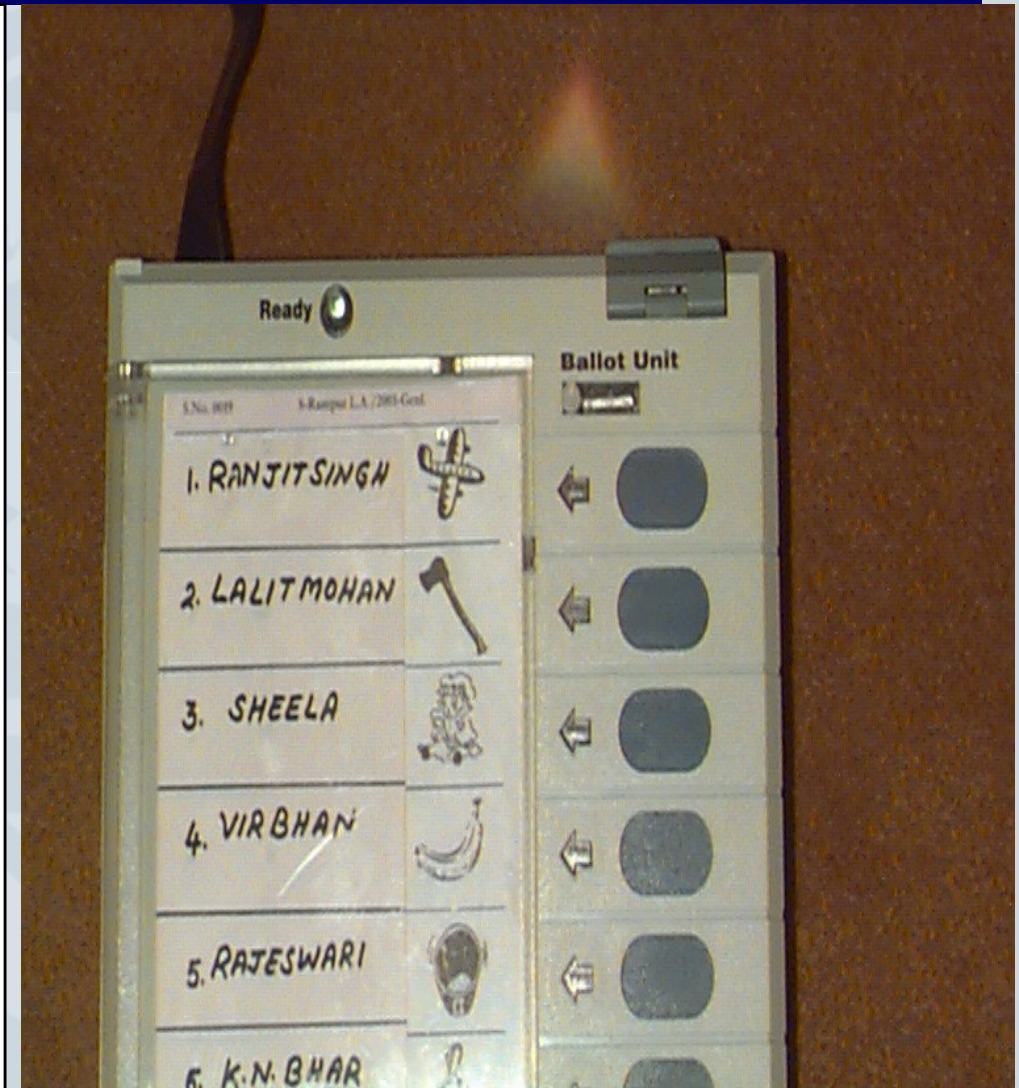
- Two sub units, control and **balloting**
- Linked with 5 meter long cable
- 7.5 volt single alkaline battery





Indian Voting Machines – Balloting Unit Detail

- Provision for conventional ballot paper
- Voting by pressing button *instead of* marking.
- Can be used for 64 candidates and 3840 voters.
- No provision for invalid votes





Indian Voting Machines

Control Unit Details

- **Manned by the PS Chair**
- **Displays the number votes who voted**
- **Informs the PS Chair of when the voter has voted**
- **Get the results by pushing the results button**





US voting machines 1





US voting machines 2





Brazilian Voting Machines





The Venezuelan voting machines

- **Touch Screen to support multiple electoral races**
- **Printer Attached to produce VVAT**
- **Two memories available**







The Venezuela Paradox

- ☐ **The extreme sophistication and high reliability of the voting system does not make up for the lack of trust in the EMB among several stakeholders**
- ☐ **The huge investment in technology has not been yet matched by a similar effort in capacity building and voter information**
- ☐ **The higher the distrust in the EMB, the higher the need for transparency and security measures**



Main consideration in favour of e-voting

- ☐ **Longer-term cost reduction**
- ☐ **Speed and accuracy of the results**
- ☐ **Potential turn-out increase**
- ☐ **Fraud prevention**



Main consideration against e-voting

- ☐ **Lack of transparency**
- ☐ **Increased training and voter information needs**
- ☐ **Vendor “dictatorship”**
- ☐ **Increased potential for central manipulation**



Issues for Discussion

- ☐ There is an inverse relationship between the degree of sophistication and security measures applied to EVMs and the degree of trust enjoyed by the EMB
- ☐ The key role played by independent auditing procedures
- ☐ What role observation can play in electoral processes using e-voting in controlled environment?
- ☐ E-voting in controlled environment with touch-screen machines producing VVAT appears to be the most reliable and transparent way forward for e-voting in developing countries. It will not be the cheapest option.