

# THE ADMINISTRATOR

Journal of LBSNAA

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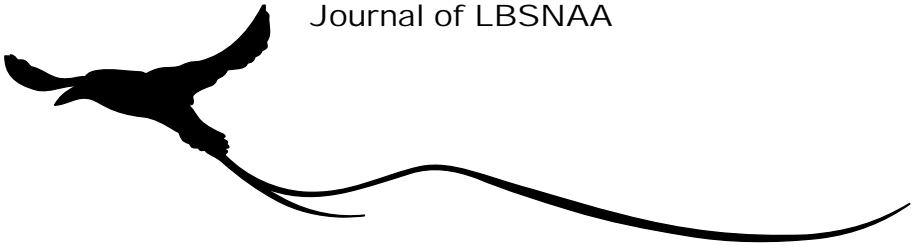
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# Land Bonds: An Innovative Strategy for Financing Land Acquisition in Kerala

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## Executive Summary

Land bond (LB), a secure monetary instrument issued by the government with assured returns and backed by the state guarantee, has been mooted to overcome resource crunch and hurdles faced in land acquisition for development projects. The bond could be used to overcome opposition from landowners for projects such as four-laning of national highways. Each bond would carry additional stamp duty (SD) rights with special discount. The bonds would be acceptable as Earnest Money Deposit (EMD) and security by the government. There would be no tax liability for rural/urban agricultural lands. Income tax on urban commercial land, payable only on redemption, would be reduced if it was used for stamp duty payment. Each bond could be used to pay a portion of the stamp duty. Land acquisition faces resistance even when prevailing market rate is offered, citing that future appreciation is not considered. Also, there are administrative issues related to offering compensation that is higher than the prevailing market rate. This leads to delay. Allowing land owners a share in the increased revenue caused by future appreciation would remove a major constraint. In addition, giving land owners the ability to exercise redemption options at periodic intervals will help facilitate trading in land bonds. Though not common in India, land bonds are used widely in different parts of the world for acquiring land for projects. Governments use land bonds to give non-cash compensation or deferred cash compensation to land owners whose land holdings are acquired for public purpose. Many of the countries that have used this instrument made them tax free bonds with yields pegged to inflation rate, thus ensuring real returns for the bond holders. There is need for adopting innovative strategies to leverage the resources available with public sector agencies in order to mobilize resources outside the state's annual budget for productive investment. Land bond is one such instrument which seeks to raise resources for land acquisition outside the annual allocation of the state budget. Cochin International Airports Limited (CIAL) developed in mid 1990s is a true and innovative model of Public Private Partnership (PPP) even before PPP projects were developed in the Indian highway sector. It's now time for Kerala to lead the

way for an innovative framework in finding resources for land acquisition to strengthen its infrastructure. The issuing agency (a government undertaking) will guarantee the redemption value of the bond, thus offering the much needed assurance and protection to the bond holders. Special discount for use of land bonds as part of stamp duty in the state government shall notify land bonds as an acceptable instrument for payment of stamp duty, security deposits/EMD, etc., in all contracts of state government and its undertakings. Land bonds should be made an acceptable form of security deposit for government contracts. Government may also allow voluntary use of land bonds for making statutory payments such as vehicle registration tax, additional Floor Area Ratio (FAR) charges, etc., subject to a maximum of 25% of the applicable payment.

First recorded use of land bond was from Ireland in 1925 for acquiring land for its landless citizens. The experiment proved highly successful after which several developing countries in Africa and Latin America such as Jamaica, Brazil, etc., introduced land bonds in 1980s and 1990s with adequate modifications to suit the local requirement and public purpose. While efficient design of financing strategies could raise resources, equally if not more challenging is to prepare the implementing agencies to increase their efficiency to ensure timely and sensible utilization of the resources.

While land bond could offer a way out to find resources for land acquisition outside the state budget, an efficient administration to conclude the statutory procedures for land acquisition within shortest time possible is most crucial for successful roll out of the land bond scheme.

#### Background

Acquisition of land has been the major bottle neck in the way of infrastructure development in Kerala. No project will be funded without completing land acquisition. Land acquisitions face a lot of resistance even in cases where attractive compensation in terms of prevailing market rate is offered. In many cases, people are reluctant to sell their land because they know the land value will appreciate in future as a consequence of developmental activities carried out in nearby areas. Lot of anti-acquisition agitations have been held on the grounds that the project affected people are deprived of a share of the land value that enhances after a project comes into being.

A land bond scheme which allows the land owners a share in the increased revenue caused by future appreciation would remove a major constraint in issues of land acquisition. In addition, giving land owners the ability to exercise redemption options at periodic intervals will help facilitate trading in land bonds. Land bonds are used widely in different parts of the world for acquiring land for projects. Governments use land bonds to give non-cash

compensation or deferred cash compensation to land owners whose land holdings are acquired for public purpose. Many of the countries that have used this instrument made them tax free bonds with yields pegged to inflation rate, thus ensuring real returns for the bond holders.

1. Need for an innovative strategy for resource mobilization and settlement of claims for land acquisition
  - A modern, efficient and reliable public infrastructure is the backbone of a resilient economy. The economy of Kerala, in spite of its proud achievements in high human development index and high per capita income, thanks to the remittance from overseas employees, struggles to build a strong economy in the state. One of the main obstacles to the next stage of economic growth in the state is its ageing infrastructure, which is in dire need of significant improvement.
  - Acquisition of land has been the major bottle-neck in the way of infrastructure development in the state. Opposition from land owners is largely due to inadequate compensation and inordinate delay in award of compensation. Further with the reduction, central sector schemes for capital projects in many sectors over the years require state to design innovative strategies for resource mobilization for capital expenditure needs.
  - It is proven empirically by economists around the world that investment in infrastructure has a very high Economic IRR (Internal Rate of Return). While Equity IRR is used as yardstick for returns from investment in private project (that accrues to only its promoters/owners), Economic IRR is the yard stick to measure benefits that accrue to the society at large from investment. Public infrastructure is typically characterized by their low equity IRR and high Economic IRR-demonstrating that infrastructure project is essential for the society.
  - Putting off investment in infrastructure could also result in ballooning public debt in future, thus weakening the state economy. The main sources of government income are taxes on transaction of goods and services in the economy. Lack of efficient infrastructure serves to reduce such transactions within the economy and hence serves to lower the tax revenue leaving a gap between the state's revenue and expenditure, leaving the government with no other option than to borrow, which increases public debt. Sufficient capital investment to kick-start multiple economic activities in medium to long term is therefore necessary to achieve sustainability of public finances.
  - However, government's ability to borrow through the state's annual budget is regulated for good reasons under Fiscal Responsibility and

Budget Management (FRBM) Act 2003. Unless the borrowed capital is deployed in positive income generating assets, the ability of the future government to repay the public debt raised today will be severely constrained pushing the state to an economic crisis point.

- Therefore, it is imperative for the government to think of new and innovative ways of resource mobilization outside the state's annual budget to effectively meet its development needs.
2. Resources for Public Investment outside the State Annual Budget
    - The present Finance Minister of Kerala, who is a renowned economist, suggested the need for adopting innovative strategies to leverage the resources available with public sector agencies in order to mobilize resources outside the state's annual budget for productive investment.
    - Land bond is one such instrument, which seeks to raise resources for land acquisition outside the annual allocation of the state budget. The land owner will get a share of the future appreciation in value of land and the returns from the bond will appreciate in proportion to the increase in the value of land.
    - Kerala Infrastructure Investment Fund Board (KIIFB) is a Special Purpose Vehicle (SPV) for mobilizing and channeling the funds to the various infrastructure projects in the state. KIIFB is acting as the key arm of state government to facilitate planned, hassle-free and sustained development of both physical and social infrastructure ensuring all round well-being and prosperity in the state. KIIFB is also acting as the nodal agency for scrutinizing, approving and funding major infrastructure projects including PPP projects. The main objective is to provide investment for projects in sectors like transport, water, sanitation, energy, social & commercial infrastructure, IT, telecommunication, etc.
    - Land acquisition is one of the major hurdles in the completion of such infrastructure projects. Most often the budgetary support for the projects does not include the cost of land acquisition. Under such conditions, it is suggested to offer compensation in the form of market-linked land bonds to the land owners. The principal amount will be pegged to the market rate of land acquired. It is estimated that the value of a land that costs 1 lakh at the time of acquisition may appreciate to 4 lakhs in five years. The value of the bond in the hands of the holder will rise proportionately to the market value. The bond holder can also redeem money at specific intervals. If the person is faced with a sudden crisis, he can exercise the redemption option.
  3. History of Infrastructure Development Innovations in Kerala
    - Kerala can rightfully boast of several development innovations in public investment framework. CIAL developed in mid 1990s is a true and

innovative model of PPP, even before PPP projects were developed at national level in the highway sector. Kerala has also skillfully mastered the art of using government owned lottery scheme as a means for finding resources for socially important public investment. It is now time for Kerala to lead the way for an innovative framework in finding resources for land acquisition to strengthen its infrastructure. Hence, the idea of land bonds.

#### 4. "Land Bonds" - The Concept

- A simple, secure, monetary instrument bearing the financial value equivalent to the compensation agreed upon between the land owner and government. The issuing agency (usually a government undertaking) will guarantee the redemption value of the bond, thus offering the much needed assurance and protection to the bond holders.
- The ownership of the land will remain with the landowner till it is actually surrendered or alternative accommodation is provided in a developed area or bond value is given to the owner. The bond is transferable and can be traded in secondary market. Those who are in need of immediate cash can redeem it at its face value with the issuing agency. The bond could be used to overcome opposition from land owners for projects like four-laning of national highways, outer ring roads, industrial growth centers, new township development, etc. It is suggested that a special discount on stamp duty may be allowed to bond holders. Land bond can overcome resource crunch and hurdles faced in the land acquisition for developmental projects.
- Each bond will have a specified face value (say Rs. 100) with a fixed tenure (say from seven to ten years). Each bond will also have a coupon rate of at least 1% risk premium (to be decided based on the monetary market conditions prevailing at the time of issue of bonds) above the repo rate and the interest will be payable every year till maturity/retirement of the bonds. The effective risk premium would need to be about 25 basic points above the G-Sec yield for the comparable tenure.
- These bonds are specially designed to benefit the land owners whose land is acquired by the government. The bonds can be issued either in physical or demat form. However, secondary trading is allowed only in demat form as per applicable regulations and hence anyone who chose to hold physical bonds would need to make it in demat form if they wish to trade it in secondary market. By choosing the demat form, the bond holder could avoid the additional burden to preserve the paper bonds till maturity. However, an option for physical form is suggested to cater to

those who may not be very conversant with demat forms, and hence prefer physical form for perceived security.

- The bonds can be issued in series annually based on the requirement and capacity of the issuing agency. Thus, each year would have one series of bonds. Post issue of each series, it will be listed in leading exchanges similar to corporate bond market, which has seen gradually rising interest in India in recent times.
  - Additional features to generate demand for LBs in secondary market:
    - LBs to be acceptable as EMD/security deposit for all Government of Kerala (GoK) contracts.
    - LBs can be used for payment of stamp duty in real estate transactions.
    - Make LBs mandatory for stamp duty for high value transactions >Rs. 25 lakhs.
    - Min. 10%; Max. 50% of SD (to help maintain cash flow to government).
5. Incentive for Use of LB for Stamp Duty
- Discount in SD up to 10% of the face value of LBs (max. of 5% of applicable SD).
  - Encourage voluntary use of LB for stamp duty-generate demand.
    - (i) For a real estate transaction with value of >Rs. 25 lakhs.
      - Min. 10% value of stamp duty to be paid through LBs.
      - Max. 50% of stamp duty can be paid through LBs.
    - (ii) By using LBs for part payment of stamp duty, the buyer can claim discount of
      - 10% of the aggregate face value of the LBs used.
      - Subject to max 5% of the applicable stamp duty.
6. Special Features Proposed for Land Bonds
- Being a new concept, it is proposed to give some special features to land bond to make it more acceptable to land owners as well as to improve its liquidity in secondary market by creating demand amongst investors. The special provisions are also designed suitably to encourage systematic retirement of bonds over their tenure, thus minimizing the lumpy liquidity requirement for issuing agency at the time of redemption of each series. The specific additional features proposed are detailed below.
  - Special discount for use of land bonds as part of stamp duty in the state: State government may notify land bonds as an acceptable instrument for

payment of stamp duty. While for low value transactions, use of land bonds may be made voluntary. Use of land bonds shall be made mandatory for high value transactions (exceeding Rs. 25 lakhs). To encourage use of land bonds, it is proposed that a special discount @10% of the face value of land bonds used for payment of stamp duty (subject to a maximum of 5% of applicable stamp duty) may be notified by the government.

- It may be noted that the bonds used for payment of stamp duty shall stand retired and the issuing agency would save the interest liability on it during the year and subsequent years. Hence, the discount offered does not cause any significant financial loss to exchequer but could serve as an incentive to encourage systematic retirement of bonds.
- The ceiling on special discount @5% of applicable stamp duty would serve as an effective restraint against rampant use of land bonds for payment of stamp duty and consequent strain in cash flow to exchequer. However, state government may also notify that maximum value of land bonds that can be used to pay stamp duty shall be 50% of the applicable stamp duty to avoid any undue strain cash flow the exchequer.
- Land bonds should be made acceptable form of EMD and security deposit for government contracts: To improve demand for land bonds in secondary market, government may notify land bonds as acceptable instrument for payment of security deposits/EMD, etc., in all contracts of state government and its undertakings. Government may also allow voluntary use of land bonds for making statutory payments such as vehicle registration tax, additional FAR charges, etc., subject to a maximum of 25% of the applicable payment.

#### 7. Administrative & Financing Framework

Two options are proposed for consideration of the government:

- Option 1: Annuity support from government: The issuing state government undertaking, based on its credit rating, shall obtain the requisite regulatory approval for each series of issue (annually).
  - The size of each series would be decided based on the financial capacity of the issuing agency to satisfy the related regulatory requirement.
  - To enable the issuing agency leverage its resources, state government may offer an annuity towards:

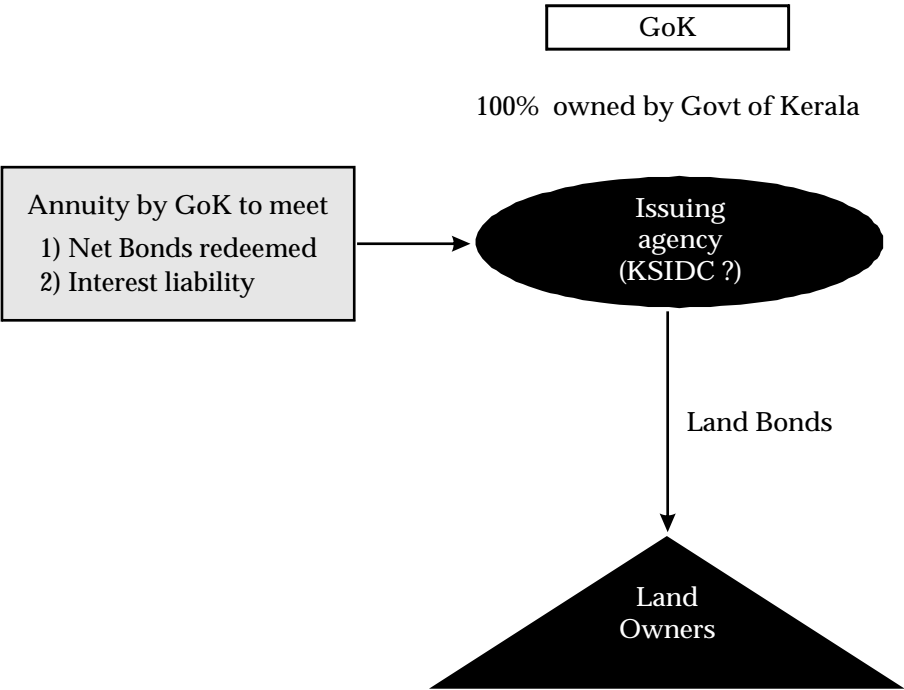
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- Annual interest payment liability; and
  - Net bonds redeemed annually (the bonds redeemed could be re-issued by state agency thus reducing the net burden on the state).
  - Option 2: Through value capture financing: State government may establish a wholly owned undertaking to serve as custodian of unencumbered public land. This is to help leverage the value of vacant public land. State government may also earmark three or four revenue streams to the entity so created in order to help it achieve the cash flow levels to service the bond. The government may provide an additional contingency guarantee for deficit funding to cover bond service liability so as to help the issuing entity get higher credit rating and low risk premium.
  - Some of the new revenue streams through direct value capturing from beneficiaries of public infrastructure are suggested below.
    - License charge for commercial land use alongside major roads: Since owners using their land holdings alongside major roads for commercial uses derive higher benefits from it compared to residential users, which is mainly on account of the access to public infrastructure, an appropriate license charge may be levied to monetize the externality enjoyed by such land owners.
    - Infrastructure improvement charges: A special betterment levy (infrastructure improvement charges) may be made for all new construction approvals in the project influence area (block/tahsil comprising the project area).
    - Additional levy on stamp duty: Since land transfers post infrastructure development derive higher returns to the owners due to the project influence, an additional cess may be levied over normal stamp duty applicable from those properties positively impacted by the project so as to monetize the externality.
    - Green cess: A green cess may be imposed on new private and commercial motor vehicle registration which would help part finance the land cost for infrastructure created.

### Comparison of Options

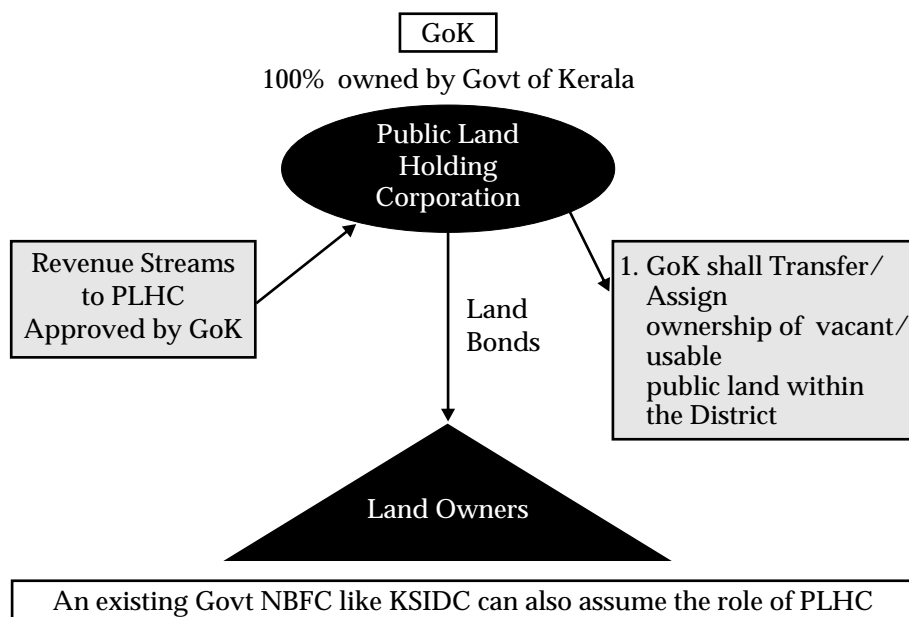
- The relative merits and demerits of each option are evaluated below. Government may choose the option most suited to its development strategy.

Sl. No.	Option 1 (Annuity)	Option 2 (Value Capture Financing)
1	No additional taxation proposed.	Less stress on state budget-new levies/fees to part finance LBs.
2	Government support-annuity to meet outstanding redemptions and interest payment.	Government support only for deficit (liabilities-income from levies).
3	Limitation on annual bond issue size (depends on financial standing of issuing agency).	Bond issue size could match value capture from project.

Financing Land Bonds: Option 1 (Annuity by GoK)



## Financing LB: Option 2 (Value Capture Financing)



## 8. Direct Benefits to Land Owners

- Proposed land bond will ensure benefits to land owners in multiple ways:
  - They get the full and final compensation immediately after the value of compensation is agreed upon by the acquiring agency without prolonged procedures.
  - Those who are not in urgent need of cash can however chose to hold the land bonds longer wherein they will be entitled to receive interest payments and are also likely to be benefited through a higher premium for the bonds in secondary markets.
  - Since the land bonds are provided with additional benefits such as nominal discount on stamp duty, the bond holders can chose to sell their bonds in secondary market at such time when the demand is high (and consequently bond prices are high).
  - Those who are in urgent need of cash could either trade the land bonds in secondary market or encash it in the single window system operated by issuing agency for early redemption.

## 9. Need for Special Redemption Window

Apart from the secondary market, the issuing agency could also keep a window open for redemption of land bonds (especially in the first one or two

years till secondary market matures) to help those who are in urgent need of cash but unable to trade in secondary market. Such facilities are essential in the initial launch of land bonds (and should preferably be made available only to original land owners) but may not be necessary once the secondary market for land bonds become active.

#### 10. Land Bonds - Global Experiences

Even though bond market is attracting increased attention and has a growing market in India, it is yet to hit the market. Ireland used the land bonds in early part of 20th century for acquiring land for its landless citizens. The experiment proved highly successful after which several developing countries in Africa and Latin America such as Jamaica, Brazil, etc., introduced land bonds in 1980s and 1990s with adequate modifications to suit the local requirement and public purpose.

In Ireland, Ireland's Land Commission under its Land Acts, acquires land and pays vendors (landowners) for the acquired land with new land bonds equal in nominal amount to the purchase money and carrying interest as from the date on which the land purchased. The law mandates that new land bonds issued to a vendor for the acquired land be accepted by such vendor as the equivalent of the corresponding amount of purchase money, and any person having power to sell may enter into a subsequent purchase agreement notwithstanding that the purchase money under the laws of Ireland is paid in new land bonds instead of cash.

In Jamaica, the act allows the government to pay with bonds any land acquired from any person or entity who owns the land or to whom compensation is payable. The land bonds have the following features:

- The bonds are issued by the state authority responsible for finance.
- The bonds are one of two types: Series A or Series B.
- The land bonds may be used to pay in whole or in part, solely at the discretion of the government.
- The terms of the bond are described by the bond. It includes principal, interest and maturity period.

In Brazil, the constitution has several articles covering the use of bonds to compensate for land acquisition. Some of the articles are:

- Article 182, which states that a municipal government may, for an area included in its master plan, according to Brazil's federal law, expropriate land. The municipal government may pay for the land in public debt bonds, redeemable within up to ten years, in equal and successive annual installments, ensuring the real value of the compensation and the legal interest.

- Article 184, which states that it is within the power of the state to acquire, on account of social interest, a rural property against prior and fair compensation in agrarian bonds with a clause providing for maintenance of the real value, redeemable within a period of up to twenty years computed as from the second year of issue, and the use of which shall be defined in the law.

## 11. Conclusion

The success stories of using land bonds to raise capital for land acquisition underscore the need to scientifically design the bond scheme taking into consideration the typical economic characteristic of relevant state/society. Kerala, which ranks in the top ten states in India by “per capita income” and with a very high social equity ranking, is an ideal state to devise such novel financing strategy. As Indian financial markets have achieved considerable maturity and alignment with global financial markets, well-designed innovative financing instruments would find acceptance to raise adequate resources to finance infrastructure development. The people of Kerala, having a sizeable non-resident Keralites working abroad, are quite aware of such instruments successfully implemented abroad and are willing to participate in these by investing in land bonds provided safety and assured returns and liquidity in the market. In the recently concluded Loka Kerala Sabha (global meet of Keralites) in January 2018, many participants expressed their desire and interest in land bonds when this concept was discussed in the forum.

Challenges on hand for the state government: While efficient design of financing strategies could raise resources, equally if not more challenging is to prepare the implementing agencies to increase their efficiency to ensure timely and sensible utilization of the resources. While land bond could offer a way out to find resources for land acquisition outside the state budget, an efficient administration to conclude the statutory procedures for land acquisition within shortest time possible is most crucial for successful roll out of the land bond scheme.

If the concept is approved, an administrative approval for the land bond policy is to be issued by the Government of Kerala by nominating a nodal agency for the purpose, and also to finalize the option for land bonds. Necessary amendments/modifications are required in the rules concerning stamp duty and registration fee and general conditions of public tenders allowing land bonds as an instrument of funding EMD and security deposit. Once the nodal agency is appointed, a credit rating agency may be appointed for the rating of the nodal agency. Professionally qualified financial consultants and experienced merchant bankers need to be appointed to seek regulatory approval for considering LB as an infra bond, and to design and manage the bond issue.



# Performance Appraisal of Civil Servants: Challenges and Policy Imperatives

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## Abstract

*Performance Appraisal System (PAS) is an important instrument used to orient the performance of civil servants towards good governance. The paper analyses the existing performance appraisal practices in the Government of India in a scholastic mode, identifies the existing shortcomings and gaps and recommends the way forward.*

*In the last decade, the move towards transparency in governance led to overarching impact on the performance management practices. The conventional Annual Confidential Rolls (ACRs) made way to the reformed Annual Performance Appraisal Reports (APAR). Thereafter, there was a general disenchantment with the Performance Appraisal Reports (PARs) due to its inability to differentiate between the performers and non-performers, and this led to the introduction of Multi Source Feedback (MSF) system for empanelment of officers in the Government of India.*

*The analysis has indicated that the PAS needs to be reformed further in order to contribute significantly in improving the performance of civil servants and become a key motivating factor. There is a need for integration of PAS with the organisational vision, mission, objectives and targets. The training and performance incentive policies of the government have to be re-oriented and linked with the inputs received from the performance appraisal. There is a need to establish a more robust system of 360 degree appraisal of civil servants to serve the multiple purpose of mentoring, self development and to obtain an objective, impartial and independent opinion about the traits and personality attributes of the officers displayed while discharging their official functions.*

**Keywords:** Performance Appraisal, Governance, Civil Services, Multi Source Feedback

## Executive Summary

- An effective performance management system for civil servants is imperative for good governance. Performance appraisal reports are a very vital instrument for effective performance management (PM).
- Conventionally, the performance of civil servants in India was assessed through the annual confidential reports, which lacked transparency and objectivity.
- In the last decade, the move towards more transparency in governance led to an overarching impact on various governance practices. Consequently

to recommendations of Surendra Nath Committee constituted for reviewing the performance appraisal practices of civil servants, a reformed APAR system was introduced in the year 2007.

- Research has however revealed that APAR system has certain shortcomings as perceived by civil servants, which are hindering achieving the objectives. These are:
  - It is not perceived to be having a significant influence on performance of civil servants.
  - In general, the perception is that officers are not assessed solely on the basis of targets, which reflect the organisational objectives.
  - Although it is perceived that disclosure of appraisal reports contributes in fair and objective appraisal, there is a grade inflation wherein the officers are over-assessed. The disclosure of performance appraisal is contributing towards this grade inflation.
  - There is a significant agreement on need to implement 360 degree evaluation of civil servants for effectiveness and fairness.
- Grade inflation has following adverse impacts on performance management:
  - The objectivity of assessment is compromised.
  - There is difficulty in assessing suitability of officers during empanelment at senior positions, since practically all possess outstanding ratings.
  - Practically impossible to identify deadwood in organisations.
- Due to the sustained failure of PAS to holistically and objectively assess officers, the government has introduced the 360 degree evaluation (or multi source feedback (MSF)) for the purpose of assessing suitability of officers for empanelment at Joint Secretary and above levels.
- The 360 degree evaluation involves obtaining structured and semi-structured feedback about the officer from a cohort comprising of senior officers, peers, subordinates and external stakeholders on various attributes,
- This feedback is taken by an expert group comprising primarily of retired officers/experts. Their names along with the names of stakeholders from whom the feedback is taken are kept confidential.
- The feedback is taken on various attributes like
  - decisiveness,
  - willingness to take responsibility,

- 
- initiative and innovation,
  - problem solving approach,
  - team work and leadership,
  - integrity, and
  - overall suitability for holding senior positions.
- The MSF intervention has raised certain concerns among the stakeholders, some of which have been reflected in the recommendations of the Parliamentary Standing Committee on Personal, Public Grievances Law and Justice. These concerns inter alia are:
    - Transparency and subjectivity.
    - Possibility of personal biases influencing assessment.
    - Absence of remedies to challenge this assessment if it goes against the officer concerned.
  - In addition, following concerns have also been highlighted by various stakeholders:
    - Sample of just five stakeholders for seeking feedback may be not adequate enough to accurately capture the attributes of the officers.
    - The extent of inclusion and exclusion errors, which may lead to demoralisation in higher civil servants.
    - Since the concerned officer is not being communicated about the feedback/assessment, the opportunity to him/her for self-development is lost.
  - While highlighting the concerns and shortcomings, the committee has not made any specific recommendations but left it to the government to address them appropriately.
  - The way forward is to further strengthen the MSF procedure. Following reforms are recommended:
    - Making MSF a regular exercise after every five years starting from 10th year of service.
    - The cohort size for ascertaining feedback should be increased to 20 for each officer.
    - MSF should be followed by a procedure of giving feedback, followed by counseling and mentoring of the officer for future improvements.
    - The officer being assessed should have a say in deciding the cohort of stakeholders from whom the feedback is to be taken.

- MSF can also be utilized to assess the suitability of officers for posting to sensitive field level assignments like the Districts Magistrates, Superintendents of Police, etc.
- MSF reports can become a vital input to identify deadwoods and non-performers for their eventual premature retirement as per rules.
- A system of representation after the final conclusions is disclosed, particularly for those evaluations that would be used for empanelment (i.e., 15th year for Joint Secretary, 25th year for Additional Secretary and 30th year for Secretary).
- The Performance Appraisal Report (PAR) combined with MSF can be a robust input for
  - Guiding the officers towards domain specialization, so vital for effective governance and keeping the services relevant for future needs.
  - Designing effective and appropriate training and capacity building policies.

#### 1. Introduction and Background

Developing and implementing an effective Performance Management System (PMS) for civil servants has been one of the foremost governance challenges for the policy makers in India.

The governance in India is significantly dependent on the performance of civil services and their capabilities to address emerging challenges thrown by the internal, intermediate and external environment, which include

- i) Evolving technological context.
- ii) Changing external environment in which the civil services operate. This includes the emerging role of media, the civil society, evolving federal structure and the rising levels of awareness among citizens in a maturing democracy.
- iii) Changing performance expectations from the civil servants who are increasingly expected to play a catalytic role rather than a leadership role in solving contemporary challenges.
- iv) Changing competence levels, socio-economic background and value sets of members of civil services.

There have been a series of policy interventions undertaken to achieve the objective of performance oriented and accountable civil servants in the government. The conventional Annual Confidential Rolls (ACR) have been replaced by the reformed Performance Appraisal System (PAS). There have

been repeated recommendations for implementing a performance linked incentive system in government. In 2009–10, the Cabinet Secretariat initiated the implementation of performance agreements in the ministries of the Central Government through the Results Framework Document (RFD). The present government has introduced the concept of Multi Source Feedback (MSF), which is a modified form of the 360 degree evaluation to be used along with the Performance Appraisal Reports (PARs) for evaluating the suitability of officers for empanelment at Joint Secretary, Additional Secretary and Secretary levels in the Government of India.

The paper focuses on the policies related to performance appraisal of senior civil servants in India, a vital aspect of PMS. The paper has made an effort to identify existing policy gaps/shortcomings/challenges and recommend strategies, structures and processes that could possibly facilitate performance orientation among civil servants working in government. The agenda for future research in these areas has also been highlighted.

## 2. Genesis of Performance Appraisal System (PAS) and Review of Literature

One of the most generic definitions of performance management has been attempted by the Second Administrative Reforms Commission (2008), which states that “it is a systematic process by which organization involves its employees, as individuals and members of a group, in improving organizational effectiveness in the accomplishment of organizational mission and goals.”

Performance management is a framework which is intended to provide an enabling environment for organizations to flourish and achieve their objectives. Osborne and Plastriak (1998), while highlighting the need for an enabling environment in organizations for the employees to flourish and perform to their potential, have quoted an agricultural analogy provided by Dan Loritz, which says that “a farmer goes out and spends a lot of time making sure that the fields are just right, gets all the weeds out, plants the corn with great care, put enough herbicides on it and hopes that there is enough water. And if everything is right the corn grows by itself.”

Ferreira and Otley (2009) provide a broad framework on performance management (PM) by integrating the vision–mission–organisation objectives with the strategic plans, performance measurement, assessment and incentives. This integrated framework is provided in Figure 1 in the Annexure.

According to OECD (1997), increasingly the governments are adopting modern PM practices such as incentives, performance contracts, objective, transparent assessment, etc. The traditional bureaucratic/administrative models have given way to market type-manager oriented models.

According to this study, the manager oriented models involve empowering managers by providing them operational freedom, but with greater responsibility and accountability towards results. A market model is one which, instead of monopoly based services, facilitates the public managers to compete with their private sector counterparts through the processes like competitive tendering.

OECD (2005) also states that the modern approach of PM is based on the strategy of relaxing input controls so that the rules and procedures do not become an end in themselves.

Irrespective of whether one is managing performance of organization, programs or individuals, the components of a PMS would necessarily include:

- i) Performance measurement.
- ii) Performance appraisal or assessment.
- iii) Performance linked capacity building/human resource development.
- iv) Performance linked incentives systems.

The performance appraisal reports are meant to provide basic and vital input for assessing the performance of an officer and for his/her advancement in his/her career. It is also to be used as a tool for human resource development so that an officer realizes his/her potential.

For the Japanese Civil Services (source Surendra Nath Committee, 2003), the performance appraisal is meant to evaluate the standard of accomplishment of work, including character, ability and suitability connected to their work. It is used to decide on promotion, transfer, change, special raise in salary and to help give recognition to good performers and to counsel underperformers.

Performance appraisal in context of Singapore Civil Services (source Surendra Nath Committee, 2003) defines Currently Estimated Potential (CEP) based on appraisal reports and rankings. The CEP is highest potential of work that can be handled by the officer and consists of two variables Helicopter Quality and Whole Person Qualities. The Helicopter Quality is the ability to have a holistic perspective while keeping the details in mind. The Whole Person Qualities are the intellectual qualities, result orientation and leadership qualities. Based on the two variables, the maximum possible movement of the civil servant is determined.

In India, the performance of officers of the all India services and central services were earlier being appraised through the conventional system of ACRs. Under this system, the officer being appraised would submit a self assessment based on work carried out and targets achieved. The reporting officer (usually the immediate supervising officer) would assess the officer based on subjective attributes and provide the overall rating ranging from

poor to outstanding. This assessment was reviewed and accepted by authorities up in the hierarchy. The assessment was kept confidential with only adverse remarks communicated to the officer and the officer had an opportunity to represent.

