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<tr>
<td>Open Basic Education (Eco., Sci., Com.)</td>
<td>1000</td>
<td>30th June (every year)</td>
</tr>
<tr>
<td>Secondary (Eco., Sci.)</td>
<td>1500</td>
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<td>Vocational Education Programme (2 years)</td>
<td>2500</td>
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## STATE WISE TURNOUT FOR GENERAL ELECTION 2014

### Year
- 2014

### Turnout (in %)
- State A: 50.2
- State B: 47.8
- State C: 52.5
- State D: 45.3
- State E: 51.0
- State F: 44.7
- State G: 53.2
- State H: 46.9
- State I: 50.8
- State J: 48.4

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### Advertisement
- Advertisement for political parties and candidates.
- Advertisement for electoral reforms.
- Advertisement for election processes and regulations.
- Advertisement for election outcomes and impact.
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It is a well-worn cliché that ‘People get the leaders they deserve’. It perhaps hides and distorts as much as it reveals the real processes at work in a democracy. After all the closely intermeshed network of agencies and institutions through which democracy is actualised may appear like an enigmatic labyrinth with too many closed doors. The electoral process, in a way, if we may paraphrase Foucault, ‘makes windows where there were once walls’. While other institutions of democracy may be difficult to penetrate and change for the common people, the key to its pinnacle in the form of electoral process remains in the hands of masses. Herein lies the importance of the electoral process for democracy. Digging through the ruins of many a failed democracies and exploring the success of many others, it becomes obvious that the nitty-gritty of the electoral process could write the epitaph of democracy or infuse it with energy and vitality.

Just like currency in the economy, a political system is as valuable as people think it to be. Thus, trust of the people or legitimacy is the foundation on which any democratic system works. Participation of people in the electoral process is a crucial element of the legitimacy enjoyed by a political system. World is replete with examples where lack of participation of people in the electoral process has robbed the elected government of legitimacy and led to serious political crises in those countries. However, India has been an example of success in this aspect of democracy whether it be the implementation of the universal adult suffrage or bringing down the age of voting or a thriving participation in the institutions of local governance at Panchayat level. The recent round of general elections to the Lok Sabha has once again proved the strength of Indian democracy with the highest ever voting percentage since independence.

However, there are other elements of the electoral process which imbue meaning and value to the concept of democracy. Beyond the outer shell of democracy, defined by the electoral participation of people, there is an inner core which needs constant nurturing. It is self-evident that democracy can flourish only in an environment of openness, transparency, voluntary participation, freedom of ideas and personal liberty exercised without fear or inducement. The burden of ensuring such a system lies on the shoulders of the electoral process a country adopts. Apart from this, a strong democracy also requires the existence of robust institutions capable of safeguarding the fundamental values of democracy without getting sucked into the flux and flow of politics as it unfolds on the ground. Judiciary, Media and bureaucracy are among these institutions which invigorate and protect democracy not merely in its form but in terms of its real content also. It would be wrong to look at democracy simply as a given body of institutions and structures. It is actually a dynamic process which requires constant infusion of new ideas and activities to reflect the aspirations of people. Democracy, as it were, is forever an unfinished project.

Electoral reforms, in the wider context of the need for the deepening of democracy, thus acquires a central position in this project. The reality remains that Indian democracy has a long way to go before it rids itself of the demons of deviancy. This has been articulated quite forcefully on public forums by our political leaders which is a source of hope. It underscores the urgent need to engage with the dark alleys of corruption, money power and crime that could poison the tree of democracy. No matter what, the country will have to dig dipper into its moral reserve to administer the right medicine, even if bitter, for this malaise. Only by confronting the fatal weaknesses of our valued political system headlong can we hope to evolve and protect the deep self of democracy that touches the lives of the weakest in society and works as the transformative elixir. Let’s have no doubt—People deserve this!
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ELECTIONS IN India over the years have gone from strength to strength largely through a series of electoral reforms. Yet, there are still some areas of concern that need to be addressed.

Election law has undergone numerous amendments to meet the requirements of new challenges and changing situations. The path-breaking changes were the lowering of age for enrolment as elector from 21 to 18 in 1989, open ballot voting at elections to the Rajya Sabha and voting through proxy for voters belonging to armed forces and para-military forces in 2003. Provisions for enrolment of overseas Indian citizens in the electoral roll was made in the most recent amendment in 2011. Empowering the Commission to use electronic voting machines, conferring disciplinary jurisdiction on the Commission over the officers including police appointed for conduct of elections have strengthened the EC. Printed electoral rolls have now been substituted by computerised photo electoral rolls. The elector’s photo identity card (EPIC) is by now a cherished possession of all citizens.

Judicial Support

The Courts have also strengthened the hands of the Commission through their positive interpretation of the law. The first landmark judgment came in 1952 itself (NP Ponnuswamy vs Returning Officer, Nammakkal) in which the Supreme court ruled that the bar in the Constitution [Article 329(b)] against questioning elections except through election petitions, till the election process was completed. This was further elaborated by the Apex Court in 1978 in Mohinder Singh Gill vs Chief Election Commissioner and others, when it held that the bar against limitative challenges to electoral steps taken by the Commission and its officers was a blanket ban.

In 1995, in the case of Common Cause vs Union of India and others, the Court directed that the political parties had to file their income tax returns. In 2003, the Supreme Court, in another landmark judgment, ruled that the electors have the right to know their candidates. They have to file affidavits about their criminal antecedents, assets, liabilities and educational qualifications.

Election Commission’s Innovative Steps

Many reforms have come from the Election Commission itself.

The Model code of Conduct, initiated by political parties, was codified by the Commission, and put to strict implementation from...
the 1990s. The election law did not make any provisions for registration and recognition of political parties and allotment of symbols to them. But, the Commission took the initiative before the first general elections in 1951-52 itself to recognise political parties and to allot symbols. Later, the Commission issued the Election Symbols (Reservation and Allotment) Order, 1968, as the consolidated set of instructions. In the late Seventies, the Election Commission started to explore the possibilities of polling through voting machines and all elections to Lok Sabha and Legislative Assemblies are now being conducted using voting machines from 2000 onwards.

The appointment to this very important office should be based on wider consultation with an electoral college. However, it should apply only at the entry level when a new Election Commissioner is selected. The elevation to the position of CEC must strictly be by seniority, as in case of the Chief Justice of the Supreme Court. It will be useful to make the outgoing Chief Election Commissioner as one of the Members of the Collegium for the appointment of a new commissioner.

Towards the end of the 1990s, the Commission computerised the electoral rolls of all constituencies. For further improving fidelity of electoral rolls, the Commission started the institution of Booth Level Officer (BLO) for each polling station in the country.

For closer participation by the political parties in this exercise, every recognised party can appoint a BLA (Booth Level Agent) as a check on BLOs neutrality.

In 1993, to prevent bogus voting, the Commission introduced electoral photo identity card for all the electors.

From the 1990s again, the Commission has used the central Election Observers as a very effective tool for monitoring the process of elections, the deployment of central police forces, videography and posting of micro observers at sensitive polling stations.

**Emerging Concerns**

There are several areas where the people at large, civil society organisations, NGOs, social activists and political parties, are still feeling concerned.

Broadly, there are three sets of reforms proposed: (a) ones which will reinforce the independence of the Election Commission, (b) those which will help to cleanse politics, and (c) those which will make working of the political parties more transparent.

(a) Reinforcing independence of Election Commission of India:

Chief Election Commissioner and the Election Commissioners are appointed by the President, as per the advice of the Cabinet.

The fact that the government appoints the Chief Election Commissioner and Election Commissioners could in itself be a reason to suspect the neutrality of the incumbent. The appointment to this very important office should be based on wider consultation with an electoral college. However, it should apply only at the entry level when a new Election Commissioner is selected. The elevation to the position of CEC must strictly be by seniority, as in case of the Chief Justice of the Supreme Court. It will be useful to make the outgoing Chief Election Commissioner as one of the Members of the Collegium for the appointment of a new commissioner. While CEC cannot be removed except through impeachment, it is necessary to provide similar protection to the other Election Commissioners as well.

(b) Cleansing Politics:

**Criminalisation of Politics**

Concerned about criminalisation of politics, the Election Commission sent a proposal to the government in 1998 for debarring a person facing charges for serious offences from contesting election. Many political parties opposed this on the ground that false criminal cases may be filed by their opponent. The ruling parties may use this ploy to deny them electoral victory through this devious way. This concern is legitimate. However, EC had offered three safeguards: (1) Not all criminal cases will lead to the bar. Only heinous offences like, murder, dacoity, rape, kidnapping or moral turpitude, (2) the case should have been registered at least six months before the elections, and (3) the court should have framed the charges. Keeping the person away from contesting would be a reasonable restriction in larger public interest. The opponents of the proposal argued that jurisprudence followed in the country is that a person is deemed to be innocent until proved guilty.

**Government and Parliament are dragging their feet on such an important measure to cleanse our electoral system and remove the blot on our august Houses of Parliament and State Legislatures. This reform will take away the sting out of the attack of activists on politicians in general that paints all of them black.**

I have a counter point that about two-thirds of the people lodged in jails are under-trials, and not convicted, and are, therefore, ‘innocent’. Yet they are locked up in jails, denied of their fundamental rights of liberty, freedom of movement, freedom of occupation and right to dignity. If fundamental rights of an undertrial could be suspended, what is the fuss about temporarily suspending the right to contest election, which, incidentally, is only a statutory right.

It is really disappointing that Government and Parliament are dragging their feet on such an important measure to cleanse our
electoral system and remove the blot on our august Houses of Parliament and State Legislatures. This reform will take away the sting out of the attack of activists on politicians in general that paints all of them black.

(c) Enhancing Transparency of Political Parties

**Issue of Registration and De-registration of Political Parties**

Political parties are registered with the Election Commission under statutory provisions in the Representation of the People Act, 1951. One of the statutory requirements for a valid application for registration as a political party under Section 29A is that the constitution of the Party should contain an undertaking of allegiance to the Constitution of India and the principles of socialism, secularism and democracy, and to uphold the unity, sovereignty and integrity of India.

**One of the statutory requirements for a valid application for registration as a political party under Section 29A is that the constitution of the Party should contain an undertaking of allegiance to the Constitution of India and the principles of socialism, secularism and democracy, and to uphold the unity, sovereignty and integrity of India.**

Although the political parties, at the time of registration, bind themselves to follow the constitutional provisions and the principles of democracy, etc., there are no legal provisions enabling the Commission to take punitive action against them or to withdraw the registration in case of violation of such understanding.

The Commission had recommended an amendment to the law, empowering the Commission to regulate the de-registration of political parties.

**Inner Party Democracy**

One of the pre-conditions for registration as political party is a commitment to democratic process in its decision-making, and democratic elections to various offices and committees of the Party at prescribed periodic intervals.

The Election Commission, however, does not oversee their internal electoral process.

**Transparency in the Accounts of Political Parties**

The present law fixes a ceiling on the election expenses of individual candidates but not of political parties. Further, there is no regulation of the manner of raising and spending funds, nor are their accounts in public domain for scrutiny by the people at large. To bring transparency, the Commission has proposed that the accounts of political parties should be audited by the Chartered Accountants from a list specified by the Election Commission.

Furthermore, these audited accounts should be put in public domain.

**Right to Reject**

There have been proposals of late from social activists, seeking the right to the electors to reject all the candidates when they find none of them worthy through the provision of NOTA (none of the above). In 2013, SC granted this provision but not to create the right to reject.

‘None of the Above’ (NOTA)

The way the right to reject is to be operationalised is through providing a button on the EVM with ‘None of the Above’ (NOTA) option.

It is important to note that NOTA is not an endorsement of the right to reject. Even if 99 voters opt for NOTA, and only one voter for a candidate, for EC the candidate is the winner. The 99 voters are just blank, or ‘invalid’ votes.

The proposal of the Election Commission for NOTA option was to ensure secrecy of neutral or non voting.

**Right to Recall**

Right to recall is another electoral reform demanded by activists like Anna Hazare. In essence, Right to Recall is a mechanism for voters to unseat an elected MP or MLA by following the recall process. But this is fraught with the strong possibility that defeated candidates will resort to the tool immediately after they lose the election. In such a scenario, the...compulsion and democracy do not go together. The Commission is, therefore, of the considered view that enhanced voters' participation can be achieved through voter education, as amply demonstrated in the elections held in 22 states since 2010, besides the general election of 2014, crossing even 80% in some cases. These steps led to the highest ever turnout in sixty year electoral history.

The elected representative would not even get the time to settle down.

**Compulsory voting**

Another electoral reform often mooted is compulsory voting in response to chronic voter apathy, especially in urban areas. My consistent view has been that compulsion and democracy do not go together. The Commission is, therefore, of the considered view that enhanced voters’ participation can be achieved through voter education, as amply demonstrated in the elections held in 22 states since 2010, besides the general election of 2014, crossing even 80% in some cases. These steps led to the highest ever turnout in sixty year electoral history.

My consistent view has been that motivation and facilitation rather than compulsion should be the way to address the issue, has been clearly vindicated.

**Relevance of FPTP System**

Another emerging concern flowing from a low turnout is the candidates getting declared elected with just 10
per cent to 20 per cent of the total votes in their favour. This leads to the questioning the relevance of the prevalent FPTP system.

Elections to the Lok Sabha and legislative Assemblies, the lower houses of legislature, are held from single member territorial parliamentary and assembly constituencies, through direct election. The First-Past-the Post (FPTP) system is followed in these elections. Elections to Rajya Sabha and Legislative Councils are under the system of proportional representation through single transferrable vote. In the FPTP system followed in India, voters vote for one candidate from among those contesting candidates in their constituency. The candidate polling the highest number of votes among contesting candidates is declared elected. Per centage of votes of the winning candidate is irrelevant. Winner may or may not get absolute majority of votes. If two or more candidates poll the same number of votes, the winner is decided by draw of lots among such candidates.

The following are the advantages of FPTP system:

- It is easy to understand for electors.
- Counting is simple.
- Winner is known immediately.
- Voters can elect representative of their choice.
- There is an identified representative for each constituency, accountable to his electorate.
- All candidates get to know their relative support in the constituency.
- The system has given, by and large, stable governments at the Centre and in the states.

**Proportional Representation System**

The opponents of the First-Past-The-Post (FPTP) system advocate the introduction of Proportional Representation System, though they have not spelt out any details. The demand is becoming louder after the general election of 2014 when a party like the BSP ended up without a single representative despite over 20 per cent vote share. This does seem to create an anomalous situation.

The PR System has several variants. One such variant is single transferable vote, as followed in elections to the Rajya Sabha and State Legislative Councils.

**Misuse of Religion for Electoral Gain**

A Bill was introduced in the Lok Sabha in 1994 [R.P. (second amendment) Bill, 1994], whereby an amendment was proposed providing for provision to question before a High Court, acts of misuse of religion by political parties. The Bill lapsed on the dissolution of the Lok Sabha in 1996. The Commission has proposed that the provision in that Bill should be considered again as religious fanaticism is a serious threat to fair elections and needs to be handled with tough hands. Hate speech arousing communal tensions also need to be dealt with stringently.

**Paid News**

The scourge of paid news is a recent phenomenon. The Commission has proposed amendment in the Representation of People Act, 1951, to provide that publishing and abetting the publishing of ‘paid news’ for furthering the prospect of election of any candidate or for prejudicially affecting his prospect be made an electoral offence under chapter-III of Part-VII of Representation of People Act, 1951 with punishment of a minimum of two years imprisonment.

**Punishment for Electoral Offences to be Enhanced**

Undue influence and bribery at elections are electoral offences under Sections 171B and 171C, respectively, of the IPC. These offences are, however, non-cognizable offences, rendering the provisions virtually ineffective.

Under Section 171-G, publishing false statement in connection with election with intent to affect the result of an election, is punishable with fine only.

Section 171H provides that incurring or authorizing expenditure for promoting the election prospects of a candidate is an offence. However, punishment for an offence under this Section is a meager fine of Rs.500/-. This amount may have been a deterrent sixty years ago, but now is laughable.

These punishments were provided as far back as in 1920. Considering the gravity of the offences under the aforesaid sections in the context of free and fair elections, the punishments under all the four sections need to be enhanced and made cognizable, if they are to serve the intended objects.

There should be a ban on advertisements on achievements of the government during its last six months. Essential advertisements/dissemination of information on useful announcements like health related schemes, drought and flood measures, etc. could be exempted from the ban.

During the last four decades, there have been as many as seven national level committees and commissions who have given a number of suggestions on electoral reforms to cleanse the political system, not to speak of the Election Commission’s own recommendations and repeated reminders. All the aforesaid reforms have been pending with the government for ten to twenty years. Meanwhile, people’s faith in the political system has been going down. If the declining faith of the people in democracy is to be addressed seriously, the government must act urgently before situation gets out of control. Writing on the wall is clear. We only need to resume our blinkers.

(E-mail: syquraishi@gmail.com)
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YOJANA  July 2014
Electoral Reforms: A Peep in the Past and Look Ahead

Jagdeep Chhokar

Does the above sound familiar, contemporary? If it does, then you would be right and wrong both. Right, because this is how things are even today. And wrong, because it was written more than a quarter of a century ago, in May of 1990 in what has come to be known as the Goswami Committee Report, officially called the Committee on Electoral Reforms. It went on to say, “All these four decades, especially after 1967, the demand for electoral reforms has been mounting up.”