The Hota Committee on Civil Services Reforms (2004) while discussing strategies for improving governance also touched upon the need for having annual performance plans. It recommended objective, quantifiable and measurable performance goals supported by performance indicators for measuring or assessing the relevant output, service, service levels and outcomes.

The tenth report of the Second Administrative Reforms Commission (2008) titled “Reform of Public Administration” dwelled about the proposed PAS for the civil services. The key recommendations were:

- i) The system to be consultative and transparent.
- ii) Job specific.
- iii) Appraisal to be year round and not at end of the year.
- iv) Numerical ratings.
- v) Individual contribution linked to overall objectives.
- vi) Concept of performance agreement with third party assessment.

The report also deliberated on the issue of 360 degree appraisal. It discussed the need for getting feedback from multiple sources (apart from self appraisal with assessment by superiors) such as peers, subordinates, internal customers and external customers.

However, the most comprehensive review and analysis of the traditional ACR based performance appraisal system was carried out by the Surendra Nath Committee, which submitted its report in the year 2003. The committee highlighted the following six main functions of the PAS:

- i) Training and Placement.
- ii) Promotions.
- iii) Recognition.
- iv) Strengthening governance.
- v) Developing work plans.
- vi) Feedback and counseling.

The recommendations of the Surendra Nath Committee paved way for reforms in the PAS<sup>1</sup>. The key features of the reforms are:

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<sup>1</sup> All India Services Performance Appraisal Rules, 2007 available at <https://dopt.gov.in/ais-performance-appraisal>

- i) PAS follows a transparent approach, as the appraisal report is disclosed to the officer appraised.
- ii) It has an interactive method of evaluation in which the appraising and appraised officers are both involved in fixing realistic annual targets and work plans, which are to be implemented and on which officers are to be assessed.
- iii) The appraisal reports are more objective with assessment formats incorporating approved action plans and annual targets.
- iv) Effort to link performance with human resource development with a separate section dealing with the training needs as perceived by the officer appraised and officer appraising.

### 3. Review of the Existing Performance Appraisal Policies

The author had, in the year 2011–2013, during the course of his doctorate thesis, undertaken research in scholastic mode on select aspects of performance management in government. In this research, a structured survey of 117 respondents of varying seniority from Under Secretary to Secretary level, posted in 30 different ministries in Government of India, was undertaken. The respondents also represented all prominent civil services of India with average working experience of 22.69 years. The sample analysis is provided in Figures 2 to 5.

The respondents were asked to give their ratings on various statements/ assertions related to performance management practices in government. Likert type scales were used wherein the respondents were given five options ranging from “strongly disagree” to “strongly agree” to record their perceptions. The structured quantitative survey was supported by detailed in-depth qualitative interviews of selected respondents.

The analysis of responses obtained on their perceptions about the existing practice of performance appraisal is available in Table 1 of the Annexure. The table displays the mean ratings of respondents on each issue. The mean ratings for two distinct groups of higher civil servants (i.e., Joint Secretary and above) and mid-level civil servants (Under Secretary and up to Director level) are also displayed. From the results, it is evident that the respondents are only marginally in agreement with the assertion that the existing performance appraisal system has a positive influence on performance of civil servants working in the ministries.

The respondents did not agree with the assertion that officers are assessed based on targets reflecting the organizational objectives. There is a possibility of other extraneous factors influencing performance appraisal. However, there is an agreement that officers in general are assessed in a fair and just manner.

Although the respondents agreed that disclosure of annual appraisal reports to the officer being assessed is a significant enabling factor for a fair and just performance appraisal, they also perceived that there is grade inflation while rating the officers through the annual appraisal. It has also been perceived that disclosure of performance appraisal of civil servants contributes towards grade inflation.

There was significant agreement on the need to implement 360 degree evaluation of civil servants for effectiveness and fairness. Only 12 percent respondents disagreed with the proposal to implement the 360 degree evaluation system (refer Figure 6 of the Annexure).

There was insignificant difference between the senior and middle level civil servant respondents on most of the assertions related to performance appraisal system. However, there existed a significant difference in perceptions related to perceived need for a 360 degree evaluation. The senior civil servants (i.e., Joint Secretary and above level) were more inclined towards it as compared to the middle level civil servants even though both groups did significantly agree for a need to have the system in place.

The respondents were also in disagreement that the HR policy is integrated with the inputs received through the performance appraisal of the civil servants.

#### Analysis and Discussion

The reformed PAS, implemented from the year 2007 for the All India Services and subsequently extended to other Group A Central Services, has been diluted to some extent within two years of its implementation. In some Ministries, officers considered outstanding were given a liberal 10 out of 10 rating, while in others the most outstanding ones were assigned 8 out of 10. This subjectivity in markings was caused due to discretion/traits of supervisory/reporting officers in different ministries. An officer rated outstanding but getting 8/10 in one ministry will be considered lower in the assessment rankings as compared to one getting 10/10 in another ministry while being compared with each other for promotion or future postings. In the absence of any normalization, such situations may become disadvantageous to officers who were subject to a relative stringent assessment. The same variations were also experienced between states for the officers of All India Services.

This prompted the Department of Personnel to issue a directive<sup>2</sup> that, henceforth, all markings between 8 and 10 will be considered outstanding and

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<sup>2</sup> Department of Personnel and Training's Office Memorandum No 11059/23/2008-AIS-III dated 04.06.2009 accessible at [http://documents.doptcirculars.nic.in/D2/D02ser/11059\\_23\\_2008-AIS-III0001.pdf](http://documents.doptcirculars.nic.in/D2/D02ser/11059_23_2008-AIS-III0001.pdf)

9/10, all grading between 6 and 8 would be considered 7/10 and so on. Practically, this resulted in reversion to the earlier system of 5 scale grading.

It was expected that the formal disclosure will help in making the system more transparent and facilitate a fair assessment. But the experience as well as the research study discussed in earlier chapter has indicated that disclosure tends to influence the objectivity and independence of the assessment being carried out by reporting officers. The disclosure is contributing towards the phenomenon of “grade inflation”.

In the absence of hiring and firing policy in government and with minimal control on the transfer and postings of subordinate officials, the supervisory officer has to deal with the subordinates for a long tenure which may be up to 5 years. Even though the reporting officer may have a view that there is a need to differentiate while assessing the subordinates based on the perceived performance, one may be hesitant to do so. A lower grading given to an officer, once disclosed, may lead to inter-personal conflicts between the officers within the organization. Some extraneous reasons may be attributed to such assessments.

The potentially unpleasant situation is sought to be avoided by over assessing the subordinates. Thus, distinction between a higher performer and average or lower performer is minimized, creating a situation of “grade inflation”. Performance assessment becomes an exercise of improving public relations. A liberal assessor may become a popular boss and an acceptable leader. This public relations drive often reaches an extreme wherein the reporting officer asks the officer being assessed to fill in the performance assessment on behalf of reporting officer.

Interestingly, civil servants tend to accept a situation wherein they are over-assessed and there is no major distinction made between them during the annual performance assessment. One of the possible reasons for this is that the system of promotions, particularly in government, is batch-wise based on seniority with a minimum criterion of good or a very good assessment. Similarly, performance appraisal has a limited role while deciding the postings of officers on important/sensitive assignments.

However, it is in the process of empanelment at the Joint Secretary level and above in Government of India that the PARs play a very critical role. The empanelment process primarily consists of assessment of officer based on the PARs of at least past ten years period examined by an expert panel. The panel goes through the PARs analyzing the content as well as overall grades given to officers. It is here that the reconciliation of disparities in the grades given to officers working in various states and ministries of Government of India becomes a challenging task.

There are several states in the country in which the grades in the PARs are given by following guidelines in letter and in spirit. A very few officers are graded “outstanding” and there is reasonable differentiation. On the other hand, in many other states, gradings are very liberal with more or less everybody getting outstanding.

Therefore, when such officers belonging to different states are judged batch-wise, comparison of the ratings/grades will obviously put the officers belonging to states of former category at a huge disadvantage vis-à-vis those belonging to latter category.

There are two possible ways to meet this challenge. One way is to go into details of contents of each PARs and to take a view to either keep the overall grading intact or down grade/upgrade the same. However, using this technique, the assessment of officers becomes largely dependent on the level of commitment of the reporting officer in recording the PARs. If the reporting officer had not devoted a reasonable time, thought and seriousness in recording the comments, the experts may downgrade the assessment to the disadvantage of the officer being assessed.

The other alternative is to undertake a process of moderation/normalization of the overall grades based on inter-state disparities. But this moderation can also have a very serious and undesirable consequence. While officers belonging to the states that follow strict grading system may get an up-gradation based on the moderation principle adopted, the officers belonging to states which are following liberal policies may be downgraded across the board. By this process, ratings of even those officers who were really outstanding performers may be downgraded. There can be a situation where the empanelment process may even wipe out a complete state cadre, which may lead to demoralization and questioning of the process itself.

The prevalence of grade inflation has a telling effect on the performance of the civil servants in more ways than one. The governments both at federal and state levels have a policy of reviewing the performance of civil servants with the intention of phasing out the deadwood in the system. The Fundamental Rule 56(J), applicable on the Central Government employees and for All India Service officers, and Rule 16(3) of All India Service (Death-Cum Retirement Benefits), provide that the appointing authority has absolute right to prematurely retire any government servant by giving a notice of three months or three months pay and allowance in lieu of such notice.

These reviews have to be undertaken based on the service records of the officers including the vigilance history, service book, the details of leave taken by the officer, the health record, the performance appraisal reports, etc. However, with the prevailing grade inflation, this critical input becomes redundant as far as the screening of deadwood is concerned. The deadwood

continues to work in the organisation without any pressure to perform. On the other hand, the efficient officers also tend to take it easy.

For a more objective assessment, there was a pressing case to remove the dependence on a single authority for assessing and appraising. The PAS, as implemented and practiced, seemed to have failed in meeting the objective of differentiating between an average, good or an outstanding performance. The Surendra Nath Committee (2003) had already recommended 360 degree evaluation of civil servants to supplement the existing PAS for the purpose of ascertaining the reputation of civil servants. The assessment was to be done by a group of eminent persons through discreet inputs from peers, seniors, subordinates and external stakeholders on parameters of integrity, professional competence, attitude, etc. The reputation in respect of financial and moral integrity, professional competence, and personal qualities was to be ascertained after every 5 years starting from tenth year of service. The reports could be used for posting on sensitive appointments, counseling and also for premature retirement of non-performers.

The Second Administrative Reforms Commission in its tenth report had also recommended a 360 degree assessment for the civil servants working in the government but cautioned that the system may be introduced only after concerns related to transparency and integrity are addressed.

The 360 degree assessment as practiced in private sector, multi-lateral organizations as well as in governments has following features:

1. A group of 4-5 senior officers/eminent persons is responsible for assessing the officer. This group can include those who are closely involved with the supervision of the work of the officer being assessed.
2. The group takes inputs about the officer's performance from several stakeholders including:
  - i) Subordinates supervised by officer being assessed.
  - ii) Colleagues/peers of the organization.
  - iii) External stakeholders interacting with the organization.
  - iv) Officers who had directly supervised.
3. Inputs on professional competence, behaviour towards colleagues and subordinates, attitude towards work, leadership and motivational qualities, ability to work in a team and integrity can be taken.
4. This assessment will be read along with the annual appraisal reports which are being generated through the existing system at the time of future postings on sensitive assignments as well as self development.

5. There is a general view that such assessments are not to be used for purposes of promotions.

Realizing that sole dependence on performance appraisal reports for assessing suitability of officers for empanelment was becoming increasingly challenging, the government brought in an innovation by introduction of MSF. MSF is a modified version of 360 degree feedback. Under this initiative, the expert panel (i.e., group of senior/retired officers) entrusted with the task of recommending suitability of officers for empanelment undertakes a detailed telephonic interaction with stakeholders to obtain a structured feedback about the officer. This feedback is obtained from seniors, subordinates, peers and external stakeholders, and the number should not be less than five for each officer being assessed.

The expert panel assesses the officer's performance on attributes of (i) decisiveness/clarity, (ii) willingness to take responsibility/moral courage, (iii) initiative, innovation and risk taking, (iv) problem solving approach/delivery/domain knowledge, (v) team building and leadership, (vi) integrity/public perception and (vii) overall suitability for holding senior positions<sup>3</sup>. The anonymity and confidentiality of stakeholders providing the feedback are maintained. Based on the MSF and the PARs, the expert panel provides a pen picture of the officer with very specific recommendations on the strengths and weaknesses and suitability for empanelment.

Since last few years, this approach has been adopted by the Government of India in the empanelment process. The process has raised certain issues and concerns. The Department-Related Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice, in its ninety second report titled "Appraisal and empanelment of civil servants under the Central Government" (presented to the Rajya Sabha on 8th August 2017 and laid on the table of Lok Sabha on 10th August, 2017) has inter alia commented that the process is opaque, non-transparent and subjective. It has been concluded that the process as it exists today may lead to personal biases influencing the assessment. Further, there is absence of remedies for the officers in case the feedback is biased or unjustified.

In addition, stakeholders have also argued that the sample size of five respondents may be inadequate to accurately capture the attributes of the officers objectively and holistically. Since the concerned officer is not being communicated about the feedback, the opportunity to use the feedback for self development is also lost. The extent of inclusion and exclusion errors caused by the process is always a sensitive, yet a hotly debatable issue.

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<sup>3</sup> Department-Related Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice, in its Ninety second report titled "Appraisal and empanelment of civil servants under the Central Government" Pages 62–65.

While the standing committee pointed out the shortcomings as above, it stopped short in giving any specific recommendations and has left it to the government to address them.

#### 4. Recommendations of Policy Alternatives for Reforming the PAS

##### 4.1 Enhancing Robustness and Utility of MSF

The need for introducing MSF has arisen due to sustained failure of PAS to objectively and holistically assess suitability of officers for appointment at senior levels. Despite its perceived shortcomings, the way forward is not to abandon but to strengthen the system by making the process more robust. The following steps may go a long way in achieving this target:

- i) Making MSF a regular exercise after every five years starting from 10th or 12th year of service.
- ii) The sample size for ascertaining feedback should be broad-based and increased up to 20 per officer.
- iii) There should be a system of ignoring outliers or extreme feedback.
- iv) The officer being assessed should have a say in partially deciding the cohort of stakeholders from whom the feedback is to be taken.
- v) The MSF be followed by a procedure of counseling and mentoring of the officer. This exercise will involve giving a direct feedback to the officer about the strengths and weaknesses and future scope for improvements.
- vi) A system of representation after the final conclusions is disclosed, particularly for evaluations that would be used for empanelment (i.e., 15th year for Joint Secretary, 25th year for Additional Secretary and 30th year for Secretary).

Possibilities should also be explored whether the MSF can also be utilized to assess the suitability of officers for posting to sensitive field level assignments at middle level like the Districts Magistrates, Superintendents of Police, etc. If objectively carried out, the MSF input can act as an effective mechanism to counter the growing tendencies to post officers with dubious credentials to sensitive assignments purely on political considerations.

The MSF reports, along with the service records and PARs of the officers, can provide a more holistic input while undertaking review under rule 56 J and AIS (DCRB) rules for identification of deadwoods and non-performers for their premature retirement. The holistic framework of performance assessment of civil servants that combines PAS and MSF is given in Figure 7 of the Annexure.

#### 4.2 Integration of PAS/MSF with Training and Capacity Building and Domain Specialization

It may be recalled that under the reformed PAS, the training and capacity building are sought to be integrated with the PAS system by introducing a separate section of training needs. While filling the self appraisal, the officers are required to provide their perception of the training needs. They are required to provide at least three broad areas. The objective of this exercise is to use these inputs for planning future human resource and capacity building programs by the cadre controlling authorities.

The research discussed earlier has revealed that the section related to HR and capacity building is being filled up but this vital input is not being used for HR planning, designing and scheduling of future training of civil servants.

The civil servants belonging to the All India Services/Central Services are given the opportunity to participate in one of the short duration domestic in-service courses every year. They also get opportunity of short term foreign training in premier institutions at regular intervals. However, the subject and content of these short term trainings have to be based on training needs as extracted from the PARs and the MSF. With the implementation of online performance appraisal (SPARROW) system for All India Services and Central Group A services officers, this integration can be easily achieved.

Similarly, the inputs of PAR and MSF can also form the basis of guiding the officers of Indian Administrative Services and even other All India Services towards domain specialization, which is considered so vital for effective governance and for keeping the services relevant in future.

#### 4.3 Agenda for Future Research

It is further realized that there is dearth of scholastic and scientific research on the impact of MSF on the performance orientation of senior civil servants. The future research agenda need to focus on following research questions:

- i) Whether the introduction of MSF has contributed in making the empanelment process more fair, transparent and objective and what is the perception about its efficacy among various stakeholders.
- ii) Whether the reformed empanelment system is contributing in improving the performance of civil servants.
- iii) What has been the impact on the overall motivational levels of civil services?
- iv) Whether the MSF + PAR based empanelment is ensuring minimal inclusion and exclusion errors.
- v) Should there be a section in PARs that is exempted from disclosure and

whether this will enable a more objective and accurate assessment of officers by reporting/reviewing/accepting authorities.

##### 5. Concluding Remarks

Good governance is critically dependent on the performance of civil servants. The paper has undertaken an analysis in scholastic mode providing deep insights into the performance appraisal practices in the Government of India. The study has made an effort to provide a fresh perspective on the otherwise under-researched aspects of the subject that need to be addressed by policy makers.

The analysis has indicated that the PAS needs to be reformed further in order to contribute significantly in improving the performance of civil servants and become a key motivator for the performance. The need is to establish a more robust 360 degree appraisal of civil servants to insulate the appraisal from individual subjectivity and arbitrariness.

The findings and recommendations can also be applicable at the state government level, since the organization structures and processes in many instances are similar to that of the central government.

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## Annexures

Table 1. Response of civil servants on the Performance Appraisal Systems in Government of India.

Options were: 1. Strongly disagree, 2. Disagree, 3. Neither agree nor disagree, 4. Agree, 5. Strongly agree

Statements/Assertions	Entire sample (N=117)		Below Joint Secretary (N= 88)		Joint Secretary and above (N= 29)		JS and above v/s below JS
	Mean	SD	Mean	SD	Mean	SD	$\sigma$ value
Performance Appraisal System positively influences the performance of civil servants	3.22	0.98	3.14	0.94	3.50	1.07	0.099
Officers are assessed and appraised based on targets reflecting the organizational objectives	3.14	1.05	3.08	1.04	3.35	1.11	0.286
Officers are assessed in a fair and just manner	3.64	0.93	3.63	0.94	3.65	0.94	0.921
Disclosure of annual appraisal contributes towards fair assessment of civil servants	3.70	1.02	3.71	1.01	3.69	1.09	0.949
There is grade inflation while rating the officers in the annual performance appraisal	3.36	1.03	3.40	1.01	3.25	1.07	0.535
Disclosure of performance assessment contributes towards grade inflation	3.31	1.08	3.28	1.05	3.38	1.17	0.680
Need for a 360 degree evaluation of a civil servant for effective appraisal	3.91	1.12	3.76	1.15	4.41	0.85	0.017*
HR policy integrated with the inputs received through performance appraisal of civil servants	2.31	0.89	2.26	0.82	2.48	1.08	0.289

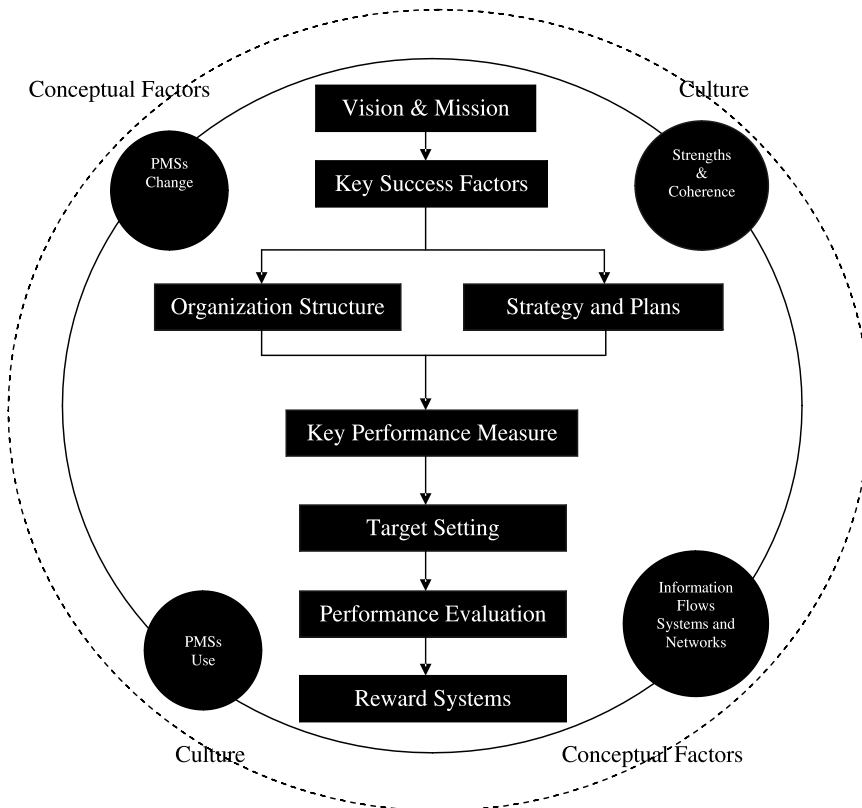
$\sigma$  value is the  $\sigma$  (two tailed) corresponding to comparison of means of two groups.

\*Differences in mean values of two groups are significant at 5% level.

SD: Standard Deviation.

**Figure 1. Framework of Performance Management System,  
Ferreira and Otley (2009).**

Performance Management Systems



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**Figure 2: Seniority wise distribution of sample (N=117).**

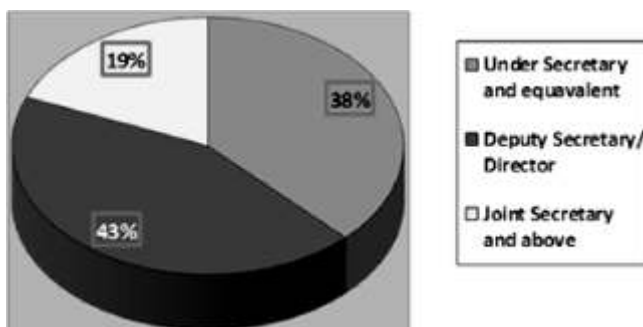


Figure 3: Experience wise distribution of sample (N=117).

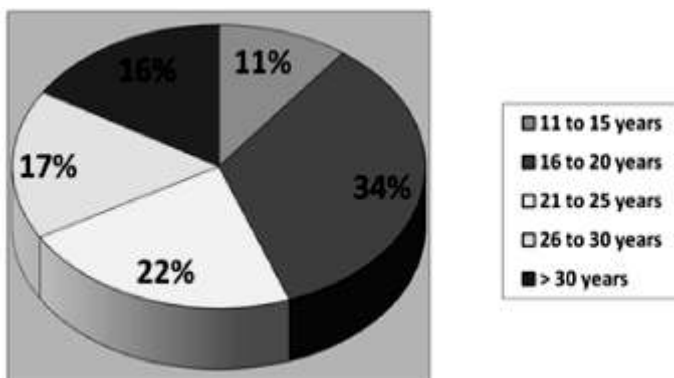


Figure 4: Service wise distribution of sample (N=117).

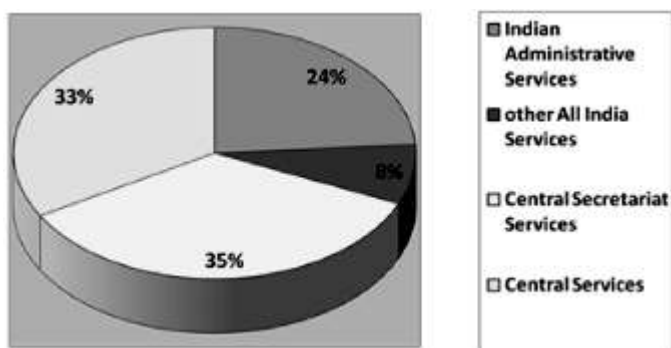


Figure 5: Gender wise distribution of sample (N=117).

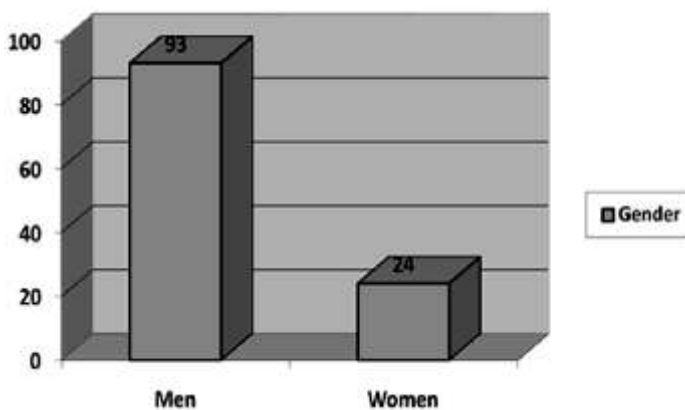
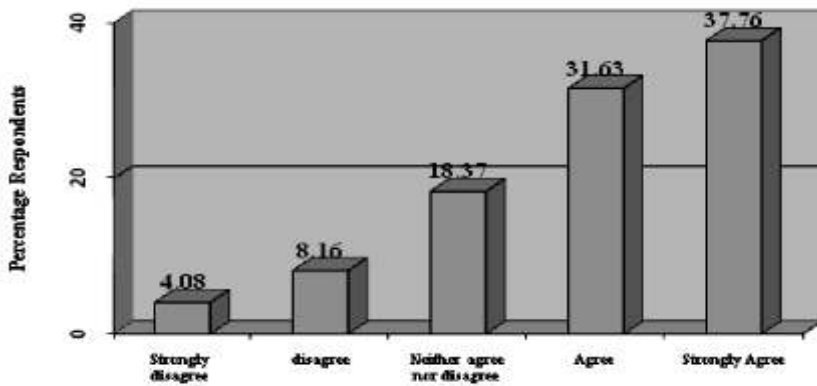
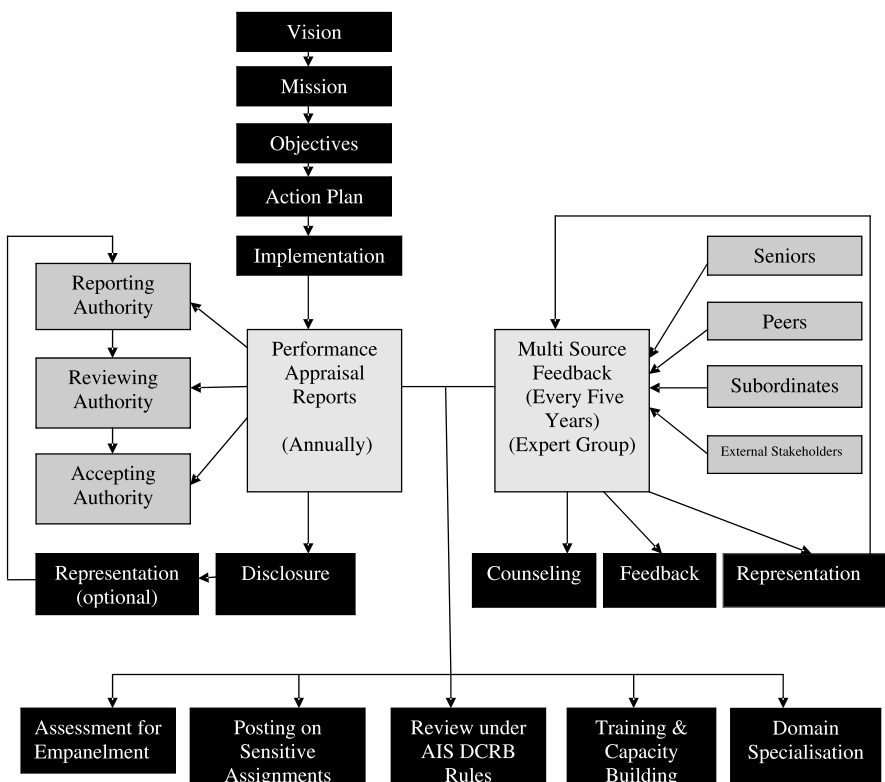


Figure 6: Response of Civil Servants on the need for 360 Degree Evaluation of Civil Servants



Sample Size: 117, Mean: 3.91, Standard Deviation: 1.12  
 (Options were: 1. Stronglydisagree, 2. Disagree,  
 3. Neither agree nor disagree, 4. Agree, 5. Strongly agree)

Figure 7: Framework for holistic assessment of civil servants.





# Policy Framework for Cyber Security: Effective Cybercrime Investigation and Prosecution

Sudhir Kumar Gangadhar Rahate, IAS, Principal Secretary, Ranchi

*“Nations must also take responsibility to ensure that the digital space doesn’t become a playground for the dark forces of terrorism and radicalization.”*

-PM of India at Global Conference on Cyber Space in New Delhi, 2017

“Cyber threat/crime is one of the most serious threats and it should be dealt with on highest priority.”

- PM of India, 2018

## 1. Executive Summary

Cyber security is the security of cyber space and its sanitization from all kinds of threats, which impede the functioning of cyber space and pose a danger to the privacy and security of country/organizations/institutions/individuals. Cyber space is linked not only to the security of a nation, but it has reached every corner of household and affects everyday living of all citizens. Hence, we can say that cyber security has a pan-life effect covering socio-political, economical and cultural aspects of human life. Thus, cyber space (and related issues) has become an imperative issue. Massive digitalization program is being undertaken by the Government of India through Digital India Initiatives, push to cashless transactions, linking of AADHAR to various programs of government like banking, Public Distribution System (PDS), pension plans, scholarships, SIM card purchases, etc., which has made it compulsory for ensuring the security of cyber space. Cyber space related security expenditure has increased many fold because of these digital push initiatives. In this era of digitalization and changing paradigm of cybercrime, as India moving towards cashless economy, cyber threat is becoming a big challenge to its techno-socio-politico-economic stability. Every crime may not be a cybercrime, but these days every crime has a cyber component in it. This paper analyses the current policies of the government regarding cyber security, cybercrime investigation, etc., to find out whether it provides the required policy framework to adequately facilitate an effective cybercrime investigation and prosecution of cyber criminals. It is found that our current policies focus mainly on cyber security and that very little has been done to promote better cybercrime investigation and prosecution of cyber criminals, which in turn will not only help in preventing cybercrimes but also help making our cyber space

safe by creating deterrence to cyber criminals. This paper then tries to analyse what other nations like USA, China, Singapore, etc., have done on this front. Then an alternative policy framework has been suggested taking a cue from what the other nations are doing and what some states have started doing in the country, which has given positive results. Revelations from the case studies of cybercrime cases, which have given great insights into how to make cybercrime investigation and prosecution effective in India, have been taken into account while suggesting the alternative policy framework which the government in India needs to follow to address the growing challenges and concerns in this regard. Feasibility analysis of the suggested policy measures has been done and suggestions have been given on how to go about implementing the policy changes in a planned way and also highlighting the areas where it may not be feasible to implement it straightaway.

## 2. Policy Problem Analysis

Most of the cybercrimes are very much different from the traditional crimes in the sense that in even the simplest of the cybercrimes, multi-state actors are involved. The victim mostly is in one state, the perpetrators are in other states or countries, the evidence is located in some third state and the money trail passes through some fourth or fifth state. There are serious attribution related problems while investigating cybercrimes. Even if we locate the instrument/ computer used for committing a crime, it is not possible to link the cyber criminal with the instrument/computer with proper evidence. Know Your Customer (KYC) enforcement gaps by Telecom Service Providers (TSPs), banks, e-wallet companies and non-capturing of source port details by Internet Service Provider (ISPs) compound the attribution related problems. Many of the victims are unaware as to where to go to lodge a First Information Report (FIR) and the local police stations are generally reluctant to register cases of outside jurisdictions, thus making it difficult to start the legal process to bring the cyber criminals to book even after the commission of cybercrimes. Cybercrime investigation involves simultaneous communication with various banks, TSPs, ISPs, police forces of various states, monitoring communication in other states and actually launching simultaneous operations in multiple states, for which there is hardly any institutional mechanism to support the same. There are serious interstate coordination issues. The victims of financial frauds are carefully chosen to be from other districts and states. Thus, cyber criminals are thriving on the distance and language barriers, which hamper coordinated action against them. Neither the police in whose jurisdiction the cases are registered nor the local police, where the criminals belong to, seriously pursue them. The present mechanism to deal with interstate coordination for solving crimes is inadequate to tackle cybercrime as the stolen/cheated money moves very fast across various jurisdictions which need real and seamless coordination mechanisms to counter them. The victims/witnesses

located in one state are not willing to travel to other states for participating in investigation and prosecution of offenders. The approach of the police to tackle such crime is largely reactive, based on complaints of victim. Moving from the crime to criminals is tedious, as the trails left by the cyber criminals are either insufficient or else too scattered to catch them with sufficient evidence, pursuing only the leads given by complainants. All the stakeholders are not collaborating optimally, which is the need of the hour, to tackle cybercrime. There are late or inadequate responses to requests of Law Enforcement Agencies (LEAs) from the financial institutions, e-wallet companies, TSPs and ISPs many a times. Then there were capacity issues. There is inadequate knowledge and cyber forensic resources at cutting edge level to tackle such crimes. The current legal framework and the investigation related policy make it difficult to get evidence against cyber criminals and keep them behind bars for long. The overall support environment in terms of the legal & regulatory frameworks available to tackle such crimes leaves a lot to be desired. Last but not the least, large pool of digitally illiterate gullible masses has further facilitated perpetration of such crimes.

### 3. Review of the Current Policies

#### i) Information Technology Act, 2000

The Information Technology Act, 2000 was enacted mainly to give legal recognition to e-commerce and e-governance and facilitate its development as an alternate to paper based traditional methods. The act adopted a functional equivalent approach in which paper based requirements such as documents, records and signatures were sought to be replaced with their electronic counterparts. The act sought to protect the advancement in technology by defining crimes, prescribing punishments, laying down procedures for investigation, and forming regulatory authorities and frameworks for the same. Many electronic crimes were brought within the definition of traditional crimes too by means of amendment to the Indian Penal Code, 1860. The Evidence Act, 1872 and the Banker's Book Evidence Act, 1891 too have been suitably amended in order to facilitate collection of evidence in fighting electronic crimes. Cyber Regulations Advisory Committee was envisaged in this act for advising the government regarding any rules related to the same.