Following the “demand of electoral reforms” over four decades, the then Prime Minister, V.P. Singh called an all-party meeting on January 09, 1990, as a result of which a committee was set up under the chairmanship of Shri Dinesh Goswami, the then Law Minister, with some illustrious members, such as front ranking politicians Shri L.K. Advani, Shri Somnath Chatterjee, Shri Era Sezhiyan, and distinguished bureaucrats such as former Governor Shri L.P. Singh, and Former Chief Election Commissioner Shri S.L. Shakdher. The Goswami Committee made 107 recommendations. I do not have an exact count of how many of the 107 recommendations have been implemented, and to what extent, but it is clear that a very large proportion of these have not been implemented, or even considered seriously or considered at all.

The next important event in this regard, though not strictly directly...
referring to electoral reforms, was in 1993. This is what is popularly known as the Vohra Committee Report. It was prepared by Shri N.N. Vohra, then Home Secretary to the Government of India, who is now the Governor of Jammu and Kashmir. This committee actually consisted of five very senior officials of the government but the report was prepared by Shri N.N. Vohra himself. The committee was set up “to take stock of all available information about the activities of crime Syndicates/Mafia organizations which had developed links with and were being protected by Government functionaries and political personalities.”

The major contribution of the report, in the context of electoral reforms, is the coining of, or at least popularizing, the phrase “criminalization of politics and politicization of crime.” It was the first time that the effect of crime, organized and unorganized, on the electoral process was officially recognized, though not made public.

As far as is known, the report has not been made public but, given the open society that we are, it is freely available on the Internet, and its contents have not been denied. The major contribution of the report, in the context of electoral reforms, is the coining of, or at least popularizing, the phrase “criminalization of politics and politicization of crime.” It was the first time that the effect of crime, organized and unorganized, on the electoral process was officially recognized, though not made public.

The next formal attempt at electoral reforms was in 1998 in the form of what has come to be popularly known as the Indrajit Gupta Committee Report. This committee, officially called the “Committee on State Funding of Elections” was set up in 1998, again with a very distinguished membership including eminent leaders such as Shri Indrajit Gupta, Shri Somnath Chatterjee, Dr. Manmohan Singh, Prof. Vijay Kumar Mallhotra, Shri Digvijay Singh.

The Indrajit Gupta Committee report is about the most often quoted report on electoral reforms and it is always quoted to support state funding of elections. However it is worth noting the opening paragraph of the “Conclusion” of the report which says, “Before concluding, the Committee cannot help expressing its considered view that its recommendations being limited in nature and confined to only one of the aspects of the electoral reforms may bring about only some cosmetic changes in the electoral sphere. What is needed, however, is an immediate overhaul of the electoral process whereby elections are freed from evil influence of all vitiating factors, particularly, criminalization of politics. It goes without saying that money power and muscle power go together to vitiate the electoral process and it is their combined effect which is sullying the purity of electoral contests and affecting free and fair elections. Meaningful electoral reforms in other spheres of electoral activity are also urgently needed”

The next, and in my opinion the most important, document on electoral reforms till date is the 170th report of the Law Commission of India submitted to the then Law Minister, Ram Jethmalani, in May 1999. This report, titled “Reform of the Electoral Laws” was prepared by the 15th Law Commission chaired by Justice B.P. Jeevan Reddy, a retired judge of the Supreme Court of India. Given that piecemeal attempts had not yielded anything worthwhile, as we have seen, and given the complexity of our electoral system, the Law Commission was requested to take a comprehensive look at the entire electoral system in the country and suggest what reforms were needed to make the electoral system in tune with the needs of the society. The Commission did exactly that in a very comprehensive manner and studied all components of the entire electoral system before making their recommendations with detailed rationale and justification.

The Election Commission of India has been making recommendations to the Government of India from time to time about various reforms in the electoral system that the Election Commission cannot make within its own authority, some of which require making some changes in the Conduct of Election Rules 1961, the Representation of People Act, 1951, and other similar rules and legislations. While the government has made some of these changes from time to time but any major worthwhile changes have been consistently ignored. The
Election Commission compiled 22 of these ignored recommendations and the then Chief Election Commissioner wrote to the Prime Minister giving details of these recommendations on July 05, 2004, and published these on July 30, 2004 to put these in the public domain. There has been no specific reaction from the government to these recommendations.

Then came the report of the Second Administrative Reforms Commission in 2008 which also contained some significant observations on the electoral system, and made some serious recommendations for electoral reforms. Sadly, those recommendations have also not found favour of the government for implementation.

...the quality of our elections often gets questioned on account of certain weaknesses in our electoral process. Commission’s reform proposals have always aimed at addressing this predicament. Though certain minor reforms have been adopted by Government and Parliament, the substantial ones have been actually left out …”

Finally, on December 09, 2010, the then Law Minister, M. Veerappa Moily, and the then Chief Election Commissioner, S.Y. Quraishi, announced in a joint press conference that seven regional and one national consultation will be conducted to evolve a national consensus on electoral reforms, and that will be followed by a comprehensive new legislation on electoral reforms. The seven regional consultations were indeed conducted in 2011, in association with the ECI, the last one being held in Guwahati on June 05, 2011. These were to be followed by a national consultation for which time was never found. There were also reports that a draft bill on electoral reforms had been prepared and had been discussed by the Law Minister with the Prime Minister on more than one occasion. Then the Law Ministers kept changing and now the government has changed.

The latest episode in this continuing saga was the letter that the then, and outgoing, Chief Election Commissioner, Dr. S.Y. Quraishi, wrote to the Prime Minister on April 13, 2012, before demitting office on June 10, 2012. Dr. Quraishi was personally involved in extensive and repeated discussions with the then Law Minister, Veerappa Moily. Some excerpts from the letter, given below exemplify the frustration of those trying to improve the electoral system in the country:

“Hence allow me Sir, to place before you the Commission’s deep disappointment over the fact that a necessary legislation in this regard is yet to be materialised

...“However, the quality of our elections often gets questioned on account of certain weaknesses in our electoral process. Commission’s reform proposals have always aimed at addressing this predicament. Though certain minor reforms have been adopted by Government and Parliament, the substantial ones have been actually left out …”

“I would like to bring to your kind notice that some proposals which are of technical nature and require only amendment of Rules within the competence of the Ministry of Law and Justice, have also been pending for a long time.”

The above is a peep in the history of electoral reforms in the country for the last 47 years, since 1967. Let us now turn to where we are, what has happened, and what needs to, and can be, done.

Current Situation

The year 2013 was very significant as far as electoral reforms are concerned. There were a lot of developments, seemingly positive, emanating from the judiciary and quasi-judicial institutions. It started on June 03, 2013 when the Central Information Commission declared six national parties to be public authorities under the Right to Information (RTI) Act and directed them to appoint public information officers within six weeks of the decision.

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sitting MP or MLA is convicted of imprisonment of two years or more in a criminal case even by a lower court, his/her membership will stand terminated immediately notwithstanding him/her filing an appeal in any higher court. The court did this on July 10, 2013 by declaring Section 8(4) of the Representation of People (RP) Act as unconstitutional. Attempts were made to nullify this order by issuing an Ordinance to amend the RP Act but these attempts did not succeed and the decision stands. Three members of Parliament have been unseated as a result.

The next critical judgment also came from the Supreme Court on September 13, 2013, when, in a Public Interest Litigation (PIL) by a civil society organization called Resurgence India, the court declared that if a candidate leaves any column blank in the affidavit, which they have to submit as a necessary part of their nomination paper, the Returning Officer can reject the nomination paper. It was as a result of this judgment that some prominent
politicians ended up declaring some information in their affidavits in the 2014 Lok Sabha election, for which the columns had been left blank in the affidavits submitted in earlier elections.

Another significant judgment came on September 27, 2013, when the Supreme Court in a PIL filed by the Peoples Union of Civil Liberties (PUCL) directed the Election Commission of India (ECI) that a button for “None Of The Above” (NOTA) be introduced in the electronic voting machines (EVMs) so that a voter who does not wish to vote for any of the candidates contesting the election,

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can exercise her/his choice without the confidentiality of her/his vote being violated. The court explained the rationale behind their decision in very clear terms.

“Such an option gives the voter the right to express his disapproval with the kind of candidates that are being put up by the political parties. When the political parties will realize that a large number of people are expressing their disapproval with the candidates being put up by them, gradually there will be a systemic change and the political parties will be forced to accept the will of the people and field candidates who are known for their integrity” (Para 55).

The Supreme Court continued its efforts to improve the electoral system into the year 2014. On March 10, 2014, it gave its judgment in a PIL filed by the Public Interest Foundation directing all lower courts to decide criminal cases against sitting MPs and MLAs within one year and asking the concerned High Courts to monitor the progress in these cases.

Another landmark judgment followed on May 05, 2014 in what is now known as the Ashok Chavan Paid News case. Madhavrao Kinhalkar, who lost to Ashok Chavan in the Bhokar assembly constituency in Nanded (Maharashtra) in the 2009 Maharashtra State Assembly elections complained to the ECI that Ashok Chavan had under declared his election expenses as he has not included the amount he spent on “paid” supplements in the Lokmat newspaper. The ECI probed the complaint and issued a show cause notice to Ashok Chavan for declaring his election void under Section 10A of the RP Act. Chavan appealed the High Court and not succeeding there, to the Supreme Court claiming that Section 10A of the RP Act gave the ECI powers only to receive the election expenditure statement and not to scrutinize the statement of election expenditure. The Supreme Court did not agree with Chavan’s contention and upheld the power of the ECI to scrutinize the statement and to unseat the elected person if the statement was found to be incorrect. Action by the ECI is now on.

The Future

As will be clear from the above, civil society has been trying to do what it can, often seeking judicial recourse when nothing else seems to work. Even then, the Executive and the Legislature, in effect the entire political establishment, has been stonewalling all efforts to bring about any improvements in the electoral system.

It is not that the entire political establishment is perverse. What is more likely is that there is something like fear of the unknown or familiarity with the status quo that is making them resist any changes.

A new political dispensation is in power at the central government. The vibrant campaign for the Lok Sabha election in April-May 2014 saw many statements about electoral reforms being made. The issue of criminality of politics attracted a lot of attention. The current Prime Minister said more than once during the campaign that he will request the Supreme Court to ensure that pending criminal cases against any of the newly elected members of the Lok Sabha be decided within one year, so that those found not guilty and acquitted are relieved of the stigma and that he would ensure that those who are found guilty and convicted are removed from the Lok Sabha, so that the country can be justified of a Lok Sabha free of any member with a pending criminal case.

The results of the Lok Sabha election did not bring reassuring news. The 2014 Lok Sabha has 186 members who have declared in their sworn affidavits that criminal cases are pending against them. This is disconcerting as the similar numbers for the 2004 and 2009 Lok Sabhas were 125 and 162 respectively. One year of the new Lok Sabha will be over on June 03, 2015. If on June 04, 2015, there is no one sitting in the Lok Sabha who has any criminal case pending against him/her, the new Prime Minister would have fulfilled his campaign promise and made the country proud.

Endnotes

The affidavits were introduced in 2002-03 as a result of PILs by the Association for Democratic Reforms in the Delhi High Court and the Supreme Court. The judgments can be seen at http://adrindia.org/sites/default/files/Supreme_Court’s_judgement_13th_March_2003.pdf. This was another case where the Executive and the Legislature tried their best to undo an initiative of civil society for electoral reforms that the Judiciary had upheld but finally the Judiciary prevailed.

(E-mail:jchhokar@gmail.com)
The Performance of Agriculture in India is important as the sector not only contributes to overall growth of the economy but also provides employment and food security to majority of the population in the country. The 11th and 12th Five Year Plans also indicate that agricultural development is an important component of inclusive growth approach.

There are three goals of agricultural development. These are: (a) achieve 4 per cent growth in agriculture and raise incomes by increasing productivity (land, labor), diversification to high value agriculture and rural non-farm by maintaining food security; (b) sharing growth (equity) by focusing on small and marginal farmers, lagging regions, women etc.; (c) third is to maintain sustainability of agriculture by focusing on environmental concerns.

What are the policies needed to achieve the above goals? There are basically seven factors which need attention in the short and medium terms. These are: (a) price policy; (b) subsidies and investments; (c) land issues; (d) irrigation and water management (e) research and extension; (f) credit; (g) domestic market reforms and diversification.

Institutions have to be developed in all these aspects. There are also emerging issues like climate change and agriculture-nutrition linkages.

We concentrate on four policy issues. These are: (a) Food management for reduction in food inflation; (b) Agriculture marketing reforms; (c) climate change; (d) agriculture-nutrition linkages.

How to Reduce Food Inflation?

Food inflation is nearly 10 per cent now based on consumer price index (CPI). There is an urgent need to reduce food inflation with various policies. The rice and wheat stocks with the government are much higher than the optimum buffer stock. Because of this, cereal prices are still high in the open market. There is a need to offload cereals from the buffer stock in the open market in order to reduce cereal prices. There has been a significant increase in MSP between 2004–05 and 2013–14. Keep on increasing MSP is not the solution. Yields have to be increased to reduce cost of production so that MSP does not have to be raised too much. Apart from cereals, the recent episode of food inflation was witnessed mainly due to rising price of perishable goods.

A big push is needed for reforms in supply side for agriculture. Similarly demand factors also have to be addressed. Given the short run and structural long term problems in agriculture, the government should give large push to core issues to make cultivation viable and profitable. There is a need to concentrate on delivery systems also. India’s large numbers of farmers can benefit if there are right policies and effective implementation.

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high value commodities, i.e., fruits, vegetables, egg, fish, meat and milk. Therefore, for taming of food inflation supply of non-cereals have to be enhanced. Livestock occupies 25 per cent of total value of agricultural output. This sector also needs focus for reduction in food inflation.

Another policy needed relates to storage problems and high post harvest losses. Improved post-harvest handling and processing is essential to reduce the prices. Efficient marketing with less market margins and wastage specifically for fruits and vegetables, and dairy will require better transport facilities and cold storages. Presently these are lacking in a big way. Food processing sector needs huge investments in logistics for supporting the value chain from farm to plate.

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Opening of exports and imports can moderate food prices. Tariffs can be reduced so that higher imports of food items such as pulses, oilseeds, fruits and vegetables, meat etc. can be facilitated. Thus, trade is an important instrument for reducing food prices.

One of the reasons for the gap in supply and demand of agricultural commodities is lack of information. One has to identify critical areas of shortage and surplus and the information will help in shifting commodities from surplus to deficit areas.

**Not Production but Agriculture Marketing is the Problem**

There is a huge gap between the price received by farmers and prices paid by the consumer particularly for fruits and vegetables. For example, sometimes farmers receive Rs.1 per kg of tomatoes while consumers pay Rs.40 per kg in cities. There are a number of distortions in agricultural marketing in India. Particularly, the need for reforms in APMC (Agricultural Produce Marketing Committees) is well known. There is need to reduce intermediaries and make necessary reform in APMC Model Act to keep fruits and vegetables out of it. These reforms were found to be taking place in bits and pieces in various states and their pace and uniformity has been slow and uneven. Incentives for states to ensure APMC reforms for direct buying from farmers have to be explored. *Apni Mandi* in Punjab, *Rytu Bazars* in Andhra Pradesh, dairy cooperatives are some of the successful cases in marketing. There is need for regulation to avoid speculation.

**Impact of Climate Change**

Climate change is a major challenge for agriculture, food security and rural livelihoods for millions of people including the poor in India. Adverse impact will be more on small holding farmers. Climate change is expected to have adverse impact on the living conditions of farmers, fishers and forest-dependent people who are already vulnerable and food insecure. Rural communities, particularly those living in already fragile environments, face an immediate and ever-growing risk of increased crop failure, loss of livestock, and reduced availability of marine, aquaculture and forest products. In order to have climate change sensitive and pro-poor policies, there is a need to focus on small farmers. Agriculture adaptation and mitigation could provide benefits for small farmers. The coping strategies would be useful to have long term adaptation strategies. There is a significant potential for small farmers to sequester soil carbon if appropriate policy reforms are implemented. The importance of collective action in climate change adaptation and mitigation is recognized. Research and practice have shown that collective action institutions are very important for technology transfer in agriculture and natural resource management among small holders and resource dependent communities.

There is a need for climate-smart agriculture which contributes in: (i) "promoting sustainable increase in agricultural productivity by incorporating climate change perspective (including drought), (ii) building adaptive capacity and resilience to production portfolio to climatic risks without compromising food security, and (iii) minimizing green-house gas emissions and maximizing carbon sequestration by improved management practices" (Joshi and Aggarwal, 2014, p.1). Joshi and Aggarwal suggest four measures for climate-smart agriculture. These are: (a) Climate-smart technologies; (b) Capacity building of key stakeholders (c) ICT based weather advisory (d) Weather Index Insurance. Efforts need to be made to transform each village a climate-smart to synergize these interventions.

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**Agriculture-Nutrition Linkages**

In India, the linkage between agriculture and nutrition is less explored area as compared to other subjects. Agriculture growth in India has been much less than those of industry and services. But, there is potential for higher agricultural growth and this can reduce malnutrition. As mentioned by Gillespie and Kadiyala (2011) "agricultural initiatives alone..."
cannot solve the nutrition crisis in India but they can play much bigger role toward that end than they have done thus far” (p.1). The linkages between agriculture and nutrition are: (1) Equitable growth in agriculture including diversification; (2) food prices and diversification; and (3) women in agriculture. In the end we also discuss the need for convergence of different departments, policies, implementation for reducing malnutrition as it requires multi-sectoral approach.