#### ii) Information Technology Amendment Act, 2008

To meet the challenges posed by the proliferation of information technology enabled services, rise in new forms of cybercrimes and the adoption of model law on electronic signatures by the United Nations Commission on International Trade Law (UNCITRAL) in the year 2001, the IT Act was substantially amended in 2008 to define new forms of cybercrimes, provide more stringent and stricter

punishments for them, provide for implementation of information security practices, prescribing the role of various intermediaries, LEAs and other stake holders, stress on privacy issues of the people, move from digital to electronic signature, etc. New crimes like publishing sexually explicit materials in electronic form (section 67A), breach of confidentiality and leakage of data by intermediary, identity theft, e-commerce/e-banking frauds using phishing (section 66C/66D), voyeurism through electronic devices (section 66E), etc., have been defined and punishable. Protection of critical information infrastructure pivotal to national security, economy, public health and safety has been addressed (section 69A).

iii) National Cyber Security Policy, 2013

National Cyber Security Policy talks about building secure and resilient cyber space, measures to be taken to promote cyber security and how to create an ecosystem which promotes cyber security. But as far as investigation and prosecution of cybercrimes is concerned, the relevant policy prescriptions which can be said to be related to it are the following points:

- To strengthen the regulatory framework for ensuring a secure cyberspace ecosystem.
- To develop effective public private partnerships and collaborative engagements through technical and operational cooperation and contribution for enhancing the security of cyberspace.
- To enhance global cooperation by promoting shared understanding and leveraging relationships for furthering the cause of security of cyberspace.

iv) National Critical Information Infrastructure Protection Center (NCIIPC)

It is an organization of the Government of India created u/s 70A of the IT Act to facilitate safe, secure and resilient information infrastructure for critical sectors of the nation. It is the national nodal agency for all measures to protect nation's critical information infrastructure. It identifies the critical information infrastructure and is supposed to take all necessary measures to facilitate protection of the same from unauthorized access, modification, use, disclosure, disruption, incapacitation or distraction through coherent coordination, synergy and raising information security awareness among all stakeholders (Source: NCIIPC, 2017).

v) Ministry of Electronics and Information Technology (MeitY)

In India, MeitY is the nodal ministry looking after cyber security related issues and challenges. One of the objectives of MeitY is e-security, which mainly looks after securing India's cyber space from

all types of cybercrimes. It protects the country's cyber space through creation of appropriate legal, policy and institutional framework and by promotion of information technology education. It also provides legal recognition to electronic documents and a framework to support e-filing and e-commerce transactions and also provides a legal framework to mitigate, check cybercrimes. In other countries like Israel, US, etc., cyber security like other security issues are dealt with by the homeland security department/ministry.

vi) Indian Computer Emergency Response Team (CERT-In), 2004

The mandate of CERT-In is to protect Indian cyberspace and other technical infrastructure against cyber related crimes. It is an office within the MeitY and the nodal agency to deal with cyber security threats like hacking, phishing, etc. It also looks after computer security related incidents, reports on vulnerabilities and promotes the efficacy of IT security and protection of the same throughout the country by issuing various guidelines, white papers for information security practices and prevention of cybercrime through creating a strong deterrence in this regard. To combat cyber security violations and prevent their increase, in February 2017, CERT-In launched 'Cyber Swachhta Kendra' (BOT net Cleaning and Malware Analysis Centre), a new desktop and mobile security solution for cyber security in India. It functions to analyze BOTs/malware characteristics, provides information and enables citizens to remove BOTs/malware and to create awareness among citizens to secure their data, computers, mobile phones and devices such as home routers. It also works in collaboration with industry and ISPs to trace internet protocol addresses infected by BoTs and send message to end users regarding the same.

vii) Cyber Information Security (CIS) Division

It has been set up by Ministry of Home Affairs in order to ensure cyber and information security in the era of digitalization and similar kind of threat perceptions. CIS division deals with security clearances, cybercrime, cyber security, National Information Security Policy & Guidelines (NISPG), implementation of NISPG, etc., under which cybercrime prevention and cyber security will mainly help in tackling cybercrimes and cyber securities. It also coordinates with CERT-In, National Critical Information Infrastructure Protection Centre, DietY, IB, Defence, etc., and helps in information security budget matters.

viii) National Information Security Policy and Guidelines (NISPG)

The National Information Security Policy Guidelines have been developed by the Ministry of Home Affairs, and aim to protect classified information possessed by ministries, departments,

organizations, PSUs, Critical Information Infrastructure (CIIs), etc. NISPG basically deals with cyber security for the Government of India. It ensures the protection of classified, sensitive, valuable, and important information. It also provides a temporal security risk assessment (Section 18 of the document, NISPG).

#### 4 Limitations of Current Policy

The current cyber space security policy of the country mainly deals with the preventive aspects of cybercrime and capacity building to a certain extent, which in a way indirectly helps in reducing cybercrime and also its overall investigations. However, the present policies are silent on the issue of effective cybercrime investigation and prosecution. It does not provide a comprehensive framework for effective cybercrime investigation and prosecution, which in turn will lead to an improved cyber security scenario. The current policy prescriptions are silent on whether the current policy of investigation and prosecution of traditional criminal cases is sufficient to meet the challenges posed by the new age cybercrimes or we need to have a different policy perspective to effectively investigate and prosecute cybercrimes. Even the main aim of IT Act defining cybercrimes does not seem to have an effective law prescribing stringent punishments for various kinds of cybercrimes nor does it have stricter bail provisions for offenders of such crimes. It does not seem to have taken the ground reality of the police forces investigating such crimes into account. For example, the minimum rank of the investigating officers for cybercrime investigation has been kept to be an Inspector rank officer under section 78, IT Act, without realizing that the police organizations throughout the country do not have sufficient officers of this rank to investigate the growing number of cybercrimes in the country. There is no specific provision for additional punishment for repeat offenders. The procedural law for cybercrime still is the Criminal Procedure Code (CrPC), 1973 and the Indian Evidence Act, 1861. Both these acts never envisaged tackling cybercrimes. The piecemeal changes in these laws are proving to be woefully inadequate to deal with the current challenges posed by cybercrimes. For example, Section 65B of the Indian Evidence Act which is the pillar for proving digital evidence in the court is found inadequate to deal with the same. One nodal officer of any TSP is providing Call Data Records (CDRs) in almost 100 cases a day. It will be impossible for him to go to the court and prove all of them, even if he devotes the rest of his life giving deposition in the court in these matters. Again, there are problems in getting 65B certification for CCTV footages, which are critical evidence in many crimes, as many of these CCTVs don't have the so-called "system administrators". The evidence in respect of many cybercrimes resides in foreign jurisdictions. Still our present laws in dealing with cybercrime are silent on how evidence collected in foreign investigation can be used in a court of law. The

existing provisions of CrPC in this regard like sections 166A and 166B are not at all effective in investigation and prosecution of the cyber criminals, given their tedious and cumbersome procedures.

A look at Figure1, which compares the number of cyber security incidents or the number of financial cybercrimes happening with the number of cases registered under the IT Act and the arrests made in them, clearly shows that we have not focused enough on having an effective policy framework for cybercrime investigation and prosecution. These data show that despite the increase in registration of cases under IT Act over the years, in the year 2016, the registration figure of around 8600 cases under IT Act (National Crime Records Bureau, NCRB) is much less compared to around 50,000 cyber security incidents reported by CERT-In. Similarly, the data provided by one e-wallet company reveal that around 11,000 people are defrauded every month against average reporting of 716 cases under IT Act per month. Even the RBI figures have put the number of reported debit/credit cards and net banking frauds to be around 25,800 in 2017. So, quantitatively speaking also, we have a large gap to bridge in cybercrimes investigation and prosecution.

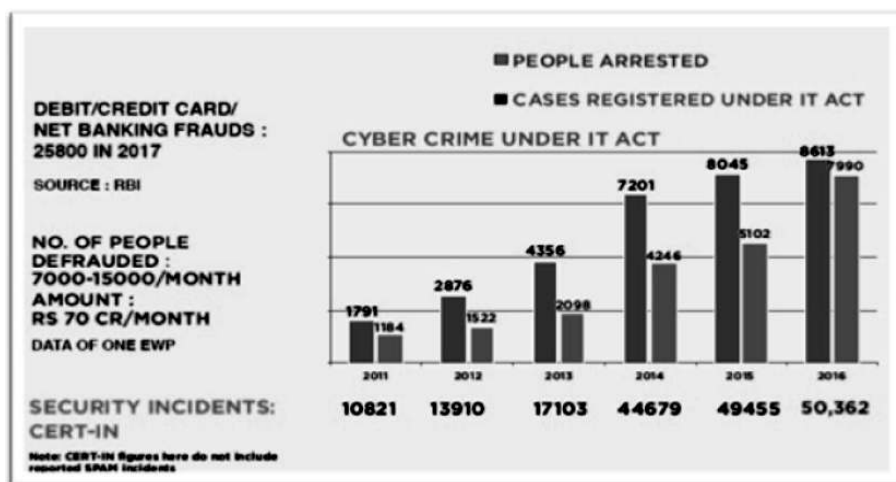


Figure 1: RBI data show increasing trends of debit card, credit card and net banking frauds.

Most of the frauds committed using Facebook, Twitter, WhatsApp, Gmail, etc., are difficult to be cracked, as the servers of these companies are not in India and they claim to be guided by the laws of the concerned countries like US, Europe, etc. There is an immediate need to have a law mandating sharing of data by foreign service providers to LEAs within a specified time limit. China does not allow any company, not ready to share data with their authorities, to operate in their territory. India also needs to take a call on this soon.

Although India has amended its IT Act in 2008 in order to make its provision more stringent for criminals of cybercrimes and less

cumbersome for victims of such crimes. But still some pioneers of this field consider that while the lawmakers have to be complimented for their admirable work removing various deficiencies in the Indian cyber law and making it technologically neutral, yet it appears that there has been a major mismatch between the expectation of the nation and the resultant effect of the amended legislation. The most bizarre and startling aspect of the new amendments is that these amendments seek to make the Indian cyber law a cybercrime friendly legislation; a legislation that goes extremely soft on cyber criminals, with a soft heart; a legislation that chooses to encourage cyber criminals by lessening the quantum of punishment accorded to them under the existing law; a legislation which makes a majority of cybercrimes stipulated under the IT Act as bailable offences; a legislation that is likely to pave way for India to become the potential cybercrime capital of the world (Nikhil *et al.*, 2014).

#### 5 Policy Alternatives, Evaluation and Recommendations

To get an overview of what the other countries in the world facing similar problems are doing and to learn from their experiences, the policies of US, China and Singapore have also been studied. However, it was felt that the policy best suited for our country has to be designed by undertaking case studies of typical cybercrime cases affecting the public at large to get an insight into the problems being faced by the LEAs at the cutting edge level and what policy interventions can be done to immediately tackle them. The details of the case studies and the insight gained from them can be seen in Annexure I. Feedback from the police officers on the ground, who are dealing with the subject on a day to day basis, and who are hence best suited to give practical and implementable alternative policy framework to deal with the problem, were also taken into account to find out the best policy alternatives.

**USA:** The USA is considered the world leader in cybercrime prevention, investigation and prosecution. It has been the top affected country of the world in terms of internet related crimes with 23% of world cybercrime rate. About 60% of the cyber cases registered end up in conviction and prison sentences (Nazir, 2017). In USA, apart from the federal government, state governments have also created their own laws for all round protection from cybercrimes. From penalties like expulsion to criminal misdemeanor to felony in cyber bullying, to penalty of 15 years imprisonment and fines for identity theft, to penalty of six to twenty years prison time for hacking and damage to computer properties, USA has established strict definitions and punishments for cybercrimes.

The United States Government is continuously working on more stringent and comprehensive laws to secure the data and its citizens from latest cyber threats and making the LEAs more proactive and sophisticated in their approach towards cybercrime and cyber security related challenges. The Cyber Security Information Sharing Act 2014, Cyber Security Enhancement Act of 2014, Federal Exchange Data Breach Notification Act of 2015, National Cyber Security Protection Advancement Act of 2015 and the most recent US Cloud Act, 2018, which will allow US LEAs to obtain

electronic data held by CSPs/ISPs overseas to combat cybercrimes, clearly demonstrates this. (Warren, 2007).

United States has a cybercrime framework, the Computer Fraud and Abuse Act (CFAA), which is also used to fight international cyber attackers (Laurence, 2015). USA Federal government has a strong data protection system in which each individual, whose data has been compromised, has to be notified within 60 days of the same. The police system of USA is more quick, responsive, vigilant and most importantly very proactive in tackling cybercrime. USA federal government also provides voluntary public private partnership (PPP) to improve its cyber security channels and strengthen cyber security R&D in this regard by creating workforce and providing education and public awareness for preparedness in order to tackle such crimes.

CHINA: China has always set the precedent in cyber laws. The latest is China's Cyber Security Law of June, 2017, which requires all foreign companies to store their essential data of use within the country itself, as well as allow the government to conduct checks on the company network's and data. China does not allow any company, not ready to share data with their authorities, to operate in their territory. The new Cyber Security Law of June, 2017 provides a framework for China's cyber security which can be seen against the background of recent government standing on national security (Palmer, 2017).

China's Cyber Security Law comprises of 79 articles and contains a number of cyber security requirements including safeguards for national cyber space sovereignty, protection of CII and protection of individual privacy. China also took a combination of legislative actions and technologies to regulate internet domestically. It has limited the sale of Virtual Private Networks (VPNs) with the aim to "clean-up" its internet industry. It is a kind of internet censorship in which it blocks access to selected foreign websites, foreign internet networking and mobile apps, and compels foreign companies to adapt its domestic regulations, and this censorship is widely known as the Great Firewall of China (GFC), which in turn aims to nurture domestic networking companies. Some articles of Cyber Security Law (like Article 21) require network operators to formulate internal security management system and implement network security protections, adopt technological measure to prevent viruses or unspecified forms of cyber attacks, and adopt backups of important data and encryptions. Similarly, Article 37 also says that the network operators in critical sectors are required to follow security procedures, safeguards from interference of unauthorized access. Article 35 mandates CII operators not to purchase network products and services that might affect national security and must pass a national security review. Individual information and important business data collated by ISPs shall be stored within China. If the data are needed to be sent overseas, a security evaluation should be performed based on regulations established by the state council and other departments.

The National Cyber Security Policy, 2017, requires for "technical support" to government agencies during investigations. It mainly talks about data

localization requirements for critical infrastructure operators. The new cyber security policy also includes requirements for transparency by eliminating anonymized registration for some online services. It restricts global businesses whose operations depend on cross-border data transfers of business information. Enforcement of the new policy is done through fines for non-compliance and enabling government authority to punish organizations or individuals. This includes freezing foreign-owned assets or possible physical detention of persons accused of wrongdoing.

SINGAPORE: Singapore's cyber security strategy aims to create a resilient and trusted cyber environment. They mobilize businesses and the community to make cyberspace safer, by countering and combating cybercrime and protecting personal data. Eleven critical sectors have been identified by government to protect from all aspects of cybercrime/threat (Cramer *et al.*, 2017).

The National Cybercrime Action Plan (NCAP) was launched by the Singapore Government in July 2016 to coordinate national effort in order to deal with cybercrime. The NCAP has four priority areas:

- Educating and empowering the public to stay safe in cyberspace.
- Enhancing the government's capacity and capability to combat cybercrime.
- Strengthening legislation and the criminal justice framework.
- Stepping up partnerships and international engagement.

The main aim of NCAP is to create deterrence and protect cyber space of Singapore from illegal activities by the cyber criminals and to create a safe and secure cyber space environment. It mainly focuses on cybercrime preventions and strong response to cybercrime by making robust legal framework and fostering cooperation from all stakeholders.

In compliance with NCAP priority areas, Singapore law enforcement agencies are giving mass education and also campaigning in school for educating them about cyber space by including social media, all means of communication and through different platforms. It also created one-stop self-help portal against scams. For effectively combating cybercrime, SPF (Singapore Police Force) Cybercrime Command has also been launched in 2015, which enhances capabilities, makes coordination with different LEAs, particularly the police, in forensics, intelligence and crime prevention. The formation of the command has helped improve the coordination, teamwork and overall response to cybercrime. It also oversees the Cybercrime Response Teams (CRTs). The CRTs are being established in every Police Land Division, having a level of proficiency and expertise in investigations and digital forensics (Shanmugam, 2016).

The Singapore Government has also setup Cyber Security Labs under NCAP, which are modern hands-on-training laboratories that help in

learning a variety of topics like cyber security fundamentals, digital forensics, and cyber threats on cybercrimes, malware analysis, and equip the police personnel with necessary skills. The Government of Singapore also involves its stake holders to fight against cybercrime; private and public sectors, both local and overseas, play a critical role in it. It also involves dedicated channels/institutions to work on cyber forensics and development, e.g., it developed a new lab, Temasek Advanced Learning, Nurturing and Testing Laboratory (TALENT Lab), which allows students to test their innovations against latest cyber threats.

The policy of the government should be framed to address the concerns in the following four areas:

- (i) Altering our focus and approach to tackle cybercrimes from “reactive” to a more “proactive” and “preventive one”

For altering our approach and focus from “reactive” to more “proactive one”, government should facilitate a four pronged strategy.

- Integration of our cybercrime strategies with the broader cyber security perspective: This would mean steps like mandatory participation of the LEAs in cyber related policy and regulation making.
- Taking measures to promote generation of actionable intelligence and pursuing of cyber criminals based on it: For this, apart from other things, the government should create cyber fusion/coordination centres, both at the centre and the state levels, and also having a national cyber-crime investigating agency, for investigating all important cybercrimes, having interstate and international ramifications. The government policies and the LEAs should focus on generation of actionable intelligence and information; having mechanisms for critical analysis of all inputs/ information to pinpoint and identify the gangs involved/their members and their support network. There should be more of intelligence based coordinated actions and operations. Fresh cases should be registered against the cyber criminals and so-called crime enablers by extensive follow up of all leads. All out legal actions should be initiated to destroy the identified gangs completely. For this, focus should be on speedy and quality investigations of registered cases. System for monitoring and opposing bail petitions should be put in place. Priority should trial be started in charge sheeted cases. Attachment of properties/proceeds of crime of cybercriminals should be done. Finally, there should be focus on creating databases of cybercrime and criminals, which can really go a long way in controlling cybercrimes.
- Solving the registration related problems: Online reporting platforms should be developed as initiated in states like Jharkhand,

Delhi, Karnataka, etc. The Government of India can think in terms of developing a central online system for reporting cybercrimes, as it will also help in creating a national database of cybercrimes.

- Massive cyber awareness campaigns: The speed, with which the people are being digitally empowered, needs to be matched with the digital literacy of the citizens. For this, the awareness campaigns should use all available media.
- Target all stakeholders in the chain like the shopkeeper using the Point of Sale (POS) machines, security guards at ATMs, bank employees, etc. Focus on reaching the vulnerable masses and schools and using regional languages and audio campaigns, to reach the illiterate and semi-literate masses.

Further, all the stakeholders apart from the LEAs should run these campaigns to make it more effective.

- (ii) Developing coordination and collaborative mechanisms to bring all stakeholders together

Cyber financial crimes involve criminals operating from more than three states and many a times from foreign countries also. The LEAs need to get information from financial institutions (FIs), e-wallet companies and other service providers on real time basis, to track down these fraudsters. So, we need a Cyber Coordination Centre for collation and dissemination of intelligence, coordination of operations, sharing information on threats, trends, expertise, best practices, etc. Most of the IT infrastructure is in the private sector. The intelligence regarding cyber and digital frauds is also scattered at various places, belonging to different private entities. So, only a centre, where all the stakeholders are willing to share whatever information they have, and which has the analytical capabilities to put these pieces together and develop actionable intelligence, can help us pursue cyber and digital criminals. So, we are proposing Cyber Coordination Centres at the centre as well as the state level. The Cyber Coordination Centre will be a collaboration platform for bringing all the stakeholders like academia, financial institutions, cyber security industry, TSPs and ISPs, all related government agencies, intelligence and investigating agencies together to exchange information, threats, trends, etc., relating to cybercrime to generate actionable intelligence. It will help launch joint/coordinated operations in various states/countries simultaneously, when and wherever required. This coordination centre should have database of cybercrime & criminals, best practices, etc., and act as single window support system for IOs investigating cybercrime, giving them access to databases for investigation where required. Its core should be the LEAs. Cyber Fusion Centre would be part of it.

The US and the Interpol have had good successes through these Cyber Fusion Centres. We should develop agreements and frameworks for cooperation and joint operations of various stakeholders under one umbrella for the abovementioned Cyber Coordination Centres.

Similarly, we need collaboration platforms for seamless and real-time exchange of information between various service providers and LEAs. The “Online Investigation Cooperation Request Platform for Cybercrime” of Jharkhand police is a model in this regard which can be replicated in other states as well. Similar online platforms for connecting LEAs with other stakeholders like all the service providers, financial institutions, Payment Protection Insurance (PPI) companies, e-commerce entities, payment gateways, etc., will help all the stakeholders collaborate optimally on a real-time basis to nab the cyber criminals while committing cybercrimes.

Thirdly, we urgently need more international cooperation. Many financial cybercrime cases involve investigation in foreign jurisdictions, as most of the service providers and servers are located in the USA and the European countries. So, we need an international cybercrime cooperation convention, which can help simplify the procedures for LRs, help develop informal mechanisms for sharing information relating to cybercrimes and harmonize laws, procedures and data retention periods. We need a law to ensure the admissibility of evidence collected under Mutual Legal Assistance Treaties (MLATs).

(iii) Help the police in developing their core competencies

To build our core competency, the government policy should facilitate the skill and capacity development by allowing LEAs to hire experts on contract on case to case basis, create a technical cadre in the LEAs, and change recruitment rules to facilitate recruitment of cyber literate police officers. Cyber literacy and cybercrimes related trainings should be made mandatory for promotions. We should aim at technical support units in each district and promote development of e-learning management system. The government should incentivise the industry to foster industry-LEA partnership for developing the infrastructure of the LEAs to tackle cybercrime. The central government should help the states establish at least one state-of-the-art cyber forensic science laboratory in each state. The government should also facilitate tie up between LEAs and research organisations to find technological solutions to the challenges posed by cyber criminals. Some of the forward looking states like Karnataka, Kerala, Maharashtra, etc., have taken a lead in these areas, which has given them encouraging results.

#### (iv) Improving the support environment for LEAs

For improving the support ecosystem, the government needs to work on immediately reviewing the legal and regulatory framework for dealing with cybercrime by focusing on the four areas suggested below:

##### a) Formulation of a separate procedural law for cybercrime

The government needs to immediately set up a committee to study and formulate a new procedural law for cybercrime. The committee needs to look into the evidentiary requirements for electronic evidence, as Sec 65B of the Indian Evidence Act is found inadequate to deal with the same. It should be deliberate how evidence collected in foreign investigation can be used. It should focus on standardisation of evidence collection procedures, be deliberate on frameworks for capturing evidences from large live servers, etc., which can't be shut down. The law should consider giving authorisation for covert operations and monitoring the contents of TOR browsers to LEAs. One of the largest markets running on the dark net, i.e., the Hansa Bay market was brought down by the New Zealand police only after running the market like its system administrator for almost two months. Without such authorizations, it will be difficult to control/investigate/arrest cyber criminals using dark net. The new law should provide mechanisms for validation of forensic tools by independent third parties and also look into the aspects of examination of the evidence in courts and its admissibility.

##### b) Regulation of payment intermediaries, e-commerce entities, PPIs, etc

The government needs to regulate payment intermediaries, e-commerce entities and PPIs, especially the e-wallet companies, to maintain balance between the ease of banking and commerce vis-à-vis the security concerns of the LEAs. It should focus on the following:

- Strict enforcement of KYC norms and merchant KYC by even e-commerce entities.
- Preservation of transaction metadata even by e-commerce entities.
- Providing uniform format for retaining data and mentioning specific retention periods for the same. In case of operating systems and servers, log retention guidelines are desirable.
- Making it mandatory for all e-wallet companies to have nodal officers to respond to LEA's request. Many e-wallet companies like TAPZO, Payzapp, Chiller, Kitecase, FSS Wallets, etc., have not yet notified any nodal officer making it difficult for the IOs to

get any information from them. Cyber criminals are shifting to them taking advantage of the regulatory gaps.

- Laws/rules to make it mandatory for service providers and other entities to provide complete data to LEAs within prescribed timelines.
  - Mechanism for incorporation of security features based on feedback from LEAs.
  - Having inbuilt fraud prevention mechanisms in payment related apps.
- c) Have a law mandating sharing of data by foreign service providers like Facebook, Twitter, WhatsApp, Gmail, etc., to LEAs, within a specified time limit

We also require solutions to encryption related problems.

- d) Work immediately on other legal and enforcement demands of LEAs
- Empowering sub-inspectors (SIs) to investigate IT Act offences in view of the shortage of inspectors by amending section 78 of the IT Act.
  - Make it mandatory to report all financial cybercrimes by all FIs/e-wallet companies, service providers, etc.
  - Have mandatory provisions for capturing of source port details by all ISPs and have mechanisms for its implementation. ISPs should move from IPv4 protocol to IPv6.
  - Have an insurance or victim compensation policy to mitigate the hardships of the victim.
  - More effective data protection law and data democratisation provisions within it like mandatory notification of breaches to victims.
  - Strict liability of companies taking outsourcing jobs from FIs like making debit/credit cards or delivering them; including any breach by even their employees. Companies to lay very strong emphasis on cyber security.
  - Crypto currency exchanges should be regulated.
  - All possible cybercrimes should be properly defined and there should be stricter punishments for such crimes complemented with stringent bail provisions.
  - E-trail facilities across states should be there. Government of India has to step in to facilitate such an arrangement.

- Notification and enforcement of data retention guidelines u/s 67C of IT act need to be done immediately.
- Enforcement of adjudication related provisions u/s 43A r/w 46 of the IT Act to tackle offences of civil nature in order to lessen the burden of the police investigating criminal cases.
- Notification of various experts as envisaged u/s 79A of IT Act should be immediately done to facilitate better presentation of evidence in the courts.
- Government should provide for enhancement of the quality of CCTV cameras at ATMs/banks. The retention period of CCTV back up data should be increased from 90 days to at least a year as many a times the investigation starts after 90 days.

(v) Feasibility of the recommended policy alternatives:

The suggested policy alternatives aimed at proactively pursuing cyber criminals and to develop a robust framework and infrastructure to effectively investigate cybercrimes and aggressively prosecute cyber criminals are mostly politically and administratively feasible and some of the legal and enforcement demands can actually be done right now. The policy of victim compensation and insurance is actually desirable to sustain the campaigns of the government like “Digital India Project”, “Financial Inclusion Mission”, “Demonetization Drive”, etc. We are effectively forcing the digitally illiterate masses to shift to digital transactions. So, the onus is on the government to insulate them from the possible dangers to it. Thus, this policy change is actually urgently required.

Some of the policy changes like changing from IPv4 to IPv6 may not be politically feasible to implement right now, as many small time players, i.e., ISPs may not have the technical capability and financial capability to upgrade the technology immediately. We will also need to have robust implementation mechanisms for these changes to give the desired results.

The international convention may not be immediately feasible just by India’s initiative but we need to keep pursuing the same. Similarly, making the law for sharing of data by foreign service providers, i.e., data localization, would mean doing the homework and improving our capacity before being able to implement it. China could harp on localization of data, as it has developed its in-house software and has done associated platforms development like Wechat, RenRen (an alternative to Facebook), Weibo (an alternate blogging site compatible to Twitter), etc., to provide alternative to its citizens.

## 6 Conclusion

With rapid digitization and a connected world, cybercrime is affecting each one of us like never before. We are reaching a stage where every crime has some cyber component in it. Cyber security has become synonymous with economic and national security. We, in India, have started addressing the challenges of cyber security but it is limited to mainly preventive steps as of now. The current policy of investigating cybercrimes just like any other traditional crimes is not likely to give the expected results. So, it is high time we have a policy for effective cybercrime investigation and prosecution as well, which will help in furthering cyber security. Most of the advanced nations have made appropriate changes in their legal and regulatory framework and have developed or are developing institutional support mechanisms for prompt and effective investigation/prosecution apart from taking measures to secure their cyber space and improving cyber hygiene. India needs to catch up soon. Immediate intervention of the government in the four areas suggested in the paper can go a long way in ensuring the same. Most of the suggested policy changes are feasible for putting in place immediately.

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## Annexure - I

## Salient Features of the Information Technology Act

The salient features of the IT Act, 2000 are:

- Legal recognition of electronic documents.
- Legal recognition of digital signatures.
- Describes and elaborates offences, penalties and contraventions.
- Outlines justice dispensation systems for cybercrimes.
- Constitution of the Cyber Regulations Advisory Committee for advising the government with regard to any rules related to the same.

(Source: Emerging Research in Management & Technology, International Journal 2014)

The IT Act, 2000 was substantially amended in 2006 and again in 2008 citing the following objectives:

- With proliferation of information technology enabled services such as e-governance, e-commerce and e-transactions, protection of personal data and information and implementation of security practices and procedures relating to these applications of electronic communications have assumed greater importance and they require harmonization with the provisions of the Information Technology Act. Further, protection of Critical Information Infrastructure is pivotal to national security, economy, public health and safety (section 69A of IT Act), so it has become necessary to declare such infrastructure as a protected system so as to restrict its access.
- A rapid increase in the use of computer and internet has given rise to new forms of crimes like publishing sexually explicit materials in electronic form (section 67/67A of IT Act deals with it), video voyeurism and breach of confidentiality and leakage of data by intermediary, e-commerce frauds like personation commonly known as phishing, identity theft and offensive messages through communication services (section 66C/66D of IT Act deals with it). Even, penal provisions are made stringent and stricter in the newly amended Information Technology Act, to prevent such crimes.
- The United Nations Commission on International Trade Law (UNCITRAL) in the year 2001 adopted the Model Law on Electronic Signatures. The General Assembly of the United Nations by its resolution No. 56/80, dated 12th December 2001, recommended that all States

accord favorable consideration to the said Model Law on Electronic Signatures. Since the digital signatures are linked to a specific technology under the existing provisions of the Information Technology Act, it has become necessary to provide for alternate technology of electronic signatures for bringing harmonization with the said Model Law (source: BCA, Referencer 2015).

In short, the newly amended IT Act of 2008 sharpened the old IT Act, 2000 by making it more sophisticated, more stringent, and more stricter in terms of punishment and mainly focuses on:

- Information security and mainly stresses on privacy issues of the people.
- Electronic signature over digital signature.
- Role of various intermediaries and LEAs and other stakeholders.
- New faces of financial crime and cybercrime.
- Rational security practices.

## Annexure - II

## National Cyber Security Policy, 2013

In light of the growth of IT sector in the country, the National Cyber Security Policy of India was announced by the Indian Government in 2013. Its important features include (Elmokadem, 2017):

- To build secure and resilient cyberspace.
- Creating a secure cyber ecosystem and generate trust in IT transactions.
- 24 × 7 National Critical Information Infrastructure Protection Center (NCIIPC).
- Indigenous technological solutions (Chinese products and reliance on foreign software).
- Testing of ICT products and certifying them.
- To create a secure cyber ecosystem in the country, generate adequate trust and confidence in IT systems and transactions in cyberspace, and thereby enhance adoption of IT in all sectors of the economy.
- To strengthen the regulatory framework for ensuring a secure cyberspace ecosystem.
- To provide fiscal benefits to businesses for adoption of standard security practices and processes.
- To enable protection of information while in process, handling, storage, and transit so as to safeguard privacy of citizen's data and for reducing economic losses due to cybercrime or data theft.
- To create a culture of cyber security and privacy enabling responsible user behavior and actions through an effective communication and promotion strategy.

## Annexure - III

## Computer Emergency Response Team - India

*“With the increased penetration of ICT infrastructure in our country, the threat of cyber security has become more serious and visible. Today, the common man is confronted with hacking, spamming, malware and loss of data, yet public awareness about these issues and knowledge of how to protect themselves are extremely low. There is a need to collaborate and come forth with solutions like the Cyber Swachhhta Kendra in order to ensure a safe and secure cyber world for the citizens of India.”*

-Ms. Sundararajan A., Secretary, MeitY

CERT-In (the Indian Computer Emergency Response Team) is a government-mandated information technology (IT) security organization. The purpose of CERT-In is to respond to computer security incidents, report on vulnerabilities and promote effective IT security practices throughout the country.

CERT-In was created by the Indian Department of Information Technology in 2004 and operates under the auspices of that department. According to the provisions of the Information Technology Amendment Act 2008, CERT-In is responsible for overseeing administration of the act.

In the recent Information Technology Amendment Act, 2008, CERT-In has been designated to serve as the national agency to perform the following functions in the area of cyber security:

- Collection, analysis and dissemination of information on cyber incidents.
- Forecast and alerts of cyber security incidents.
- Emergency measures for handling cyber security incidents.
- Coordination of cyber incident response activities.
- Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.
- Such other functions relating to cyber security as may be prescribed.

The CERT-In has signed cooperation pacts with its counterparts in Malaysia, Singapore and Japan for cyber security. The Memoranda of Understanding (MoUs) will promote closer cooperation for exchange of knowledge and experience in detection, resolution and prevention of security-related incidents between India and the three countries.

### Cyber Swachhata Kendra

Cyber Swachhta Kendra' is operated by the CERT-In as part of the Government of India's Digital India initiative under the Ministry of Electronics and Information Technology (MeitY). Its goal is to create a secure cyber space by detecting botnet infections in India and to notify, enable cleaning and securing systems of end users so as to prevent further infections. It is being operated by the CERT-In under provisions of Section 70B of the Information Technology Act, 2000. It also provides various technology tools like, USB Pratirodh for desktop security solution, AppSamvid for Whitelisting solution for Windows operating system, M-Kavach (for mobile devices), which is a device security solution for Android devices addressing threats related to mobile phones, and browser JSGuard, which detects and defends malicious HTML & JavaScript attacks made through the web browser. Incidents can be reported to CERT-In Incident Response Help Desk at Email id, [incident@cert-in.org.in](mailto:incident@cert-in.org.in), and they will respond the problem very quickly (Source: CSK, 2017).

## Annexure - IV

## National Critical Information Infrastructure Protection Center (NCIIPC)

It is an organization of the Government of India created u/s 70A of the IT Act, 2000 (amd. 2008) for the purpose to facilitate safe, secure and resilient information infrastructure for critical sectors of the nation.

## Mission

To take all necessary measures to facilitate protection of Critical Information Infrastructure, from unauthorized access, modification, use, disclosure, disruption, incapacitation or distraction through coherent coordination, synergy and raising information security awareness among all stakeholders (Source: NCIIPC, 2017).

## Function and Duties of NCIIIPC

- National nodal agency for all measures to protect nation's Critical Information Infrastructure.
- Protect and deliver advice that aims to reduce the vulnerabilities of critical information infrastructure against cyber terrorism, cyber warfare and other threats.
- Identification of all critical information infrastructure elements for approval by the appropriate government for notifying the same.
- Provide strategic leadership and coherence across the government to respond to cyber security threats against the identified Critical Information Infrastructure.
- Evolving protection strategies, policies, vulnerability assessment and auditing methodologies and plans for their dissemination and implementation for protection of Critical Information Infrastructure.
- Developing or organizing training and awareness programs and also nurturing and developing audit and certification agencies for protection of Critical Information Infrastructure.
- Developing and executing national and international cooperation strategies for protection of Critical Information Infrastructure.
- Issuing guidelines, advisories and vulnerability or audit notes, etc., relating to protection of Critical Information Infrastructure.



# The Enigma of Wasted Children: Need for a Policy Overhaul

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## Executive Summary

Malnutrition has significant impact on growth and development into adulthood. While the condition is measured in different ways, wasting-which typically occurs due to food shortage, diseases, etc., and is seen as a temporary phenomenon-has shown an increase in India over the last decade. This has happened even in rich states, which is counterintuitive. Current literature/data offer not much explanation for this. It is necessary to understand the underlying causes taking up structured wasting audits. At the same time, till evidence is built, measures can be taken within the existing systems-whether at the top policy levels and structures or at village level-to effectively deal with the issue of undernutrition in general and wasting in particular. There are enough proven examples globally and within the country that we can study and contextualise, which can help us in tackling the problem.

## The Issue

Malnutrition has been identified as one of the three national emergencies by the recently released Burden of Disease study<sup>1</sup>. Malnutrition is an all-encompassing term that covers both ends of the nutrition spectrum. Along with undernutrition, India now also faces the burden of overnutrition or obesity, which is a contributory factor in one of the other two national emergencies of lifestyle related diseases. The recently released National family Health Survey as well as other surveys measure the prevalence of malnutrition in children under 5 years in the country, providing a snapshot as well as facilitating trend analysis.

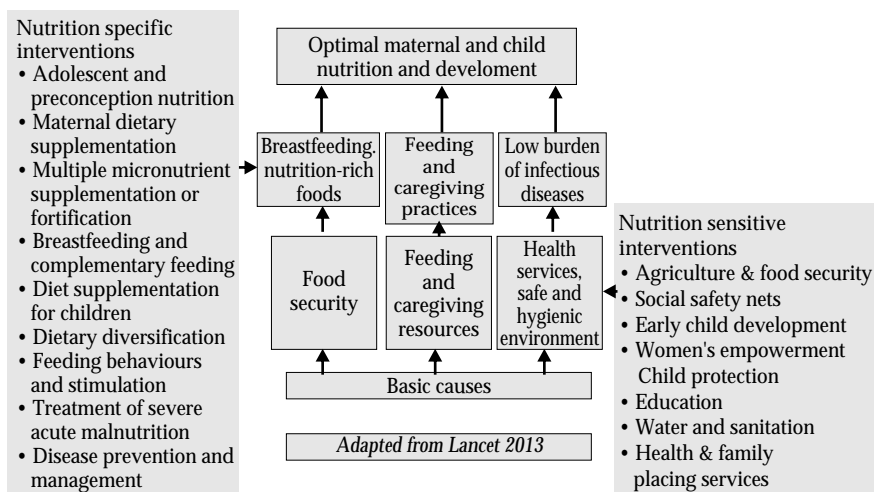
While the term malnutrition encompasses both undernutrition and overnutrition, this paper focuses more on undernutrition in children under 5 years, as it still affects a larger proportion and the most vulnerable. The traditional and globally recognised measures of undernutrition are stunting (height for age) and wasting (weight for height). These measures are typically

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<sup>1</sup>[http://www.healthdata.org/sites/default/files/files/policy\\_report/2017/India\\_Health\\_of\\_the\\_Nation%27s\\_States\\_Report\\_2017.pdf](http://www.healthdata.org/sites/default/files/files/policy_report/2017/India_Health_of_the_Nation%27s_States_Report_2017.pdf)

obtained through large surveys, while the Integrated Child Development Services (ICDS) measures underweight or weight for age. Stunting and wasting have serious implications for the development of the child into adulthood. The costs of stunting in terms of cognition and productivity are very high. The returns to investment are however 1:16<sup>2</sup>, being among the highest in any sector. Undernutrition, measured whichever way, is basically a manifestation of how systems work-there are a host of immediate and proximate causes, not only related to food intake, that impact the levels of stunting and wasting. Lancet, in a study, identified nutrition sensitive and nutrition specific interventions affecting undernutrition as depicted in the table below<sup>3</sup>:

Table 1. Proven Interventions for Malnutrition Reduction



From the last National Family Health Survey (NFHS) of 2005-06 to the most recent one of 2015-16, the prevalence of stunting among children under 5 years has declined from 48 to 38.4, which is appreciable-hiding as it does large interstate variations. However, a worrying trend is the increase in wasting in children less than 5 years of age. For the country as a whole, the percentage of wasted children under 5 has increased from 19.8 to 21% in the last decade. According to the World Health Organization, wasting is in “most cases a recent and severe process of weight loss, often associated with acute starvation and/or severe disease. However, wasting may also be the result of a chronic unfavourable condition”<sup>4</sup>.

<sup>2</sup><https://www.ifpri.org/news-release/return-investment-nutrition-high-so-why-do-so-many-governments-fail-adequately-invest>

<sup>3</sup><https://www.thelancet.com/series/maternal-and-child-nutrition>

<sup>4</sup><http://www.who.int/nutgrowthdb/about/introduction/en/index2.html>

This increased prevalence of wasting in pre-schoolers is indeed an alarming scenario, especially when we note the generic observation of World Health Organization (WHO) - "Provided there is no severe food shortage, the prevalence of wasting is usually below 5%, even in poor countries. A prevalence exceeding 5% is alarming given a parallel increase in mortality that soon becomes apparent. On the severity index, prevalence between 10 and 14% is regarded as serious, and above or equal 15% as critical". The prevalence of 21% - and more alarmingly, the increase - is indeed an emergency situation for our country, especially when we consider the implications on mortality and morbidity, which has both human and financial dimensions.

It is paradoxical that the proportion of wasted children in India has gone up in the decade of spectacular economic growth between the last NFHS in 2005-06 and 2015-16. With rising incomes, greater education, better roads, sanitation, better managed Public Distribution System (PDS), National Food Security Act (NFSA), Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA), etc., surely the wasting should have gone down? Stunting has indeed reduced in the period-in spite of it being a more "chronic" condition and more dependent on macro factors. Wasting is traditionally regarded as a more "acute" condition-a direct result of food shortages, famines, etc., which are history in India. Why the increase in wasting then? In some states the increase is quite puzzling, in fact. There appears to be no real reason why high income states like Punjab, Goa, Maharashtra, Gujarat, Delhi and Haryana should have any wasted children, leave aside that the proportion of wasted children went up during the decade. It is now increasingly being felt that wasting may not after all be an episodic or acute condition and there could be other factors playing in the child's life that would lead to it being wasted. Factors that affect stunting, as identified in the table above, could also be impacting wasting. Additionally, emphasis on single cereal consumption through PDS, protein deficiency, actual food scarcity, increasing consumption of processed and packaged foods, intrahousehold food distribution as it impacts women, etc., could all be contributors.

#### The Current Policy

Undernutrition has traditionally been the domain of the Women and Child Development Ministry (WCD). The mechanism or apparatus to ensure nutrition in children under 5 years is the ICDS.

Undernutrition is tackled under the ICDS through supplementary nutrition through a network of Anganwadi centers, liberally sprinkled across the country-giving take-home rations to children under 3 years and hot cooked meals to those over 3 years. The Anganwadi worker measures the weight for age of children on a growth chart-thus measuring underweight children. In the nature of things, this is easier to measure and more doable. However, it misses children that fall under the cracks—the wasted children, or as we call them,

children who are MAM (Moderate Acute Malnutrition) and SAM (Severe Acute Malnutrition). Typically, SAM children are identified through surveys or a simple method of Mid Upper Arm Circumference (MUAC)-a paper tape with markings that, when wound around the child's upper arm, indicates if the child is MAM or SAM. A SAM child will typically look like a child with wasted muscles, with stick like arms, barely the circumference of 11 inches. This reduced muscle mass increases the risk of death during infections and also in many pathological situations.

However, not all states use MUAC tapes, not all identify SAM children, and even where this happens, not all SAM children are effectively treated. Besides, the identification through MUAC is only the "curative" aspect, as it identifies children after they are already wasted. The "prevention" aspect would need convergence with a large number of actors, especially those that impact on household incomes, women's education and empowerment, and other nutrition sensitive and specific interventions identified in the table above.

However, at the very basic level, convergence is more an assumption than a reality, as is discussed later in the paper in the context of wasting. This non-convergence at the field level and lack of adequate mechanisms to ensure it have emerged as major challenges. Last year, taking on the lessons from nutrition missions of different states, the National Nutrition Mission at the national level was launched. The national nutrition strategy<sup>5</sup> seeks to address undernutrition through a number of interventions that cut across departments as well as identifying aspirational districts for focused attention. WCD is the nodal ministry for this.

#### How the System Actually Works on Ground for Wasted Children

In the system at present, the wasted (or rather the severely wasted child) is brought to the Nutrition Rehabilitation Centre (NRC) via the Anganwadi Workers (AWW), Auxiliary Nurse Midwife (ANM) route of ICDS/Health. The NRCs are set up under the health department, where the child is treated, given nutritious food and made well-and then "discharged" as any sick patient is from the health system after getting well. The mothers are counselled and trained for follow-up, as are the AWWs and Accredited Social Health Activists (ASHAs) to ensure that the child does not relapse into the earlier condition.

And that is where the child is in a way abandoned-a nowhere zone between two departments. Somewhere between the NRC and the community, the SAM child falls between the cracks. The disease focus on the child at the NRC and non-focus on the follow-up result in the system treating the child in isolation-divorced from the surroundings, the context, and the family situation. The

<sup>5</sup>[http://niti.gov.in/writereaddata/files/document\\_publication/Nutrition\\_Strategy\\_Booklet.pdf](http://niti.gov.in/writereaddata/files/document_publication/Nutrition_Strategy_Booklet.pdf)

socio-economic factors affecting wasting get ignored in a medicalised approach to SAM children. Similarly, the preventive aspect-ensuring that another wasted child is not generated and/or neglected-is even more ignored in this approach. The non-convergence of ICDS and health, and more importantly of the family and community, implies that more wasted children get neglected and wasting is not prevented.

#### How Can We Fix It? Some Suggested Interventions

Not recognizing and acting on the underlying factors behind wasting means that today our system does not resolve the factors that lead to the child being wasted. Do thorough follow-up till the factors are addressed, and then ensure that there is no recurrence. Currently the SAM child is plucked from the community, treated and sent back with the assumption that all will be well and any underlying causes that led to the problem in the first place will no longer exist. Thus, a system change in the way we deal with the issue is needed.

Following are some suggested interventions:

#### 1. Focus on prevention

Two different prevention approaches can be thought of:

- It is a fact that there are pockets and families with deprivation in each state, even the rich ones. The families and communities where wasting exists can be identified, and their vulnerabilities addressed through focussed interventions at the village level itself. These could be “red flag” households with history of malnutrition, of infant death, low incomes, migrant families, single parent headed households, etc. Through such prior identification and then redressal of those weaknesses through the local community/PRI network, much of undernutrition can be prevented. This will require major interventions by government to induce community ownership of vulnerable families and incentivising prevention of malnutrition.
- The huge out-of-pocket expenditures on health show us that families are willing to spend on their loved ones’ health. Undernutrition is often so insidious that families may not even recognise it for what it is, leave aside redressing it. Behavioural economics can be brought to work on nudging families and communities to recognise malnutrition and ensure that wasting is not seen as a disease to be treated but a condition that be tackled at home. Given the right identification mechanisms and support, the families can take over the “treatment”. The parallel of Oral Rehydration Solution (ORS) comes to mind-where diarrhoea was once a condition only treated at the hospital, the advent of ORS made treatment at home possible.

While a one shot NRC treatment is required for a severely malnourished child, it is not a solution that can address the underlying causes unless families are

empowered and villages take ownership of each child. This can be done effectively through existing already well-designed and proven systemic structures and interventions within the country and in similarly placed countries.

## 2. Make wasting reduction sustainable

As noted above, reduction in undernutrition is possible through preventive action at the community level. In the context of wasting, there are good examples of sustainable local practices. Many states have in the recent past taken up CMAM (Community Management of Acute Malnutrition), where SAM children are identified through routine MUAC screenings, the sick SAM are sent to NRC, while the non-sick are retained at the village but given additional food through the AWWs. In Odisha, this was started in 2014 in Kandhamal district, which then had the highest under 5 years mortality in the country, and the emphasis was given on locally (Self Help Group, SHG) produced, locally sourced and contextual energy dense nutrition rich food (EDNRF) to SAM children. Independent evaluations showed an appreciable decline in SAM percentage. There was a built-in element of community follow-up and more importantly, early recognition and prevention of the SAM status. Company manufactured and packaged ready to use therapeutic food (or RUTF) has been used in emergency wasting situations in Africa and elsewhere, but it has the danger of becoming an aspirational product (like breast milk substitutes), hence locally sourced and locally produced EDNRF which is more sustainable was used and proved effective. Without the community element of CMAM, the family may be led to the belief that malnutrition is a sickness only to be cured by taking to the NRC and the responsibility ends after coming back from there. CMAM thus ensures proper identification, follow-up in case of sick SAM, ensuring that non-sick SAMs remain in the village, and integrating local diet habits and community practices in follow-up. Success of CMAM has been demonstrated and needs to be scaled up in affected pockets.

## 3. Create institutional structures that facilitate convergence across departments

Countries such as Brazil, Peru and Sri Lanka have shown the way in creating over-arching, cross-departmental structures with a focus on malnutrition. Africa has been successful in coming up with the malaria report card that brings departments together and assesses progress. There are numerous other such examples. The Nutrition Mission at the national level and the “aspirational” districts identified for focussed interventions are a step in the direction, but will not be effective unless synergy is achieved where it matters most—at the village level, where different programmes need to converge in identifying and taking care of undernourished children and helping vulnerable families tackle the issue. Again, as demonstrated in other parts of

the world, such convergence is definitely achievable. Appropriate frameworks at the village level with devolution of responsibilities to field level workers of different departments can be created, and incentive and monitoring systems designed to ensure accountability.

#### 4. Create evidence for decision making that leads to concurrent and dynamic action on ground

Existing literature does not currently provide an answer to the increase in wasting, especially in prosperous states. It is imperative to get a clear understanding of the causes and then take an evidence based decision. There is a great example already in the system. Health department currently does maternal and child death audits. They are quite structured, and provide an insight into the background of the mother or child and give a human and social context to the death. In the case of a child coming to the NRC, there is an even greater social context to her wasting, which needs proper investigation. A death audit is required in the system, but a wasting audit of the alive but severely malnourished child will not only help prevent that death, but also help in preventing more malnourished children and more deaths. Current NRC guidelines need to incorporate a wasting audit. NRM machinery that supports NRCs can easily do this. As with all such exercises, the question “why” needs to be asked multiple times to get to the back of the matter. Was it because the mother had an early pregnancy? Does the family have food stress? Did they not get work? Are they landless? Are they migrants? Do they not have food diversity? Is there something else that is happening may be something related to soil quality, use of certain kinds of fertilizers or pesticides? Maybe there are some other factors at play altogether single cereal promotion under PDS or lack of nutrients in the soil due to overuse of pesticides? The audit results will give a local picture and also provide a snapshot of why wasting is going up. Geographic Information System (GIS) mapping could help us to identify pockets of neglect in addition.

There could be any number of reasons once we start looking. Evidence based decision has many benefits. At the micro level, the community leaders, PRIs and the health and AWW workers get the structured inputs to redress the basic issues of the vulnerable families with/without currently malnourished children. This could take the form of housing, pensions, agricultural inputs, or whatever is the push the family needs. At the macro level, looking at the responses of the audit, we can start seeing that in how many children wasting and stunting is a concurrent situation-a condition that can be fatal for the child. A proper audit of SAM children in NRCs will shed light on the causal factors behind wasting and its increased trend.

Simultaneously, at the macro level, there is also learning from within the country. There are states that have achieved a reduction in both wasting and stunting. The factors at play there can be understood and replicated elsewhere,

of course within the local context. The positive deviance theory can come into play effectively here.

#### Conclusion

A policy is only as good as its implementation. A policy that is designed in vacuum will lead to yet another symbolic gesture that does not translate into a real impact. The increase in wasting in children under 5 years is an enigma and is especially unexplainable in richer states. In order to tackle growing incidence of wasting, it is necessary to understand the causal factors. Malnutrition audits will be helpful in that sense. However, while that is done, some improvements in the existing way of functioning can also be taken up through preventive steps rooted in the community and community management of malnutrition. Above all, malnutrition needs convergent action across various departments and stakeholders, for which robust mechanisms will have to be set up from grassroots to the top. Prevalence of wasted children in India is beyond alarming and is now critical. The time to act is now.



# THE ROAD AHEAD: IMPROVING ROAD CONCESSION AGREEMENTS IN INDIA

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## 1. EXECUTIVE SUMMARY

The past few years have witnessed a sudden decline in the number of Public Private Partnership (PPP) projects in the road-sector in India due to the following key issues:

### i. *Gold-Plating of Costs*

Concessionaires inflate capital costs, in order to claim a longer concession period, as well as justify a higher annuity.

### ii. *High Debt–Equity Ratio*

The ‘termination payments’ system under the Model Concession Agreements encourages concessionaires to take on excessive debt.

### iii. *Aggressive Bidding*

Developers often bid very aggressively for projects without giving due consideration to their viability. Consequently, a large number of projects fail to fructify.

### iv. *Discrepancies in Toll Collection*

Concessionaires charge customers toll on the basis of pre-determined toll rates, even when they fail to comply with the parameters stipulated in the concession agreement.

### v. *Legal Issues*

Given India’s poor track-record of contract-enforcement, concessionaires are aware that any breach of contract is unlikely to attract any consequences.

In order to remedy these issues, this paper suggests the following:

#### a) *Cost-Control Measures*

Extreme bids ought to be discouraged. This paper suggests setting up an independent governmental agency empowered to carry out (i) performance audits, (ii) bid audits and (iii) post-award negotiations.

### b) *Curtailing Debt*

This paper suggests that it may be useful to set up an independent agency tasked with evaluating loans in the PPP sector, enforce limits on the debt-to-equity ratio for PPP projects, and end the extant system of termination payments.

### c) *Correcting Over-Collection of Toll*

India should shift towards a system of 'shadow tolling' similar to the United Kingdom, Portugal and the Netherlands. The government should collect toll from users and pass it on to the concessionaire on the basis of its performance.

### d) *Streamlining Land Acquisition and Environmental Clearances*

Road authorities ought not to enter into a concession agreement until 100% of the project land has been acquired. Further, this paper also supports the setting up of project completion risk guarantee facility.

### e) *Contract Management*

Lastly, parties should be able to renegotiate their obligations during the concession period, along with greater oversight by the road authority over the implementation of the obligations contained in the concession agreement.

## 2. INTRODUCTORY COMMENTS

Public Private Partnerships (hereinafter "PPPs") aim at developing public-sector facilities and services through partnerships between public agencies/authorities and private, for-profit entities.<sup>1</sup> The road-sector has been the crucible of the PPP model in India.<sup>2</sup> However, after a huge initial surge, the past few years have witnessed a sudden decline in the number of PPP projects in the road-sector.<sup>3</sup> This has occasioned a return to the traditional EPC (Engineering, Procurement and Construction)/Cash Contract model.<sup>4</sup>

This paper seeks to look at the key structural issues underlying the sudden decline of PPPs in the road-sector. Drawing heavily on the experience in Maharashtra, some major policy changes are suggested, moving forward.

## 3. THE STRUCTURE OF THE PRESENT SYSTEM

PPP contracts in the road-construction sector are granted by way of a tender-

<sup>1</sup> See: Satynarayana Kalidindi et al, *Proceedings of the 2009 Mid-Continent Transportation Research Symposium*, Ames, Iowa, (2009); Ramakrishnan T.S. et al, *Evolution of Model Concession Agreement for National Highways in India*, WORKING PAPER SERIES NO. 2012-07-01, IIM Ahmedabad (2012).

<sup>2</sup> NITI Aayog (Infrastructure and PPP Division), *NITI Brief No.5*, (2015).

<sup>3</sup> See for instance: Jyoti Mukul, *Investment in PPP projects shows a decline: Moody's Investor Service*, THE BUSINESS STANDARD, (October 20th, 2016) available at [http://www.business-standard.com/article/economy-policy/investment-in-ppp-projects-shows-a-decline-moody-s-investor-service-116102000671\\_1.html](http://www.business-standard.com/article/economy-policy/investment-in-ppp-projects-shows-a-decline-moody-s-investor-service-116102000671_1.html)

<sup>4</sup> CRISIL and PHD Chamber, *White Paper on Road Sector in India*, (2015).

bidding process. Once a bid is accepted, the authority and the successful bidder (hereinafter “concessionaire”) enter into a Concession Agreement.<sup>5</sup>

The PPP landscape in India is primarily based on the Model Concession Agreements (MCAs) released by the Planning Commission in collaboration with the National Highway Authority of India (NHAI) for this purpose.<sup>6</sup> The MCAs envisage 3 basic arrangements for a road-construction project:

i. *Build–Operate–Transfer (Toll)*

Under this model, the concessionaire finances the construction and maintenance of the road, and thereafter collects toll for the duration of the concession period.

ii. *Build–Operate–Transfer (Annuity)*

The BOT (Annuity) Model requires the concessionaire to fully finance the construction and maintenance of the road for the concession period. By way of payment, the concessionaire is paid a fixed annuity for the concession period by the government.

iii. *Build–Operate–Transfer (Hybrid Annuity Model)*

Under this framework, the construction and maintenance of the road is partially financed by the concessionaire, with a guaranteed payment of the entire cost through a substantial payment on project completion and balance payments through pre-determined annuities by the road authority.<sup>7</sup>

#### 4. THE SHORTCOMINGS OF THE CURRENT SYSTEM

Maharashtra was an early-adopter of PPPs in the road-sector and has awarded several BOT contracts in the past two decades.<sup>8</sup> A recent case involving the Government of Maharashtra is an illustrative example of the systemic ills plaguing the prevalent PPP regime.

A three-member committee’s investigations in that case underscore the following issues in the current concession-contract regime:

i. *Gold-Plating of Costs*

Concessionaires routinely overestimate the cost of materials and other input factors, while simultaneously underestimating the volume of traffic which is likely to utilise the project road, in order to obtain extended

<sup>5</sup> A. P. Daulatabadi, *Model Concession Agreement (MCA) for Highway PPP Project in India: Evolution and its Various Forms*, 3 (9) INTERNATIONAL JOURNAL FOR RESEARCH IN ENGINEERING APPLICATION AND MANAGEMENT (2017).

<sup>6</sup> Planning Commission of India, *Model Concession Agreements*, available at <http://planningcommission.gov.in/sectors/index.php?sectors=infrastructure>; See generally: R. Akbiyilki and D. Eaton, *A Comparison of PFI, BOT, BOO, and BOOT procurement routes for infrastructure construction projects*, Research Institute for and Built and Human Environment.

<sup>7</sup> There is some variation in the manner in which different states distribute the concessionaire’s payments. For instance, the Government of Maharashtra pays the 60% on completion. The Government of Rajasthan pays 50% on completion. The Government of India pays 40% on completion. The balance is paid to the concessionaire in the form of annuities.

<sup>8</sup> *Supra*, note 4.

concession periods. Such 'gold-plating' is done in order to claim a longer concession period, as well as justify a higher annuity.<sup>9</sup> Naturally, such 'gold-plating' also results in a huge escalation of project-costs for the government. Moreover, these inflated figures are then used to procure huge loans from banks which are then channelled for private gain [see (ii) below].<sup>10</sup>

## ii. *High Debt-Equity Ratio*

Most road-sector PPP projects bear far more debt than they can sustainably carry.<sup>11</sup> This is because the 'termination payments' system under the Model Concession Agreements tends to encourage the use of debt over equity. If a concession agreement is terminated, the road authority must compensate the concessionaire, and also repay lenders either fully or in large part.<sup>12</sup>

Moreover, concessionaires will often show inflated capital costs to their lenders-the 'gold-plating' mentioned above-in order to procure loans.<sup>13</sup> The excess money so obtained is channelled into various other enterprises-commonly real estate-for private gain. Having done this, the concessionaire will often pass on its liabilities to the government in the form of 'termination payments', under the terms of the Model Concession Agreements.

## iii. *Aggressive Bidding*

The aforementioned issue is only exacerbated by the fact that the road-infrastructure sector has been cornered by a handful of developers. Developers will often bid aggressively for projects so as to build a large portfolio of contracts, without giving due consideration to their viability.

Moreover, an ostensibly competitive bid process is, in reality, skewed in favour of particular developers/contractors. In Maharashtra, several high-level functionaries have been accused of misallocation of PPP contracts, and are facing criminal proceedings.

Such bidding by a small group of developers, in an attempt to procure an ever-greater number of contracts, has greatly undermined the efficacy of the PPP model.<sup>14</sup> A large number of concessionaires are now unable to meet their obligations.

<sup>9</sup> See, for instance: *Banks slammed for 'reckless' lending to infra, power sectors*, THE FINANCIAL EXPRESS (September 11, 2013) available at <https://www.financialexpress.com/archive/banks-slammed-for-reckless-lending-to-infra-power-sectors/1167243/>.

<sup>10</sup> *Supra*, note 9.

<sup>11</sup> Clive Harris et al, *Financing the boom in public-private partnerships in India infrastructure*, GRID LINES SERIES NO. 45. (2008), PPIAF; See also: *PPPs in India - Is the infrastructure sector heading for an 'investment cliff'?* THE ECONOMIC TIMES, (December 16, 2012) available at <https://economictimes.indiatimes.com/news/economy/infrastructure/ppps-in-india-is-infrastructure-sector-heading-for-an-investment-cliff/articleshow/17628811.cms>

<sup>12</sup> See: Clause 16, Planning Commission of India, *Model Concession Agreements*, available at <http://planningcommission.gov.in/sectors/index.php?sectors=infrastructure>

<sup>13</sup> *Supra*, note 11.

<sup>14</sup> *Supra*, note 11.

#### iv. *Discrepancies in Toll Collection*

Concessionaires also routinely flout toll collection norms. The concession-granting authority has a fixed toll-policy. Further, under the terms of the concession agreement, a contractor is expected to maintain and operate the project road as per the stipulations mentioned therein.

Concessionaires, however, collect toll on the basis of these toll rates even when they fail to comply with the parameters stipulated in the concession agreement. This results in an inconvenience to customers in the form of increased traffic on the project road, and a reduction in the quality of the user-experience. There is little incentive for concessionaires to make the investment required to maintain and operate the project road in compliance with the terms of the concessions agreement.

#### v. *Legal Issues*

The concession-contract system in India is also hugely compromised by structural defects in the legal system. Concessionaires are aware that any breach of the contract on their part is likely to attract few, if any, consequences. This is because India has an exceedingly poor track-record in the enforcement of contracts-with a global rank of 164 out of 190 countries in the enforcement of contracts.<sup>15</sup> This implies that simple contractual disputes often take *several years* to resolve. Regarding pending resolution of such disputes, the *status quo* favours the concessionaire.

#### vi. *Land Acquisition and Environmental Clearance*

Lastly, road authorities often fail to acquire the requisite environmental clearance and permits as stipulated under the concession agreements, in a timely manner. In Maharashtra, this has been particularly true with regard to land acquisition. This strains the concessionaire's finances and undermines the financial viability of the project.<sup>16</sup>

### 5. SUGGESTIONS ON THE WAY FORWARD

Several academicians and policy-makers have suggested abandoning the PPP model altogether.<sup>17</sup> In fact, the Ministry of Road Transport and Highways, Government of India, has itself moved away from toll-based concession agreements and towards EPC and Hybrid-Annuity concessions.

<sup>15</sup> See, for instance: Sidhartha, *Govt to amend laws to enforce contracts better*, THE TIMES OF INDIA 4th (November, 2017) available at <https://timesofindia.indiatimes.com/business/india-business/govt-to-amend-laws-to-enforce-contracts-better/articleshow/61500938.cms>).

<sup>16</sup> *Supra*, note 2.

<sup>17</sup> See, for instance: Shailesh Pathak, *PPPs are good in theory, but in India they are a failure in practice: Shailesh Pathak, ED, Bhartiya Group*, THE ECONOMIC TIMES, (5th July 2015) available at <https://economictimes.indiatimes.com/news/politics-and-nation/ppps-are-good-in-theory-but-in-india-they-are-a-failure-in-practice-shailesh-pathak-ed-bhartiya-group/articleshow/47940584.cms>.

However, the PPP model can be a highly efficient and productive force for infrastructural development, if the following structural changes are implemented:

*i. Cost-Control Measures*

The current PPP model creates perverse incentives for private investors to inflate their capital costs. The first step towards tackling this problem involves weeding out bidders who seek to engage in such rent-seeking behaviour. This would involve:

- Requiring bidders to submit detailed, binding financial proposals covering the duration of a project's life cycle.
- An in-depth study of a bidders' track-record, particularly with regard to similar projects.
- Establishing a range of bids over which the project is likely to be viable and discouraging extreme bids which are outside this range.<sup>18</sup>

Moreover, this paper suggests the creation of an independent governmental agency empowered to carry out:

- Performance Audits

This would involve an in-depth analysis of a bidder's track-record, with a particular focus on quality of work, contractual-compliance and financial exposure.

Bidders may be given a rating similar to ratings in the financial sector. Bidders with unusually large project-portfolios or unsustainable loan-liabilities may be classified as 'red-flag' entities, while bidders with a healthy track-record may be given a preferential rating.

- Bid Audits

The agency should also be empowered to also carry out bid audits for a particular project. Parties would be required to justify and substantiate bids which raise viability concerns. This is particularly important for extreme bids which are outside the range of viability. Bid audits would ensure greater transparency and accountability in the awarding process, and also mitigate the future misallocation of funds by concessionaires.

- Post-Award Negotiations

In cases where it is unavoidable, the agency would also oversee any post-award changes in the design and scope of the project. This would curtail changes that are likely to inflate capital costs and restrain profligacy on the concessionaire's part.

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<sup>18</sup> *Supra*, note 11.

## ii. *Curtailling Debt*

The rent-seeking behaviour described above thrives due to the loose purse-strings of most public-sector banks. Lending to large-scale infrastructure projects allows banks to pad their balance-sheets with assets and demonstrate growth.<sup>19</sup> The first step towards curtailing this involves putting in place critical safeguards in the loan market. This would require loans to be granted only on the basis of reasonable cost-estimates (and not 'gold-plated' estimates). It may be useful to set up an independent agency tasked with evaluating loans in the PPP sector.

Further, the government must enforce the limits on debt in PPP projects. Current limits stipulate that a concessionaire must maintain a debt-equity ratio of 70:30.<sup>20</sup> However, this is routinely ignored. It would benefit the PPP sector greatly if these limits are eased in order to grant concessionaires greater flexibility in financing projects, and thereafter strictly enforced.

Further, India must do away with the extant system of termination payments. Under the current regime, in case of termination, the government steps in to settle the Concessionaire's debts.<sup>21</sup> This creates an incentive for concessionaires to accumulate bad debt. India may look to the United Kingdom in this regard. In the UK, in case of a termination, the government pays the concessionaire only the market value of the asset.<sup>22</sup>

Also, under the UK PFI (Private Finance Initiative), road contracts are procured through risk-transfer arrangements aimed at getting better value for public money (VfM). PFI procurement is done on a Design, Build, Finance and Operate (DBFO) basis, wherein the road asset is created by the private entity, and payment is made by the public authority based on the quality of service delivered during the entire tenure of the contract. PFI roads have brought increased efficiency in project completion, and superior service in terms of riding quality and lane availability for users.<sup>23</sup> Further, financing through the bond market and from strategic foreign investors ought to be encouraged.<sup>24</sup>

## iii. *Correcting Over-Collection of Toll*

In order to correct the current system of over-collection of toll by concessionaires in BOT (Toll) projects, India ought a shift towards a system of 'shadow tolling', similar to what is practised in the United Kingdom, Portugal and the Netherlands.<sup>25</sup>

<sup>19</sup> *Supra*, note 11.

<sup>20</sup> World Bank, *Infrastructure Public-Private Partnership (PPP) Financing in India*, (2007).

<sup>21</sup> See: Clause 16, Planning Commission of India, *Model Concession Agreements* available at <http://planningcommission.gov.in/sectors/index.php?sectors=infrastructure>.

<sup>22</sup> Harris *et al*, *supra*, note 11.

<sup>23</sup> R. Akbiyilki, S. U. Dikmen, and D. Eaton, 26 (2) *Financing Road Projects by Private Finance Initiative: Current Practice in the UK with a Case Study*, Transport 208, (2011).

<sup>24</sup> Harris *et al*, *supra*, note 11.

<sup>25</sup> Bousquet and Fayard, *Road Infrastructure Concession Practice in Europe*, WORLD BANK (2001).

A shadow tolling system enables the public authority to delegate the construction and funding of a particular infrastructure to a concession company. However, it does not allow the concession company the right to collect toll from users of the infrastructure.<sup>26</sup> Instead, the road authority remunerates the concession company on the basis of a combination of (i) quality, functionality and maintenance of the infrastructure and (ii) the degree of utilisation.<sup>27</sup>

In the UK, the Netherlands and Portugal, the concessionaire is reimbursed either from the public exchequer, or via money raised from an increase in taxes levied on the general public. For instance, in the UK, the shadow tolling mechanism is usually financed by a cess on petrol and diesel.<sup>28</sup> As such, the *system does not generate a new source of funding*. It only delays budgetary funding.

However, this paper proposes a slightly different alternative. Rather than funding a shadow tolling system from the public coffers, the government should collect toll from users, and then pass it on to the concessionaire on the basis of its performance. This would involve three critical features:

- Traffic-Monitoring

As in the UK, the government should track utilisation of the infrastructure using an electronic metering system. This would reduce the risk of tampering by the concessionaire and ensure greater transparency. Concessionaires should be compensated on a vehicle/kilometre rate.

- Road-Quality Oversight

In addition to the aforesaid, the concessionaire's remuneration should also be based on the quality of the road. This would require technology-based real-time road-quality monitoring. Data obtained in this manner should be made available in the public domain.

In particular, the road authority may use cameras to monitor road quality, as well as mobile core-analysis units. Further, this paper suggests the establishment of a system using SCADA (Supervisory Control and Data Acquisition) to track, monitor and control various quality parameters.