**Equitable Growth in Agriculture**

One of the reasons for the disconnect between agriculture and nutrition is inequalities in agriculture. Agriculture development is part of any inclusive growth strategy in India because the majority of the population depends on agriculture for its livelihood. However, inequalities in agriculture can weaken agriculture-nutrition linkages. According to Dev and Kadiyala (2011), “Inclusiveness and equity in agriculture can be achieved by increasing agricultural productivity in rainfed and resource-poor areas, thereby raising the productivity and income of small and marginal farmers” (p.1). The shift of consumption patterns toward non cereals presents a good opportunity for small farmers to diversify their cropping patterns in order to improve both income and nutrition.

**“Inclusiveness and equity in agriculture can be achieved by increasing agricultural productivity in rainfed and resource-poor areas, thereby raising the productivity and income of small and marginal farmers” (p.1).** The shift of consumption patterns toward non cereals presents a good opportunity for small farmers to diversify their cropping patterns in order to improve both income and nutrition.

Do small and marginal farmers grow high-value and protein-rich crops? In terms of production, small and marginal farmers have a larger share in the production of high-value crops. They contribute about 70 percent to the total production of vegetables and 55 percent to fruits, as compared with their share of only 44 percent of total land area (Birthal et al 2011). It may be noted that overall diversification is still low although share of small farmers is higher than other farmers. There is still scope for lot of diversification for small farmers.

Small-scale farmers will remain an important part of Indian agriculture for years to come. It is known that these farmers find it difficult to access input, credit, extension, and marketing opportunities for their output. The National Commission for Enterprises in the Unorganized Sector (NCEUS 2009) suggested special programs for small and marginal farmers. Principal activities proposed include the promotion of marginal and small farmers’ groups; enabling greater access to institutional credit, training, and capacity building; support for strengthening nonfarm activities; and gender-focused activities.

Using NCAER Human Development Survey, Bhagowalia et al (2013) examine the agriculture-nutrition linkages. Their results suggest the following.

(a) Agricultural production conditions have substantial influence on household dietary diversity. Specifically, irrigation has a substantial impact on dietary diversity for marginal and small farms (b) Ownership of milk-producing livestock (cattle, buffalo, and goats) also predicts much higher household milk consumption, even after controlling for income. (c) Poultry ownership increases meat consumption.

Their results suggest that agricultural programs aimed at irrigation, livestock ownership, and crop diversification all have some scope to increase dietary diversity in India.

**Women in Agriculture**

As mentioned in Dev and Kadiyala (2011), “Realigning agriculture policy to empower women in agriculture is essential for accelerating reduction in under nutrition in India” (p.2). Agriculture is becoming increasingly feminized as men migrate to the rural nonfarm sector.

Despite their importance, women are continually denied their property rights and access to other productive resources. Policies that protect women’s rights in land, enhance infrastructure support to women farmers, and give them legal advice on existing laws will facilitate the recognition of women’s role as farmers and enable them to access credit, inputs, and marketing outlets. Urgent correction is needed in the existing profound gender bias in institutions for information, extension, credit, inputs, and marketing; such institutional processes also need to take into account women’s mobility, domestic responsibilities, and social constraints.

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Women are also predominant in allied activities such as livestock, fisheries, horticulture, plantation, and nursery. Growth of these activities will be important for the diversification of agriculture and in the improvement of diets. Although women contribute 50 to 90 percent of the labor inputs, the livestock development, training, and extension programs are designed primarily for men (GOI, 2007). Women’s cooperatives, producer women’s groups, and other forms of group efforts should be promoted to overcome the constraints of small and uneconomic landholdings, to disseminate agricultural technology and other inputs, and to help market produce (Agarwal 2010).
Policy initiatives are critically needed to address the conditions (for example, prolonged exposure to fertilizers and pesticides, long working hours) under which women are employed and to create support systems to strengthen women’s capacity to care for themselves and their children. Easy access to maternity entitlements, as well as optimum quality daycare facilities—either within the community or at the place of work—are also critical for strengthening families’ caring capacity and translating higher incomes into health and nutrition benefits (Dev and Kadiyala 2011).

Convergence of Programmes and Policies

It is well known that for reducing malnutrition, India requires multisectoral inputs—that is, convergence and intersectoral actions involving the fields of nutrition, health, agriculture, livelihoods, and women’s empowerment (Ved and Menon 2011).

In agriculture policies, there has been hardly any convergence with other sectors. One finds more convergence between health and nutrition than between agriculture and nutrition.

In general, government ministries at both the central and the state level work in “silos.” The silo mentality works against not only inter sectoral convergence but also intra sectoral convergence. In recent years, however, the thinking on convergence has been changing. The nutrition chapter of the Eleventh Five Year Plan, for example, envisions convergence of several departments, including the Ministry of Agriculture. Similarly, the chapter on women’s agency and child rights in draft Twelfth Five Year Plan calls for a multi-sectoral action for children and women. It lists actions to be taken for 20 ministries.

Concluding Remarks

There is a need for improvement of resilience in agriculture which can take care of shocks and risks. The medium

Endnotes

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ELECTION FOR the sixteenth Lok Sabha in India has recently been completed and a new government has already sworn in. Regular conduction of such elections, often leading to defeats of the political party or parties in power, is one of the major achievements of post-independent India. These largely free and fair elections have given Indian democracy a lot of credibility among its citizenry and increasingly, in the entire world. Naturally, to many other countries that want to strengthen democracy, Election Commission of India (ECI) and the legal framework within which it functions has become a kind of benchmark.

Stakes in elections are typically huge and all political parties and groups are acutely aware of this fact. While the institutional framework under which elections in India are conducted are apparently sound, there is a clear scope of improvement. As the external environment changes, unsavory and criminal activities also change. In order to be effective, the regulatory process should ideally preempt those activities from actually happening and that is possible only through continuous monitoring and reforms.

This essay is neither a summary, nor a critical review of Indian electoral reforms. Several experts and expert groups have already contributed to this subject and as a result, the academic literature on it has become voluminous. A summary of these weaknesses and policy measures that could tackle them are available in the background paper on Indian electoral reforms. In any democracy, reform efforts should be discussed and debated openly and in line with this tradition, the background paper is also available in the public domain.

This essay attempts to highlight an aspect of the Indian electoral process that has, so far, been comparatively less discussed. We observe that compared to the Lok Sabha election in 2009, number of candidates in 2014 election has increased marginally (from 8069 in 2009 to 8251 in 2014). Electoral history in India, however, suggests that unless the Representation of the People Act is changed, number of candidates will have an increasing trend in future. It is also predicted that if unchecked, many constituencies in future elections will have more than 16 candidates, causing
difficulties in electoral management. More than 16 candidates not only mean more regulatory efforts on the part of the electoral authorities. Operationally, electoral authorities would also require more than one EVM machines in every booth of those constituencies.

Electoral statistics in India supports our claim. Since 1980s, the total number of candidates in many Lok Sabha constituencies crossed 50 and in a few cases, even 100. The number of candidates peaked in 1996. During Parliamentary elections in 1996, Nalgonda constituency in Andhra Pradesh and Belgaum constituency in Karnataka had 480 and 456 candidates respectively. During the same year in the assembly election in Tamil Nadu, Modakurichi assembly constituency had 1033 candidates. In each of these cases, 

...the impact of fringe candidates should not be judged by their electoral success alone. The issues that they raise and fight for often change the nature of the electoral debate and force the incumbents to change their behavior. As per this view, artificial restrictions on electoral entry choke the voices of dissent and as a result, diversity of opinions – so necessary in a democracy suffers at the cost of manageability. Some political scientists also argue that attempts to artificially restrict electoral participation had never succeeded and had generally been counter-productive in the long-run.

Unfortunately, regulatory agencies worldwide sometimes tend to arrive at policy positions without a proper theoretical framework that attempts to explain why a high number of candidates have suddenly appeared or could appear. An unintended consequence of this is often an articulation in favor of extreme positions like banning the entries of the so called “non-serious” candidates.

Given the hyper-plurality of such “non-serious” candidates, it is natural to examine the motive behind their participation. Although electoral participation could be a form of protest against incumbent politicians, in most cases, the root of that motive may lie in the manipulative and authoritarian nature of Indian political parties. The manipulative nature manifests in fielding of clone candidates (“dummies”) to divide the votes of major rivals. When two or more political parties engage in such cynical maneuvers simultaneously, there could be a sharp rise in the number of candidates in a constituency. Similarly, an ‘authoritarian’ candidate selection process within a political party may lead to a lot of rebel candidates, increasing the total number of candidates further.

An interesting example of cloning is to float a candidate that has the same or very similar name of a rival. It may be noted that although one may suspect of unfair play, it is very difficult to “prove” that candidates with similar names are clones. Some of these candidates may, in fact, be free riders. Electoral authorities may, however, draw conclusions based on circumstantial evidences. First, a clone candidate is likely to file nomination at the last moment because of fear of retaliatory tactics from rivals. Second, a clone candidate with same name as one of the major candidates is unlikely to spend any time in campaigning as campaigning would make the electorate aware about the presence

Whether free rider or a clone, legally one cannot prevent these candidates from participating in elections. The best policy in this case, arguably, is information dissemination. Ideally, electoral authorities should disseminate in every booth the information that there are candidates with same or similar name. As this unsavory practice is aimed primarily at literate voters, written notices or banners in booths are likely to be adequate.

of such candidates. In contrast, a free-rider with a similar name is likely to spend some time in campaigning because otherwise he/she will not be
able to extract any rent out of that election. Presence of free-rider with similar candidate name, however, may trigger a full scale “clone” war among major political parties.

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The problem of large number of candidates and the consequent malpractices bothered Indian electoral authorities for a long time in India. The ECI had time and again articulated the possibility that major political parties had surreptitiously floated fringe candidates for their

...current level of deposit in India is extremely high compared to the international benchmark. Deposit required is about one third of annual per-capita income in current prices in India, whereas in countries like the United Kingdom, Canada and Australia, it is typically less than two per cent of the same. More worryingly, for effective deterrence on continuous basis, India may have to sustain deposit at this high level and that could discriminate political participation of genuinely underprivileged groups (say, the tribal population in a locality).

Unfortunately, the policy tool of signature requirement has not been used in India on a scale like deposit. The current requirement of only ten signatures for fringe candidates can be easily met by a candidate from his

...the reason behind the sharp rise in the number of candidates during the late 1980s and early 1990s was not just political uncertainty, but also that the financial cost of participation of potential candidates was low during that period. Electoral data reveal that the post-1996, increase in deposit had a significant short-term impact on candidate entry in India.

or her own family and close circle of friends. Interestingly, signature requirement, when considered as a proportion of total number of electors in a typical Lok Sabha constituency, is low in India compared to the international benchmark. A further increase of the minimum signature requirement, say to the level in Australia where all non-incumbents need at least fifty signatures, would not increase the cost of conducting elections substantially.
Interestingly, the US experience suggests that a local approach on signature requirement could also be an effective tool in controlling candidate entry. For example, if the number of candidates in a constituency exceeds a certain cut-off limit (say, 30), the electoral act should enable the ECI to change the minimum signature requirement up to a pre-specified limit (say, 100) for all fringe (e.g., candidates other than those of recognized national and state parties). Since collection and verification of signature requirement would take time, fringe candidates in those constituencies may be given some more time (say, 7 days) to demonstrate support failure of which would lead to cancellation of their nomination. Clearly, the timeline of the electoral process also needs to be adjusted accordingly.

India has so far not experimented much with signature requirement. Signature requirement, in contrast to electoral deposit, is more in line with the spirit of democracy as it does not discriminate the poor. Obviously, strengthening this requirement would need a change in the Representation of the People Act.

The crucial question is: whether the change would take place at all. Interestingly, even Indian political parties sometimes realize that their cynical maneuvers are not only hurting their rivals, but also themselves. In the past, they came together to enact tough anti-defection laws precisely because it was in their own interest to do so. One can only hope that they will behave sensibly one more time.

Endnotes
4 For example, in a survey of 52 democracies, it was found that 18 explicitly restricted participation of independent candidates in elections at the national level. See Dawn Brancati, “Winning Alone: The Electoral Fate of Independent Candidates Worldwide”, Journal of Politics, Vol. 70, 2008, 648–662. 
(E-mail: kbhattacharya@iiml.ac.in)
The Electoral Participation of Women

Lakshmi Iyer

The Women’s Reservation Bill, which seeks to reserve one-third of all seats in the Lok Sabha and the state legislatures for women, is yet to become law despite being passed by the Rajya Sabha in 2010 itself. Other pending reforms to the electoral system include the Constitution (110th Amendment) Bill for reserving half the seats in panchayats for women and the Constitution (112th Amendment) Bill reserving one-third of elected seats in municipalities for women. Will such changes to India’s electoral democracy in fact benefit women as a whole? How can women’s political representation be increased? In this essay, I provide some answers to these questions, based on rigorous empirical research.

In this context, we should remember that India has a poor record on the treatment of women. The United Nations ranked India 134th out of 187 countries in its 2012 Gender Inequality Index. Several statistics bolster this fact. The 2011 population census of India shows only 940 women per 1000 men, a result of selective abortion, female infanticide and neglect of girl children. Only 65 per cent of women were literate, compared to 82 per cent of men.

Several recent cases of horrific sexual assaults have rightly generated a sense of outrage among Indian citizens. India’s crime statistics recorded 2,28,650 First Information Reports (FIR) registered for rapes in 2012 or a rate of 0.39 rapes per 1000 women, which is much lower than the 0.54 rapes per 1000 women reported in the United States. This is most likely a result of many crimes against women not being registered, either because the victims do not approach the police or because the police refused to register FIRs for gender-based crimes. For instance, rape cases are often characterized by policemen as cases of consensual sex, and kidnapping cases are not registered if policemen are of the opinion that the woman has eloped. A study in the state of Rajasthan found that only 50 per cent of sexual harassment cases and 53 per cent of domestic violence cases were registered by the police and that too when a male relative tried to report it on behalf of a female victim (Banerjee et. al., 2012).

On the other hand, India also boasts of having the largest number of elected women representatives in the world, thanks to the 1993 Panchayati Raj constitutional amendment. This mandated that all states had to constitute directly elected councils at

How can parties be encouraged to field more women candidates? And how can a political career be made more attractive/welcoming to women? Panchayati Raj reforms, are a step in the right direction but more needs to be done to address both the political under-representation and the socio-economic disadvantages faced by women in India.

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the village, intermediate and district levels (panchayats, panchayat samitis and zila parishads, collectively known as Panchayati Raj Institutions or PRIs). Further, one-third of all seats in these councils, and one-third of chairperson positions, were to be reserved for women. This is a dramatic increase in the representation of women in political office. By comparison, in a setting in which there are no quotas for women, only 5.9 per cent of Vidhan Sabha members over the past three decades have been women.

How does the increased political representation of women affect crimes against women? To find out, my coauthors and I leveraged the fact that different states in India conducted Panchayati Raj elections at different time periods. For instance, West Bengal instituted the 33 per cent reservation for women in the 1993 Panchayat elections, even before the constitutional amendment was officially in force. But Bihar conducted its first Panchayati Raj election only in 2001, since a lawsuit had been filed regarding the representation of Other Backward Castes (OBCs) in Panchayati Raj institutions (PRIs).

We compared crimes against women in each state before and after the elections which elected women in large numbers to the PRIs, using data from the National Crime Records Bureau. We found, to our initial surprise, a large increase of 26 per cent in the documented crimes against women after the increased political representation of women. This included an 11 per cent increase in the number of reported rapes and a 12 per cent increase in the kidnappings of women (Figure 1).

Notes: Crime data obtained from annual Crime in India publications of the National Crime Records Bureau, New Delhi. Crime incidence is measured as number of crimes per 1000 population (gender-specific population for gender-specific crimes). Total crimes against women includes rape, kidnapping of women and girls, dowry deaths, sexual harassment, molestation, cruelty by husbands or relatives, importation of women and girls, prostitution, pornography, giving and receiving dowry and sati (widow-burning). Results control for demographic characteristics, real per capita state GDP, policy strength per capita, state and year fixed effects and state-specific time trends.

Could this simply be the result of electing relatively inexperienced women leaders and a consequent decline in law and order? This does not appear to be the case. We do not see any similar increases in crimes where the victims are men (such as kidnapping, which is reported for men and women separately), or crimes which are gender neutral (such as property crimes). More tellingly, we also do not see any increases in murder rates after the implementation of Panchayati Raj—the crime category where under-reporting is least likely to be a problem. In fact, we see decreases in the incidents of all these crime categories (Figure 2).

Notes: Crime data obtained from annual Crime in India publications of the National Crime Records Bureau, New Delhi. Crime incidence is measured as number of crimes per 1000 population (gender-specific population for gender-specific crimes). Results control for demographic characteristics, real per capita state GDP, policy strength per capita, state and year fixed effects and state-specific time trends.