- A Frictionless Payment-Disbursement System

This paper strongly suggests the setting up of a frictionless, centralised payment gateway for concessionaires across infrastructure-sectors. This would greatly ameliorate concessionaires' concerns about timely payments. Moreover, the road-granting authority may also set up an

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<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> Bousquet and Fayard, *supra*, note 25.

escrow account, from which concessionaires' payments would be disbursed. This would reduce governmental incentives to withhold legitimate payments, and boost contractor-confidence in the shadow tolling system.

In India, there has already been a move towards a shadow tolling system, under the name 'Operation and Performance Based Road Contracts (OPRC)'.<sup>29</sup> States such as Karnataka and Andhra Pradesh have awarded concession contracts under the OPRC framework and several other states such as Himachal Pradesh, Rajasthan, Tamil Nadu, Gujarat, Punjab and Bihar are in various stages of awarding OPRC contracts.<sup>30</sup>

#### *iv. Streamlining Land Acquisition and Environmental Clearances*

Previously, the responsibility of acquiring land and procuring environmental clearances fell upon the concessionaire. In practice, however, there were several irregularities in the manner in which this was done. Moreover, private contractors found the land-acquisition process cumbersome and difficult. Under the current framework, it is now the road authority's responsibility to acquire the land and procure the requisite environmental and forest clearances.

However, a large number of PPP projects are now stalled, since road authorities award projects before obtaining clearances and the requisite land for the project. These delays tend to affect a project's cash flow and stress lenders. Most banks now require that a large portion of the project land must be available with the authority at the time of the award of the project.<sup>31</sup>

To remedy this, road agencies must streamline their land acquisition and approval process to ensure that the stipulations/timelines laid down in the concession agreements are strictly adhered to. Road authorities must not enter into a concession agreement until 100% of the project land has been acquired and is free of all encumbrances.

Further, it may also be useful to set up a project completion risk guarantee facility, which would assure developers of a basic minimum return on their investment, in case a project fails to take off on account of the government's failure to comply with its obligations.<sup>32</sup> Indonesia, for instance, has set up the Indonesia Infrastructure Guarantee Fund for a similar purpose. The establishment of such a facility may reinvigorate developer-interest in PPP projects and assuage developers' concerns about government default.<sup>33</sup>

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<sup>29</sup> *Supra*, note 4.

<sup>30</sup> *Id.*

<sup>31</sup> *Supra*, note 2.

<sup>32</sup> *Supra*, note 4.

<sup>33</sup> *Id.*

#### v. *Contract Management*

Lastly, it is crucial that the current framework of Model Concession Agreements is made less rigid. It ought to allow parties to renegotiate their duties and obligation under the contract, over the course of the project life-cycle, upon the occurrence of certain stipulated events. Doing so will ensure that projects survive extraneous changes, viz., market conditions, supply costs, and force majeure events.

This ought to be accompanied by an increase in the oversight of contractual obligations by road authorities. This would mitigate future disputes and ensure the smooth completion of PPP projects.

#### 6. CONCLUDING COMMENTS

PPPs could transform the infrastructure-development landscape in the country. However, the PPP-based development model is severely crippled by the major structural deficiencies mentioned in this paper. The current system creates perverse incentives for concessionaires to renege on contractual obligation, while simultaneously disincentivising consistent, high-quality work. This is only exacerbated by an over-burdened judicial system, which is famously poor at enforcing contracts.

Mindful of Indian socio-economic realities, this paper suggests measures based on best practices from around the world. In particular, the shadow tolling system practised in the UK and elsewhere. It is also essential to curtail debt in the PPP sector. Lastly, we must move towards a more efficient system of contract enforcement. Without these critical measures, the PPP-based model in India is bound to fail.

The signs are encouraging. Both the NHAI and the Planning Commission have taken cognizance of these issues, and some improvements to the system are on the horizon. Much work, however, remains to be done. The road ahead is long.

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# Application of Gender Responsive Budgeting for Making Cities Smarter for Women

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## Abstract

Cities have become growth engines and centres of intense human activities. With rapid and increasing urbanization, Indian cities will be hosting about 40% of total population in coming future. Growing urban population is accompanied by growing needs of the citizens and increasing risks of violence particularly for women, due to gender differentiations in society. This paper suggests the solution of gender budgeting as a tool for gender mainstreaming and creation of gender responsive facilities to address the concerns of women in urban public spaces, thereby making cities smarter and safer for women.

## Introduction

More than half the world's population lives in cities, and by the year 2050, more than 66% of the world's population would be based in urban areas.<sup>1</sup> Closer home, Delhi is described as one of the fifteen major urban agglomerations in the world, as it has been experiencing unprecedented population growth since 1951, recording a growth rate of around 50% every decade.<sup>2</sup> The growing population and rapid urbanization have led to a massive influx of migrants in search of employment, thereby creating pressure on existing resources.<sup>3</sup> This has ushered in several development challenges including poverty, inequality, urban crime and gender based violence.

Women are more likely to face various forms of vulnerabilities such as disproportionate impact of poverty, poor access to education, employment, property, and decision-making power, and are at a greater risk of experiencing violence.<sup>4</sup> This lack of safety for women in cities significantly weakens their right to mobility and access to public spaces. In India, gender based violence and lack of safety in public spaces are quite stark. Studies suggest that 92% of women in Delhi have experienced some form of violence in public spaces and 88% of women reported having experienced some form of verbal harassment.<sup>5</sup>

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<sup>1</sup> UN DESA, 2014

<sup>2</sup> National Capital Region Planning Board, 2015

<sup>3</sup> Jagori, 2011

<sup>4</sup> ActionAid, 2017

<sup>5</sup> ActionAid, 2012

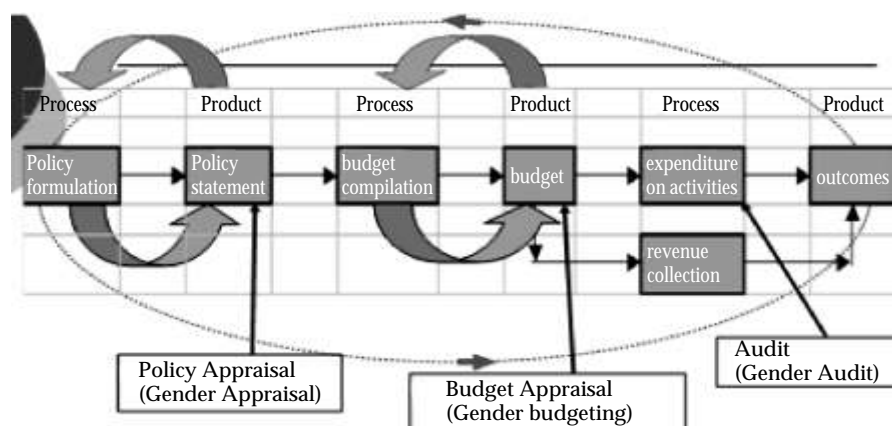
This lack of safety among women, real or perceived, is because experiences of violence in urban areas are gendered, implying that urban men and women experience violence and safety differently.<sup>6</sup> This urban insecurity significantly alters women's mobility in public spaces making them adjust their travel within cities based on their experiential safety. This is because of the lack of accessible gender-responsive public services such as street lighting, housing, water, sanitation, safe public transport for women, inadequate police protection for women, security, health, and violence response services (shelters, rape crisis centres, and legal aid). The present urban situation poses a challenge to women's safety and is not favourable to their mobility. This paper addresses women's concerns in cities and applies gender budgeting for making cities smarter for women through the illustration of the Smart Cities Mission.

#### Gender Budgeting as a Tool for Gender Mainstreaming

Budgetary policies impact men and women differently due to the unequal positioning of men and women, boys and girls. The way in which government budgets are raised, allocated and spent can impact gender inequalities.<sup>7</sup>

Gender Responsive Budgeting or Gender Budgeting (GB) is a globally acknowledged framework to promote gender equality to ensure continued investments throughout government planning and budgeting.<sup>8</sup> GB assists in planning gender responsive policies/programs; ensuring that adequate resources are aligned to policy/programmatic commitments, monitoring expenditures, and assessing the impacts of the investments.<sup>9</sup>

Figure 1 : Gender budgeting across the various stages of budget cycle.



<sup>6</sup> Taylor, 2011

<sup>7</sup> Vijayan and George, 2011

<sup>8</sup> As referred to by the Government of India

<sup>9</sup> Ministry of Women and Child Development, 2015 and UN Women India, 2017

Gender budgeting has featured in the national development plans (five year plans) of the Government of India (GoI) that have aimed towards ensuring gender equality by addressing the concerns of women through policies and programmes.

Figure 2: Adoption of GB in India through five year plans.

Eighth Plan (1992-97)	Government of India (GoI) acknowledged the need for prioritizing financial resources for women to advance gender equality and women's empowerment.
Ninth Plan (1997-2002)	Women's Component Plan (WCP) was introduced in Central and State Government to ensure that not less than 30 percent of the funds/benefits from all development sectors flowed to women's programmes.
Tenth Plan (2002-07)	Gender Budgeting officially adopted and institutionalized by GoI in 2005-06 with the introduction of Gender Budget Statement. Looking beyond 30 percent allocations and beyond plan outlays to ensure Government Budgets are more gender responsive.
Eleventh Plan (2007-12)	Gender Budgeting recognised as an important strategy for gender equality. Focus on institutionalising GB in Centre and States.
Twelfth Plan (2012-17)	Highlights the need for greater inputs to institutionalise GB and the need for Gender Audit.

(Source: Ministry of Women and Child Development, 2015)

The Ministry of Women and Child Development (MWCD), as the nodal agency for GB in GoI, adopted the mission statement of 'Budgeting for Gender Equity' in 2004-05 to locate GB both in the centre and states. In 2004-05, the Ministry of Finance (MoF) provided institutional grounding to GB initiatives by mandating the setting up of Gender Budgeting Cells (GBCs) in all Ministries/Departments at the centre; with 57 ministries/departments currently having established a GBC. MoF also highlighted the need for budget data to be gender sensitive; in 2005-06 the first Gender Budget Statement (GBS) was included in the union budget at Rs. 12,000 crore. In 2018-19, over 30 ministries/union territories reported on GBS, which accounted for almost 5% (Rs. 1,21,961.32 crore) of the total union budget.

In this backdrop, while India has witnessed several urban innovations, the problem of gender-based violence especially in urban public spaces has persisted.<sup>10</sup>

Review of the Framework of Smart Cities Mission

The Sustainable Development Agenda 2030, Goal 11 calls for making cities and urban settlements inclusive, safe, resilient and sustainable.<sup>11</sup> Another crucial development is the adoption of the New Urban Agenda (NUA) at the "Habitat III" held in 2016. "The NUA sets global standards in sustainable urban

<sup>10</sup> Jagori, 2011  
<sup>11</sup> United Nations General Assembly, 2016

development and calls for cities to be secure and safe places for all people to live and work without fear of violence or intimidation.” India has actively participated in the deliberations of these developments and is committed to both these agendas.

The GoI has aimed towards comprehensive development of physical, institutional, social and economic infrastructure for the increasing needs of the growing population in cities, and undertook the development of ‘Smart Cities’ as a step towards that direction.<sup>12</sup> The Hon’ble Prime Minister Shri Narendra Modi launched the ‘Smart City Mission’ (SCM) in 2015. The SCM aims to develop 109 cities that will provide core infrastructure, a decent quality of life to its citizens, clean and sustainable environment and application of smart solutions. The focus is creation of replicable models based on sustainable and inclusive development.

Figure 3 : Smart solutions for development of smart cities.



(Source: Ministry of Urban Development, 2015)

The Ministry of Urban Development (MoUD), GoI announced various cities that would be taken under the Smart Cities Mission in 2016 including Delhi (ibid.). These selected cities would receive financial support of Rs. 100 crores for 5 years for their further development into smart cities from the GoI. The strategic components adopted were of area-based development through citizen consultations. At the planning stage, smart cities seek convergence with other programs connected to social infrastructure.<sup>13</sup>

<sup>12</sup> Ministry of Urban Development, 2015

<sup>13</sup> Ministry of Urban Development, 2015

The implementation at the city level is done by a Special Purpose Vehicle (SPV). A full time CEO heads each SPV and nominees of central government, state government and urban local bodies are on the SPV Board.<sup>14</sup> Since the launch of SCM, 99 cities have been selected with an estimated investment of Rs. 2 lakh crore, and the selection of more cities is to be announced shortly. Around 3000 projects worth Rs. 1,40,000 crores are at various stages of implementation. Till now, 82 SPVs have been formed. Cities have begun to think in terms of converging processes of different projects towards realization of a common vision.<sup>15</sup>

#### Limitations of the Current Framework of Smart Cities

The Smart Cities Mission has redefined the way cities are planned.<sup>16</sup> However, smart cities are not just about the creation of smart infrastructure, but about how to make responsive and efficient infrastructure to improve cities in terms of liveability.<sup>17</sup> Cities have been planned in a homogeneous manner to meet the needs of everyone. However, our society is heterogeneous with gender as a vital dimension of diversity, inequality and violence in the city, and hence, it is essential to analyse gender impacts of urban areas while developing smart cities. Women's experience of cities is shaped by the manner in which division of labour has been designed, thereby creating unequal urban realities for women. Urban women, who comprise a majority of the urban poor, with limited access to essential services, fare at the far end of the spectrum. Thus, there is a need for SCM to address the gender dimensions in the creation of a smart city. While basic services and transportation needs are being planned, they need to incorporate the needs of women.

Cities must ensure that budgets and planning are from a gender perspective and gender budgeting is undertaken. Some cities have been able to engage in gender budgeting and gender responsive planning, for instance, customised women day-night markets are being held with beat posts manned by women constables, unisex bikes as part of the bike sharing initiative. Coordination between different departments to ensure that gender specific needs are addressed is essential.

Due to the unequal relationship between transport and gender, investments on urban transport must address gender concerns and women's safety in public transport. Also, One Stop Centre<sup>18</sup> or public spaces for women and girls must be integrated into the smart city plans.<sup>19</sup> The integration of women and

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<sup>14</sup> Shrivastava, 2017

<sup>15</sup> Smart Cities Mission PIB, 2018

<sup>16</sup> Mukherjee, 2018

<sup>17</sup> 'Liveability Standards in Cities', MoUD

<sup>18</sup> One Stop Centre provides support and assistance to women affected by violence in public and private places

<sup>19</sup> Institute for Transportation & Development Policy, 2017

girls in urban transportation and other areas of decision making is essential for sustainable urban development. Municipalities can play a major role by enabling citizen participation and incorporating women's voices and needs.

The Smart City Mission has rightfully not advocated a single course of action on how to become smart, however, with the present challenges of gender based violence in urban spaces it is essential that the creation of these smart cities focus on ensuring women's safety in those spaces.

#### Gender Budgeting as an Effective Tool to Make Smart Cities for Women

Budgets are institutional paraphernalia to carry out governmental plans; however, they impact men and women differently due to their unequal positioning. Due to the diversity of experiences of women and men in urban areas, and the scope of urban planning to improve these situations, GB must be integrated into all levels of urban policy and programme planning in the creation of smarter cities for women. \*\*\*Town planners, policy makers and budget experts must engage in preparing and implementing participatory gendered plans (mobility mapping, participatory mapping) across cities. Engaging women in planning and decision-making process is essential to address their needs and suggest solutions for effective implementation. Some practical solutions to make cities smarter for women by applying gender budgeting on the existing Smart Cities Mission are:

- **Water:** While access to water supply is important for all residents, for the poor in cities, access to water at their doorstep can increase women's productive working hours.<sup>20</sup>
- **Sanitation:** Construction of clean and functional toilets for women, especially keeping in mind women with disabilities. The lack of safe and clean toilets has an adverse effect on women's health, physical security and exposure to violence.
- **Housing and Infrastructure:** Affordable housing for women, ensuring property rights for women. Better street lighting for women who work at odd hours.
- **Addressing Violence at Workplace:** Proper implementation of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.<sup>21</sup> Establishing Special Economic Zones for women, crèches in all work environments.
- **Transport and Safety:** A study by ITDP noted that at least 80% of all trips made by women and girls are by public and non-motorized transport,

<sup>20</sup> CEPT, 2017

<sup>21</sup> The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 is a legislative act in India that seeks to protect women from sexual harassment at their place of work.

which requires women friendly transportation. Hence, round the clock and safe transport facilities for women. Promoting women-only taxis and buses. Creating safe and comfortable walking environments for women and girls. Creating cycle tracks to provide safer cycling environments, strategically placing police personnel at public places.

- **Technology:** Installing user friendly technology and CCTVs in public spaces, mobile applications promoting facilities for women. Using social media as a tool changes attitudes and creates cultures free from gender violence.
- **Safety Audits and Gender Audits:** Regular and mandatory safety audits must be conducted to ensure the maintenance of the infrastructure created and the security issues of women at public places.<sup>22</sup> Gender audits are important as to evaluate how gender-responsive the budgets are and to incorporate women's priorities into the policies and programmes.

These can be initiated when GB has been incorporated across the entire budgetary processes of smart cities. Collaborations may be considered between MWCD, MoUD and other important stakeholders to ensure safer environment for women. Collaboration with MWCD and other experts on GB would ensure gender responsive planning and improve the process of engendering budgets and creation of a smarter city for women.

MWCD has been supporting trainings on GB to various central, state and district level officials in order to mainstream gender concerns. These trainings can incorporate municipal level officials who may be trained on gender sensitization and budgeting thereby creating a pool of municipal staff and experts on gender budgeting with the capacities to respond to the requirements from urban level. Gender sensitisation workshops for police personnel can help them engage more efficiently with those affected by gender based violence. For the institutionalisation of gender budgeting initiatives, Gender Desks or Gender Focal Points<sup>23</sup> may be established in urban local bodies to ensure that gender issues may be addressed in central and state governments as well as urban local bodies. Also, SPVs may include women representatives and gender experts for the proper addressing of women's needs and making cities smarter for women.

## Conclusion

Cities are now the new social hub, emerging from the rapid urbanisation that has led to large scale influx of residents in search of employment opportunities. With growing population, needs of citizens are also growing.

<sup>22</sup> UN Women Global, 2017

<sup>23</sup> Gender Budget Cells have been set up in Central Ministries as focal points for mainstreaming gender through Gender Budgeting.

Urban planners and policy makers must aim at creating a safe and comfortable habitat for all. However, with growing population, poverty, inequality, urban crime and gender based violence have increased to a large extent. Experiences of urban areas are gendered, placing women at a more vulnerable position in terms of their experience of violence in cities. Hence, it is essential that planning and budgeting for cities incorporate the needs and vulnerabilities of all and the rule of 'one size fits all' is not applied. In the creation of a smart city for women, gender budgeting can be an effective tool in prioritizing gender needs and addressing the development of a gender responsive smart city. For instance, there may be no lighting on routes used more by women, and public transport may serve some work zones more than others. By analysing these differences, gender budgeting helps to address women's safety and mobility in urban areas.

A collaborative approach with the Ministry of Women and Child Development and other stakeholders to adopt gender budgeting can strengthen the creation of a safe and smart city for women. The representation of women in processes of decision making and mapping, participatory planning and budgeting is crucial. Municipalities too

can play a role in engaging women representatives and undertaking gender responsive initiatives. Institutionalising gender budgeting and gender audits through collaboration with other stakeholders can attempt to make cities smart for women. By application of gender budgeting to the existing smart city solutions, cities can be made smarter and safer for women.

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# Tripling of Lending Resources without even a \$ Investment: The Smart Financial Innovation of ADB

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The 2007–08 global financial crisis was a sudden shock which threw the entire financial architecture of the world into disarray. The multi-lateral developmental institutions were the port of first call, and for many the last recourse to remain afloat. The Asian Development Bank (ADB) responded in an effective and powerful manner and enhanced its lending to its borrowing members, euphemistically called as Developing Member Countries (DMCs).

ADB was pushed to offer higher lending resources, since the demand for financial resources was increasing by the day, even when the capacity to make resources available had its limitations. ADB opportunity for more lending was further constrained by the financial capabilities of non-borrowing western countries and their commitment to the stressed countries of Europe. It was realized that for ADB to remain relevant to the needs of the ever dynamic Asia and the Pacific (hereinafter referred to as region), it has to substantially enlarge its resource envelope and to take its Sustainable Level of Lending (SLL) to new heights.

ADB did it. How did ADB do it? In fact it encountered the situation with tremendous amount of ingenuity and innovation. Between 2014 and first of January 2017, it tripled its equity to about \$53 billion from approximately \$18 billion.

This short paper will attempt to present the brilliant innovation by the ADB. The paper is arranged in the following brief sections.

Section I.	The Background
Section II.	India and the ADB
Section III.	The Concessional Window of ADB Lending
Section IV.	Resource Situation of ADB Post Global Crisis
Section V.	Combination of Two Streams of Lending Operations
Section VI.	The Concerns
Section VII.	The Proposal
Section VIII.	How the Magic Worked-From 2014 to 2017
Section IX.	The Post Merger Replenishment of Concessional Funds
Section X.	The Conclusion

### Section I: The Background

The end of the Second World War saw not just political and strategic realignment but it also heralded a new economic order. The leaders were the Bretton Woods Institutions, namely, the World Bank and the International Monetary Fund. The region during this time was considered as the most backward in the world, even worse than Sub-Saharan Africa.<sup>1</sup> The Hiroshima–Nagasaki bombing of Japan had brought Japan, a powerful nation before the world war, to its knees. Despite reeling under depravity and humiliation, the indomitable spirit of the Japanese people was able to resurrect the economic strength of the country soon enough. Next, Japan was looking to regain its position in the region and proposed a bank for the region to its mentor, United States of America (USA). The USA was not impressed with the suggestion, as it believed that the newly born Bretton Woods Institutions should be allowed to grow with a global mandate.<sup>2</sup>

The situation, however, changed when USA realized that its (mis) adventure in Vietnam has eroded its good will in the region. It needed to reassure the region of its continued interest and decided to reconsider the suggestion of Japan, and that is how the ADB was born. In a very interesting turn of events, it was headquartered in Manila rather than at Tokyo.<sup>3</sup> The ADB was formally inaugurated on 24th November 1966.<sup>4</sup>

### Section II: India and the ADB

India was a member of the Bretton Woods Institutions even before its independence. Regarding establishment of ADB, it was very pro-actively involved in the efforts of Economic Commission for Asia and the Far East (ECAFE). Mr. K. V. Lall, an Indian, was among the “Three Wise Men” who worked out the idea of ADB.<sup>5</sup> Again Mr. S. L. N. Sinha of the Indian Industrial Development Bank was a member of the Expert Group assembled on 20 October 1964 to work out the modalities. Another prominent Indian associated with the formation of ADB was C.S. Krishna Moorthy who also had the privilege of being the first Vice President of ADB. Others Indians who are

<sup>1</sup> The annual per capita income of the region was about USD 100, which was less than one-fourth of the Latin America and even below Sub-Sahara Africa. For details, refer to “ADB Through the Decades: ADBs First Decade (1966–1976)” at <https://www.adb.org/sites/default/files/publication/216111/adb-first-decade.pdf>

<sup>2</sup> Notwithstanding that the European Investment Bank, Inter American Development Bank and African Development Bank were set up as continental adjunct to the World Bank in the year 1957, 1959 and 1963–64, respectively.

<sup>3</sup> On 2 December 1965, in the third and final balloting, Manila won by one vote over Tokyo as the permanent site of the ADB sending most unexpected shock to Japan.

<sup>4</sup> The inaugural meeting was at Tokyo Prince Hotel in Shiba Park, Tokyo. The opening ceremony in Manila was held on 19 December 1966. ADB then had 31 members (19 regional and 12 non-regional). Now it has 67 members (48 regional and 19 non-regional). Takeshi Watanabe of Japan was ADB's first president.

<sup>5</sup> The other two were Saburo Okita of Japan and Luang Thavil Setaphanichkarn of Thailand.

remembered for their contribution are Mr. R. Krishnamurti, Director of Trade of ECAFE<sup>6</sup> and C. V. Narasimhan, a former Indian government officer.<sup>7</sup>

When the ADB was set up, a concern was that big countries should not corner the major chunk of financing, much less concessional financing. This was because of the experience of the World Bank group. Of the funds which the World Bank group had lent to Asia, 65% of hard loans and 95% of soft loans had gone to the two South Asian countries, ex British colonies-India and Pakistan. The other developing Asian countries received little.<sup>8</sup> That is the reason why India made a conscious decision not to borrow when the bank was inaugurated in 1966. It may be noted that in 1966 People's Republic of China (PRC) was not a member of ADB and the seat was occupied by Taipei, China.<sup>9</sup> India was eligible for both types of loans, namely, concessional and non-concessional. In ADB terminology, such countries are called blend countries. The decision of India ensured that the limited funds could be transferred to smaller countries. The decision of India was appreciated and the only position of Vice President, at that time, was reserved (off course unofficially) for an Indian.

1986 is a prominent year in the history of ADB. During this year PRC and Spain joined ADB and further India decided to borrow. By this time, the ADB had stabilized and was in a position to offer enhanced SLL. Though India is blend country yet it again decided to avail only non-concessional loans.

India obviously is the most potential borrowing candidate for any multi-lateral or bilateral financial institution due to its strong fundamentals and capacity to carry out the internationally funded projects. Not surprisingly, even though India started two decades after the bank was inaugurated and the Resident Mission was set up in Delhi only in 1992, India on a yearly basis as well as on cumulative basis is the biggest borrower of the ADB. Its borrowings are as follows:

Table 1: Cumulative Lending to India over Decades.

Years	Amount in \$ million <sup>10</sup>
1967–1976	–
1977–1986	250
1987–1996	6,338
1997–2006	10,478
2007–2016	25,032
Total:	42,097

<sup>6</sup> He wrote his memoirs about the founding of the bank called "ADB-The Seeding Days".

<sup>7</sup> He was an influential aide to USA President Lyndon Johnson.

<sup>8</sup> See Chapter 1 of the Book "A Bank for Half the World" by Wilson Dick.

<sup>9</sup> PRC joined ADB in March 1986. Taipei, China continues to be a member as well. Additionally, Hong Kong, China is an independent member since 1969.

<sup>10</sup> \$ mentioned in this paper means US Dollars.

This amounts to 15.8% of the total operational approvals given by ADB. PRC is next with 13.6%.<sup>11</sup>

### Section III: The Concessional Window of ADB Lending

The ADB operates a slew of financial products, viz., loans, guarantees, equity investments and technical assistance. Of these the most significant are the loans. It started with market related lending from its Ordinary Capital Reserve (OCR). The OCR loans are market loans given few points more than the London Inter-bank Offered Rate (LIBOR).<sup>12</sup> They can also be called quasi market rate as ADB is able to access cheap loans, at times even below LIBOR, from the international market owing to its AAA rating. It passes on a part of the advantage to the DMCs.

The first loan was advanced to Thailand in the year 1968 to Thailand Industrial Finance Corporation for lending to private industries. Soon it was realized that the countries in the regions are very poor and they need to be encouraged through concessional financing through special funds. In the year 1968, ADB adopted special fund rules and regulations which provided Foreign Agricultural Special Fund, Multi-Purpose Special Fund, a Technical Assistance Special Fund (TASF) and other funds as may be deemed necessary from time to time. In the year 1969, ADB approved its first loan on concessional term for Tajum Irrigation project in Indonesia.

As the profile of ADB improved in the succeeding year, it was felt that these special funds have very limited reach and resource. In September 1972, a meeting was convened for review of these special funds, and in March 1973 ADB appointed John Chadwick as special advisor to President to help with resource mobilization for a unified special fund and thus came the idea of Asian Development Fund (ADF).

The first meeting of all prospective donors was held in London on 15 March 1973. Subsequently, on the last day of the Sixth ADB Annual Meeting on 28 April 1973 at Manila, the Board of Governors adopted a Resolution<sup>13</sup> authorizing the establishment of the ADF. On 22 May 1973, Agricultural Special Fund was terminated.

In this context, it would be worthwhile to recall the debate of the initial years whether there should be separate capital resources for soft loans or not. The Expert Group constituted for this purpose did not support the idea, as it

<sup>11</sup> From Table A2.12 on Operational Approvals by Members and by Decades, 1967–2016, in the Appendix Section of the Book “Banking on the Future of Asia and the Pacific-50 Years of the Asian Development Bank” by Peter McCawley, pg. 433–435.

<sup>12</sup> LIBOR or ICE LIBOR (previously BBA LIBOR) is a benchmark rate that some of the world's leading banks charge each other for short-term loans. It stands for Intercontinental Exchange London Interbank Offered Rate and serves as the first step to calculating interest rates on various loans throughout the world.

<sup>13</sup> Resolution No. 62.

contemplated that in the early years there will be a limited appetite for soft loans. It recommended that a modest portion of the capital stock may be set apart though the operations of the soft loans, and it should be carried in a distinct manner.

The ADF issues were concluded in October 1973 at Bonn and the arrangements for ADF 1 were jointly accepted by 14 developed member countries. The amount agreed (\$525 million) was to be paid in two stages: \$350 million by 30 June 1975 and the remaining \$175 million by March 1976. Regional donors would contribute around 40% of the total, of which more than 80% was provided by Japan. On 28 June 1974, ADF was formally launched.

The ADF loans are given on concessional terms, carrying long maturities and lower interest rates. Grants are also given from ADF. The oil shock of early 1970s accelerated borrowing from ADF and it appeared that funds may get exhausted by the end of 1976 itself, just after 2 years of ADF coming into force. ADB proposed replenishment of \$1 billion but the donors agreed for \$830 million.

ADF is a donor based fund. In fact, this is the only resource where the pejorative term of donor is used. The donors group is a platform to exert influence on the management and to guide the agenda of ADB as per the national agenda of the donor countries. They obviously also create lobbies on issues common to some of them.

In the board room of ADB, members have limited maneuverability space, as they are bound by their voting powers which are pre-determined in accordance with the ADB Charter. The ADB Charter proclaims that ADB is a financial institution that is Asian in its basic character,<sup>14</sup> and that the percentage of capital stock held by regional members can never be below 60%.<sup>15</sup>

On the other hand, a donor can exercise disproportionate influence by donating at discretion.<sup>16</sup> It is a common knowledge that the small Scandinavian countries have guided their agenda on environment and gender because of the strength of their contribution to the ADF.

Similarly, it is no secret that the positions of the Vice President have been created over the years to accommodate donors with substantial contribution to ADF. For considerable period, there was a single Vice President in ADB and it used to be an Indian. As the ADB grew and as regional countries started coming of age, the posts of the Vice President increased in quick succession and contribution to ADF became a major factor for the same.<sup>17</sup>

<sup>14</sup> See Preamble of the Agreement Establishing the Asian Development Bank, popularly referred to as the Charter.

<sup>15</sup> Article 5(1) of the Charter.

<sup>16</sup> For instance, Japan's cumulative contribution to the ADF is 36.3% of total, while its share in ADB's capital is 15.6% and its voting power is 12.8%.

<sup>17</sup> Now ADB has six Vice Presidents. Of these two posts were created in 2013 itself. Currently, these positions are occupied by Indian, Chinese, American, Australian, German and Indonesian candidates. As can be seen, four of them represent regional members.

#### Section IV: Resource Situation of ADB Post Global Crisis

ADB's financial assistance is primarily, though not exclusively, arranged through OCR and ADF. A rewind on the two sources at and immediately after crisis period is a useful reference to appreciate the extraordinary measure taken by ADB.

##### OCR Envelope

The initial authorized capital of the ADB was \$1 billion.<sup>18</sup> The members made the seed subscription in 1966. Thereafter, there have been five General Capital Increase (GCI), beginning 1971 and till 2009. In between, the capital was increased in 1976, 1983 and 1994. The 1994 GCI was a hundred percent increase. The last capital increase in 2009 was however after a 15-year interval which recorded an impressive two hundred percent increase. The 2009 increase tripled the authorized capital of the ADB. The paid in proportion was 4% only, nonetheless resulting in raising the paid in amount to 8 billion dollars.<sup>19</sup> This was much needed, as ADB had come up with an ambitious lending program to implement its Strategy 2020.

##### ADF Envelope

Since its launch, ADF had been replenished ten times, each for a cycle of 4 years.<sup>20</sup> In 2008, donors agreed on a total replenishment size of \$11.3 billion for the ninth ADF replenishment (ADF X, 2009–2012). Of this amount, donors pledged a contribution of \$4.2 billion.<sup>21</sup> The other sources of replenishment include internal resources consisting of reflow-based resources and liquidity drawdown and net income transfers from OCR. New donor contributions comprised about 37% of the total replenishment, representing a 13% increase in Special Drawing Rights (SDR) terms from the level of ADF IX. The negotiations had taken place in the backdrop of strategy 2020 and donors supported it with great zeal.<sup>22</sup>

The next replenishment (ADF XI, 2013–2016) was concluded in 2012. This was the time when the impact of crisis was still surviving and the SLL of ADB was failing to catch up with the aspirations and deficit of DMCs. The donors agreed on a total amount of \$12.4 billion, of which donors pledged \$4.6 billion.<sup>23</sup> This time the donors considered the target of ADB to run the race for MDGs

<sup>18</sup> Article 4 of the Charter.

<sup>19</sup> The average increase in paid in capital is approximately \$1.1 billion per GCI.

<sup>20</sup> Exceptions are ADF 1 and 11, which were for 3 years only.

<sup>21</sup> Executive Summary of the ADF X Donors at <https://www.adb.org/sites/default/files/page/59522/4th-meeting-executive-summary.pdf>

<sup>22</sup> For greater details, refer to proposal paper R15-15 of 5 March 2015 presented by the management for consideration and approval of board titled, "Enhancing ADB's Financial Capacity for Reducing Poverty in Asia and the Pacific."

<sup>23</sup> See "Asian Development Fund XI Donors' Report: Empowering Asia's Most vulnerable" at <https://www.adb.org/sites/default/files/institutional-document/33603/files/adf-xi-donors-report.pdf>

culminating in 2015, while reviewing the portfolio, profile and projections of ADF.

During the ADF XI replenishment negotiations in 2012, donor countries made a clamor for greater participation by emerging regional members, a subtle reference to India as PRC has been contributing since ADF IX.<sup>24</sup> Further, since India was championing the cause of GCI which was not happening, it was inevitable that it must begin contributing to the ADF. It did so in 2013 but as the ADF XI phase had already begun in 2012, India joined mid way. India pledged to contribute \$30 million in three installments of Promissory Notes during 2014–15, 2015–16 and 2016–17.<sup>25</sup>

Needless to say that the profile of India was pronounced once it joined the donors club. It was befitting to its status as a large share holder of ADB as also as an emerging economy. In the ADF 12, India increased its contribution to \$42 million<sup>26</sup> even while almost all other donors reduced their contribution.<sup>27</sup>

Between ADF I–ADF XI, total donor contribution is \$31.7 billion; averaging \$2.9 billion per replenishment. Funds from ADF internal resources (including loan reflows, liquidity drawdown, and investment income) totaled \$24.2 billion. Other resources principally consist of OCR net income transfers to the ADF and also saving and cancellation of loans and grants.