The fact of increased reporting of crime, rather than an actual rise in crimes against women, is corroborated by our analysis of an individual crime victimization survey.
Women in villages with female panchayat heads reported greater satisfaction with the police and a lesser likelihood of being asked to pay bribes. Again, there was no difference in the experience of men. Most importantly, we find that arrests for crimes against women increased by 31 per cent in a state after Panchayati Raj elections were held, particularly for the kidnapping of women. This is an important first step towards obtaining justice for these crimes.

We find evidence that police behavior is also changed by the presence of local women leaders. A nationwide survey assessed actual interactions of women and men with the police. Women in villages with female panchayat heads reported greater satisfaction with the police and a lesser likelihood of being asked to pay bribes. Again, there was no difference in the experience of men. Most importantly, we find that arrests for crimes against women increased by 31 per cent in a state after Panchayati Raj elections were held, particularly for the kidnapping of women. This is an important first step towards obtaining justice for these crimes. This result is particularly notable because the PRIs do not have any formal authority over the police. Law and order is not among the list of functions to be devolved to PRIs, and decisions on police budgets and staffing are decided by the state government.

Several other studies find that elected women to political office results in benefits not just to women, but to society as a whole. Having more women in Indian state legislatures leads to improvements in infant mortality rates (Bhalotra and Clots-Figueras, 2013) and primary school completion (Clots-Figueras, 2013); a similar result is observed in Brazil, where female mayors act to reduce infant mortality rates (Brollo and Troiano, 2012).

Given these positive results, it is important to understand why there are so few elected women representatives in the first place, and what measures can be put in place to ensure women’s greater representation. We should note that women’s participation as voters has increased dramatically over time. In the 1962 Lok Sabha elections, women’s voter turnout was only 46.6 per cent compared to 63.3 per cent of men. In the most recent 2014 Lok Sabha elections, women’s voter turnout was only 1.46 per cent lower than that of men. In fact, more women than men turned out to vote in nine states/UTs. However, women’s representation in the Lok Sabha has only increased from 6.3per cent in 1962 to 11.3 per cent in 2014.

An important barrier to women’s political representation is women’s participation as political candidates. Using data from Vidhan Sabha elections over the period 1980-2013, I find that only 5.9 per cent of India’s state legislators were women. But only 4.7 per cent of election candidates were women. In other words, conditional upon becoming a candidate, women have a slightly higher probability to win elections compared to men. Research from the United States suggests that women are much less likely to view themselves as viable political candidates, and much more likely to view politics as an extremely competitive field. Furthermore, women are very rarely encouraged by others (peers, mentors, party activists, party leaders) to put themselves forward as political candidates (Lawless and Fox, 2010).

What might hold back women from political candidacy in India? Based on interviews with politicians from several political parties, I find that the primary criterion for being chosen as a candidate appears to be “winnability” or the ability to win the election, for which name recognition, party service, financial resources, caste identity and internal party support are all considered relevant. If “winnability” is the relevant criterion, perhaps observing a woman actually winning a competitive election will open the door to more women candidates in subsequent elections. Does this happen in practice?

My coauthors and I compared the presence of women candidates in Vidhan Sabha elections in constituencies where women had won the previous election and in those where women had lost the previous election. The primary criterion for being chosen as a candidate appears to be “winnability” or the ability to win the election, for which name recognition, party service, financial resources, caste identity and internal party support are all considered relevant. If “winnability” is the relevant criterion, perhaps observing a woman actually winning a competitive election will open the door to more women candidates in subsequent elections.
We find that the victory of a woman in an election increases the likelihood of having woman candidates in the subsequent election. (Table 1). Constituencies in which a woman wins a close election have a 79 per cent probability of having a woman candidate in the subsequent election, while constituencies where a woman candidate narrowly lost the election have only a 62 per cent probability of having a woman candidate. This difference is statistically significant at the 5 per cent level of significance. Consistent with this, the share of major party candidates who are women increases from 19.5 per cent to 28.5 per cent when a woman wins a close election, compared to cases where a man wins the close election.

We should note that this increased probability of having a woman candidate is primarily driven by the woman winner from the previous election contesting for re-election. We see that the share of new female candidates remains unchanged at 4.8 per cent, regardless of whether a man or a woman wins the election. And there is only a very small increase in the share of women among independent candidates, suggesting that observing a woman’s electoral victory does not lead to a large-scale participation of women in the political process.

Does a woman’s electoral victory change women’s chances of winning the next election? This does not appear to be the case. Women are 6 per centage points less likely to win the next election, even after winning the current one (though the difference is not statistically significant i.e. could have occurred purely by chance). There is also no difference in voter turnout, of men or women, following a woman’s electoral victory.

As discussed above, the “demonstration” effect of a woman’s electoral victory does not extend to changing voter behavior, or encouraging the entry of new women into the political process as a whole. A natural question then arises: in the absence of directly reserved seats for women at the Vidhan Sabha level, how can women’s political presence as candidates be increased? Can existing electoral reforms at lower levels of governance, in particular, the Panchayati Raj reforms, play a role in increasing women’s representation at higher levels?

I examined the share of women candidates in Vidhan Sabha elections held before and after each state had held elections under the Panchayati Raj rules, similar to the approach used in assessing the effects of the Panchayati Raj on crimes against women. I find that the share of women among political candidates among national parties at the Vidhan Sabha level increases by 1.43 per centage points after the Panchayati Raj provisions are implemented. The increase is still significant at 1.2 per

<table>
<thead>
<tr>
<th>Constituencies with close</th>
<th>Woman lost</th>
<th>Woman won</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any women candidate</td>
<td>61.8%</td>
<td>79.4%</td>
<td>17.6%**</td>
</tr>
<tr>
<td>Fraction of female candidates</td>
<td>10.9%</td>
<td>13.0%</td>
<td>2.2%*</td>
</tr>
<tr>
<td>Female share of major party candidates</td>
<td>19.5%</td>
<td>28.5%</td>
<td>8.9%***</td>
</tr>
<tr>
<td>Female share of independent candidates</td>
<td>5.4%</td>
<td>6.3%</td>
<td>0.9%</td>
</tr>
<tr>
<td>New female candidates (as a share of total candidates)</td>
<td>4.8%</td>
<td>4.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>Female voter turnout</td>
<td>60.1%</td>
<td>59.0%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Male voter turnout</td>
<td>67.2%</td>
<td>67.0%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Woman wins election</td>
<td>30.0%</td>
<td>24.3%</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Number of electoral races</td>
<td>207</td>
<td>214</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author computations based on Election Commission data collected for Bhalotra, Clots-Figueras and Iyer (2013).*** indicates statistically significant differences at 1% level of significance, ** at 5% level and * at 10% level of significance.
To summarize, our analysis of electoral reforms in India indicates that having more women in political office can have a very important effect on outcomes such as crimes against women. The current level of under-representation of women is also inconsistent with the principles of representative democracy. Research also shows that the key barrier to women's representation is their involvement in electoral politics as candidates, and that demonstrated electoral success by women does not spur entry by new candidates inconsistent with the principles of representative democracy. Research also shows that the key barrier to women's representation is their involvement in electoral politics as candidates, and that demonstrated electoral success by women does not spur entry by new candidates. Several questions nevertheless remain to be answered. Can women-friendly policies ("substantive representation" of women's interests) be achieved even if women are not themselves elected to office? How can parties be encouraged to field more women candidates? And how can a political career be made more attractive/welcoming to women? Pipeline quotas, such as the Panchayati Raj reforms, are a step in the right direction but more needs to be done to address both the political under-representation and the socio-economic disadvantages faced by women in India.

References

Endnotes
1 J-PAL Indian Crime Survey conducted by Abdul Latif Jameel Poverty Action Lab, Massachusetts Institute of Technology; see Banerjee et. al. (2012) for details.
2 Millennial Survey conducted by the Public Affairs Centre, Bangalore.
3 Many other studies find, in India and other countries, that electing women to political office changes spending priorities towards areas preferred by women (Chattopadhyay and Duflo, 2004; Rehavi, 2012).
4 This means that if the presence of a woman candidate occurred purely by chance, the probability of observing a difference as large as 15% is less than 5%, a standard threshold for statistical tests of significance. A rigorous treatment of statistical testing of hypotheses can be found in Wooldridge (2002, Chapter 4).Jeffrey R. Wooldridge, Introductory Econometrics: A Modern Approach (Cincinnati, 2002), Chapter 4.
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UID Project: Does Evidence Matter?

Reetika Khera

The sales pitch for the “Unique Identification” (UID) project had three important planks – corruption control, inclusion and portability. All three claims were based on a poor understanding of the relevant programmes. Recent experience in several states suggests that the same goals can often be achieved with simpler and more appropriate technologies without the hassles attached to the UID project. On the other hand, UID application pilots initiated by the Unique Identification Authority of India (UIDAI) and others have faced serious challenges. Yet the government has been pushing towards making UID compulsory, and worse, is now moving towards charging for use of (free thus far) authentication services.

Selling the Idea

The advertising blitz to “sell” the UID project made three claims: one, that corruption would be eliminated, especially in the Public Distribution System (PDS) and the National Rural Employment Guarantee Act (NREGA). As far as corruption in the PDS is concerned, Tamil Nadu has been running a clean system without UID. Intelligent applications of simpler technology (e.g., computerization, sms alerts etc.), along with other reforms, have contributed to the turnaround of the PDS in Chhattisgarh and Odisha. In these states estimated “leakages” of PDS grain have come down from around 50 per cent in both states, to 10 per cent and 20 per cent respectively.¹

The biometric aspect of aadhaar, could have contributed to corruption control by enabling reduction in the number of duplicate, ghost and fake cards in circulation. While such cards are a source of “leakages” in the PDS (and other welfare schemes too), there is little or no systematic evidence on the size of this problem. In order to understand this, as part of the Public Evaluation of Entitlement Programmes (PEEP) survey in ten states, a pension social audit was also undertaken.² Official lists of pension beneficiaries were obtained for sample villages, and the survey teams traced each person on the list to count the number of duplicates, ghosts and fakes on the pension lists.

Out of 3752 pensioners on the lists, teams verified 99 per cent. A large majority (89 per cent), they were able to meet the person or a family member. We found dead persons (5 per cent) and “other” cases (6 per cent). In many states, since pensions are paid through

¹ Against its success in generating more than 50 crore unique numbers, there are many questions, even failures, from the UID pilots. Meanwhile, state governments using other technologies innovatively have demonstrated that corruption can be controlled; inclusion and portability can be achieved without the hassles that are a part of the UID package. Evidence, it seems, does not matter.

² The author teaches economics at the Indian Institute of Technology Delhi. She was a post-doctoral Research Associate at Princeton University. She is a development economist who has worked on issues of social security policy including employment, food and education.
banks, this meant that the pension of a dead person keeps accumulating in the account of the pensioner, until authorities are notified. Where cash is paid (e.g., Odisha), the pension of a dead person could be appropriated by the GP functionary. Among “no such person was known in the village” and “other” cases, there is some overlap: it included people who had moved permanently (due to marriage or work), migrants, imperfect matches of names (e.g., father’s name did not match) and suspected fake names. Often the person belonged to another revenue village of the same Gram Panchayat (GP). In a handful of cases, the team visited the neighboring village, and found that the claim was true. Interestingly, in the entire sample, there was only one duplicate name.

While the pension lists did not match the ground reality entirely, mismatches were often a sign of poor record-keeping. Outdated records do open the door to corrupt practices (e.g., in Tulasikani GP, Odisha, we found that the panchayat secretary had been embezzling the pension of two dead persons for more than a year), but do not automatically imply corruption. Thus, e.g., in Jharkhand, if records are outdated (e.g., a dead person’s name continues to appear on the pension list), because pension is credited into a bank account, it cannot be fraudulently withdrawn.

In the NREGA, the scope for corruption was greatly reduced when wages began to be paid through bank and post office accounts in 2008-09. (In fact, NREGA has contributed much to “financial inclusion” even before UID existed.) Yet, corruption continues in the following three ways: coercion, collusion with laborers, and collusion with post office officials. Coercion occurs when laborers’ wages are forcibly “shared” with corrupt officials after being withdrawn from the bank or post office. Collusion can be between implementing officials and laborers: days of work are inflated to defraud the system. In such cases, UID authentication cannot help. Collusion also occurs between NREGA functionaries and post office officials (“identity fraud”), who operate the labourer’s account without her/his knowledge. It is only in this case that the UID-authentication can control corruption. (Even here, identity fraud can be controlled further by switching to banks).

Two, UID was supposedly a project of “social inclusion” for the millions who were excluded from social welfare programmes because they do not have an identity. It is true that millions of Indians are excluded from the government’s social welfare programmes, but the main cause for exclusion is not the lack of identity. In the PEEP Survey 2013, we asked people about the different IDs they possessed. In our sample of 1900 households (taken from the NREGA job card register), 95 per cent had a voter card, 85per cent had a ration card, 82per cent had a bank or post office account and 16 per cent had an aadhaar number.

The third claim of UIDAI was “portability” of benefits. In the current system, most entitlements are tied to the recipient’s place of residence. When people migrate, they are forced to forego their entitlements. For instance, one can only draw subsidized PDS rations from the PDS outlet to
which one is tied. Indeed, the ability to run a PDS which is “portable” would be a great improvement.

The Food Department in Chhattisgarh took up the challenge of designing a portable PDS, and in April 2012, they launched the Centralized Online Real-time Electronic PDS (CORE PDS). Ration card holders have been given a “smart card”. Smart cards (like ATM cards) can be used to draw rations at any CORE PDS outlet which has a “point of sale” (POS) machine. The POS machine is, in fact, a mini-computer with connectivity. Once a smart card is inserted, the machine authenticates it, and sales can proceed. Offline sales are also possible when there are issues related to the server or mobile connectivity. In such cases, the ration card number needs to be entered for sales.

Starting with two shops of Raipur, the CORE PDS now covers 400 PDS outlets of which 40 are rural outlets. About one-fifth of transactions at these shops have used the portability option—i.e., ration card holders chose to go to a PDS outlet other than the one to which they were originally allocated. In most cases, portability was exercised within the ward. (The density of PDS outlets in Raipur seemed very high.) Convenience was the prime reason for switching: the outlet to which people were originally tied was not the nearest, tenants who moved residence, when supplies ran out, etc. To cut a long story short, portability has been achieved without UID.

This raises the question of choosing between UID and smart cards for portability. Smart cards are a tested and affordable technology. In Chhattisgarh, it cost Rs. 50 per cardholder to implement smart cards. (On the other hand, UID enrolment of each person costs Rs. 50.) Apart from cost considerations, UID has raised other issues: surveillance and tracking, data security, personal and civil liberty concerns, privacy, etc (see Drèze, 2011, Abraham 2012, 2013 and Ramanathan, 2013).

The cost of implementing a smart-card based portable PDS appear to be “reasonable” – approximately Rs. 50 per ration card holder in the 400 shops in which it has already been implemented.

UID pilots crash

While state governments have been using simple technology creatively, UIDAI’s pilots have faced serious challenges, often crashing. A pilot in Mysore, linking UID with LPG cylinder purchase was aborted as it did not take off at all (Bhatti, 2013). In Jharkhand, an attempt was made to integrate NREGA payments with UID. Notwithstanding tall claims in media reports, on the ground the pilot turned out to be miniscule: e.g., in just three GPs of Ranchi district, one of the three pilot districts; hardly any payments had been made through the new system, and almost always under great scrutiny for the benefit of a visiting dignitary (see Bhatti et al, 2012 and Bhatti, 2012). The pilot was quietly wound up.

The only “successful” UID pilot is the integration of PDS with UID in East Godavari (see Khera 2013a). It required nearly two years of preparatory work, a large and dedicated team with dynamic leadership (provided by the sub-Collector). In September 2012, the pilot was launched in 5 per cent of PDS outlets of the district. It has not seen any scaling up since. It still does not offer portability.

If the ration card and UID number match, the electronic-POS (e-POS) prompts the card holder to place one of their “best fingers” for real time authentication. Five trials are allowed, failing which, a ‘one-time password’ (OTP) is issued. OTP is an “override facility” when biometric authentication fails (either due to biometrics, connectivity, etc). Transaction data from the first year suggest that OTP had to be used in 13 per cent of all transactions.
Private and public entities will be charged for iris and fingerprint and demographic data authentication, e-KYC, etc.

Against its success in generating more than 50 crore unique numbers, there are many questions, even failures, from the UID pilots. Meanwhile, state governments using other technologies innovatively have demonstrated that corruption can be controlled; inclusion and portability can be achieved without the hassles that are a part of the UID package. Evidence, it seems, does not matter.

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Endnotes

1 The scope for reducing corruption in the PDS and in NREGA through computerization, UID and other technologies, achievements of various states so far and the further scope for corruption control are discussed in greater detail in Khera (2010).

2 For more details of the PEEP Survey 2013, see http://web.iitd.ac.in/~reetika/projects.html.

3 Khera, 2013b provides details on the scale of corruption there and action taken.

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BEST PRACTICES

Boat Clinics: The Only Hope Floating for Assam’s river island Community

OATS ARE a feature of everyday life for the river island dwellers of Assam. They are, after all, the only connecting link to the mainland—the source of essential supplies and services, such as education and health. Yet, when a particular kind of boat turns up every few weeks at their embankment, the excitement in the air is palpable. Carrying doctors, paramedics, medicines, even a laboratory, to tend to their health related complaints, the boat clinic is a ray of hope for the island dwellers, and, not surprisingly, nicknamed the ‘boat of hope’.

Started in the year 2005 with a single boat, Akha (hope) in the Dibrugarh district of Assam, the boat clinic initiative by the Centre for Northeast Studies and Policy Research (C-NES) was in response to the poor quality healthcare that island dwellers are exposed to. With no health facilities, poor communication to the mainland, made even more difficult during the monsoon floods and diseases aplenty, especially affecting the vulnerable lot, women and children, such an initiative spelt the idea, ‘if they cannot come, the hospital can come to them’.

The clinic’s success got the attention and the subsequent support of the National Rural Health Mission (NRHM) and UNICEF, driving it to a public private partnership (PPP) that helped the programme spread to 13 districts of Assam.

The boat clinics’ success can be gauged in the changing attitude of the people, who first eyed the entire initiative with suspicion, before being convinced about its intention. Take the case of Amiya Begum of the Baleswar sapori in the Nalbari district, about 70 km from Guwahati.

“Over and above, now we were being regularly checked, treated of our ailments, and given free medicines, without having to pay Rs.10 one way for a boat ride to the mainland hospital. We are poor people and most of the times, unless it’s an emergency, we avoided going to the hospital altogether”.

The boat clinics’ typically work model is to organize health camps in the villages on the islands. Word is spread about the camp through the ASHA, the visits are also usually timed in accordance to immunization dates.

Such has been the effect of these boat clinics, that even in Majuli—the world’s biggest river island on the Brahmaputra—which, unlike other river islands, has a Community Health Centre (CHC) and health sub centre, people wait eagerly for the clinics’ visit.

“The closest health sub centre from our village is four kilometres and there is a river in between. In fact that sub centre caters to 15 villages and of them 14 are on this side of the river,” said Deboshree Das of Samuguri village in Majuli. The boat clinic, she says, is a better and more convenient option because it can come close to the villages, especially when the water level rises in the monsoons.

Ritureka Baruah of C-NES who oversees the boat clinic programme in the Jorhat district, says that the team also assists in childbirth. “Communication is difficult in the saporis, and many times because of an emergency, a woman cannot go to the hospital for delivery. In such cases we have assisted in childbirth,” she said. Assam has been fighting one of the country’s highest maternal mortality ratio at 328 per 100,000 live births.

The clinic also encourages family planning—an especially tough task given high levels of illiteracy among the island dwellers, and superstitious beliefs. “For this (family planning) we have to step beyond our immediate duties and work towards changing attitude of people, building trust, and removing misconceptions. We also discourage girls from being married off young, and talk about spacing between kids,” said Minhazuddin Ahmed, a doctor with the boat clinic.

Among the most common ailments affecting the island dwellers are water borne diseases and skin infections.

“Gaining access to healthcare used to be a privilege earlier. Now with the boat clinic, we have been blessed with hope for a better life,” smiled Anjana Das, an island dweller in the Dibrugarh district.

(Azera Parveen Rahman is a freelance journalist. This story is part of her National Media Fellowship work supported by the National Foundation of India)

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**YOJANA** July 2014
Organ Donation In India: Arduous Road Between Altruism and Action

Subhadra Menon

T IS an imperfect world that we live in. Every day, there are people whose lives could be saved if only they would receive a fresh organ that is healthy in place of their mal-functioning one. A variety of illnesses or mishaps can lead people into this terrible condition either as sufferers of a chronic medical condition that could result in a damaged kidney or liver or heart, or of a road accident that harms a particular organ and can threaten the person with complete debilitation. For instance, one of the most effective therapies for end-stage kidney or liver disease is organ transplantation. Then, there is a need for healthy hearts, lungs, eyes, the pancreas and the intestines, among others. Growing disease burden has translated into a swelling need for healthy organs from people who cease to live to grant fresh lease of life to those who wait with mounting desperation for an organ transplant as a life-saving procedure. As always, one of the greatest barriers to generating the evidence for any convincing policy or programmatic reform is the paucity of trust-worthy and complete data. What India has is sporadic data compilations that are used in diverse settings by multiple stakeholders. For instance, nephrologists and experts place their assessments at one in every 10 adults in India having Chronic Kidney Disease (CKD) and requiring either dialysis or a fresh kidney, making up at least five lakh people at any point of time. Of these, only a miniscule 6000 receive a kidney donation, and some 30,000 are able to afford dialysis. This leaves out a massive 4.5 lakh patients who have no light at the end of the tunnel. It is obvious that well-managed and transparent cadaver organ transplant programmes can make a difference between life and death for a massive section of the Indian population. Equally important is the transplantation of human cells and organs from live donors, such as that of stem cells that can be an absolutely precious gift to a patient of leukaemia or blood cancer.

It, therefore, ought to be so straight-forward: organ donation and transplantation can save lives and there are many people who die with most of their organs intact. But, the simplicity ends here, and India has among the lowest organ donation rates in the world. The actual rate is variously cited, again owing to a lack in the way we manage our health data and statistics. According to some figures, India has a very low level of organ donation, just 0.16 per million population. That makes it less than one donor per million population. Utopian it may seem, but the vision of a country where no person loses his or her life simply because an organ transplant could not be carried out in good time is a good one to hold and to dream of. It goes without saying that the systems and networks are there and altruism still lives in millions of hearts. What is to be done is to simply work the system well, and ensure it delivers what it is mandated to. Let that possibility not be so remote that we stop dreaming of a better day.

The author is Professor of Health Communication at the Public Health Foundation of India. She is a health communication and advocacy expert having worked in diverse capacities covering professional and community activist experiences, advocacy, consensus and capacity building, policy analysis, research, and writing. Her book 'No Place to Go: Stories of Hope and Despair from India’s Ailing Health Sector' (Penguin, India) is widely acclaimed.
organ donation. It is 27 in the United Kingdom, 20-25 in the US and 35 in Spain. It is understood that there is a need for at least 25,000 donors in India each year, but this figure is barely in the 100s. There are at least one lakh road accidents each year and this means the possibility of a large number of donors because road accidents often cause brain death. At least five lakh lives can be saved each year in India, if only organ transplantation would happen smoothly. But these people are dying. This is a reality that needs to happen smoothly. But these people are dying. This is a reality that needs to change, and several efforts are ongoing at various levels to drive it.

Need for Efficient Systemic Response

By its very nature, the decision to donate an organ and its consequent transplantation is not only a complex medico-legal procedure, but also one that relies heavily on altruism, an equally tricky trait of human nature that defies logic or definition. With cadaver-based transplants, this act of kindness must eventually be exercised by the kith and kin of the person who dies and leaves behind a body with healthy organs. It can also mean honouring a person’s wishes or written pledges in the immediate aftermath of his or her death. With transplants involving people who are living, the kindness is the under-pinning of what can be a fairly difficult medical decision by the donor.

Historically, acts of desperation to save a precious life or the struggle against extreme poverty have led to the mushrooming of a prolific and illegal trade in organs, exacerbated by the expenses and waiting periods related to medical procedures and surgery that are required for a successful organ transplant, and the restrictive aspects of legal instruments and guidelines that are actually meant to facilitate genuine cases of organ donation. Relying on people’s acts of kindness on the one hand, and the ability of an efficient and well-managed system on the other, the entire realm of organ donation and transplantation, whether cadaver-based or live, is a tortuous one to manage and deliver upon. Against this background, it is obvious that concerned stakeholders and those who could take strong and positive decisions have often taken the ostrich approach, and as a result chronic organ failure and the remedial action it requires has received scant attention.

Anybody who enters this world, driven by human necessity for the treatment of an end-stage disease or the saving of a life after an accident that debilitates beyond repair a particular organ, faces at least one, if not all, of these many hurdles:

- The clinical requirement for an organ is most often a desperate human need that is a life or death situation, where time is of the essence
- Organ transplantation is either completely unaffordable or a stupendous financial hurdle for most people
- Historically, the organ trade has flourished as an illegal, underground activity that exploits poverty, making any law enforcement a retrospective action that meets with tremendous resistance
- One donor can save five lives but there are very few organised organ donation registries and systems linked with public/private clinical establishments of credible repute to facilitate organ retrieval.
- The inadequacy of formal systems also makes assessments of transplant requirements very difficult, besides creating hurdles in smooth donation and transplant management

- Gaps in knowledge create a lack of understanding among people, particularly in the case of recognising and acknowledging the finality of brain death. Since the heart continues to beat, people find it difficult to accept brain death despite there being a law that recognises this.

Organ donation and retrieval for transplantation, for all of the above reasons and more, is a highly neglected area of public health that comes into focus but infrequently, often through the angst of personal loss or stories of despair and death. Efforts have been made, over the years, to address these issues and create facilitatory mechanisms. That is why, although organ donation is much easier to criticise because altruistic acts by humans do not happen because there’s a rule that mandates it so, they happen because certain people feel the need to offer a gift to somebody. But the reality is one of a pressing demand far outstripping the supply and of endless waiting lists.

It is easy to be critical of these guidelines because altruistic acts by humans do not happen because there’s a rule that mandates it so, they happen because certain people feel the need to offer a gift to somebody. But the reality is one of a pressing demand far outstripping the supply and of endless waiting lists.

Legal Frameworks and Guidelines

It was twenty years ago, in 1994, that the Indian Parliament passed the Transplantation of Human Organs Act (THOA) with the aim of providing for the regulation of removal, storage...
and transplantation of human organs for therapeutic purposes in India. In February 1995, the Act came into force after its rules were formulated, in Goa, Himachal Pradesh and Maharashtra and all the Union Territories, after which it was also adopted by all States except the States of Jammu & Kashmir and Andhra Pradesh, which have their own legislations to regulate organ donation and transplantation. The primary motivation was obviously to check the trend of commercialisation that was getting quite established when it came to dealings with human organs.

The Act lays out provisions relating to the authority for removal of human organs, preservation of human organs, regulation of hospitals conducting the removal, storage or transplantation of human organs, functions of the appropriate authority, registration of hospitals and punishment/penalties for offences relating to aforesaid matters. Since then, there have been some amendments and the Government of India notified the THO Rules in 2013, in order to refine the earlier guidelines, keeping patient needs in mind. This was a result of several years of advocacy by multiple stakeholders and concerned people and institutions, because in its earlier form, the Act, while doing little to curb illegal trade in organs, had created barriers for genuine cases.

In 2013, the Government of India, through the Ministry of Health and Family Welfare, released revised rules called the Transplantation of Human Organs and Tissues Rules in 2013, in order to refine the earlier guidelines, keeping patient needs in mind. This was a result of several years of advocacy by multiple stakeholders and concerned people and institutions, because in its earlier form, the Act, while doing little to curb illegal trade in organs, had created barriers for genuine cases.

In order to

All in all, the legal framework is there. It articulates systemic processes, management bodies and appropriate authorities that form the supportive structure for legal organ donation. But, ever too often in the history of Indian social and human development, it is difficult, if not nearly impossible, to make social legislation walk the ground. Legal tools can be hard to administer and enforced when they address a complex social issue, and the examples are many: the Pre-Conception and Prenatal Diagnostics Techniques Act (PCPNDT), the Prohibition of Child Marriage Act, the Protection of Women from Domestic Violence, and more lately, the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act. With all of these legislations, redressal is a big challenge because of several issues – the lack of a clear victim-criminal scenario, the difficulty of holding up witness reports, and many other issues. That is why, in the case of THOA, it has not been as effective in curbing illegal trade, as it has been in becoming a troublesome barrier for genuine cases.

With organ donation, one of the most sensitive areas addressed by the Act was the grey area of brain death. One of the key challenges of ensuring smooth organ transplants is the declaration of a potential donor being brain-dead, despite having a still beating heart. This declaration is accepted only through hospitals officially approved for organ transplantation. Conducted for this purpose must be repeated after six hours. This time lapse can prove a hurdle for smooth and successful organ donation.

Awareness, Advocacy and the Need for Good Practice

Today, several experts are advocating for the law to become more enabling than knotty, as much as possible, although it is obvious that it must be restrictive to be able to check what has been rampant illegal trade in organs and the exploitation of the poor. But although Indian law is trying to safeguard genuine interests, it is also slowing down the process considerably, and in the case of organ donation and transplantation, this can be a very grave challenge because the window for effective transplantation and the saving of a life can sometimes
be really narrow. Just a miniscule proportion of India’s 1.2 billion population signs up for such donation, as compared to the US where despite a smaller population, many millions more sign up.

Do you remember a catchy and compelling organ donation message or campaign from the recent past? Information and awareness as always are critical, and it is unfortunate that there are hardly any campaigns and messages in the public domain on the need for organ donation. Blood donation, and eye donation perhaps, are the only ones that stick somewhere in the sub-conscious, making a person take a decision. How many people really know the power of their act of donating healthy organs from the body of a loved one who is brain-dead? Not many at all, and those who do hardly receive any reinforced messaging to ensure that they stick to their altruistic desires or thoughts, or even their pledges. It is said that bone marrow donation is almost as simple as donating blood, but when it comes to actual decision-making time, many potential donors back off because they hear of possible discomfort, or even more serious impact, of donating their stem cells. While with cadaver organ donation, there is at least no impact on the donor in any way, with the donation of cells from a living person there is that challenge. Although Peripheral Blood Stem Donation is non-surgical as a procedure, one must visit the hospital more than once, and just before donating stem cells, a drug must be consumed so as to increase the donor’s stem cell production – and filgrastim, a drug produced by recombinant DNA technology, does have some known side effects, none major. In the extreme, fatal impact on the spleen is a remote possibility. So, knowledge is the most critical factor, and once people know enough about the procedure, there should be no problem. This has been seen the world over, but there is a huge, unmet need for information, knowledge and awareness.

This problem was highlighted worldwide recently, upon the death of Professor Nalini Ambady, who taught psychology at Stanford University in the US, and succumbed to Acute Myeloid Leukaemia, a form of blood cancer. The Indian-American Ambady’s family and friends launched a massive search for stem cells that would be compatible to her body. The struggle was to find a donor whose bone marrow with its healthy blood stem cells (the cells that create all of the human body’s blood cells) could be used for regenerative therapy. This regeneration of fresh and healthy blood cells initiated through the transplantation of stem cells is a critical way forward in the progressive story of human medicine, with a growing list of diseases where a significant treatment option is stem cells therapy. It was the only prime alternative left for treatment in her case. About a dozen potential matches had been found in the last few months before her passing, but half of them were imperfect, and the rest did not materialise because the donors declined to go in for the final task of donation. How frustrating and deeply saddening this would have been for Ambady and her family is almost unthinkable. In the current, it is important to think about is whether all these extraordinary narratives of human struggle can lead us to something tangible as solutions. The problem is the dense shades of grey between the start and end of a search – there is no telling what the outcome would be. Either a happy story of success or the helpless angst of loved ones and family when things do not work out: what should it be? Why are we creating systems and legislation and putting in resources if not to save as many lives as possible from unnecessary death. These heart-wrenching questions need answers.

In the case of eye donation, seemingly so uncomplicated because it involves fulfilling the wishes of a deceased person, or of a family deciding to donate a dead family member’s eyes – is plagued by a similar paralysis of decision-making. Despite recent encouraging trends, there are huge gaps. An expert in this area of work had said this to me, many years ago – “The donor may be ready, with filled-out forms and pledges and everything. But when he or she dies, the pathos of that moment can paralyse the immediate family or even stir up a completely adverse reaction. It can be very difficult to ensure timely action, allow removal of the healthy cornea, and all this within the first few hours of death, beyond which the cornea becomes useless”. Credible and clear data are hard to come by, but there are roughly 12 million blind people in India, of whom about 2 million are those who suffer from corneal blindness, a condition that can be treated through the transplant of a healthy cornea from a cadaver donation of eyes.

2 million are those who suffer from corneal blindness, a condition that can be treated through the transplant of a healthy cornea from a cadaver donation of eyes. Of these 2 million also, not all are suitable cases for such a transplant, but as per data from the National programme for the Control of Blindness under the Ministry of Health and Family Welfare, in 2011-12, the country collected just a few over 49,000 eyes. It is the same story with the donation of a kidney, or a liver or a heart.

With the usual centre-state relations and tensions when it comes to regulation in the public health sector, some states have stood out as examples of how all this can be
made to work, to the benefit of those who need organ donation the most. Tamil Nadu has led from the front over the years, using progressive legislation, setting up extensive networks and an organised registry, working with the basic principles of good health management, to lead the country with 0.8 donations per million per year⁴. Recognising that coordination and organisation were critical, whether it is with handling live donor transplantation or that from cadavers, the Government of Tamil Nadu established a framework through which organs could be allotted in a fair manner to potential recipients awaiting organ transplantation. This was after expert consultations, workshops and intensive research to come up with the most appropriate guidelines for the state. Today, Tamil Nadu leads in cadaveric transplants. Meanwhile in Kerala, a series of progressive orders were issued in 2012, explaining how ‘the government is also aware that the success of Organ Transplant, especially Cadaver Organ Transplantation depends on efficacious donor management and meticulous coordination with Organ Retrieving Centres and Organ Transplant Centres’⁶. Kerala set up the Kerala Network for Organ Sharing, a registry for organ transplantation for cadaver donation along lines similar to that of Tamil Nadu.