Expectations from ADB

With increasing demand for resources and limited option on GCI, ADB was struggling to maintain its relevance, particularly as new multilateral financial institutions were appearing on the horizon.<sup>28</sup> To add to the woes, the interest income on the investments of ADB has sharply reduced due to stubborn low interest rate regime prevailing since 2008. The declining SLL was staring in the face of ADB. On the contrary, DMCs wanted ADB to scale up. In the statement of the Indian Governor in the first business session of 48th ADB Annual meeting at Baku on 4th May of 2015, ADB was advised to aim at an annual business of at least \$20 billion by 2020.<sup>29</sup>

Declining SLL could only be arrested by augmenting the resources of ADB. Interest income remaining low and GCI not finding takers, attention shifted to the remaining assets, notably ADF resources. When ADF was formed, the leveraging of its equity was not given a serious consideration. Perhaps it had no attraction for the capital market investors, as the fund was for poor

<sup>24</sup> PRC made a contribution of \$45 million in ADF XI.

<sup>25</sup> See Annual Report of Ministry of Finance, Government of India, 2013–14 at page 38.

<sup>26</sup> Refer "Asian Development Fund 12 Donors' Report Scaling Up for Inclusive and Sustainable Development in Asia and the Pacific."

<sup>27</sup> PRC also increased its contribution and Indonesia returned as a Donor.

<sup>28</sup> Asian Infrastructure and Investment Bank (AIIB) and New Development Bank (NDB). The former was aggressively pursued by PRC.

<sup>29</sup> <http://pib.nic.in/newsite/PrintRelease.aspx?relid=121141>

countries with low credit ratings and weak capability for servicing foreign currency debt, and, therefore, issuance of bonds was not a viable option. Had ADB issued such bonds, the financing costs would have been much higher than the ADF loan pricing. Much water has flown down the rivers of the region since then. Could the ADF assets be harnessed after four decades?

Section V: Necessity is the Mother of Invention - Combination of  
ADF and OCR Lending Operations

It was the then long serving Treasurer, Mr. Mikio Kashiwagi who first suggested the possibility of merging the ADF and OCR in 2012 as one of several solutions to arrest the anticipated decline in lending headroom. A wide range of options were proposed to work out such a combination. The proposal was called “Project Galaxy.”

However, the initial reaction was disbelief, as nobody thought such a simplistic solution to the huge complex problem is possible. It assumed traction only when President ADB, Mr. Takehiko Nakao was convinced of its feasibility and instructed staff to present it with better details and market it to the stakeholders.<sup>30</sup> This was mid September 2013.

Once the message from the President was clear and loud, the discussions started with a sense of confidence. The outlines of the proposal were shared with concerned quarter. Its salient feature was to merge the two equities of ADF and OCR and increase lending by leveraging the collective equity. The proposal carried an assurance that ADF countries will continue to access loans on same terms and conditions and they may even get a bigger share of the cake. ADF was to remain but only as a grant fund with smaller corpus.

Responses by the donors were lukewarm, to put it mildly. The major hurdle came, as was expected, from the USA which termed it as a “non-starter.” Many felt that the proposal was utopian, too good to be true. The credit goes to the team of Nakao which with a belief in the merit of the proposal launched simultaneous consultations with DMCs and even civil societies to arrange a consensus.

The USA raised issues of requirement of legislative mandate for any such proposal. The International Monetary Fund (IMF) reforms being held up by USA on the same pretext for couple of years were there for all to see. However, the legal team of ADB was able to convince USA that Senate approval was not required and that further the proposal will reduce its financial burden substantially. The second argument must have weighted more, as all donors, particularly Western countries, were looking for an opportunity to reduce their liabilities. It was becoming difficult for them to sell to tax payers their

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<sup>30</sup> Mr. Nakao assumed office on April 26, 2013 as the 9th President of ADB during the ADF XI period and oversaw the resumption of lending to Myanmar which led to record ADF approvals in 2013.

obligations to support ADF countries even as many of these countries are much better off now than what they were 40 years back at the time of beginning of the ADF. A proposal which enhanced the lending envelope and yet halved their burden was too lucrative to be refused or ignored.

It was equally important to receive support from independent research bodies. A team from the Centre for Global Development (CGD)<sup>31</sup> in 2014 assured the stakeholders that the proposal is both credible and feasible. The review found that “the main promises of the proposal are sound, and therefore [CGD has] encouraged the ADF’s donors to move swiftly to approve it in order to take full advantage of the benefits that will come from greater leveraging of ADF resources. More fundamentally though, [CGD sees] the proposal as an impressive launching point for further innovation in the ADB’s basic model, potentially paving the way for fresh thinking across the multilateral development banks.”<sup>32</sup> Another team of three international experts reviewed the report of CGD and confirmed its optimism and added that the proposal is to the benefit of all.

Next, ADB engaged a major rating agency to assess the impact of the merger on the bank’s coveted AAA credit rating. The agency concluded that not just ADB will retain its AAA rating but in fact the merger will considerably strengthen its financial fundamentals. Experts carried out simulation exercises to undermine the robustness of the proposal even in adverse financial situations.

2014 saw major breakthrough with major players coming on board. In November 2014, G20 leaders endorsed the merger and said that the G20 would continue to work with multilateral development banks to “optimize use of their balance sheets to provide additional lending.”<sup>33</sup>

By March 2015, ADB had obtained support for the proposal from all 67 ADB shareholders and all 34 ADF donors. The Board of Governors formally approved the change in April 2015, which took legal effect in January 2017.<sup>34</sup>

#### Section VI: The Concerns

The proposal had multi-faced challenges of all natures-legal, accounting and technical, to mention the important ones. Beside these, the conformity of the proposal to the Charter was a pronounced question mark. The political acceptability of the proposal was another hot issue.

<sup>31</sup> The Center for Global Development is a U.S. nonprofit think tank based in Washington, D.C. that focuses on international development.

<sup>32</sup> Birdsall, Morris, and Rueda-Sabater, 2014, Review of “Enhancing ADB’s Financial Capacity to Achieve the Long-Term Strategic Vision for the ADF.” can be read at <http://cgdev.org.488elwb02.blackmesh.com/sites/default/files/CGD-Assessment-Birdsall-Morris-RuedaSabater-ADB.pdf>.

<sup>33</sup> G20 Leaders’ Communiqué Brisbane Summit, 15–16 November 2014 at [http://www.g20australia.org/sites/default/files/g20\\_resources/library/brisbane\\_g20\\_leaders\\_summit\\_communique.pdf](http://www.g20australia.org/sites/default/files/g20_resources/library/brisbane_g20_leaders_summit_communique.pdf)

<sup>34</sup> RESOLUTION NO. 372 Enhancing ADB’S Financial Capacity For Reducing Poverty In Asia and The Pacific, Adopted 29 April, 2015.

The share-holding of the members fluctuated during GCI but the DMCs were not prepared for a situation where shares were to be issued to donors in proportion of the contribution made by them in ADF since inception. This would have disproportionately favored the rich countries, both regional and non-regional, at the cost of DMCs and more so PRC and India who are very late entrant to the Donors club. It would have also raised almost insurmountable legal issues in view of categorical proclamation in the Charter that the bank is Asian in character. Additionally, asset distribution in many countries would have required parliamentary approval-a legislative nightmare that would have ensured that no dateline can ever hold.

Further, for the proposal to move on fast track, it was important that it does not get bogged down in the complexity of Charter amendment. ADB was able to clarify that ADF was a special fund established within and managed by ADB (not as a separate legal identity, as is the case of the International Development Association of the World Bank Group) and so the proposal would not require an amendment of the Charter. The recommendation of the Expert Group against creating a separate entity for ADF saved the day when the issue of merger was getting examined with reference to the legal requirement of amending the Charter. (to recall, refer to Section III).

#### Section VII: The Proposal As Approved

The proposal entails, effective January 2017,

- (i) combining ADF lending operations with the OCR balance sheet, and
- (ii) retaining the ADF as a grant-only operation.

The beauty is that the proposal worked on both the sides. The ADF equity was transferred to the OCR equity and the expanded OCR balance sheet now was ready for far more handsome leverage. ADB could now issue far more bonds based on the combined capital. The reliance on donors, therefore, was correspondingly reduced.

The dynamics and the mechanism of the proposal, to demystify it, can be broken down in the following manner:

- The donors would agree to transfer the ADF loan and part of the liquid assets to OCR without any change in the shareholding structure or shareholder voting of ADB.
- The value of transferred ADF assets would be reflected in ordinary reserve and the total equity of OCR would increase.
- ADB's lending, borrowing, and equity investment headrooms would increase accordingly.
- The ADF would cease to provide new loans, but it would continue as a special fund for providing grant assistance to eligible DMCs.

- Future loans to ADF borrowers at current concessional terms would continue to be provided by ADB but from the new OCR concessional lending window.
- ADB will continue to seek a consensus among donors on the level of ADF grant assistance and concessional OCR lending.
- The value to the contributions made by recognizing each donor's proportionate interest in the transferred asset will be preserved.
- More efficient and effective investment of liquidity.

To sell the proposal, it was necessary to present credible and verifiable facts. The following projections were calculated and shared with the stakeholders:

- The total annual commitments could increase up to \$20 billion or by up to 50% over the current level, if there are needs.
- Concessional lending and grants to the remaining concessional assistance eligible countries will increase<sup>35</sup> - by up to 80%, according to baseline scenarios from the current level of \$1.7 billion to \$3.1 billion.
- Donor contributions to continued ADF grant operations would reduce by ADF XI) to \$0.6 billion.
- The minimum equity-to-loan ratio will increase from current 25% to 37%. This is because OCR balance sheet will now also be utilized by countries with lower credit ratings than the traditional OCR borrowers. This increase is essential so that AAA rating of ADB is not impacted even by a whisper.

Most importantly, the voting shares of ADB members remained intact because the ADF equity was transferred to the ordinary reserves of the OCR balance sheet, not to the shareholders' paid-in capital (which is the basis of voting shares). However it was ensured that the resources previously contributed by each ADF donor would continue to be reflected in ADB's financial statements even after they become part of OCR capital. In the unlikely possibility, OCR getting liquidated in the future, past ADF contributions are noted separately next to the paid-in equity of donor shareholders.

For low income countries, the advantage was dual-more grants from ADF and larger financing from expended OCR on the same terms and conditions as were before to the ADF countries. With increased resources, the transition of ADF countries to blend country status is expected to accelerate. Similarly, blend countries are also expected to graduate to non-concessional loaning in a much faster manner.

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<sup>35</sup> A base allocation of \$6 million per year to such countries introduced

## Section VIII: How the Magic Worked-From 2014 to 2017

The proposal approved on 29 April 2015 came into effect from 1 January 2017. The comparison starts with the resource basket ending the year of 2014<sup>36</sup> when the major financial parameters were as under.<sup>37</sup>

Table 2: Financial Indicators of ADB as on 31 December 2014.

Financial Indicator	Amount in \$ (billion)	Elaboration
ADF equity	31.5	Donor contributions, income transfers from OCR, retained earnings from ADF lending, liquidity investment, etc.
Outstanding ADF loans	27,5	
OCR equity	16.9	OCR paid-in capital of \$6.1 billion, and reserves (accumulated retained earnings from OCR operations, liquidity investment, etc., of \$10.8 billion).
Outstanding OCR loans	55.9	

Before we analyze the table, it is important to consider that just as ADF equity was constrained as it is not leveraged, OCR lending capacity is constrained by the equity-to-loan ratio<sup>38</sup> intrinsically linked to the non-negotiable position of maintaining AAA rating at all time and in all circumstances. In this background, let us again see the table above. The ADF's equity capital is about double the amount of OCR's equity capital, but its outstanding loans of \$27.5 billion represent only 49% of OCR outstanding loans. This is because ADF's mobilization ratio<sup>39</sup> of less than 1.0 is significantly lower than OCR's mobilization factor of 3.3 because of the ADF's lack of borrowings. The ADF's resources were, therefore, very sub-optimally utilized.

<sup>36</sup> At the same point of time, ADB's subscribed capital (OCR capital) was \$153.1 billion composed of the paid-in capital of \$7.7 billion (including \$1.6 billion committed but not paid yet) and the callable capital of \$145.4 billion.

<sup>37</sup> Refer 2014 Financial Report at <https://www.adb.org/sites/default/files/institutional-document/158032/adb-financial-report-2014.pdf>

<sup>38</sup> The ratio of the OCR equity to the OCR outstanding loans and guarantees.

<sup>39</sup> It equals outstanding loans and guarantees in relation to equity capital.

### What Happened on January 1, 2017

On 1<sup>st</sup> January 2017, OCR equity almost tripled, as \$30.8 billion of ADF loans and other assets were transferred from the ADF basket even as assets amounting to \$2.5 billion remained in the ADF to support its grant operations. It was envisaged that the newly enlarged OCR window would offer the poorer borrowing countries concessional lending on the same terms and conditions as before, while the ADF itself would provide only grant assistance going forward.

It is worthwhile to look at the balance sheet of combined ADF and OCR scenario as of 1<sup>st</sup> January 2017.<sup>40</sup>

Table 3: Balance Sheet of Combined ADF and OCR Scenario (as of 1<sup>st</sup> January 2017).

Item	ADF	OCR	Combined OCR–ADF
Equity (\$ billion )	34.6	18.3	53.0
Outstanding Loans <sup>41</sup> (\$ billion)	30.8	68.0	98.8
Equity-to-Loan Ratio (%)	112.5	26.9	53.6
Annual Assistance without Combination (\$ billion)	3 <sup>42</sup>	10 <sup>43</sup>	
Annual Assistance with Combination (\$ billion)			15–18 <sup>44</sup>

### Section IX: The Proof of the Pudding is in the Eating-Case of ADF 12

At the ADF Donors' Meeting held in Frankfurt in May 2016, 32 donors<sup>45</sup> agreed to the ADF 12 for the 4-year period from 2017 to 2020. ADF 12 was the first replenishment after the announcement of the combination of the ADF and OCR balance sheets. To highlight the distinction, the suffix was no longer in

<sup>40</sup> Refer to "Frequently Asked Questions: Enhancing ADB's Financial Capacity by up to 50% for Reducing Poverty in Asia and the Pacific: Combining ADB's ADF/OCR Resources."

<sup>41</sup> Including outstanding guarantees.

<sup>42</sup> Comprises concessional loans (\$2.5 billion) and grants (\$0.5 billion).

<sup>43</sup> Comprises loans, guarantees, and equity investments.

<sup>44</sup> Comprises non-concessional and concessional loans, guarantees, equity investments, and grants

<sup>45</sup> There were 34 donors at the time of adoption of Resolution no. 372 on April 29, 2015 but only 32 participated in ADF 12.

Roman but Arabic numerals. The total replenishment amounted to \$3.8 billion to be financed from the different sources, as given in the table below:<sup>46</sup>

Table 4: Financing of the Total Replenishment.

Amount	Sources
\$2.6 billion	New donor contribution (a reduction of almost half as compared with ADF XI)
\$1.0 billion	Net income transfers from OCR (an increase of 116% compared with ADF XI)
\$0.2 billion	Income from liquidity investment

Out of the total \$3.8 billion, to match the increase in lending, donors agreed on an ADF grant replenishment of \$3.3 billion for ADF 12. This replenishment will finance different operations as given in the table below:

Table 5: Amount Division of the Grant Replenishment.

Amount	Operations
\$1.7 billion	ADF Country Operations
\$0.8 billion	Regional Operations
\$0.3 billion	Reserves for Changes in Debt Distress
\$0.2 billion	Disaster Response Facility
\$0.3 billion	Administrative Expenses

Apart from the \$3.3 billion in new resources for the core activities of the ADF, \$0.05 billion was contributed to the ADF facility for regional health security and \$0.5 billion was arranged for replenishment of the TASf, equivalent to 3% of the proposed Concessional Assistance level for the ADF 12 period.

The ADF 12 size was considerably smaller than recent earlier replenishments, because ADF 12 would finance only grant. The impact of merger on the donors share can be depicted in the table below which compares the individual contribution of donors in ADF 12 to the preceding ADF XI. Except PRC and India, all donors paid only about half.<sup>47</sup> The total contribution in ADF 12 was

<sup>46</sup> Asian Development Fund 12 Donor's Report Scaling Up for Inclusive and Sustainable Development in Asia and the Pacific.

<sup>47</sup> In case of India and PRC, contribution increased by \$11740000 million and \$55000000 million, respectively.

\$2490271407 million, as compared to \$4831235812 of ADF XI. It amount to approximately 50%.<sup>48</sup>

Table 6: Comparison of Donors Contribution between ADF XI and AF 12 in \$ (million).

Country <sup>1</sup>	ADF XI contribution	Contribution share	ADF XI contribution	Contribution share	Reduction
Japan (R)	2034874222	35.00	1072781911	35.00	962092311
Australia (R)	639531898	11.00	337160029	11.00	302371869
United States (NR)	359600000	6.19	189580000	6.19	170020000
United Kingdom (NR)	314597970	5.41	166025707	5.42	148572263
Germany (NR)	194186686	3.34	86554420	2.82	107632266
Canada (NR)	193390860	3.33	101955292	3.33	91435568
South Korea (R)	167932667	2.89	88533779	2.89	79398888
Italy (NR)	91823613	1.58	48409253	1.58	43414360
Netherlands (NR)	81020835	1.39			
Sweden (NR)	79670463	1.37	24055216	0.78	55615247
Spain (NR)	66851911	1.15			
Switzerland (NR)	53097479	0.91	27992895	0.91	25104584
Norway (NR)	50251491	0.86	26492503	0.86	23758988
People's Republic of China (R)	45000000	0.77	100000000	3.26	

<sup>48</sup> Derived from Table No. 5 of ADF 12 Donors Report: Scaling up for Inclusive and Sustainable Development in Asia and the Pacific.

<sup>1</sup> Classification (R: Regional and NR: Non-Regional).

Austria (NR)	43211112	0.74	22785451	0.74	20425661
Belgium (NR)	34818704	0.60	18392814	0.60	16425890
Hong Kong, China (R)	33139380	0.57			33139380
New Zealand (R)	32645180	0.56	8045210	0.26	24599970
India (R)	30000000	0.52	41740000	1.36	
Finland (NR)	29247711	0.50	12659596	0.41	16588115
Ireland (NR)	27006945	0.46			
Denmark (NR)	24937325	0.43	13050826	0.43	11886499
Taipei, China (R)	23036623	0.40	12144872	0.40	10891751
Luxembourg (NR)	11342917	0.20	5979962	0.20	5362955
Malaysia (R)	9578087	0.16	5049554	0.16	4528533
Singapore (R)	8720890	0.15	4600000	0.15	4120890
Brunei Darussalam (R)	6259922	0.11	500000	0.02	5759922
Turkey (NR)	5790814	0.10	2305937	0.08	3484877
Kazakhstan (R)	5491720	0.09			5491720
Thailand (R)	4855036	0.08	2559964	0.08	2295072
Portugal (NR)	500000	0.01			
Indonesia (R)			14000000	0.46	
France (NR)	128823351	2.22	56916216	1.86	

The replenishment is a testimony to the rising of economic strength of regional players; regional members contributed \$1743 million as compared to \$ 838 million of non-regional members, slightly more than double. Indonesia reentered as an ADF donor after a gap since ADF VIII by pledging \$14000000 million. Readers may recall that in ADF 1, the regional members (read Japan) contributed 40% (Section 111).

During ADF 12, ADB intends to deliver over \$28 billion of lending assistance- \$13 billion of concessional OCR lending countries and \$15 billion of regular OCR lending-to the concessional assistance countries. This is a substantial increase in assistance compared to \$23 billion during the ADF XI period.<sup>49</sup> ADB will also increase grant support to its poorest countries by 70% over the next 4 years including doubling of the minimum allocation for small countries, providing strengthened support for disaster risk management, and offering greater assistance for regional health security during economic crisis in the targeted countries.<sup>50</sup> Combination of ADF resources with OCR will also strengthen ADB's risk-bearing capacities and enable ADB to increase support for private sector operations,<sup>51</sup> especially in ADF countries.

Before we conclude the discussion on ADF 12, it will be useful to have a complete picture of the ADF corpus since its inception which is captured in the table presented below.

Table7: The Donors Contribution since Inception and till ADF 12 in \$ (million).<sup>52</sup>

Sr. No	Country	Classification	Total	Percentage (%)
1	Japan	Regional	13,532	38.24
2	United States	Non-Regional	4,842	13.68
3	Australia	Regional	2,834	8.01
4	Canada	Non-Regional	2,111	5.96
5	Germany	Non-Regional	2,009	5.68
6	United Kingdom	Non-Regional	1,787	5.05
7	France	Non-Regional	1,463	4.13

<sup>49</sup> " ADF 12 Donor's Report Scaling Up for Inclusive and Sustainable Development in Asia and the Pacific."

<sup>50</sup> Disaster Risk Financing, Disaster Response Facility and Disaster Risk Reduction are integral to ADF 12. Regional public goods are also aimed at helping needy countries. Details can be seen at ADF 12 Donor's Report: Scaling up for Inclusive and Sustainable Development in Asia and the Pacific.

<sup>51</sup> STRATEGY 2020 mandates to scale up private sector development and private sector operations in all operational areas, reaching 50% of annual operations by 2020. Refer to the Strategy document at <https://www.adb.org/sites/default/files/institutional-document/32121/strategy2020-print.pdf>

<sup>52</sup> Based on the figures given at Table A 2.15 on page 443–445 of the book, "Banking on the Future of Asia and the Pacific-50 Years of the Asian Development Bank" by Peter McCawley.

Sr. No	Country	Classification	Total	Percentage (%)
8	Italy	Non-Regional	1,238	3.50
9	Netherlands	Non-Regional	804	2.27
10	South Korea	Regional	692	1.96
11	Sweden	Non-Regional	513	1.45
12	Spain	Non-Regional	495	1.40
13	Switzerland	Non-Regional	423	1.20
14	Norway	Non-Regional	326	0.92
15	Austria	Non-Regional	309	0.87
16	Denmark	Non-Regional	275	0.78
17	Belgium	Non-Regional	271	0.77
18	Finland	Non-Regional	210	0.59
19	People's Republic of China	Regional	210	0.59
20	New Zealand	Regional	190	0.54
21	Turkey	Non-Regional	128	0.36
22	Taipei, China	Regional	122	0.34
23	Hong Kong, China	Regional	115	0.33
24	Ireland	Non-Regional	115	0.33
25	Portugal	Non-Regional	96	0.27
26	India	Regional	72	0.20
27	Luxembourg	Non-Regional	64	0.18
28	Malaysia	Regional	36	0.10
29	Indonesia	Regional	29	0.08
30	Singapore	Regional	27	0.08
31	Brunei Darussalam	Regional	22	0.06
32	Thailand	Regional	21	0.06
33	Kazakhstan	Regional	9	0.02
	Total Contributions		35,390	100.00

## Section X: Conclusion

In fact, even before 1<sup>st</sup> January 2017, ADB launched efforts to increase operational approvals (including loans, grants, guarantees, and equity investments) in 2015 and 2016. Between 2014 and 2015, total approvals expanded by over 20% to \$16.3 billion.<sup>53</sup> This was possible because there is always a lag between approval and disbursements and it was prudent to approve more than the headroom, available as the merger was written on the wall.

The Annual Report of ADB<sup>54</sup> for the year 2016 records various new highs, notably,

- ADB's loan and grant approvals reached a record high of \$17.5 billion, a 9% increase from the previous year.
- ADBs total operations, including cofinancing and technical assistance, reached \$31.7 billion-an 18% increase from 2015.
- Climate finance reached \$3.7 billion, up from \$2.6 billion in 2015.
- Co-financing with public and private partners jumped to \$13.9 billion,<sup>55</sup> which is a record increase of 31% over 2015.
- Private sector operations reached \$2.5 billion for only the second time in ADB's history. ADB's private sector operations also generated a record \$5.84 billion in cofinancing-a \$1.2 billion increase from 2015-which included \$238 million in official co-financing to support non-sovereign operations.
- Technical assistance amounting to \$169 million was extended.
- Disbursements, a key indicator for successful project implementation, also reached a new high of \$12.26 billion in 2016.

The future looks brighter. After gifting itself the generous package of expended equity base and celebrating it in its 50th year, ADB is aiming high. ADB annual loan and grant approvals are likely to go up from \$13.5 billion in 2014 to \$20.0 billion in 2020.<sup>56</sup> The impact of ADF 12 has been discussed in the preceding section.

ADB's road map will be led by Strategy 2030, where investment in infrastructure is the top most priority. President Nakao calculates that "Asia

<sup>53</sup> <https://www.adb.org/news/adb-operations-reach-record-315-billion-2016>

<sup>54</sup> <https://www.adb.org/documents/adb-annual-report-2016>

<sup>55</sup> This includes ADB's first two co-financed projects with the Asian Infrastructure Investment Bank for roads in Pakistan and a natural gas project in Bangladesh.

<sup>56</sup> This was precisely stated by India in the ADB Annual Meeting in 2014 Supra 29, as it touched \$17.5 billion in the year 2016.

will need \$1.7 trillion per year in investments in power, transport, telecommunications, and water through 2030.”<sup>57</sup> There are other pressing challenges such as climate change, health, education, and gender equality.

This brilliant master stroke of the ADB has been termed by commentators in different adjective, “unconventional,” “striking,” “ground-breaking,” “extraordinary,” etc. Whatever term we may choose to describe it, the proposal actually is a tribute to the genius and innovation. Without arranging for additional funds and at the same time reducing the financial burdens of the donors, ADB was able to not just maintain the status quo but take the bank to heights, unimaginable till recently. It is one of the rarest cases, which turned out to be a win-win situation for all the stake-holders and there are many stake-holders. It will make ADB “stronger, better and faster,” the *mantra* given by President Nakao.

The bonanza could not have come at a more opportune time. With Asian Infrastructure Investment Bank (AIIB) and New Development Bank (NDB) entering the fray, there were many critics who were prepared to write the obituary of ADB. The tables have turned. The new banks will not be able to reach anywhere close in foreseeable future as the lag is now almost unbridgeable. Further, it has set up an excellent example for other financial institutions to emulate. ADB will now pursue its vision of Asia and Pacific region free of poverty with much more vigor, strength and sense of purpose.

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<sup>57</sup> “ADB President Calls for New Infrastructure Investment as Part of ADB's Long-Term Strategy” at <https://www.adb.org/news/adb-president-calls-new-infrastructure-investment-part-adbs-long-term-strategy>



# Development of “Non-Communicable Diseases’ Surveillance & Management System” in Uttar Pradesh

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## Executive Summary

Non-communicable diseases, including Chronic Obstructive Pulmonary Disorder (COPD) and Ischemic Heart Disease (IHD), are the leading causes of mortality and Disability Adjusted Life Years (DALYs) in Uttar Pradesh. Prevalence of majority of risk factors, such as air pollution (ambient as well as household), high blood glucose, hypertension, high body mass index, tobacco use, and others, are high in Uttar Pradesh, as compared to the rest of India.

The state of Uttar Pradesh is committed to meet the Sustainable Development Goal-3 as well as all its targets, including the Target 3.4, of reducing by one third premature mortality from non-communicable diseases by 2030.

The current National Programme for Prevention and Control of Cardiovascular Diseases (CVDs), Diabetes, Cancer and Stroke (NPCDCS) has focused on opportunistic screening and curative approaches, largely through Non Communicable Diseases (NCD) clinics and outreach camps. Evidence suggests that the reach of the NPCDCS programme is clearly inadequate as compared to the large disease and mortality burden due to NCDs. There are several issues, which need to be addressed, if the state aspires to achieve the Target 3.4. These include: (a) There hasn’t been any evidence-based approach for community-based surveillance; (b) There hasn’t been a total risk approach/risk-prediction algorithms based on multitude of risk factors; (c) Prevalence of risk factors at community level is unknown, consequentially, Information Education Communication (IEC) programmes and interventions not properly targeted; (d) Inadequate mechanisms for follow-up of patients; (e) Adherence to treatment unknown due to lack of proper linkages with the community; (f) Inadequate linkages with tertiary care; and (g) Despite being the leading cause of mortality and DALYs in UP, COPD haven’t received their full attention in terms of prevention and management.

Though, the current NPCDCS programme envisages surveillance as a component in overall management of NCD, this aspect has not received adequate attention, in view of the absence of the relevant guidelines.

In order to address the above issues, development of a 'NCDs Surveillance &

Management System', interlinking World Health Organization STEP wise approach to Surveillance (WHO STEPS) strategy based community-based surveillance and e-Patient Management System for better monitoring of patient for referral, follow-up and adherence to the treatment, with partnership with medical colleges (including private medical colleges), is proposed. Development of "Non-Communicable Diseases Surveillance & Management System" will be undertaken in one pilot block in Uttar Pradesh, and if successful, would be scaled up throughout the state, through existing National Health Mission (NHM) set-up and participation with medical colleges.

#### Situation Analysis

As per Global Burden of Diseases Study 2015<sup>1</sup>, COPD and IHD are the leading causes of deaths and DALYs in Uttar Pradesh (Table 1). The data from the Medical Certification of Causes of Death (MCCD) from the Department of Medical Health & Family Welfare, Uttar Pradesh, also suggest diseases of circulatory system and diseases of respiratory system as the leading causes in terminally ill patients visiting the district-level hospitals in Uttar Pradesh.

Based on Global Burden of Diseases Study, an estimated 4 lakh persons died due to cardiovascular diseases in UP. In 2015, an estimated 5,19,716 persons were living with cancer in Uttar Pradesh and 1,92,488 new cases of cancer were reported. In the same year, an estimated 84,695 persons died due to cancer<sup>2</sup>.

Table 1: Top ten direct causes and risk factors for morbidity and mortality in Uttar Pradesh.

Top ten diseases/conditions causing maximum mortality [ICD classification] [Uttar Pradesh DoMH&FW Medical Certification of Causes of Death (MCCD) data]	Top ten diseases/conditions causing maximum mortality in UP [Global Burden of Disease (GBD) Study data 2015]	Top ten causes for maximum DALYs in UP [GBD Data 2015]	Top ten leading risk factors causing health loss in UP [GBD data 2015]
Diseases of the Circulatory System (I00–I99)	Chronic Obstructive Pulmonary Disease	Chronic Obstructive Pulmonary Disease	Air Pollution (including Household Air Pollution)
Diseases of the Respiratory System (J00–J98)	Ischemic Heart Disease	Ischemic Heart Disease	Dietary Risks

Injury, Poisoning and Certain Other Consequences of External Causes (S00–T98)	Lower Respiratory Infections	Lower Respiratory Infections	Tobacco
Certain Infectious and Parasitic Diseases (A00–B99)	Diarrheal Diseases	Diarrheal Diseases	Malnutrition
Diseases of the Digestive System (K00–K92)	Tuberculosis	Neonatal Preterm Birth Complications	WaSH
Diseases of the Nervous System (G00–G98)	Cerebrovascular Diseases	Tuberculosis	High Blood Pressure
Symptoms, Signs and Abnormal Clinical and Laboratory Findings N.E.C (R00–R99)	Road Injuries	Neonatal Encephalopathy	High Fasting Plasma Glucose
Pregnancy, Child Birth and the Puerperium (O00–O99)	Neonatal Preterm Birth Complications	Road Injuries	Alcohol & Drug Use
Endocrine, Nutritional and Metabolic Diseases (E00–E89)	Chronic Kidney Disease	Cerebrovascular Disease	High Total Cholesterol
Diseases of the Genitourinary System (N00–N99)	Diabetes	Sense Organ Diseases	High Body Mass Index

As per Clinical, Anthropometric and Biochemical (CAB) Survey (2014)<sup>3</sup> conducted by the RGI, in Uttar Pradesh, 22% adults have blood pressure above normal range (Table 2), 8% have high blood pressure and 3% adults are living with very high blood pressure. Further, 9% adults in UP had fasting blood sugar above normal level, 3.5% adults had fasting blood sugar moderately high, and 2% adults had very high fasting blood sugar level.

**Table 2: Estimated number of adults suffering from diabetes and hypertension in Uttar Pradesh.**

<b>Estimated Population (&gt;18 years) (2015)</b>	<b>Blood Sugar Level <math>\geq 110</math> mg/dl (Numbers) (%)</b>	<b>Blood Sugar Level <math>\geq 130</math> mg/dl (Numbers) (%)</b>	<b>Blood Sugar Level <math>\geq 150</math> mg/dl (Numbers) (%)</b>
12,03,03,957	1,09,47,660 (9%)	42,10,638 (3.5%)	24,06,079 (2%)
	BP Above Normal Range+ (Number) (%)	BP Moderately High# (Number) (%)	BP Very High* (Number) (%)
	2,70,68,390 (22%)	1,01,05,532 (8%)	32,48,207 (3%)
+Above Normal Range = Systolic $\geq 140$ mm of Hg & Diastolic $\geq 90$ mm of Hg/Systolic $\geq 140$ mm of Hg & Diastolic $< 90$ mm of Hg/Systolic $< 140$ mm of Hg & Diastolic $\geq 90$ mm of Hg			
#Moderately High = Systolic $\geq 160$ mm of Hg & Diastolic $\geq 100$ mm of Hg/Systolic $\geq 160$ mm of Hg & Diastolic $< 100$ mm of Hg/Systolic $< 160$ mm of Hg & Diastolic $\geq 100$ mm of Hg			
*Very High = Systolic $\geq 180$ mm of Hg & Diastolic $\geq 110$ mm of Hg/Systolic $\geq 180$ mm of Hg & Diastolic $< 110$ mm of Hg/Systolic $< 180$ mm of Hg & Diastolic $\geq 110$ mm of Hg			
Based on Clinical, Anthropometric and Biochemical (CAB) Survey 2014			

In Uttar Pradesh, 11.2% adults have Body Mass Index (BMI)  $> 25$  (by definition, BMI  $> 25$  is considered to be overweight). Among these, 2.1% (an estimated 21,80,745) persons aged 18–59 years have high BMI (obesity). Persons (aged 18–59 years) living with BMI  $> 30$  are significantly higher in Western Uttar Pradesh than the rest of UP.

Air pollution is the leading risk factor for premature deaths in Uttar Pradesh. Western Uttar Pradesh has highest levels of Particulate Matter (PM 2.5)<sup>4</sup> as compared to the rest of Uttar Pradesh. Exposure to fine particles increases morbidity as well as mortality from respiratory and cardiovascular disease. Annual Health Survey (2012–13) reports higher number of persons diagnosed

with asthma/chronic respiratory disease in Western Uttar Pradesh as compared to the rest of Uttar Pradesh. Asthma/chronic respiratory disease across Uttar Pradesh (particularly Western Uttar Pradesh) is significantly higher as compared to Annual Health Survey (AHS) data for same time period from Madhya Pradesh, Orissa and Assam. This finding corroborates well with the PM<sub>2.5</sub> concentrations measured in these states across the time.