All in all, much is being done, but there is a lot of ground left to cover. Utopian it may seem, but the vision of a country where no person loses his or her life simply because an organ transplant could not be carried out in good time is a good one to hold and to dream of. It goes without saying that the systems and networks are there and altruism still lives in millions of hearts. What is to be done is to simply work the system well, and ensure it delivers what it is mandated to. Let that possibility not be so remote that we stop dreaming of a better day.

Endnotes

5 Cadaver Transplant Programme, Government of Tamil Nadu

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Electoral Reform and the Deepening of Democracy in India

Subrata K Mitra

Elections and the Deepening of Democracy in India

Universal adult franchise with first-past-the-post electoral rules was first introduced in the general election of 1952, the first after Independence. All political parties including communists and the right wing Jan Sangh were permitted to participate in the election. Thanks to the extension of suffrage, the electorate rapidly expanded, bringing into the political arena a large number of voters with no previous experience of electoral participation. Such a sudden induction of new voters could have been a recipe for disaster for parliamentary democracy and political order, particularly in conjunction with the violence that accompanied the Partition of India. But the subsequent career of parliamentary democracy, thanks to the continuity of the institutions of state and the structures of leader-constituent relations, saw parties and elections becoming an essential part of the political culture of post-Independence India. Voter turnout, spread over all social classes, has gone up steadily (Table 1).

The statistical indicators in Table 1 are illustrative of India’s success at organizing an electoral process on a continental scale. Large-scale poverty and illiteracy notwithstanding, India, under the supervision of an independent Election Commission, has organized elections involving very large electorates who, by law, have to be provided with polling booths within easy walking distance. The campaigns themselves are strictly monitored. It is not unusual for polling to be stopped and re-polling ordered in the event of electoral fraud or violence.

The author, Professor of Political Science, South Asia Institute, Heidelberg University, is the author of ‘Politics in India: Structure, Process and Policy’ (Oxford University Press, 2014). He has taught in the UK at Universities of Hull and Nottingham and University of California, Berkeley. Governance, Citizenship, Negotiation, Rational Choice, International Relations, Research Methods, Comparative Politics and South Asian Area Studies are among his areas of interest.
Trust, Efficacy and Legitimacy: The Democratic Dividend of the Electoral Process

Thanks to the availability of public opinion data, we are in a position to observe the sense of efficacy within different subsections of the Indian population. In response to the question “Do you think your vote has effect?” one can notice the steady rise of the sense of efficacy in the population as a whole, going up from 48.5 per cent of the entire population in 1971 to 67.5 per cent in 2004. Interestingly, the gain in efficacy has come from the steady decline in those who either do not have an opinion, or are not able to take a position on the question. The per centage of those who do not feel efficacious appears to have stayed low (less than a fifth of the population as a whole) but stable over the three decades between 1971 and 2004. One notices a similar trend with regard to the sense of efficacy as well. Thus, both in 1996 as well as in 2004, those with higher level of efficacy tended to be male, upper class, upper caste and highly educated. However, scheduled castes, Muslims and Christians also appear on the higher levels of efficacy. This is the consequence of political mobilization, driven by ambitious leaders, mobilizing special interest constituencies within the electorate (Mitra & Singh 2009).

A pattern similar to efficacy can be noticed in the case of legitimacy. Here, the question has been posed in the negative, in order to make sure that those who consider the existing political system, based on parties, elections and assemblies preferable to one without these attributes of parliamentary democracy will answer the question in the negative – not an easy thing to do for interviewees facing college-educated young men and women, carrying clip boards and ceremoniously writing the answers out. Impressively, the per centage of those who see the political system as legitimate has gone up from 43.4 per cent in 1971 to 72.2 per cent in 2004. As in the case of efficacy, here also the gain has been made by a decline in those without an opinion or the undecided. A small per centage of the population, hovering around a tenth of the total, remains convinced that alternatives to parliamentary democracy might be better. Further analysis shows that those highly educated, upper castes and Christians, urban, male and younger sections of the population are on the higher levels of legitimacy.

Some Milestones of Electoral Reform in India

The evolution of the institutions, laws and norms that buttress India’s electoral process show great ingenuity in adapting imported practice of universal adult franchise to Indian conditions and moulding them to respond to the need for transition to democracy and its consolidation. The practice of multi-member constituencies was abandoned in favour of single member constituencies, first-past-the-post electoral rules, which help create coalitions of interests that in turn, necessitate the formation of

<table>
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general, political categories rather than reinforcing narrow, sectarian identities, as one might expect from the application of proportional legislation in a diverse society, fragmented along the lines of caste, tribe, language, ethnicity and other forms of primordial identities. However, representation of special interests – deemed under privileged or vulnerable – was retained in the form of quotas for scheduled castes, scheduled tribes, women (in local elections) and Anglo-Indians. Proportional representation is retained for Presidential elections, to ensure equal weightage for States as compared to the Union. A number of amendments have been introduced by the Election Commission of India which has been designed by the Constitution (art 324), to act as guardian of free and fair elections (McMillan 2010). In every election, it issues a Model code of Conduct for political parties and candidates to conduct elections in a free and fair manner. The Commission issued the code for the first time in 1971 (5th Election) and revised it from time to time. These have served India well. However, as the following section argues, there is still considerable need for further reform.

The violent underbelly of India’s Electoral Politics and the need for Electoral Reform

The fact that the election of 2014 had to be spread out over nine phases, necessary to move troops essential to the safe conduct of the voting is an important fact that gets lost in the euphoria over successful conducting of a general election of gigantic proportions. The necessity of troops to hold an election points towards the lethal miasma of violence that lurks under the bright surface of brand new electronic voting machines, highly motivated staff manning the booths and much finger-pointing by comely faces for the benefit of television cameras. The gruesome sight of bodies of para military troops stacked on the ground in front of a police station, killed by Maoists in a daylight attack in Chhattisgarh in Eastern India, was a grim reminder of the violence that marked the campaign in the Naxalite affected areas of Eastern India. The coincidence of the killing and announcement of the elections is not accidental. Taking on the security forces is the most effective way for Maoists to assert their local control. Such attacks are well calculated – meant as much to loot weapons and assert their influence – as to show determination to enforce the poll boycott that Maoists have already announced. In view of these violent threats, polling is spread out over nine phases, which is necessary for the deployment and movement of troops to protect polling. Presence of paramilitary forces is imperative not just for ‘disturbed areas’ such as Kashmir or the North East, but for the country as a whole. Paradoxically, the world’s largest democracy can generate consent only under military protection.

Talk about the need for reform to cure the malaise is ubiquitous. One commentator writes: “The first and foremost task that is required to be done at this hour is the removal of three dreadful things, that is, money power, muscle power and the mafia power. Besides this, four C’s have also to be wiped off. This…polling is spread out over nine phases, which is necessary for the deployment and movement of troops to protect polling. Presence of paramilitary forces is imperative not just for ‘disturbed areas’ such as Kashmir or the North East, but for the country as a whole. Paradoxically, the world’s largest democracy can generate consent only under military protection.

includes corruption, criminalization, casteism and communalism (Shankar 2014).” But such ideas – expressed in colourful rhetoric, quintessential of the political discourse of India – sadly does not lead us anywhere because the moral sentiments are not attached to any specific policy, action plan or an institutional arrangement, build on a theory of incentives. To
cope with the violence which casts its long shadow on contemporary politics, there are three issues that need urgent attention. First, the linkage between widespread corruption and criminalisation of the political arena (charge-sheeted legislators, black money, bribery, nepotism) are visible signs of the symbiosis between crime, electoral politics and disorder. As such, legitimacy lowering activities by people in leading positions should be registered by the Election Commission. The EC itself, instead of having to borrow staff from central and State governments, should have dedicated personnel, suitably trained in law and electoral sociology, with guaranteed funds and constitutional status. Secondly, the ‘model code of conduct’ – India’s all-purpose remedy against electoral malpractices – is no help against Maoists who explicitly reject the electoral option. However, a firm directive to political parties to refrain from seeking the help of Maoists overtly or covertly at the pain of appropriate sanctions by the Election Commission will possibly deny anti-state forces the political protection they get from local politicians and candidates. Finally, India’s active judiciary and civil society need to remember that ‘hungry men rebel,’ is at best a dangerous half-truth. Being quintessentially strategic actors, the likely rebels are those who see a concrete benefit and an opportunity to strike and get away. The solution for turning rebels into stakeholders lies not in homilies but in simultaneously fostering the rights to livelihood, security and property, backed by firm policing and administration, and drawing local panchayats into the institutional mechanism for the maintenance of law and order.

The model code of conduct has no constitutional status. The Election Commission does sometimes appear to be overstepping its mandate (Alistair McMillan, 2010, p. 113). The table below shows that the Indian voter has a trust hiatus between trust in the referee institutions such as the Supreme Court and the Selection Commission and trust in the elected representatives. As such, disappointment sets in quickly and the frustration often takes a violent shape, making fresh elections necessary. To cope with such contingencies anywhere in the sprawling country, a constitutional mandate for a model code of conduct on the lines of the German Parteiengesetz,1 and a bureaucractic apparatus at the disposal of the Election Commission are necessary.2 This would regulate the electoral process, campaign funding, and keep a sharp eye of the parties and candidates becomes urgent.

<table>
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<td>17.4</td>
<td>43.6</td>
<td>39.0</td>
</tr>
<tr>
<td>Government Officials</td>
<td>17.2</td>
<td>40.4</td>
<td>42.3</td>
</tr>
<tr>
<td>Police</td>
<td>13.0</td>
<td>29.9</td>
<td>57.1</td>
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</table>

Source: Mitra and Singh, Democracy and Social Change (Delhi: Sage, 1999) p.260

Conclusion

Elections in India as indeed in any mature democracy, are aggregations of individual preferences into a social choice which then forms the basis of legislation. By holding the executive accountable for the policy output as indeed for transparency in the process of governance, an alert electorate ensures the broadening and deepening of democracy. Transition from colonial rule to competitive elections and universal adult franchise was made possible in India through vertical mobilisation of the electorate by the upper social strata in the early elections, eventually leading to the differential and horizontal mobilisation of the electorate. (Mitra 2914) The gamble of introducing universal adult franchise in one fell swoop at the end of colonial rule, rather than the steady, incremental pattern that underpins the growth of western democracy has paid off. The first elections after Independence had produced Congress dominance, but the 1967-elections saw the first coalitions of the left and right, strengthening the competitiveness of India’s elections in general. 1971 brought in popular authoritarianism. The elections of 1977 brought back a broad based coalition of opposition parties to power at the center. Since 1989, a multi-party system and coalition politics have been the rule.

The achievements of India’s electoral process in terms of the deepening of democracy believes the apprehensions of early Cassandras like Selig Harrison (1968) who predicted its demise, or the prediction of the downfall of democracy in the face of popular mobilisation, consequent on sudden expanse of participation (Huntington 1968). Nor has India lived up to the scenarios of the ‘soft state’, incapable of taking hard decisions (Myrdal 1970), or ‘peaceful paralysis’. Democratic participation, starting with its modest start under British colonial rule in the 1880s, has now become a fully grown institution, ably mentored by the Election Commission, has become a reliable instrument for eliciting the collective choice out of the individual voices of the Indian electorate.

I have argued in this essay that the basic structure of the electoral process – single member constituencies and majority voting have ably met the urgent need of a post-colonial state to inculcate a sense of enfranchisement, entitlement and empowerment in a subject population, fragmented into narrow, sectarian identities, suddenly catapulted to citizenship. Subsequent electoral reforms and the rise of the Election Commission to the Olympian heights of able and impartial monitoring of the process has set it on the right course towards the transition to democracy and its consolidation.
However, in the competitive era of global cultural flow, India, nuclear powered and a major emerging economy, can no longer expect a bonus as a ‘third world democracy’. The paradox of successful conduct of elections in the largest democracy of the world being contingent on one of the largest deployments of the army in peace time has to be faced squarely if India were to claim full membership of the global club of functioning democracies.

Bibliography


Mitra, Subrata and V B Singh, *When Rebels become Stakeholders: Democracy and Social Change in India* (Delhi: Sage; 2009)


Endnotes

1 Political Parties Act of 1967 (2002 Amendment), which stipulates that every donation/contribution exceeding 10,000 Euros must appear in the statement of accounts (financial reports) of each party, whereas those exceeding 50,000 Euros must be additionally reported to the Bundestag President and made public.

2 In Germany, for example, the Committee for the Scrutiny of Elections (Election management bodies are independent federal agencies, which federal Ministry of Interior does not have the authority to issue directives against) only makes sure that the Federal Voting Act is implemented properly, whereas the Federal Constitutional Court deals with possible unconstitutionalities. Within two months after the election, any voter can request the scrutiny of elections. It does follow a complex procedure, but if this is successful, the affected member will lose his or her seat in the parliament.

(E-mail: Mitra@uni-heidelberg.de)
RS. 21 CRORES SPENT IN RAMBAN UNDER MGNREGA

The state government has spent Rs. 20.84 crores for accomplishing the targets of Rural Development in the financial year 2013-14 in the district of Ramban in J&K. This has benefitted 26463 families through the completion of 3011 works during this period. 50753 Job Cards were also given out under the scheme of MGNREGA. An amount of Rs.126.17 lakhs has been utilized under Indira Awas Yojana. Also, 19 SOS IAY units have been made so far and the work on another 359 houses is under process. These IAY units will soon get the GPS facility for their easy indentification. Under the scheme of Nirmal Bharat Abhiyan, an amount of Rs. 998.60 lakhs has been spent towards sanitation and hygiene related work in the district.

STATE GIVES NOD TO CIVIL SERVICES BOARD

Jammu and Kashmir Government has given the permission to clear the proposal to constitute a Civil Services Board (CSB), following the directions of the Supreme Court. This board will have the mandate/authority to decide the posting and the transfers in the prestigious All India Services OF IAS, IPS and IFS. The recommendations of this panel will be presented to the State Cabinet for the final nod. This panel will have senior bureaucrats as its members and it will look into the matters pertaining to civil servants, their postings and transfers. After the All India Services, a similar board will be set up for Kashmir Administrative Services also.

SHILLONG MOST POPULAR DESTINATION IN NORTH EAST

Known as the ‘Scotland of the East’, the capital of Meghalaya, Shillong is the most frequently visited and favoured tourist destination. Services like adventure activities, eating points and 24-hour taxi service have added to the increased footfall in this city. So far, there are 17 recognised tourists’ hubs in this city. The State Government is planning to open even more of these to promote tourism. The most popular places for tourism are the wobbling and sparkling rivers, waterfalls, streams and mountain ranges. Besides these, a suitable climate, a golf course and scenic lakes offering boating options also attracts the tourists.

28 FLOOD MANAGEMENT SCHEMES APPROVED

With a cost of Rs.583 crores, the Government of India has sanctioned 28 Flood Management Schemes for the state of Assam. Out of the submitted 32 medium and major Flood Management Schemes last year 30 projects have been given the nod under this Flood Management Programme. These schemes are aimed at curbing damages caused by the flood and the safety of the local people.

OLDEST FEMALE MEMBER TO BE HEAD OF FAMILY ON RATION CARDS

The Government of Arunachal Pradesh has brought out a notification according to which, the new ration cards will have the oldest female member of the family as the Head, instead of its male counterpart. As per the Section 13 of the National Food Security Act 2013, the female member, however, has to be not less than 18 years of age and should be the oldest woman of the household for availing the items under the Targeted Public Distribution System (TPDS).

WEBSITE FOR NE LAUNCHED BY DoNER

The North East region will soon have its own website by Department of North Eastern Region (DoNER) which will be launched exclusively for the people of North Eastern region. This website is targeted at sharing the problems and the grievances of the local people and therefore, will function as a connecting bridge for the locals of this land locked region. A Help Group will also be set up which will work round the clock on all days.
Is There a Trade-Off between Agricultural Development, Adaptation and Mitigation?

Ashwini K Swain

India may resist inclusion of agricultural mitigation in global climate negotiations, but it cannot afford to avoid the mitigation needs at the domestic level, especially when adaptation and development are closely linked with and dependent on mitigation actions. However, effective implementation of these strategies would necessitate bundling of policies and interests to internalise the transaction costs and ensure social acceptability.

India’s long-standing official position in global climate negotiations has been that any discussion on agriculture must be held in the realm of adaptation, not mitigation. The government considers the sector a clear out-of-bounds sector with respect to emissions reduction as agriculture is a sensitive issue and pursing mitigation may produce negative impacts on peoples’ livelihoods. Is this apprehension sound? Is there any trade-off between agricultural development, adaptation and mitigation?

Indian Agriculture and Climate Change

Even after decades of industrialisation, India still remains an agricultural country. While there is a global trend of decline, according to Worldwatch Institute, agricultural populations in India has grown by a whopping 50 per cent over 1980-2011. On the contrary, agriculture’s share in the GDP has seen a secular decline since independence. Nonetheless, agriculture has far more important role in Indian economy and policymaking than its share of GDP suggests. It employs about half of the workforce, provides livelihood to about two-third of the population, and food has been the largest contributor to inflation for several years, contributing to staggering poverty.

While India has emerged as a net exporter of agricultural products, it is still dependent on imports for essential food items like pulses and cooking oil. Though food self-sufficiency is not a distant goal, food security at micro level remains a formidable challenge. Unswerving slowdown in performance of the sector is a cause of concern in the overall agenda for food & income security and rural poverty eradication.

Being a climate change hotspot, embryonic impacts in form of extreme weather events seem to be further aggravating the agrarian distress in India. About 70 per cent of arable land in the country is estimated to be prone to drought, 12 per cent to floods and eight per cent to cyclones. At the same time, temperature rise would result in significant reduction in agricultural yield. The latest IPCC AR5 claims, with medium confidence, that higher temperature will reduce rice yields in Asian countries as a result of shorter growing period. Indo-Gangetic plains of South Asia could face a decrease of about 50 per cent in the most favourable and high yielding wheat due to heat stress at 2x CO₂. Similarly, sorghum yield in India is projected to decrease by 2-14 per cent by 2020, which will...
Further worsen by 2050 and 2080. With about 250 million populations being food insecure, the challenge is to produce enough food 'sustainably' to meet the increasing demands, with shrinking resource (land, water and energy) availability.

While the sector is most vulnerable to climate change, agricultural production contributes considerably to the problem, accounting for 17.6 per cent of total emissions in India. If we attribute agricultural consumption related emissions, involving energy use and fertiliser production, the sector’s contribution to GHG emissions rises to 30 per cent (See Table 1). Thus, as an economic activity, agriculture emerges as not only less productive but also highly carbon intensive which is not a sustainable scenario.

Table 1: GHG Emissions from Agricultural Production and Consumption (in MtCO2e)

<table>
<thead>
<tr>
<th>Agricultural Production Related (Direct) Emissions (MtCO2e)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock</td>
<td>212.10</td>
</tr>
<tr>
<td>Rice Cultivation</td>
<td>69.87</td>
</tr>
<tr>
<td>Soil Management</td>
<td>43.40</td>
</tr>
<tr>
<td>Burning of Crop Residues</td>
<td>6.61</td>
</tr>
<tr>
<td>Manure Management</td>
<td>2.44</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>334.41</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agricultural Consumption Related (Indirect) Emissions (MtCO2e)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Use of Electricity</td>
<td>130.63</td>
</tr>
<tr>
<td>Use of Other Energy</td>
<td>33.66</td>
</tr>
<tr>
<td>Energy Use in Fertiliser Production</td>
<td>20.57</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>184.86</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>519.27</strong></td>
</tr>
</tbody>
</table>

**Current Strategies**

Has agriculture received due importance in India’s low-carbon development strategy and action? Keeping with the global trend, India has been prioritising electricity, industries and transport sectors for low-carbon development.

Under the provisions of National Action Plan on Climate Change, a dedicated Mission- National Mission for Sustainable Agriculture (NMSA)- has been set up to promote ‘sustainable agriculture’, seeking to “transform Indian agriculture into a climate resilient production system through suitable adaptation and mitigation measures in the domain of crops and animal husbandry”.

NMSA has been partly successful in identifying the challenges faced by agriculture and how they will be exacerbated in a changing climate. Yet, it has failed to bring in innovation in finding solutions for these challenges. With an approach to promote resource efficient technology, it has missed to address unhealthy agricultural practices. While water use efficiency is emphasised, skewed use of chemical fertilisers is ignored; the latter is a major driver of rising irrigation water demand. Moreover, many of the proposed strategies target the big farmers, who can afford newer equipment, while the small and marginal farmers are left vulnerable.

Though the mission is technology-driven, it neither clarifies how the technologies will be governed nor addresses the weak agricultural extension services. Furthermore, absence of adequate credit and insurance facility, particularly for the large number of small and marginal farmers, would be a bottleneck for wider adoption of these technologies. Finally, weak institutional and human capacity will be a key challenge for effective implementation of agricultural policy. Such an obscure strategy, that merely addresses a few adaptation concerns, certainly falls short of a sustainable pathway for agricultural development.

Other schemes targeting water and energy use efficiency have not been much successful. Government initiatives to promote micro irrigation technologies, that have a huge potential to reduce water demand in agriculture, are dispersed and have very limited success in few states. While the state governments have made provision for substantial investment subsidies, owing to high transactional costs in accessing those subsidies, there is low incentive for the farmers to adopt such technologies.

Under the National Mission on Enhanced Energy Efficiency, India has launched the Agricultural Demand-Side Management (AgDSM) programme to limit agricultural electricity demand. Considering significant contribution of electricity consumption to agricultural GHG emissions, it is essential to tame the demand. However, taking another narrow and technology-centric approach, the programme seeks to improve pump efficiency by replacing existing pumps with five-star-rated energy efficient pumps. Can these new pumps save energy? The goals seem to be far from the reality.

Considering the past experiences in Indian electricity, we are not very optimistic about the replacement of 18.5 million irrigation pumps installed across India. The proposed Energy Service Companies (ESCO) model of investment seems unrealistic and financially unviable; the energy service companies (potential investors) are taking their hands off actual implementation. Even if India manages to implement the AgDSM programme, there is no hope for energy saving. The new pumps being promoted are claimed to be capable of drawing more water with the limited electricity supplied to Indian farmers. Considering the fact that farmers need water, not electricity,
and water demand is much higher than the current extractable quantity, improving pump efficiency will increase water use and thus, cause further depletion of groundwater. We must not forget that a depleted water table requires raising the horsepower of irrigation pumps to draw water from further below. The addition of each horsepower means an increase in electricity consumption.  

**Way Forward**

In the coming decades, feeding growing population will require ingenuity and innovation in agriculture to produce more food with less resource in more sustainable ways. Agriculture must therefore transform to adapt to changing climate and lower emission intensities per output. Therefore, a climate-responsive development strategy is required in Indian agriculture to achieve the triple wins of development, adaptation and mitigation.

The major climate threat to agriculture comes in form of increased stress on already scarce resources and thus raising vulnerability of agriculture dependent communities. An effective adaptation strategy would seek to raise their resilience by preparing the communities to deal with resource scarcity and extreme events through alternatives and resource use efficiency. Likewise, mitigation in agriculture would require improved efficiency in resource consumption so that climate change induced stress, extreme events and their intensity can be reduced. In that sense, both adaptation and mitigation have same goals, seeking to achieve sustainability in agricultural consumption and production.

**Converging agricultural** development with mitigation and adaptation actions poses new challenges and requires better capacities, interventions and creative manoeuvres. To achieve the objective, India needs to reorient its agricultural development policy and strategy weighing its social, political, economic and environmental settings directly against each other, instead of thinking of them as separable.

This calls for a broader and embedded approach towards agricultural development. While it may be politically infeasible and socially unacceptable to take up a ‘mitigation first’ approach, India can plan a ‘development first’ strategy for agriculture with clear adaptation and mitigation ‘co-benefits’. Following three broad strategies would be useful for achieving the much needed agricultural development while accruing adaptation and mitigation co-benefits.

**Livestock Management**

Livestock is the major emitting sub-sector accounting for about 40 per cent of embedded emissions in agriculture, but somehow not much discussed in the policy domain. However, simple interventions like feed quality improvement and health and reproduction management can reduce much of the emissions while improving productivity. More than two-third of livestock related emissions come from dairy animals that can be easily targeted. Improvement of the digestibility of the diet, which can be achieved by feed processing and addition of improved forages, will result in additional lactation and enhanced farm income and at the same time in the reduction of methane emission. Additional lactation resulting from improved feed is also expected to neutralise the adverse effects of climate change and warming, and thus, contribute to adaptation. Reduced herd size, through health and reproduction management, with a larger proportion of healthy and productive animals in dairies will increase productivity and at the same time reduce emissions. Gerber et al. (2013) claim that in South Asia that a 38 per cent reduction in emission is achievable in mixed farming systems if measures are taken for improving feed quality, animal health and husbandry.

**Water is What Matters**

Water is a crucial input for agriculture. While current availability of irrigation water is inadequate and going to be more unobtainable in coming years, a significant part of agricultural emission comes from prevailing irrigation patterns that is predominantly flooding and highly dependent on electricity and diesel for pumping. In this context, a convergence of the three goals can be achieved by improving irrigation water management.

...a convergence of the three goals can be achieved by improving irrigation water management. While substantial water demand can be reduced by adopting efficient irrigation technologies like drip and sprinkler, much of the remaining demand can be met by revitalising and extending surface irrigation network. It can further be complemented through sustained rain water harvesting and groundwater recharge initiatives and improvement of irrigation pump efficiency.

achieved by improving irrigation water management. While substantial water demand can be reduced by adopting efficient irrigation technologies like drip and sprinkler, much of the remaining demand can be met by revitalising and extending surface
irrigation network. It can further be complemented through sustained rain water harvesting and groundwater recharge initiatives and improvement of irrigation pump efficiency.

While these initiatives will raise resilience to water scarcity situation without compromising productivity, co-benefits include significant reduction in agricultural energy consumption and methane emissions from flood irrigation.

**Restoring Agricultural Practices**

Although modernisation is crucial for development, some traditional practices must be retained for better efficiency. For example, land levelling, mulching and crop diversification are some traditional agricultural practices that reduce the need for input resources like water and fertiliser. However, farmers often ignore these practices largely to avoid extra labour required and partly due to limited awareness pertaining to the benefits. While these inexpensive practices reduce the need for inputs, they also reduce erosion, preserve soil nutrients, suppress weeds and increase fertility. Crop residues that are largely being burnt in field, contributing to emissions and local air pollution, can be used productively as mulch. Further, on field plantation of trees that can transfer nitrogen to soil would not only reduce requirement of chemical nitrogen fertiliser, but also can sequester carbon.

In addition, modern practices like soil fertigation and systemic rice intensification can further improve resource use efficiency and improve productivity.

**Realigning Wider Agricultural Policies**

The state can facilitate execution of these measures at farm level through creating effective incentive mechanisms at wider level. Moreover, there is a consensus that agricultural electricity and fertiliser subsidies in India, though lower than global standards, have contributed to significant inefficiencies. This calls for realigning the wider agricultural subsidy policies and food procurement policies to incentivise resource use efficiency and conservation in agriculture. For example, offering better support price for water efficient crops and varieties may foster their adoption, while substituting regressive energy and fertiliser subsidies with subsidies for efficient irrigation technologies can benefit the poor farmers more.

Based on a conservative estimation, these climate-smart measures together could result in reduction of a quarter of embedded emission in the sector, while increasing productivity. Postponing these low-hanging opportunities for triple wins is short-sighted. India may resist inclusion of agricultural mitigation in global climate negotiations, but it cannot afford to avoid the mitigation needs at the domestic level, especially when adaptation and development are closely linked with and dependent on mitigation actions. However, effective implementation of these strategies would necessitate bundling of policies and interests to internalise the transaction costs and ensure social acceptability. Moreover, it would require intervention of state agencies as a facilitator at multiple levels.

**Endnotes**

3. INCCA (2010): Climate Change and India: A 4x4 Assessment- A Sectoral And Regional Analysis For 2030s. New Delhi, Indian Network for Climate Change Assessment and Ministry of Environment and Forests, Government of India.

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<td><strong>General Studies Paper - II Admission</strong> (Geography World &amp; Society) 20th June, 14</td>
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<tr>
<td><strong>General Studies Paper - IV Admission</strong> (Bio-diversity, Environment/Ecology, Disaster Management and Economic Development) 25th June, 14</td>
</tr>
<tr>
<td><strong>TSP (Test Series Main)</strong> Geography &amp; GS Main (Admission Begins 25th, June, 14)</td>
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MANUFACTURING ACTIVITIES act as the multipliers in value-chain starting from cheap raw materials to more expensive intermediates to sought-after products, which can be positioned to command a very high value appreciation. The entire gamut of manufacturing by adding value at every stage of production can thus have a positive impact on national economies. Indian manufacturing sector currently contributes around 26 per cent to the GDP, which amounts to a mere 1.8 per cent of the world manufacturing output. With the number of middle-class households swelling by 12 times and urbanization of population increasing to 38 per cent by 2025, India would be the fifth largest consumer market in the world. This promises a huge opportunity for Indian manufacturers to cater to the domestic demand in addition to the international market.

In Indian economy, agriculture while employing 37 per cent of the workforce contributes 16 per cent of GDP vis-à-vis manufacturing sector employing 12 per cent of the manpower contributing to 26 per cent of GDP. It is often said and seen from international experiences that the development of a country is directly linked with the share of tertiary sector (services) to the country’s GDP as the tertiary sector enjoys the highest value-addition potential. In India, services sector enjoys the major share (~58 per cent) of GDP while employing ~20 per cent of the workforce. For poverty reduction and better prosperity of people, creation of more employment avenues assumes importance. It is anticipated that with the increased productivity in agriculture, the sector would disengage surplus manpower, which is expected to be absorbed in the manufacturing sector. Even the highly performing services sector alone cannot meaningfully employ 250 million new job seekers in the coming 15 years. Moreover, the sector typically employs less people with specific skill sets. As skilling or re-skilling of people requires a longer time horizon, the emphasis on tertiary sector based economy tends to leave out majority of people from the development process in the near term. Hence, manufacturing assumes key role especially for developing countries like India, where the sector can potentially generate large scale employment and meaningfully engage sizable populace in economic activities.

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The aforesaid discussion establishes the contribution and criticality of manufacturing sector in Indian economy. It is important to note that Indian manufacturing is currently at the crossroads braving more competitive manufacturing means and strategies from other nations. Thus, it would be interesting to portray the likely scenarios, which may prevail 20-25 years from now and how they will influence the manufacturing sector in India.

Methodology

The first step of scenario building exercise involves identification of key 'Drivers' grouped under broad categories (STEEP – Social, Technological, Economic, Environmental & Political) for the specific sector. They are the most important factors, which have almost direct cause-effect relationship with the sector. For the manufacturing sector, the key drivers can be summarized as:

- **Technological** (R&D, innovation, energy efficiency & emissions, access to energy, design & quality, IT enabled & embedded manufacturing, digital business etc.)

- **Economic** (entrepreneurship, access to funds, financial & tax systems, marketing & export support, FDI, aligning with global business, domestic market, infrastructure, merger & acquisition, IPR etc.)

- **Environmental** (regulatory framework, clean technologies, reuse & recycle etc.)

- **Social** (demographics, access to education, urbanization, disposable income, life style changes, skill levels etc.)

- **Political** (geo-political stability, economic reforms & industrial policies, labour laws, land acquisition & availability, transparency in governance etc.)

The drivers as per their nature of uncertainty and impact on the manufacturing sector were subsequently ranked 'High' and 'Low' and tabulated as follows:

<table>
<thead>
<tr>
<th>LOW UNCERTAINTY &amp; HIGH IMPACT</th>
<th>HIGH UNCERTAINTY &amp; HIGH IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demographics</td>
<td>Access to education &amp; skill level</td>
</tr>
<tr>
<td>Urbanization &amp; life style changes</td>
<td>Disposable income</td>
</tr>
<tr>
<td>Energy efficiency and emissions</td>
<td>Access to energy</td>
</tr>
<tr>
<td>Design and Quality</td>
<td>Entrepreneurship</td>
</tr>
<tr>
<td>Access to funds, financial and tax systems</td>
<td>FDI</td>
</tr>
<tr>
<td>Alignment with global business</td>
<td>Merger &amp; Acquisition</td>
</tr>
<tr>
<td>Domestic market</td>
<td>Input cost</td>
</tr>
<tr>
<td>Reuse/recycle</td>
<td>R&amp;D, innovation</td>
</tr>
<tr>
<td>Resource depletion</td>
<td>IT enabled &amp; embedded manufacturing</td>
</tr>
<tr>
<td>Transparency in governance</td>
<td>Environmental considerations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOW UNCERTAINTY &amp; LOW IMPACT</th>
<th>HIGH UNCERTAINTY &amp; LOW IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing and export support</td>
<td>Government investment and subsidy</td>
</tr>
</tbody>
</table>

The aforesaid extreme of uncertainties, when plotted would depict four scenarios as below:

Manufacturing Sector –Likely Scenarios

**SCENARIO 1 : Trouncing Tiger (Break-through Innovations & Economic Buoyancy)**

This is India of our dreams poised like a Royal Bengal tiger symbolizing majesty and magnificence. We imagine India has been reinventing its golden past when the world came here to share her pie of prosperity. The double-digit GDP growth for more than a decade has placed India in the top three of global economies. India now commands around 10 per cent share of world trade and has been championing technology led growth. India is now home to

![Diagram](attachment:diagram.png)
High-end manufacturing operations producing low-volume high-value special purpose applications for the world. On occupying the global leadership role, India promotes peace and prosperity among all her neighbours by strengthening and augmenting bilateral and regional ties. With the overall improvement in economic performance, Indians enjoy better access to and affordability of quality healthcare and habitation. The enhanced societal values, human rights and gender equity have all contributed to position India several notches upward in the Human Development Index scale.

The demography has shaped like a perfect diamond with more than 45 per cent population in the productive range contributing effectively to economic activities. The entire productive band of the population has been meaningfully and effectively employed.

The big cities have long stopped growing as economic activities are more widespread and decentralized, thus turning smaller towns into near-metros with urban population touching 40 per cent with smaller cities enjoying excellent road, transportation, optics connectivity with improved urban amenities, health, education and recreational infrastructure thus attracting and retaining talents for creation of wealth in dispersed locations.

All this have brought out perceptible changes in lifestyle with double income family being the accepted norm. People are concerned and conscious about healthy lifestyle and food habits with greater sensitivity about environment. With a burgeoning middleclass (50 per cent of population), India is now the third largest consumer market in the world.