Further, as per Census 2011, 80% households use solid cooking fuels in Uttar Pradesh. In 54% households in Uttar Pradesh, food was prepared in living rooms exposing both adults as well as children to indoor smoke. In 2015, Household Air Pollution (HAP) caused around 12.5 lakh deaths in India, an estimated 20% of which occurred in Uttar Pradesh (Table 3).

**Table 3: Household air pollution attributable deaths in India.**

Illness	Number of Deaths	Proportion
Chronic obstructive pulmonary disease (18+ years)	4,09,172	33
Ischaemic heart disease (18+ years)	3,95,160	32
Stroke (18+ years)	3,19,767	26
Lower respiratory infections (0-4 years)	1,02,149	8
Trachea, bronchus, lung cancers (18+ years)	24,078	2
Total	12,50,326	100

Sources: [1] World Health Organization.

<http://apps.who.int/gho/data/node.main.HAPBYCAUSEBYREGIONANDWORLD?lang=en>

As per the Global Adult Tobacco Survey (GATS 2016–17)<sup>5</sup>, prevalence of current tobacco smoking in Uttar Pradesh was 13.5% as compared to 10.7% in India. Prevalence of current smokeless tobacco use was 29.4% as compared to 21.4% in the rest of India.

Thus, we find that the prevalence of risk factors for non-communicable diseases is high in Uttar Pradesh.

#### **National Programme for Prevention and Control of Cardiovascular diseases, Diabetes, Cancer and Stroke (NPCDCS)**

Government of India has launched NPCDCS<sup>6</sup> to address high prevalence of NCDs morbidity and mortality in India.

The Government of India has launched the guidelines for prevention, screening and management of non-communicable diseases at various levels of care in the public sector. These guidelines on operational aspects and financial norms of the programme have been given in detail to facilitate the effective implementation of the programme. The key strategies under the NPCDCS programme are:

- Prevention through behaviour change;
- Early diagnosis;
- Treatment;
- Capacity building of human resource; and
- Surveillance, Monitoring and Evaluation.

Table 4: Packages of services to be made available at different levels under NPCDCS.

Health Facility	Packages of services
Sub Centre	<ol style="list-style-type: none"> <li>1. Health promotion for behavior change.</li> <li>2. 'Opportunistic' screening using BP measurement and blood glucose by strip method.</li> <li>3. Referral of suspected cases to Community Health Center (CHC).</li> </ol>
Primary Health Center (PHC)	<ol style="list-style-type: none"> <li>1. Health promotion for behavior change and counselling.</li> <li>2. 'Opportunistic' screening of diabetes using glucometer kits and blood pressure measurement.</li> <li>3. Clinical diagnosis and treatment of common CVDs including hypertension and diabetes.</li> <li>4. Identification of early warning signals of common cancer.</li> <li>5. Referral of suspected cases to CHC.</li> </ol>
CHC	<ol style="list-style-type: none"> <li>1. Prevention and health promotion including counselling.</li> <li>2. Early diagnosis through clinical and laboratory investigations (common lab investigations: blood sugar, lipid profile, Electrocardiography (ECG), ultrasound, X-ray, etc.).</li> <li>3. Management of common CVD, diabetes and stroke cases (out-patient and in-patients).</li> <li>4. Home based care for bed ridden chronic cases.</li> <li>5. Referral of difficult cases to district hospital (DH)/higher health care facility.</li> </ol>

Health Facility	Packages of services
District Hospital	<ol style="list-style-type: none"> <li>1. Early diagnosis of diabetes, CVDs, stroke and cancer.</li> <li>2. Investigations: blood sugar, lipid profile, Kidney Function Test (KFT), Liver Function Test (LFT), ECG, ultrasound, X-ray, colposcopy, mammography, etc. (if not available, to be outsourced).</li> <li>3. Medical management of cases (outpatient, inpatient, and intensive care).</li> <li>4. Follow-up and care of bed ridden cases.</li> <li>5. Day care facility.</li> <li>6. Referral of difficult cases to higher health care facility.</li> <li>7. Health promotion for behavior change.</li> </ol>
Tertiary Cancer Centre	Comprehensive cancer care including prevention, early detection, diagnosis, treatment, minimal access surgery after care, palliative care, and rehabilitation.

In 2017–18, under the NPCDCS programme, 32.4 lakh check-ups were done in Uttar Pradesh. Among these, 22.4 lakh persons were reported to have attended NCD clinics, among which 2.5 lakh were diagnosed with diabetes, 2.5 lakh were diagnosed with hypertension, 22 thousand were diagnosed with CVDs, and a total of 831 were diagnosed with any type of cancer (oral (293), breast (95), cervical (151), other (292)). These patients were opportunistically screened at the NCD clinics or at health camps.

In 2017–18, screening for COPD has been introduced at the NCD clinics in 20 districts. Also, in 2017–18, population-based (door-to-door) screening has been taken up in 10 districts, the sustainability and impact of which needs to be seen.

Clearly, the reach of the NPCDCS programme in Uttar Pradesh nowhere matches the disease and mortality burden due to non-communicable diseases in Uttar Pradesh.

Further, a large proportion of cases are lost to follow-ups and adherence to the treatment regimens by those diagnosed with disease and put on treatment is largely unknown.

As per the Annual Health Survey (2012–13), only 15.6% (range: 6.2% (Agra) to 50.1% (Mahoba)) people with any kind of chronic illness were getting regular treatment from a government source.

Amidst the scenario, wherein there is a high prevalence of risk factors, a large proportion of people living with NCDs being unaware of the disease, care-seeking from government sources being low (consequently low reach of the NPCDCS programme), a renewed focus on sustainable and effective approaches for prevention and management of non-communicable diseases are required.

#### Key Issues in the Current Implementation of the NPCDCS Programme:

- No evidence-based mechanism for community-based surveillance.
- No total risk approach<sup>7</sup>/risk-prediction algorithms based on risk factors.
- Prevalence of risk factors at community level unknown. Consequentially, IEC programmes and interventions not properly targeted.
- Inadequate mechanisms for follow-up of patients.
- Adherence to treatment unknown due to lack of proper linkages with the community.
- Linkages with tertiary care inadequate.
- Despite being the leading cause of mortality and DALYs in UP, COPDs haven't received their full attention in terms of prevention and management.

In order to address the above issues, development of a 'NCDs Surveillance & Management System' interlinking WHO STEPS strategy<sup>8</sup> based community-based surveillance and e-Patient Management System for better monitoring of patient for referral, follow-up and adherence to the treatment, with partnership with medical colleges (including private medical colleges) is proposed. This is in line with the Objective 6 of the Global Action Plan<sup>9</sup> for prevention and control of non-communicable diseases, which envisages:

- Strengthen human resources and institutional capacity for NCD surveillance and monitoring and evaluation;
- Establishing and/or strengthening a comprehensive non-communicable disease surveillance system with periodic data collection of risk factors; and
- Integrate non-communicable disease surveillance and monitoring into state/national Health Management Information System (HMIS).

Under this IT-enabled system, two interlinked systems for following purposes would be developed.

- a. System for community-based surveillance of risk factors and NCD.
- b. Patient Management System for better monitoring of patient for referral, follow-up and adherence to the treatment through existing infrastructure available under NPCDCS.

WHO STEPs approach will be used for community-based surveillance.

STRATEGY	What	Who	Outcome
Steps I, II: Population Based Behavioural Risk Factor Assessment	<ul style="list-style-type: none"> <li>• Biannual population wide surveillance for NCDs related risk factors assessment in the catchment area.</li> <li>• Unique household ID, person ID.</li> <li>• Physical measurements: weight, height, blood pressure using automated devices. Demographic information: gender, education, etc.</li> <li>• Elicit information regarding treatment and care-seeking status from individual with NCDs [self-report].</li> </ul>	<ul style="list-style-type: none"> <li>• Community health worker (CHW) (Multipurpose Worker (MPW)/Auxiliary Nurse Midwifery (ANM)/Accredited Social Health Activists (ASHA) with secondary education).</li> <li>• Trained in behavioural risk factor assessment related to NCDs.</li> <li>• Accompanied by ASHA.</li> <li>• CHW will submit the behavioural risk factor assessment forms in Android based S/W [Data sent online to DMU at Divisional Hospital/medical colleges].</li> </ul>	<ul style="list-style-type: none"> <li>• Total number of persons screened.</li> </ul>
	<ul style="list-style-type: none"> <li>• Calculation of NCDs risk factor scores for identification of high risk cases in the area.</li> </ul>	<ul style="list-style-type: none"> <li>• DMU at the Divisional Hospital/medical colleges will do the risk score assessment.</li> <li>• DMU will identify the subsample population for Step III of surveillance.</li> </ul>	<ul style="list-style-type: none"> <li>• Number of cases with NCDs (old).</li> <li>• No. at risk of NCDs.</li> <li>• Care-seeking behaviour for NCDs in the community.</li> </ul>

STRATEGY	What	Who	Outcome
	<ul style="list-style-type: none"> <li>Information to the identified high risk cases to attend health facility (PHC) for further examination.</li> </ul>	<ul style="list-style-type: none"> <li>DMU through ASHA of that area/mobile phones in the areas where ASHA is not available.</li> </ul>	
Step III: Clinical Tests and Diagnostics of High Risk Cases at PHCs	<ul style="list-style-type: none"> <li>At the PHC level, clinical tests and diagnostics will be performed.</li> <li>Treatment of NCD cases (if possible) at PHCs.</li> <li>Referral to suitable higher centres if treatment not possible at the PHC.</li> <li>Follow-up of referred patients by ASHAs.</li> <li>For selected higher level clinical tests, PHCs can refer the patient to CHCs/DHs/NCD clinics.</li> </ul>	<ul style="list-style-type: none"> <li>Medical officer at the PHC/CHC.</li> <li>Data related to assessment, treatment, referral and follow-up compiled and sent online to DMU.</li> <li>DMU will share back the surveillance data with the respective PHC [individuals at risk of NCD, patient already on NCDs treatment and new cases identified during the survey] from patient management system.</li> <li>Under the supervision of physician at CHC/DHs/NCD clinics.</li> <li>CHC/DH will share the results of the tests with the concerned PHC and will be entered in the electronic surveillance system.</li> </ul>	<ul style="list-style-type: none"> <li>Number of persons with confirmed NCDs (New +Old).</li> <li>Number of person with NCDs treated at PHC.</li> <li>Number of patient referred to higher centres and received treatment.</li> <li>Identification of person with risk factor for NCD or with confirmed NCDs.</li> </ul>

Development of “Non-Communicable Diseases Surveillance & Management System” will be undertaken in one pilot block in Uttar Pradesh.

All surveillance and referral, management and follow-up data would be maintained at the Data Management Unit at the Divisional Hospital/Medical Colleges, with regular feedback to the PHC/CHC (whichever is relevant, based on availability of IT-related infrastructure at respective facility), subsequently down to the ASHA/ANM for follow-up.

#### Expected Output

- Development of a system for monitoring of risk factors and non-communicable diseases at the community level.
- Development of patient management system for better referral, follow up and adherence by patients.

*If this demonstration model is successful, it could be considered for scale-up under the existing NHM set-up with collaborative partnerships with medical colleges.*

#### Strengths

- Since surveillance systems measure changes over time, they would eventually become an important tool in evaluating the effectiveness of prevention and management strategies.
- A total-risk approach, which is more cost-effective than treatment decisions based on individual risk factor thresholds only, could be adopted for early detection and cost-effective management of cardiovascular health in order to prevent heart attacks, strokes and other complications.
- Information about prevalence of risk factors at the community level would aid in targeted IEC programmes.
- IT-enabled patient management system would ensure proper follow-up of patients by health workers at the community level (such as through SMS based alerts). This is envisaged to also improve adherence to treatment regimens.

#### Weaknesses

- If successful, this model can be adopted. However, the need for IT-related infrastructure for efficient surveillance and patient management system might slow the scale-up process, as IT-related infrastructure is available only at around one-quarter of PHCs as of now. In such cases, CHCs of the respective areas would be used.
- Infrastructure and trained manpower would be required at the Data Management Unit (Divisional Hospital/Medical College).

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# Enhancing Viability of Fair Price Shops under Public Distribution System

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## 1. Background

- 1.1 The Public Distribution System (PDS) is one of the world's largest food based social safety net programmes. With the passage of the National Food Security Act, 67% of the Indian population-more than 800 million people and nearly 10% of the world's population-is entitled to receive subsidised food grains under the PDS.
- 1.2 Fair Price Shops (FPS) form an important component of the overall supply chain of PDS. A vast network of "fair price shops" or "ration shops" delivers food grains at subsidised prices to more than 24 crore households each month at last mile points.
- 1.3 It has been widely documented in a number of studies, including the Justice Wadhwa Committee report, that a large number of FPS are not viable.
  - 1.3.1 The Planning Commission (2005) estimates that only 38.9% of the 500,000 FPSs in the country have gross income greater than recurring costs and only 23% of all FPS earn greater than 12% returns on working capital.
  - 1.3.2 'A Study of Financial Viability of ARDs in Kerala' by World Food Program (2014) found that only 1.2% of the studied Fair Price Shops earn profit with the prevailing commission structure in Kerala.
- 1.4 The implications of low FPS viability on grain leakage and diversion, service levels and overall beneficiary experience as well as the potential success of Targeted Public Distribution System (TPDS) reforms are significant.
- 1.5 It is critical that FPS generate required profit to remain viable in long run, especially in light of ongoing PDS reforms to minimize leakages of PDS grains. Therefore, FPS dealers must be appropriately incentivised to alter their behaviour and to support the new systems. As FPS dealers are the direct point of contact for beneficiaries, it is essential to reshape their attitudes and service behaviour through tangible rewards in order to ensure that beneficiary experience with the TPDS is improved.

## 2. Current Policy

### 2.1 Current Policy Framework:

2.1.1 PDS is operated under the joint responsibility of the central and the state governments. The central government, through Food Corporation of India (FCI), has the responsibility for procurement, storage, transportation and bulk allocation of foodgrains to the state governments. The operational responsibility, including allocation within state, identification of eligible families, issue of ration cards, distribution of foodgrains through FPS and supervision of the functioning of FPS, rests with the state governments.

2.1.2 Under the National Food Security Act (NFSA), there is a provision for providing central assistance to the state governments and Union Territory (UT) administrations to meet the expenditure incurred by them towards intra-state movement, handling of foodgrains, and margins paid to the FPS dealers, in accordance with such norms as may be prescribed by the central government. Accordingly, norms of expenditure on the above two items and pattern of central assistance were notified under Food Security (Assistance to State Governments) Rules, 2015, as stated below.

2.1.3 Rs. 87 per quintal of foodgrains distributed under NFSA for general category states/UTs, this includes:

- Rs. 70 per quintal as basic margin for FPS dealers.
- Rs. 17 per quintal towards additional margin money for distribution of foodgrains through electronic point of sale (ePoS) devices.
- Sharing pattern: 50:50 (center:state).

2.1.4 Rs. 160 per quintal of foodgrains distributed under NFSA for special category states/UTs, this includes:

- Rs. 143 per quintal as basic margin for FPS dealers.
- Rs. 17 per quintal towards additional margin money for distribution of foodgrains through ePoS devices.
- Sharing pattern: 75:25 (center:state).

2.1.5 It is specified under the 'Food Security (Assistance to State Governments) Rules, 2015', under NFSA, that the additional margin to be provided (Rs. 17 per quintal) is towards the cost of purchase, operations and maintenance of the ePoS device, its running expense and incentives for its use for distribution of foodgrains.

## 2.2. Major Flaws/Limitations in the Current Policy

2.2.1 The viability of FPS dealers is also dependent on the total number of Antyodaya Anna Yojana (AAY) cards/Priority House Hold (PHH) members tagged to the shop. As the number of AAY cards/PHH members tagged to an FPS increases, the revenue of the FPS also increases and vice versa. As the distance norm for location/licensing of FPS is decided by states keeping in view the local geographic conditions and density, many states have disproportionately high share of unviable FPSs with low tonnage (Annexure 1).

2.2.2 The geographic location of the FPS, i.e., urban, semi-urban or rural area, has a direct impact on the financial side of FPSs with respect to rental costs and helper salaries. Hence, FPSs located in urban and semi-urban areas may have higher cost and lower viability compared to rural FPS for a given dealer margin.

2.2.3 The current policy provision has dealer margin per kg as a main instrument for ensuring viability of FPSs irrespective of number of cards tagged to FPS or urban-rural location. However, analysis shows that raising dealer margin for all FPS dealers does not make shops with less tonnage viable and also results in disproportionate allocation of the additional outlay on commissions to larger FPS which are already viable (Annexure 2). As smaller FPS have fewer cards, they get a proportionately lower share of the total increase in commissions. Similarly the positive impact of such measure is relatively lower in urban areas.

2.2.4 Further increase in dealer margin adds subsidy burden to the government and may not be sustainable in long run. Hence, enhancements in subsidy may be done in situations where efficacy of other measure is limited, after careful consideration.

3. Policy Alternatives and Their Evaluation Three alternative approaches for improving FPS viability, considered in this policy paper, are discussed below:

### 3.1 Rationalization/Consolidation of FPS

The first approach for improving FPS viability is to rationalize/consolidate shops in order to raise the total number of cards tagged to a shop, as profitability increases with number of cards. The same effect can also be achieved by rationalizing/reducing FPS working hours and distribution of calendars in accordance with the number of cards attached to FPS. The availability of real time transaction data from FPS, geo-tagging of supply chain and Global Positioning System (GPS) coordinates of FPS, etc., allows the state governments to make data-driven decisions for rationalizing and consolidating FPSs.

This is a desirable approach, as it does not involve an increase in the recurring cost to the government. If done systematically, in data-driven case-by-case manner, it may enable consolidation of smaller unviable FPSs that have mushroomed largely out of political rather than administrative concerns. However, a major limitation of the rationalization/consolidation exercise is that in many locations it may also reduce the capacity of FPSs to render quality service to PDS beneficiaries by increasing distance, crowd, waiting time, etc. In urban/semi-urban areas, where density of FPS is likely to be higher, the option for consolidation of FPSs could be considered after careful evaluation before trying it out in rural areas.

### 3.2 Providing a Minimum Base Payment to FPS Dealers

In Section 2.2, it was noted that a large portion of government expenditure on increased commission margin would go to already viable FPS shops. In order to address this limitation, an alternative approach could be implemented wherein FPS dealers would be paid a certain base payment to enable them to become viable. This base payment should be linked to the total number of cards tagged to the FPS. This is necessary to ensure that the payments are made to the least profitable (currently unviable) FPS rather than to FPS that are already viable.

The approach of providing base payment linked to number of ration cards is cost effective in comparison to the current approach of increasing dealer margin for all FPSs (see Annexure 2). However, there are potential concerns with this method. First, the implementation of base payment system would be administratively complex and there would be resistance from FPSs with larger tonnage to such move. Second, with the provision for base payment, it would be difficult to consolidate shops with low tonnage and there is a further risk of proliferation of small unviable shops, due to political pressure.

### 3.3. Allowing FPS Dealers to Sell Non-TPDS Commodities/Provide Other Services

The approach discussed in Section 3.2 would still require significant outlay from the government. State government can alternatively take action to create an enabling environment that supports enterprising FPS dealers to improve their own profitability and facilitate business opportunity for FPS dealers to self-sustain operations without completely depending on commissions/government subsidy. There are two ways the state government can do this; the first is by allowing/encouraging FPS dealers to sell non-TPDS commodities, and the second is by encouraging the FPSs to provide banking and online services by leveraging the IT/micro-ATM infrastructure created at FPS level.

A few state governments have already taken initiative towards this direction (see Annexure 3). A case study of selected FPSs in Gujarat providing online Common Service Centers (CSC) services, and FPSs in Rajasthan selling non-PDS commodities as part of Annapurna Bandhar Scheme, showed that with right training, required entrepreneurship and availability of market, many FPS dealers are able to improve their viability due to these operations. Apart from enhancing FPS viability, these initiatives also facilitated improved access of key online Government to Citizen Services (G2C)/banking services or greater choice in terms of branded products to PDS beneficiaries in remote areas.

However, the success of these initiatives depends on the level of entrepreneurship and extent of local competition, and it may not be possible for all FPSs dealers at all places to replicate the success. Further, success of these measures depends on the initiative and support by Ministry of Electronics & IT, Department of Financial Services and Banking sector. Inter-ministerial coordination would be required to address policy level bottlenecks preventing greater adoption of business correspondence or CSC role by FPS dealer.

There is another concern w.r.t. adoption of these services by FPS dealers. It would be important to ensure that with the provision of these additional services, the core FPS business remains the primary focus of the FPS dealer and the diversification of business does not affect his capacity to render quality service to PDS beneficiaries.

#### 4. Recommendation of a Policy Alternative

- 4.1 As there are merits and demerits with different policy alternatives, blanket, one-size-fits-all solutions, such as, consolidation of all small shops or raising commissions of unviable FPSs cannot be effective on their own. All three approaches to improving viability have varying strengths and a right combination of different policy approaches would serve well to effectively address the problem. However, evolving such a policy approach would require state-wise analysis of FPS viability status.
- 4.2 Any approach to improve FPS viability requires an analysis of the expected impact in order to determine its effectiveness. Clear guidelines should be issued to all state governments to conduct an analysis of FPS profitability based on actual data of the revenues and operating costs of all FPS in the state and determine the following:
  - 4.2.1 Appropriate viability thresholds for FPS dealers in the state: States may consider the opportunity cost of a typical FPS dealer in the state (e.g., based on typical skilled wage rates in the state) and incorporate it into the calculation. The viability thresholds should vary for urban and rural areas.

- 4.2.2 Formula to maximize percentage of viable FPS: State may run simulation exercise to identify suitable fixed base payment rate for FPSs with different tonnage categories that would most effectively target subsidies for maximum increase in percentage of viable FPSs within the given budget constraint.
- 4.3 Based on the above analysis, the state governments should identify tonnage slabs for categorizing FPSs in rural and urban areas into following categories:
  - 4.3.1 FPSs in viable tonnage category with current dealer margin.
  - 4.3.2 FPSs in unviable category that may be merged with other FPSs within 1 km for creating a viable unit.
  - 4.3.3 FPSs in unviable categories that can become viable with a base payment formula that most effectively targets subsidies for maximum increase in percent of viable FPS within the given budget constraint.
  - 4.3.4 FPSs that would remain unviable even with above base payment and which do not have another FPS within 1 km/or where merger with FPSs within 1 km does not make the unit viable even after the base payment.
- 4.4 The following approach can be recommended to state governments for sustaining/improving FPS viability of the four categories of FPSs mentioned in Section 4.3.
  - 4.4.1 Periodic adjustment of dealer margin: As inflation/cost of living rises, FPS profitability will decline unless measures are taken to increase the dealer margin accordingly. Hence the dealer margin per kg provided to all FPSs should be periodically adjusted to inflation. This measure will ensure that FPSs mentioned in Section 4.3.1 category would continue to remain viable.
  - 4.4.2 Consolidation of FPSs: Consolidation of unviable FPSs in Section 4.3.2 category, without compromising on beneficiary access and convenience, is the least-cost option for improving FPS viability, and should be done after undertaking the following steps:
    - 4.4.2.1 Identify all non-viable FPS shops in urban areas as "candidates" for potential merging with other FPS.
    - 4.4.2.2 Based on the GPS coordinates, identify all shops within a 1 km radius of each "candidate" as potential "parents" with the only requirement being that the "parent" should be more profitable than the "candidate".
    - 4.4.2.3 Examine all possible "parent"–"candidate" pairs for potential merger, recalculate profitability and mark those

pairs/groups which become viable either with current dealer margin rate or with provision of base payment.

- 4.4.2.4 Take steps towards merging these shops at the time of license renewal, provided that merger does not run into issues like lack of storage space and/or inability of FPS dealer to manage a larger shop.
- 4.4.2.5 Once this exercise is successfully undertaken for urban areas, this can be rolled out to rural areas as well.
- 4.4.3 Base payment to FPSs in unviable tonnage categories: Once consolidation of unviable FPSs within 1 km is successfully undertaken, a system of base payment could be introduced whereby a sizable part of the remaining unviable FPSs (category in Section 4.3.3) should be able to earn viable income with prevailing dealer margin per kg and a monthly base payment fixed for their tonnage category. The tonnage categories have to be carefully arrived at after simulation exercise in order to maximize subsidy impact. Relatively higher tonnage category FPSs will get lower base payment ensuring that only required amount of base payment is transferred to respective tonnage category.
- 4.4.4 Rationalisation of remaining unviable FPSs: Since the formula for the base payment is fixed with an objective to maximize the percentage of viable FPSs with a limited budget, many FPSs with very low tonnage which would require very large base payment for becoming viable cannot be covered under the formulae. Such small unviable FPSs, which could neither be merged with nearby FPSs nor get adequate base payment for crossing viability threshold, should be given special dispensation enabling them to reduce their cost of operations and as a result become viable. States may be encouraged to introduce the following measures for these FPSs:
  - 4.4.4.1 Providing flexibility to adjust FPS working hours/days based on number of cards/observed transaction timings.
  - 4.4.4.2 Allow FPSs with limited card counts to continue as part-time shops, etc.
  - 4.4.4.3 Allow bi-monthly distribution cycle where foodgrains for two months are given to beneficiaries in advance.
  - 4.4.4.4 Encourage mobile vans or distribution of foodgrains in advance for a quarter in remote areas.
- 4.4.5 In order to encourage the state governments to adopt the approaches described above, the central government should provide flexibility for

states to utilise part of central assistance towards dealer margin for provision of base payment to FPSs with low tonnage. States adopting base payment formula/consolidation or rationalization of their FPSs may also be suitably incentivized by the central government.

4.4.4.6 The above mentioned strategies for improving FPS viability cannot be undertaken on the basis of a static assessment of FPS viability. Over time, the changes will necessitate a review and revision of the strategies employed to improve FPS viability. States must take care to ensure that a dynamic process is created to update the results of FPS viability analysis at certain pre-defined periods, say once every 1–2 years, and continually revise their chosen strategies for improving FPS viability.

4.5 State governments should also be encouraged to create enabling environments for enterprising FPS dealers to maximise their own profits. This can be done at little or no additional cost to the state. Some of the self-sustaining measures that could be promoted by the states include the following:

4.5.1 New business avenues for FPS dealer: Making FPS dealer a CSC operator or a banking correspondent (BC) will help FPS dealers to earn commissions with no or minimal investment in the existing setup.

4.5.2 FPS dealer selling non-PDS commodities: FPS dealers, if allowed to sell non-PDS commodities, can augment his/her income. There can be following three approaches to this measure:

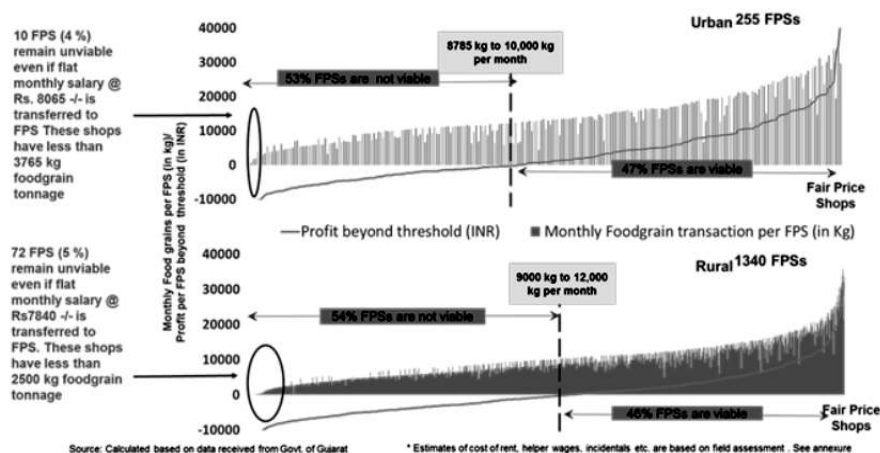
- a) FPS dealers individually, or as a group, directly procure and sell commodities.
- b) State department procures and distributes them to the FPS dealers.
- c) Public Private Partnership (PPP) between business chains, FPS dealers and the state department.

4.6 Since successful adoption of these models, described in Section 4.5, requires policy level incentives from multiple ministries, the success of these measures could be expected in 3–4 years period with active engagement of Department of Food and Public Distribution, Ministry of Electronics & IT, and Department of Financial Services. Meanwhile state governments should be encouraged to create enabling environments for promotion of such self-sustaining measures by enterprising FPS dealers. Such pilot initiatives could be subject of careful study for further replication in other areas/states.

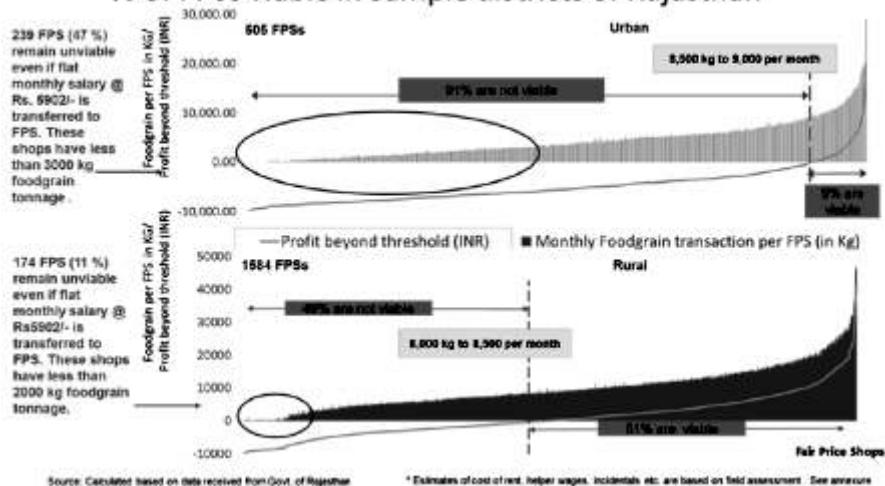
## Annexure 1:

Table 1: % of unviable FPSs in 3 districts of Gujarat and Rajasthan.

## % of FPSs viable in Sample Districts of urban &amp; rural Gujarat



## % of FPSs viable in sample districts of Rajasthan



## Annexure 2:

Table 1: Three policy options for enhancing FPS viability applied in 3 districts of Gujarat and Rajasthan.

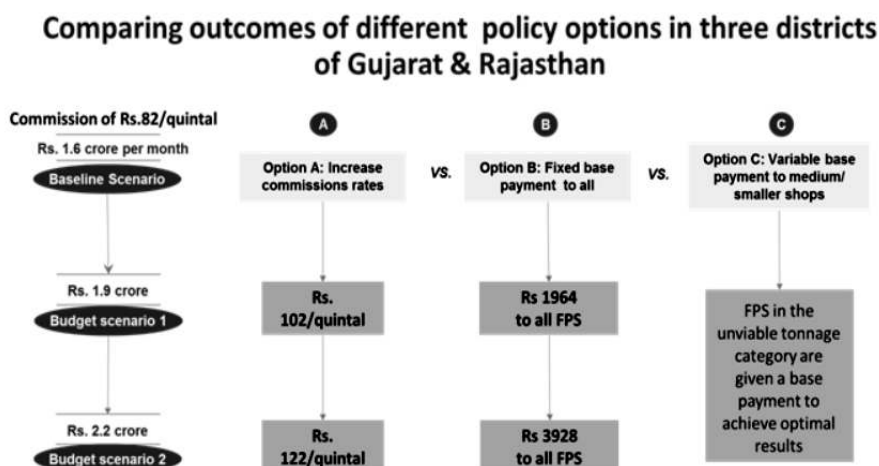


Table 2: Outcomes of policy options at FPSs in 3 districts of Gujarat.

**Increase in Commission rate not most effective - Gujarat**

**A** Major benefit from commission increase goes to larger shops which have high tonnage/ already viable

**C** Variable Base Payment to unviable FPS are targeted hence optimal results

**Percent of FPS becoming viable with three policy options under different budget scenarios in Gujarat (n= 1595 shops)**

Budget scenario	Rs. 1.6 Crore	Costs Rs. 1.9 crore			Costs Rs. 2.2 crore		
	Baseline	A	B	C	A	B	C
FPSs with different foodgrain tonnage (in kg)	With baseline commission of Rs.82/quintal	Increase commission to Rs. 102/quintal	Rs.82/quintal + Fixed base payment of Rs 1964 per month to all FPSs	Rs.82/quintal + Variable base payment per month to smaller /unviable FPSs*	Increase commission to Rs. 122/quintal	Rs.82/quintal + Fixed base payment of Rs 3928 per month to all FPSs	Rs.82/quintal + Variable base payment per month to smaller/unviable FPSs*
Less than 2000	0%	0%	0%	0%	0%	0%	0%
2000-4000	0%	0%	0%	0%	0%	0%	75%
4000-6000	0%	0%	0%	0%	0%	11%	89%
6000-8000	0%	11%	21%	94%	39%	80%	95%
8000-10000	19%	67%	70%	95%	92%	95%	100%
10000-12000	61%	92%	91%	98%	100%	99%	100%
12000-14000	86%	100%	100%	99%	100%	100%	100%
14000 and above	100%	100%	100%	100%	100%	100%	100%
<b>Total</b>	<b>38%</b>	<b>53%</b>	<b>55%</b>	<b>70%</b>	<b>62%</b>	<b>70%</b>	<b>92%</b>

Source: Calculated based on data received from Govt. of Gujarat \* See Annexure for details

Table 3: Outcomes of policy options at FPSs in 3 districts of Rajasthan.