Additive manufacturing technologies, adopted earlier for prototyping have been deployed and used extensively for developing various industrial applications. These technologies have been found to have manifold growth, specifically in medical and healthcare applications. Modularity introduced in manufacturing has enabled flexibility of the operation both in terms of its range of functions and also its ability to be easily reconfigured in the face of changing conditions (thereby focusing on low volume production). Machine vision, diagnostic tools (acoustic/vibration), machine-to-machine (M2M) communications, wi-fi enabled workstations are effectively being used. Interactive decision support expert systems have helped capturing and documenting expertise generated and assimilation of knowledge gained by individuals.

Application of high end advanced sensor and fuzzy logic systems have led to advent of novel products, with more active interactive surfaces, specifically in automobiles. Virtual reality labs and online design clinics have acted as catalysts for growth of SMEs in the country. The erstwhile sprawling and huge complexes for heavy chemicals, petroleum refineries and petrochemicals are now smaller, compact and more efficient, thanks to process intensification techniques deployed. These techniques have also enabled significant reduction in energy consumption and emissions. Near net processes adopted in component manufacturing helped in effective use of material resources and energy for production.

The improved affordability has fuelled the level of aspirations amongst Indians demanding products of superior design and performance quality. The consciousness for better quality and services has been pervading thus prompting the manufacturers to tone up their quality of inputs, methods of manufacturing and after-market services for their existing products. The technological breakthroughs have simultaneously enabled manufacturers offer innovative products to novelty savvy clientele with their higher disposable incomes. Manufacturers now spend more than 4 per cent of their annual turnover for their research and design development.

With stricter norms on emissions, substantial efforts are directed to improve the energy efficiency of any production operation and transportation. Clean energy technologies have been well established with reduced raw material consumption, effective reuse & recycle and carbon emissions. With the adoption of environmentally benign
technologies, climate change is under controlled realms limiting the global warming levels within 2 deg C as targeted.

E-Governance has taken its roots with complete enumeration of individuals across the country and all C2G activities have been computerized. Operations such as birth/death registration, registration of properties, vehicle and business, payment of all taxes, issue of passport, driving licenses have all been brought on e-platform for efficient and transparent operations.

All the relevant Government policies both at the Central and State levels concerning the manufacturing sector are in unison creating highly conducive business environment. Major hurdles such as labour laws, land acquisition, women employment have been resolved amicably with a win-win approach for the stakeholders. The companies are allowed to retrench surplus labour force only when they contribute 1 per cent of their total turn-over to the National Skill Development Fund. The fund, professionally managed for effective returns, is deployed in skill development programmes of the retrenched labour. This is essentially a 'safety net', where a worker is trained for newer or higher skills and supported by the minimum wages payable during the training period. The programme also helps in suitable placement of trained workers thus providing an opportunity in upward career mobility.

India is completely aligned with the global economy with seamless transfer of funds, technology and even manpower. Indian corporate houses have been routinely accessing capital from International sources on the assurance of higher returns. The corporate sector has now mastered the game plan of mergers & acquisitions especially for technology & IPR related issues trying to transcend geo-political boundaries. Small scale entities and start-up entrepreneurs are being supported by angel investors and venture capitalists for really worthy innovations by helping them achieve global market or by enabling them get gobbled up by bigger players. Entrepreneurship has been the new mantra of success in India creating wealth, generating employment, fostering innovation and projecting Indian cerebral success stories to the world.

The fiscal system put in place by the Government offers no ambiguity; they are simple, transparent and encouraging for the economic activities. With the application of IT enabled tax collection & payment infrastructure, human interfaces have been totally eliminated. Deployment of appropriate technologies coupled with breakthrough innovations, astute fiscal management and prudent governance, manufacturing sector has truly leapfrogged with the employment of factors of production in an effective manner. With the balanced resource allocation and progress among agriculture, manufacturing and services, India has been on the right path to sustainable development.

India stands tall among all the nations in the world for her dogged pursuit of non-violence, promotion of fraternity, and extending helping hand to others in distress. The knowledge-based growth and economic prosperity have gone a long way to promote the happiness and confidence exuded by her citizens.

SCENARIO 2 : Swaying Elephant (Economic Prosperity but Low Novelty Regime)

Indian economy has progressed well with 10 per cent YoY growth in this scenario ushering in simultaneous changes in urbanization and life style of people. India has been successful in attracting substantial share of FDI, which has bolstered the infrastructure and basic manufacturing operations. Huge funds have also flown in as FII in Indian equity market. This has created a strong tertiary sector based economy strengthening the services sector and generated jobs with fancy pay packages. Sectors such as banking, financial services, insurance etc. have all flourished well catering to the international trade and commerce.

People are content with their basic needs being met with easy efforts. India has long forsaken the journey towards technological excellence. Indian innovations are at low key with the gifted scientific minds leaving the country for better intellectual pursuits elsewhere. India has reconciled itself to be a cheap manufacturing base where the global players with their patented technology know-how congregate to convert them into products for domestic consumption.

India has done rather well in primary industrial sectors such as manufacturing steel, aluminium, cement, textiles, power generation, petroleum refining, mining and has
been meeting the domestic demands. The entire industrial sustenance depends on acquired technologies. The national economy has bloated in size and the domestic market has occupied huge elephantine volume without any cutting edge technology while missing out the global leadership and esteem.

This scenario may not be sustainable in the long run as international investors are on a continuous look out for cheaper options. With any such economically attractive locations, India may lose all her competitive edge and the investments may leave Indian shores denying the economic benefits to the country.

The economy tends to portray a happy situation without strong fundamentals. With the services sector leading the pack, the wealth distribution is skewed benefitting only the select section of people. India is placed rather lowly in the world in technology value chain. The situation will lead to creation of low-skill job opportunities in basic industrial sectors. By neglecting technology innovation in manufacturing sector, the economy may not be sustainable in the long run and may be quite vulnerable to vagaries of the extraneous forces threatening the country’s stability.

SCENARIO 3 : Foraging Fox (Technological Excellence faced with Economic Slowdown)

This scenario depicts India where technological development and economic progress are not in tandem. This is rather a sad story where the individuals are worshipped around the world while India whines in agony.

India has been squabbling with fiscal policies tweaking them on short-term emergencies. Without aligning with the global economy, India has focused more and more for indigenization. The world has moved on. The developed countries have located greener pastures to park their FDIs. With the investments from overseas sources (FDI & FII) drying up, Indian economy is in doldrums. Confronted with burgeoning energy import bill, India has hardly any surplus to invest in manufacturing, education and health. So while economy has been stagnating without newer employment opportunities and creation of wealth in real terms, it faces the fangs of inflationary pressure for acute resource constraints.

With the overall gloom in the economic scenario, the national research and educational institutions of international standing have achieved great intellectual heights. They have been working on cutting edge technologies adding to their kitty of breakthrough innovations on a regular basis. Their scientific dissertations are world class; intellectual properties are protected globally. The industrial R&D outputs have also kept pace. But in a stagnating economic set up, their innovations are not exploited commercially in India. International companies routinely approach these pathfinder Indian institutions lapping up their technologies with handsome handout of royalty. Sadly enough the fruits of such innovations, which could have been the game changers for Indians have eluded them.

The scenario typically depicts cunning but opportunistic foxes foraging the best for themselves in a forest.

SCENARIO 4 : Marauding Monkeys (Economic Downturn along with Technological Obsolescence)

This is the scariest of them all where, India is delegated to dark dungeons. Due to extreme fallouts in geopolitical scenario and also for the lack of political will and leadership, governance has gone into complete disarray. Enhanced hostility by its neighbours and mindless acts of terrorism are threatening the nation’s stability at times. Self-serving, priorities of political leaders have taken over the national interests. Regional imbalances have cropped up resulting in a whole lot of internal strife, inequitable development has caused widespread discrepancy and the federal structure is too constrained tending to collapse.

All these have resulted in irreversible damages to Indian economy shoeing away the global investors. The technological prowess has taken a backseat and socio-economic system is in tatters. World has firmly stamped seal of ‘the failed state’ on India.

Industrial activities are at the lowest ebb and intellectual pursuits are no longer respected. The total darkness of despair has descended on India. The people are the worst sufferers with no employment opportunities and augmentation of disposable income, faced with spiraling double digit inflation. In such a gloomy scenario people have lost their self respect and social values, always trying to fend themselves from impending perils and pitfalls.

The scenario typifies when the monkeys take over the forest with no
orderly hierarchy, no laws and rules of the games but might and muscle are deployed for immediate sustenance.

The scenario is the most pessimistic depiction of the future, where not a single parameter has worked in the country’s favour. Economic bumbling, delinquency in governance and geo-political strife have all pushed the country to its nadir, to almost an irreversible regression, where India is writhing with pain. In such a gloomy socio-economic backdrop, intellectual pursuits have taken a backseat and technological excellence is long forgotten.

Conclusion

The scenarios attempt portrayal of India 20-25 years from the current time frame. Hence, in the ‘best case’ scenario, India would have attained the developed country status by treading the path of rapid economic progress and adopting appropriate policies in the intervening period. With such economic attainment, manufacturing activities in the basic industrial sectors of steel, cement, power generation etc. while following a steep growth trajectory initially would tend to taper off eventually. The bulk manufacturing operations would be expected to grow @ 3-4 per cent purely on incremental and renewal basis. Indian manufacturing sector would be positioned in high-end of the value-chain focusing mostly on customized & flexible production, end-use specific applications development and precision engineering. Such high-value manufacturing activities may not create large-scale job opportunities in the long run and services sector in the developed economy is expected to offer valued career options for majority of the population with higher skill sets.

An important inference in the ‘best case’ scenario is simultaneous prosperity of the global economy. India being a large country with a humongous domestic market can absorb shocks to some extent but cannot prosper in isolation purely on the merit of indigenous consumption. Hence, it is imperative that the economic progress should pervade worldwide and the geo-political strife be minimized.

While scripting the country’s future, India runs the risk of slipping into Scenario – 2 (economic prosperity but low novelty regime) by choosing an easier path to contentment. It is hoped that Indians with their preference for education and allied skill development, would champion the knowledge creation activities especially by exploring entrepreneurial avenues. This is expected to steer the country firmly into knowledge leadership regime.

The scenario analysis may be construed as wishful thinking for the collective good of people along with a wish list of actionable options but it cannot be considered as the forecast outcome unless buttressed with the right intents and initiatives.

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Electronics Voting Machines

Election Commission of India designed EVMs by collaborating with two Public Sector undertakings viz., Bharat Electronics Limited, Bangalore and Electronics Corporation of India Limited, Hyderabad. These Electronic Voting Machines ("EVM") are being used in Indian General and State Elections to conduct electronic voting in parts from 1999 elections and in total since 2004 elections.

These indigenously designed EVMs were first used in 50 polling stations of Parur Assembly Constituency of Kerala in May 1982. These machines could not be used after 1983 after a Supreme Court ruling that necessitated legal backing for the use of Voting machines in elections. Since, November 1998, EVMs have been used in each and every general/bye elections to Parliamentary and Assembly Constituency. India was turned into an e-democracy in General Elections 2004 when 10.75 lakh EVMs were used across all polling Stations in the country. Since then, all elections are conducted through EVMs. The EVMs have many important features. They are very simple to operate. The Program which controls the functioning of the control unit is burnt into a micro chip on a “one time programmable basis”. Once burnt it cannot be read, copied out or altered thus, making them tamper proof and eliminating the possibility of invalid votes, facilitating the counting process much faster and reducing the cost of printing. An EVM can record a maximum number of 3840 votes. An important feature of EVMs is that it can be used in areas without electricity as it runs on alkaline batteries. However, the Elections can be conducted through EVMs if the number of candidates does not exceed 64.
ib Sankar Mandal (37), a mechanic from Kokrajhar, has modified the auto engine incorporating a process to pre-heat the incoming air for complete combustion of the fuel, significant improvement in the mileage.

As a child, Sib Sankar made various models like wind turbine, water pump, motorcycle etc., he used to participate in science exhibitions and win prizes. Somehow, he could not continue his studies beyond class ten due to the poor financial conditions at home. But he continued to work on the science models and took up odd jobs in workshops including electric wiring works, water system work etc. He continued to make models, which were exhibited at “Bodo Sahitya Sabha exhibition”, “Krishi Vibhag Pradarshini” etc among others. His Hitachi crane model in an exhibition impressed an engineer so much that he offered him a job at the site of GAMMON in Arunachal Pradesh, but he did not join as it was too far from his home. But he is now willing to explore an opportunity outside Kokrajhar. Apart from his interest in models and mechanics.

**Genesis**

While studying the working models of bike engines in garages, he identified gaps, which reduced efficiency. After many rounds of changes, he was able to modify the valve system and the heat chamber, which resulted in increasing the mileage to about 65 km/l. While he was working on the engine, he came to know that pre-heated fuel results in better combustion.

**The Modified Auto Engine**

The innovation is a modification of an auto rickshaw engine assembly. In the modified system, a part of the exhaust gas is utilized to heat the incoming air while the remaining part is utilized to heat the mixture containing both the air and fuel before the entry to the engine. This is to ensure the complete combustion of the fuel, which results in increased fuel efficiency.

The heat from exhaust gas is utilized to warm the intake air by means of a heat exchanger having surface contact with the silencer pipe. Some exhaust gas is channelized to the carburettor section, which is used to heat the air fuel mixture using another heat exchanger. Besides the cylinder valve has also been modified in a manifold way so as to ensure that the air fuel mixture does not move out from the cylinder.

Using this system, lesser harmful pollutants are released in the environment due to improved fuel combustion. Also, the temperature of the exhaust gas is less, ensuring that heat does dissipate in the environment. The system was tested at IIT Guwahati, which reported that the fuel efficiency increased by 35 per cent using this system in comparison to other conventional engines. It was also mentioned that preheating both the intake air as well as the charge using exhaust gas was a new concept which is possible for other three wheelers as well. With the support of NIF, an improved prototype is also being made and further tested by the IIT Guwahati experts.

Prior art search has disclosed preheating methods of intake air (for cold start) for small period of time. But none of the system showed the capacity to perform two levels of preheating and the alternatives available are only super charging and turbo charging where increased intake of the exhaust pressure is allowed to enter in the combustion chamber for better combustion. Hence considering the novelty of the system, NIF filed the Patent (1811/KOL/2008) in the name of Sib Sankar Mandal.

At present Sib Sankar Mandal is using this system in his auto rickshaw and is satisfied with the performance.
DO YOU KNOW?

CROWD-SOURCING

The term ‘Crowd-sourcing’ was coined in the year 2005 by Jeff E. Howe and Mark Robinson. It is defined as ‘the process by which the power of the many can be leveraged to accomplish feats that were once the province of a specialized few’. Crowd-sourcing refers to the process for seeking contributions, raising funds, services, new ideas, content, pictures and information from a large pool of people especially from internet or online communities instead of a conventional known supplier. The rationale behind it is that more heads are better than a single head. The companies are often inclined towards crowd-sourcing as it helps them to widen their horizon to attract the best pool of talent and skills as it is inexpensive or rather free of cost. This principle is often applied to divide the tedious work where a wide variety of information is to be gathered. It is based on the efforts of many self identified people, amateurs or volunteers, part time workers, experts or small businesses where each one adds his contribution which helps to get better quality of content and ideas for obtaining a more comprehensive result. The work is done faster and usually with reduced errors by people from different parts of the globe across various sectors to work in collaboration on a particular target or a project through an online platform bringing together expertise of various levels that can very well be utilized to seek profit making. Usually, the only reward is the appreciation for their intellectual satisfaction. But in some cases, the contributing members are also paid or given prizes.

There are different types of crowd-sourcing such as crowd-source designing, crowd-source funding or crowd-funding, micro-tasking and open innovation.

EUROCLEAR

Euroclear was founded in 1968 in Belgium to settle international and domestic security based transactions especially in the eurobond market. It is a financial services company specialising in settlement of securities transactions and asset servicing. It provides securities services to financial institutions based in more than 90 countries. It is the largest international central securities depository in the world. The Euroclear’s total turnover is more than 500 trillion euros per annum and its assets held for clients are worth 23 trillion euros.

In 2012, India had started exploring the possibility of joining the Euroclear to attract foreign investment into India which was expected to deepen its capital market. Financial markets experts argue that since Euroclear has a wide reach and strong infrastructure many of the international investors would invest in India only if the product is allowed to be settled through the Euroclear channel. Joining the Euroclear would facilitate inclusion of India in global domestic currency bond indices and making it easier to trade in Indian securities abroad. However, joining Euroclear settlement system would require changes in the Foreign Exchange Management Act.

(Compiled by Vatica Chandra, Sub Editor)
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Voter Turnout Trends Over the Years

![Graph showing voter turnout trends over the years]

(61.17, 62.33, 63.04, 60.49, 64.91, 61.99, 61.97, 59.95, 58.07, 58.21, 66.4)
## STATE WISE TURNOUT FOR GENERAL ELECTION 2014

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<tr>
<th>State</th>
<th>Male Turnout</th>
<th>Female Turnout</th>
<th>Total Turnout</th>
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<tr>
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<tr>
<td>Assam</td>
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<tr>
<td>Punjab</td>
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Note: Turnout percentages are approximate and may vary by region within the state.
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