**Increase in Commission rate not most effective - Rajasthan**

**A**  
 Major benefit goes to larger shops which have high tonnage/ already viable

**C**  
 Variable Base Payment to unviable FPS are targeted hence optimal results

**Percent of FPS becoming viable with three policy options under different budget scenarios in Rajasthan (n= 2089 shops)**

Budget scenario	Rs. 1.5 Crore	Costs Rs. 1.9 crore			Costs Rs. 2.2 crore		
	Baseline	A	B	C	A	B	C
FPSs with different foodgrain tonnage (in kg)	With baseline commission of Rs.87/quintal	Increase commission to Rs. 107/quintal	Rs.87/quintal + Fixed base payment of Rs 1698 per month to all FPSs	Rs.87/quintal + Variable base payment per month to smaller /unviable FPSs*	Increase commission to Rs. 127/quintal	Rs.87/quintal + Fixed base payment of Rs 3396 per month to all FPSs	Rs.87/quintal + Variable base payment per month to smaller/unviable FPSs*
Less than 2000	0%	0%	0%	0%	0%	0%	10%
2000-4000	0%	0%	0%	3%	0%	7%	92%
4000-6000	0%	10%	29%	77%	38%	84%	100%
6000-8000	41%	87%	92%	100%	99%	100%	100%
8000-10000	98%	100%	100%	98%	100%	100%	98%
10000-12000	100%	100%	100%	100%	100%	100%	100%
12000-14000	100%	100%	100%	100%	100%	100%	100%
14000 and above	100%	100%	100%	100%	100%	100%	100%
<b>Total</b>	<b>51%</b>	<b>59%</b>	<b>63%</b>	<b>72%</b>	<b>65%</b>	<b>73%</b>	<b>86%</b>

Source: Calculated based on data received from Govt. of Gujarat \* See Annexure for details

## Annexure 3:

Initiatives by states to create business opportunity for FPS dealers to self-sustain operations

Few states have taken initiatives focusing on creating business opportunity for FPS dealers to self-sustain operations without completely depending on commissions/government subsidy. Following are the models adopted by some states:

*FPS dealer as CSC agent (Gujarat):*

CSCs are the access points for delivery of essential public utility services, social welfare schemes, healthcare, financial, education and agriculture services, apart from host of Business to Citizen (B2C) services to citizens in rural and remote areas of the country. It is a pan-India network catering to regional, geographic, linguistic and cultural diversity of the country, thus enabling the government's mandate of a socially, financially and digitally inclusive society. In Gujarat, FPS dealers have been given an option to become CSC agent by entering into direct Memorandum of Understanding (MoU) with dealer. There is no additional financial burden for the state government or the dealer. Training needs are catered to by district CSC teams, National Informatics Centre (NIC) and State Programme Management Unit (SPMU).

*FPS dealer as banking correspondent (Andhra Pradesh)*

Banking correspondents are retail agents engaged by banks for providing banking services at locations other than a bank branch/ATM. BCs enable a bank to provide its limited range of banking services at low cost. Thus, they are instrumental in promoting financial inclusion. Banking correspondents work on commission model. As per the guidelines issued by Reserve Bank of India, FPS owners may be appointed as banking correspondents for carrying out small banking operations and transactions. It is prerogative of banks to identify areas where appointment of BCs is needed. This model is currently being piloted in Krishna district of Andhra Pradesh. Following services are provided by BCs:

- Small savings accounts.
- Fixed deposit and recurring deposit with low minimum deposits.
- Remittance to any BC customer, micro credit and general insurance.
- The BC model allows banks to provide doorstep delivery of services especially 'cash in-cash out' transactions at a location much closer to the rural population, thus addressing the last-mile problem.

*Annapurna Bhandar Yojna (Rajasthan)*

This model adopted in Rajasthan converts a FPS into a micro mall, providing quality products to consumers by engaging multi-brand retailers under PPP model. Over 6000 FPSs have been converted to Annapurna Bhandar. Over 250 products are offered through these shops. Margin on various products ranges from 2% to 30% (average margin to the dealer is 8–10%). Margin to FPS dealer is distributed in ratio of 40:60 between FPS dealer and customers.

*Village mall (Andhra Pradesh)*

On the lines of Annapurna Bhandar Yojna of Rajasthan, Andhra Pradesh has also taken a new initiative of distributing Fast-Moving Consumer Goods (FMCG) products through FPSs.



# Land Reforms in Bihar in 21st Century Rhetoric versus Reality

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## Abstract

The roots of current trend of violence and unsecured land right on one hand and agrarian unrest on the other must be located in the state's dismal record on land reforms. After six decades, the rural masses are not highly organised, politicised and capable of fighting for their rights due to collusion among intermediaries. The mainstream development literature tries to understand the changes in land relations through the lens of land reforms alone. Bihar provides an appropriate setting to understand how the bulk of land reforms acts and rules could not fulfil aims of land reforms. Our findings based on macro level data compiled from the Government of Bihar sources and micro level data through case study show that the much acclaimed land reforms have failed to provide land rights to actual tillers or actual beneficiaries. The land reform process in Bihar could not deal with the role of intermediaries due to the 'new class nexus'. At present, the Government of Bihar comes to have adopted a safety valve land reforms policy and is trying to restore the land rights to the state. Such a situation is explained not only through land reforms but also by a set of interlocking historical factors including current initiative of concerned revenue and land reforms department.

**Keywords:** *Land Reforms, Surplus Land, Landlessness, Land Eviction, Land Settlement*

## The Context

The state is in the grip of an agrarian crisis. The crisis is manifested in the growing landlessness and homelessness, low farmer's income, pending ceiling cases, land eviction, dispossession of allottee and settlee<sup>2</sup>, complexities of land reforms act, un-updated land records, encroachment of government land, untrained land reforms officials, tenants at will, unrecorded tenants, etc.

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<sup>2</sup> Allottee/Settlee: a person who received the land under government scheme or Ceiling Surplus Land/Bhoodan Land/BPPHT/Gairmajarua Malik/Gairmajaruaam Land, BPPHT, Bhoodan, and Government Land in the state.

<sup>3</sup> New Class" word was used for nexus among government officials, bureaucrats, and businessman/landlord by Milovan Djilas in his book "The New Class: An

An iniquitous distribution of land, new class nexus<sup>3</sup> (*nexus among landlord, bureaucrats, and politicians*), incidences of absentee landlordism, concealed tenancy, usurious exploitation and bondage of the actual tillers of the land are the characteristics of Bihar in the early 21st century (Vikas, 2017). The stranglehold of semi-feudalism<sup>4</sup> on agriculture leads to agrarian unrest on one hand and organised and unorganised violence and vandalism of other kinds by the unemployed youths, on the other. Due to the stranglehold of semi-feudalism on agriculture, the productive forces of land are not utilised optimally. Hence, growth is retarded not only in agriculture but in the overall economy as well.

The debate on land reforms triggered the development process of an economy is filled with its scepticism. On a broader view, there are three motives of land reforms, which are political, social, and economic (Zarin and Bujang, 1994: 10). In practice, land reforms are understood as 'land to the tiller' and 'changes in tenancy and tenures and redistribution of land ownership', and in terms of an economic concept as 'redistribution of agricultural income and earning capacity'. Land reform in its traditional sense is the demand for greater equality or social justice. It is important as a developmental implication and to its possible contribution to improve agricultural productivity, income, increase employment and demand generation with a multiplier effect (Scitovsky, 1985 and Ray, 1994). Thorner (1953: 1220) made an analysis of the economic effects of the land reforms and he found that the land reforms may even lead into a reconstruction of rural economy on a much higher technological level. According to Ray (1994: A-173) 'a development process does not include land reforms but depends on the logic of farm-non-farm interaction to absorb rural surplus labour, based only on increasing agricultural productivity, which is misleading', while Doner (1972), Warriner (1969), and Ahmad (1975) look at land reforms as an integral part of the strategy and policy of economic development (Zarin and Bujang, 1994: 11). Maunder and Valdes (1989) analyse the impact of land reforms in the context of the then developing countries and they reported that "Post-war land reforms in Iran, Japan, China, Philippines, Kenya, South Korea, and Algeria are outstanding examples of successful land reforms". International experiences have shown that the impacts of land reforms are positive on social equity, higher agricultural productivity, higher income and rapid development. The significant and positive impact on income growth and accumulation of human and physical capital in the reform<sup>5</sup> households is again supported by Deininger, Jin, and Nagarajan (2008). In a recent study, Lerman and

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Analysis of the Communist System" published by Thames and Hudson, London (1957).

<sup>4</sup> According to Pradhan H. Prasad (1987: 1287), the Bihar agriculture characteristic is semi-feudal.

<sup>5</sup> A household which receives the surplus land under distribution of land under land reforms programme.

Shagaida(2005) reported that among many, land reforms have raised the income of farmers significantly that in turn leads to expansion of home market in Russia. Thanks to all those equalizing factors (roads, electricity, industries, decentralised process, motor cycle in every family household, and other infrastructural development in rural areas or nearby city) and influences, the degree of income has been increased and inequality has been decreased; especially Korea went out of its way to encourage a similar development (Scitovsky, 1985). Land reforms programme can expand the home market and accelerate the development process in Bihar coupled with equalizing factor. Equalizing factor would induce the off farm activities as complementary income. The Government of Bihar must play its role to promote equalising factors coupled with land reforms programme to achieve its development goal.

Hence, impacts of land reforms are numerous and interconnected, needless to mention, and they are relevant to the agrarian context of Bihar. Despite the successful experiences of the implementation of land reforms in South East Asian countries and others Indian states, the same in Bihar have been lagging behind. For example, the agrarian structure of the state of Bihar continues to be skewed even after 'a plethora of land reforms acts'<sup>6</sup> were passed and several policies were framed to remove structural bottlenecks in terms of land ownership. The then political representation was heavily dominant with feudal-landlord elements; it was very difficult politically to enact such reform laws which would have affected their interest, much more difficult to implement them (Thakur, 1988:193). The land reforms measures opted by the state government are abolition of intermediaries, vesting of estate, tenancy reforms, occupancy of land rights, imposition of ceiling on land holdings, consolidation of holdings, settlement of the landless people, and distribution of surplus land to the landless people. Apart from efforts 'from above' and 'from below', the state could not remove bottlenecks of structural problems in the state, such as landlessness, homelessness, unregistered tenant, tenant-at-will, concealed tenancy, usury, semi-feudal characteristics, un-updated land records, new class nexus, local capitalism, weak agricultural infrastructure, undistributed surplus land, dispossession of allottee and settlee, untrained land line officials, and lack of political will.

While potential for agriculture development and raising per capita income of agricultural household is very high in the state of Bihar, semi-feudal forces continue to arrest the process of change. It is observed that if land reforms take

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<sup>6</sup> Bihar Tenancy Act (1885), Bihar Privileged Person Homestead Tenancy Act (BPPHT) (1947), Bihar Land Reforms Act (1950), Bihar Bhoodan Yagna Act (1954), Bihar Consolidation of Holding and Prevention of Fragmentation Act (1956), Bihar Land Reforms (Fixation of Ceiling Area and Acquisition of Surplus Land) Act (1961), Bihar Money Lenders Act (1974), Bihar Land Tribunal Act (2009), Bihar Land Disputes Resolution Act (2009), Bihar Land Mutation Act (2011), Bihar Special Survey & Settlement Act (2011).

place, agriculture can turn out to be instrumental to take the state out of poor development trap. Against this backdrop, the objective of the present paper is to examine the implementation of Bihar Land Reforms Act, policies, circulars, and their status of implementation and forces working behind these exercises, and also to identify those which advocated and hindered their enactment and to guess the likely economic and social consequences of these land reforms measures at present. In the state of Bihar, the question of land reforms is still one of the important issues in the early 21st century because complexities of land issues have aggravated the complex situation in influx of time.

*The paper is divided into four Sections. Section I deals with the introduction, importance and objectives, Section II deals with the historical facts, agrarian structure and issues of the study, Section III and its sub-parts reveal the current land reforms measures and their implementation so far, and finally Section IV deals with the conclusion.*

## II

### Land Reforms and Agrarian Structure in Bihar

#### *Land Tenure Settlement during the British Period*

The origin of the iniquitous land distribution was the womb of zamindari system—Permanent settlement (1793), Ryotwari (1820), and Mahalwari (1922). *Permanent Settlement* ensuring that zamindars' (landlords) lands were held in perpetuity and with a fixed tax burden (9/10 of total produce), they became desirable commodities. The Ryotwari settlement instituted in some parts of British India by 1820 was one of the two main systems used to collect revenues about half (1/2) of the total produces from the cultivators directly but one-third (1/3rd) of the total produce was in practice as recommended by Sir Thomas Munro (Dutt 1950, p. 68). However, the amount of revenues included undifferentiated land taxes and rents collected simultaneously. Where the land revenue was imposed directly on the Ryot, the individual cultivators who actually worked on the land, the system of assessment was known as Ryotwari. The *Mahalwari* settlement was introduced in 1822 with the estate or '*mahals*' proprietary bodies where lands belonged jointly to the village community technically called the body of co-shares. The body of co-shares was jointly responsible for the payment of land revenue about half (1/2) of the total produces through individual responsibility and was not left out completely.

#### *Land Tenure Settlement in Bihar*

Bihar was under permanent settlement, and in these permanent settlement areas, there were numerous kinds of landholdings. At the apex of the hierarchy was the state. Below the state were the zamindars, tenure-holders, and under-tenure holders. At the base were the peasants with limited rights to land and the landless labourers/wage labourers with no rights to land.

There were four kinds of estates in Bihar. They were (i) permanently settled revenue-paying estates, (ii) permanently settled revenue-free estates, (iii) temporarily settled estates, and (iv) government estates. Zamindaris of all categories had vested only in the districts of Gaya, Purnea, Saharsa, Champaran, Darbhanga, Monghyr, Hazaribag, and Palamau so far in the state. In the rest of the districts, all the estates were vested by the end of 1955 and subsequently taken over by the state. It is estimated that when the zamindari system was entirely liquidated, the percentage of land revenue to the total tax-revenue of the state (1.4 crore to 5.0 crore) dwindled from 36.7% in 1937–38 to 8.5% in 1950–51 (1.40 crore to 16.3 crore). Permanent settlement created a host of irresponsible zamindars—a second line of exploiters in the form of middlemen who were simply conscious of their own interest and hardly took any trouble for the improvement of agriculture.

#### *On the Eve of Independence*

A post-mortem of the zamindari abolition efforts in Bihar is possible by reflecting on the formulation of post-abolition land reforms measures. Abolition of zamindari had taken place in the state after enactment of Bihar Land Reforms Act 1950, but it had come in existence in true sense after January 1955 (Mishra 1974, p. 92). During this intervening period zamindars had settled the huge land in the form of benami (farzi) transfers. Next logical step in the transformation of the semi-feudal agrarian relations was imposition of ceilings on individual ownership of land, acquisition of the surplus land above the ceilings by the state and its distribution among the landless. However, imposition of ceilings on land ownership proved to be a much more intractable task for the government than the abolition of zamindari, and it was not before the early 1960s that the ceiling legislation began to be enacted in the states.

At the time of independence, extreme inequality persisted in the ownership of land along with concentration of agricultural land in the hands of the upper classes who exploited the labour classes. Also, there existed insecurity in tenancy, uneconomic holding, and extreme fragmentation and subdivision of holdings. At the bottom, there existed a vast army of landless agricultural workers whose social and economic status was worse relative to the bonded classes. The big land owners belonged to the upper castes, the cultivators to the middle castes, and the agricultural workers to the scheduled castes, scheduled tribes and other extremely backward castes.

Supposedly, the land reforms still pursued in India are those envisaged and emphasised in the first five-year plan and reaffirmed in the subsequent five-year plans. In outlining the intended reforms, the successive five-year plan rephrased the following agenda, i.e., abolition of intermediaries, tenancy reforms and land to the tiller, ceiling on agricultural holdings, consolidation of holdings, co-operative farming, compilation and updating of land records.

### *Changes in Agrarian Structure*

Unequal land holding pattern in Bihar can be seen clearly from Table 1. Around 83% of the operational holdings (less than 2 hectare) accounted for only 36% of operated area in 1970–71, while 97% of operational holding (less than 2 hectare) accounted for 76% of operated area in Bihar in 2010–11 and vice versa. It is pointed out that 3% of operational holding accounted for 24% of area operated. Even otherwise land distribution continues to be iniquitous. Average farm size of 0.39 hectare in the state of Bihar was lower than country level, i.e., India (1.15 ha), China (0.59 ha), Japan (1.9 ha) Korea (1.5 ha), Indonesia (1.0 ha) in 2010–11. Despite decreasing the size of land holding inverse relationship ('IR') between farm size and productivity still persists in early 21st century (Chand and others (2011), Gaurav and Mishra (2011), Chen et al. (2011), Vikas (2012, 2017)). However, the synthesis ('IR') was also supported earlier (Sen, 1962; Khusro 1973; Kahlon and Johl 1962; and Chattopadhyay and Sengupta 1997).

Table 1: Land Holding Pattern (in %) in Bihar (1970–71/2010–11).

Size Classes	1970–71		1980–81		1990–91		2000–01		2010–11		Avg. Size (ha)
	OH	OA	OH	OA	OH	OA	OH	OA	OH	OA	
Marginal	68.40	20.01	79.69	33.93	82.88	40.76	84.15	43.04	91.06	57.44	0.25
Small	14.23	15.51	10.05	16.49	9.64	19.02	9.23	19.20	5.86	18.56	1.25
Semi-medium	10.67	22.84	7.10	23.65	5.66	23.13	5.12	22.04	2.56	16.80	2.59
Medium	5.49	24.58	2.89	19.87	1.71	14.26	1.42	13.20	0.50	6.50	5.09
Large	1.21	17.07	0.28	6.06	0.11	2.83	0.08	2.07	0.02	0.71	14.45
All	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
Avg. Size (ha)	1.28		0.81		0.66		0.66		0.39		
Gini's Coefficient	0.519		0.450		0.409		0.400		0.324		

Note: OH: Operational Holding, OA: Operational Area.

Source: Various issues of Agricultural Census of India.

*The Issues:* How does land reform trigger off development process? Has the unequal agrarian relation been inherited from the history of monarchy, oligarchy, colonialism and so on? If yes, then why inequality still persists within the agrarian structure when we have democracy? In fact, the performance on land reforms falls far short of announced agenda and the reforms envisaged are still far from achieved as yet. An overall assessment of what has already been done should be able to indicate what remains to be done. What has been the place of land reforms in the successive five-year plans and what change it brought correspondingly in agrarian structure over the years? Does land related problem accumulate and complicate in influx of time? What lies behind the slow progress of the land reforms? Does Bihar publish the

accurate statistical data on various issues? Does Bihar miss the train as socialist leaders have been leading the state for last two decades or more? What can one expect for the land agenda in near future when market's role is increasingly becoming central to economic decision-making? There are many questions, which the following sections discuss in brief. Of course, they cannot be entirely addressed in this paper.

### III

#### Current Land Reforms Measures

With the acceptance of neo-liberal economic policy by the central government from early 1990s onwards, the whole issue of land reforms, particularly the matter relating to land ceiling, went off the radar screen of the India. It became a forgotten agenda for the state. In a positive departure, the Government of Bihar initiated a good number of land reforms measures to secure land rights and right to homestead land. The proactive role of the present government in this context is expected to yield tangible results that the state is yet to witness. The government has chosen a unique way of combining the initiative of the civil society with the government officials who are engaged with the implementation of land reforms at the village level and finding ways and means of implementing the programme successfully. The Bihar Government has initiated 'Umbrella Scheme' and institutional reforms for landless people and marginalised people of the state for their well being, i.e., Maha dalit Mission, Abhiyan Basera, Operation Dakhil Dehali, surplus land (under ceiling, Bhoodan, BPPHT acts) for landless or homestead-land less people of urban SCs and STs, training programme for land reforms officials, Bihar Land Tribunal, Bihar Land Disputes Resolution Act 2009, Bihar Land Mutation Act 2011, Bihar Survey and Settlement Act 2011, Bihar Land Reforms Core Committee (2014), etc. Bihar Land Reforms Commission was set up by the Government of Bihar in 2006 to know existing problem and solutions to resolve unfinished land reforms agenda in the state. In sum, now land reform in Bihar is confined to land resource management, as second Agricultural Road Map of Bihar 2012–17 indicates this to a greater extent.

*Bandyopadhyay Committee (2008)*

One of the key promises made by Shri Nitish Kumar after becoming the Chief Minister of Bihar was to carry out land reforms. Indeed, the deepest source of Bihar's backwardness lies in the near-total absence of land reforms, and the setting up of a Land Reforms Commission (LRC) under the chairmanship of D. Bandyopadhyay, credited as a key architect of land reforms in West Bengal, was therefore welcomed across the board. The commission was initially granted a period of one year which was subsequently extended to two years that ended in June 2007. The full report of the commission was eventually submitted to the Chief Minister in April 2008. However, like all its

predecessors, the contemporary government (so-called socialist) too seems to be all set to give the agenda of land reforms a quiet burial.

*Bihar Land Tribunal (2009)*

The Government of Bihar established a Bihar Land Tribunal (2009) to resolve all types of land disputes in the state because the government was facing complications arising out of the multiplicity of adjudicating machinery and delay in the settlement of land disputes. Bihar Land Tribunal has attempted to ensure speedy disposal of disputes under various land laws. Unfortunately, the tribunal has been unable to escape the inertness in work culture of public departments on average.

*Land Reforms Core Committee (LRCC) (2014)*

Bihar Land Reforms Core Committee was set up through a circular of department of revenue and land reforms wide letter 7, 13/13-56 (7), dated January 23, 2014. At the outset, the committee was constituted with 24 social activists, academicians, lawyers, ex-Members of Parliament including a convenor and a chairman. According to abovementioned circular, the director of the A. N. Sinha Institute of Social Studies, Patna is to be the Convenor and the Principal Secretary, Department of Revenue and Land Reforms, GoB, is to be the Chairman. Some objectives of the committee are placed as follows: 1) Partnership between the government and civil society on the issues of pending court cases of land litigation and in identification of surplus land, Benami or farzi transactions of land. 2) Dealing with land eviction, adverse possession, and complexities in Parcha (receipt) and Parwana. 3) Creating awareness on land acts and rules. 4) Collection and maintenance of reliable data. LRCC has held frequent meetings since January 2014 onwards on certain agenda at A. N. Sinha Institute of Social Studies (ANSISS), Patna until December 2015. The series has been derailed afterwards due to unavoidable circumstances.

Some of the initiatives taken up by the Revenue Department were based on LRCC recommendations. These include Dakhal Dehani, Land Reforms Administrative Training Programme, Abhiyan Basera, distribution of five decimal land to the landless people (earlier it was three decimal), etc. It is pointed out that GoB issued a circular wide no. 614 (6) dated and letter no. (6khasmahalPatna (Policy) 01/2015 dated 17/06/2015) that five decimal land shall be settled to the landless people of suitable category.

*Ceiling Surplus Land in Bihar So Far*

There are various estimates regarding the quantum of land that should vest under the current Ceiling Act of Bihar. Sri Chandra Shekhar Singh, the then Revenue Minister claimed in the Legislative Assembly, while piloting the 1972 amendment of the Act, that roughly 18 lakh acres of surplus land would be available for distribution among the landless peasantry. One statistical

exercise was conducted by IAS probationers of L.B.S. National Academy of Administration to estimate the quantum of ceiling surplus land in Bihar. There were two assumptions, one is that there would be only one unit of 30 acres and there would be only one classification of land. This was for the undivided Bihar. The figure that they estimated was 17.76 lakh acres. This was based on the basic data, provided by Agricultural Census Figure of 1970–71. The point to note here is that their figure of 17.76 lakh acres came very close to the estimate of Sri Chandra Shekhar Singh of 18 lakh acres in 1972. Now, if the Jharkhand districts were excluded, the figure would come down to 12.76 lakh acres (Bandyopadhyay Commission (2008)).

Table 2. Ceiling cases pending in different courts in the State.

Sl. No.	Courts	Number of Cases	Area (acre)
1	SDO	176	19119.11
2	Additional Collector	189	23977.38
3	District Magistrate	303	23653.31
4	Commissioner	21	2112.19
5	Board of Revenue	76	6239.94
6	High Court Patna	301	18000.93
7	Supreme Court	10	0.00
8	State level	72	6021.17
All		1148	99125.37

Source: Government of Bihar (2015): Annual Report, Department of Revenue and Land Reforms.

According to the annual report (2015–16) of the Revenue Department, around six decades after the enactment of ceiling legislation in the state, the government claimed to have acquired as much as total 3.29 lakh acres of land as 'Ceiling Surplus'. Out of the land acquired, 2.5 lakh acres of land is said to have been distributed and 99,125 acres is reported to be 'disputed' in different appellate courts (Annual Report of Department of Revenue and Land Reforms, GoB, 2015–16, p. 20). The disputes could not be resolved in the last 45 years. Surprisingly, as the time elapsed, 5 lakh acres of land has got off the record during different estimations by the different agencies. Implementation of Bihar Ceiling Act 1961 came in actual existence since September 9, 1970. Everyone, who had land, knew that sooner or later a land ceiling law would be enacted. Thus, all the big landowners of Bihar had enough time to dispose off in various manners (Bandyopadhyay Commission, 2008). Number and area of ceiling land that was legitimized by the zamindars are given in Table 2.

*Mahadalit Vikas Yojana (A Scheme for Homestead-Less Family)*

Land is the fundamental means of production, an identity, and an intergenerational livelihood option in an agrarian society without which no agricultural production can take place. An understanding of the pattern of ownership and operational holdings including landlessness is therefore of central importance for understanding the agrarian class structure. In Bihar, 7.6% of households did not hold any homestead land in 2000–03. If we project it for census 2011 (total household 1,89,13,565), then 13,23,950 households will be considered under homestead-less households.

Table 3: Distribution of land under Mahadalit Vikas Yojana (since 2009–10) (Bihar).

Source of Land	Number of Beneficiaries	Area of Settled Land (Acre)	Average Settled Land (in decimal <sup>37</sup> )
Gairmajarua Malik Land	88068	3155.78	3.58
Gairmajarua Aam Land	46450	1112.29	2.39
BPPHT Act	61346	1765.63	2.88
Ryoti Land Purchasing Policy	42602	1246.51	2.93
Other Sources	140	4.88	3.49
Total	238606	7284.79	3.05

Source: Government of Bihar (2015): Annual Report, Department of Revenue and Land Reforms.

A scheme has been started by the Government of Bihar for eligible candidates within the Scheduled Castes (SCs), who lagged behind in the development process. Table 3 shows land distribution under Mahadalit Vikas Yojana. Under this scheme, the Government of Bihar provides three decimal of land (now 5 decimal) to homestead-less family under BPPHT Act, 1947 (Bihar Privileged Person Homestead Tenancy Act, 1947), *Gairmajarua aam, khas/malik* land since 2009–10. If land cannot be settled under these provisions then government provides homestead land at the market value (MVR: Minimum Register Value) under Ryoti Land Purchasing Policy. Under this scheme from all sources, 7284.79 acres of land has been distributed to 2.38 lakh families. On an average, 3.05 decimal land has been distributed per household.

*Abhiyan Basera*

The scheme has been started by the Government of Bihar wide letter number 08/09/2014 for suitable candidates of SC/ST/OBC-I/OBC-II who have not been covered under Mahadalit Vikas Homestead Land Yojna. Table 4 shows distribution of land under Abhiyan Basera.

<sup>37</sup> A decimal (also spelled decimel) is a unit of area in India approximately equal to 1/100 acre (40.46 m<sup>2</sup>). 1 decimal equals to 435.6 square feet.

Table 4: Distribution of land under Abhiyan Basera (Bihar).

Source of Land	Total Families to be Surveyed	Families Beneficiary	Remaining Families
Backward Caste-I	14406	4909	9497
Backward Caste-II	8428	2573	5855
Scheduled Caste	12365	3560	8805
Scheduled Tribe	2961	711	2205
Mahadalit	60072	27257	32815
Total	98232	39010	59177

Source: Government of Bihar (2015): Annual Report, Department of Revenue and Land Reforms.

#### *Operation BhumiDakhal (Operational Land Restoration for Evicted People)*

One of the important decisions recently taken by the Government of Bihar has been to restore the land possession of evicted<sup>8</sup> allottees/settle. Land eviction is a general phenomenon in Bihar as experienced by the settle. In view of the above, a Circular, Operation Bhumi Dakhal wide letter no. 7/bedakhli (vividh) 21/14 dated 08/09/2014 was issued to restore the possession of evicted people over the allotted land. As an estimate, there are one lakh Bhoodanryots evicted from their land in last six decades and more than 10 lakh people dispossessed from allotted/ settled land (ShoobhmoortiJee, 2017). However, in Bihar, Operation Dakhal is just working on paper and not on grounds. There is no mechanism or proper channel to restore the possession and no one is accountable for the same, which creates vagueness in the existing system. Table 5 shows that evicted people were restored to their land in only 15.77% cases, which is far from satisfactory.

Table 5. Status of land eviction under Ceiling, BPPHT, Bhoodan, and Government Land (as on 2016-17) (area in acre).

	Total Land Eviction Cases		Restored Possession by the Government of Bihar		Remaining Cases to be Addressed	
	Number	Area	Number	Area	Number	Area
All Bihar	73783	9464.91	11639	322.069	62144	9142.84

Source: [www.lrc.bih.nic.in/RevenueReports.aspx](http://www.lrc.bih.nic.in/RevenueReports.aspx) (Website of Department of Revenue and Land Reforms, Government of Bihar, date 16.12.2016).

#### *Bhoodan Land So Far*

6.48 lakh acres of land was received by Bihar BhoodanYagna Committee from 2.32 lakh danpatra, in which 3.61 lakh acres of land was suitable for distribution while 2.87 lakh acres of land was not suitable. Out of 6.48 lakh

<sup>8</sup> Evicted: Those people who settled with some amount of land and evicted forcefully by muscles power/new class nexus.

acres of land around 55.6% of land (2.57 lakh acres fit and 1.04 lakh acres unfit land) was confirmed (sampushta) by revenue officers. However, non-confirmation of 44.4% of land by the revenue officers indicates many things. Confirmation of land reveals that land records are available for 1.04 lakh acres of unsuitable land that is still not distributed. In due course of time this land may as well become cultivable, hence they should be identified at the earliest. Confirmed Bhoodan land was not distributed due to apathetic approach of concerned department. (Interview of Shubhmoorti Ji, Chairman, Bihar Bhoodan Committee on October 28, 2015).

*Recent Circulars on Bhoodan Land by Government of Bihar*

Recently, a circular has been issued by the Department of Revenue and Land Reforms, Government of Bihar, which says that any gairmajaruakhas/malik land, settled with any landless people after the Zamindari Abolition Act 1950 (The Bihar Land Reforms Act 1950) under the Bhoodan Yagna Act 1954, is now unlawful because zamindars were not authorised to donate gairmazaruakhas/malik land<sup>9</sup> after vesting their estate in the state under the Bihar Land Reforms Act 1950. This is a very retrograding act, which may even culminate in an unrest in the state. The question is whether merely on the basis of a circular, the Revenue Department of Bihar can bring changes in statutory provisions under Bihar Bhoodan Yagna Act 1950? As the author could find out during various interactions in Revenue Department, the circular has been issued by the concerned department on the basis of legal opinion of Advocate General of Patna High Court without placing the same in Bihar Legislative Assembly. However, this amounts to amending the statutory provision. Can a departmental circular have an over-riding effect on the act?

*National Land Record Modernization Programme (NLRMP)*

For modernization of land records system in the state, a modified programme, namely, the National Land Records Modernization Programme (NLRMP), has been started by the Government of Bihar. The NLRMP has been formulated by merging two centrally-sponsored schemes of Computerization of Land Records (CLR) and strengthening of Revenue Administration and Updating of Land Records (SRA & ULR). The NLRMP was approved by the cabinet on August 21, 2008. It is noted that the new land record programme shall be based on aerial survey coupled with local verification by land line official/surveyor. But progress is too slow due to shortage of land line officials and surveyors in the state. Aerial survey on its own cannot give full-fledged solution of land records until it is verified on ground.

<sup>9</sup> Gairmajaruakhas land means an uncultivated land of zamindars.

*Land Acquisition in Bihar*

Land acquisition, arguably a major issue in India's political economy as well as in Bihar, needs to be examined from all angles. There is a provision of Social Impact Assessment (SIA) under Section four of the New Land Acquisition Act 2013 (Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013) and Bihar Land Acquisition Rules 2014. A good number of SIA studies have been carried out by the author and reports have been submitted to the Government of Bihar. In most of the land acquisition cases, compensation procedure could not be finalised either after stipulated period. Land Acquisition Department and Department of Revenue and Land Reforms, Government of Bihar are facing huge deficit of officials quantitatively/qualitatively.

*Capacity Building Programme*

The task of evolving a suitable future strategy for enhancing the capacity of government officials through training needs to be taken seriously. The concept of implementation of the acts, rules, and circulars of the Land Reforms Act is at the core of land line officials (Circle Officers, Deputy Collector of Land Reforms, Additional Collector) and should be well enunciated. Department of Revenue and Land Reforms, Government of Bihar has started a series of four days' training programmes on Bihar Land Reforms Acts, rules, and circulars for government officials (ACs, DCLRs, and COs) of the state since August 2014 onwards at A. N. Sinha Institute of Social Studies, Patna. The author as the coordinator of the said training programme observed that the participants had been trained and enriched through the training for better understanding on procedural fallouts. There is a need for periodical training on regular basis. However, at present, there is mainly one institution, namely, BIPARD in Patna to train needs of government officials. Recently, a Survey Training Centre has been established by the Survey and Settlement Division, Government of Bihar in the line of capacity building. There is also a survey training centre at Bodh Gaya, but is in poor and defunct condition, and may be resuscitated. The existing infrastructure is inadequate to impart regular training to all the government officials. For this purpose, two more training centres, one in the south-eastern part and another in the north-western part of the state, may be created not only for giving training to all land line officials of the lowest and intermediate tiers but also familiarizing officials with relevant literature.

Instead of these policies, a policy is again warranted for the development of Bihar, i.e., tenancy reforms which may ensure credit to the tenant, prohibit tenant-at-will, ensure crop compensation after disaster, access of government scheme, and ultimately increase the productivity and income to the lower strata of the people.

## IV

## Conclusion

Land reform is unlikely to be a major tool for improving the welfare of the poor developing countries. But much stronger commitment from governments and agencies is thus needed to tackle these policy issues, which can assure greater equity employment and self-employment in agriculture. The reasons for a failed land reforms agenda for seven long decades in Bihar are not difficult to seek. There are certain genuine factors, such as the absence of proper land records, inadequate and untrained land line officials including Amins (land measurement official) especially at the lower levels of revenue administration, usury, undistributed surplus land under Ceiling, Bhoodan, and BPPHT Acts, lack of capacity building programme, etc. But the basic problem is the political will amidst new class nexus. Land reforms are essentially a state subject. Land reforms can be expected to be even a moderate success only in those states where the potential beneficiaries, the rural masses, are organised, politically aware and are capable of asserting and fighting for their rights. The new class nexus still works but it can get challenged by organized masses. The current state government in Bihar has been showing a humane and progressive face through several of its initiatives discussed earlier and has raised a ray of hope among the people. The Bihar Land Reforms Core Committee (2014) may get an opportunity with the Government of Bihar to develop a Land Reforms Road Map in Bihar.

To conclude, the Government of Bihar has to play its role to promote equalising factors coupled with land reforms programme to achieve its development goal. So far, the conversion of the land reforms rhetoric into reality remains surrounded by much scepticism.

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