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FROM DIRECTOR'S DESK

Interestingly, the products and services offered under financial Inclusion have not only increased but also to an extent, become complex. In today's context, financial inclusion is not just making basic banking services available to the excluded sections. It is pertinent to quote a very comprehensive definition given by Committee on Medium Term Path to Financial Inclusion (Chairman: Dr. Deepak Mohanty, 2015) which says "convenient access to a basket of basic formal financial products and services that should include savings, remittance, credit, government-supported insurance and pension products to small and marginal farmers and low income households at reasonable cost with adequate protection progressively supplemented by social cash transfers, besides increasing the access of small and marginal enterprises to formal finance with a greater reliance on technology to cut costs and improve service delivery, ...". It is in this context that the financial literacy assumes greater importance as reaching out to different marginalized sections of the society with a host of products & services with increasing reliance on technology.

While many agencies are involved in spreading financial literacy, it needs no special mention that its content, mode of delivery and reach warrants an urgent revisit. The Banking Correspondents (BCs) and Customer Service Points (CSPs) have been active in taking basic banking services to the remote parts. In order to ensure that these agencies like BCs for instance, play a more active role in creating awareness not only amongst individuals but also among micro-enterprises about the range of products/services available now, they need to undergo training first. It is also possible that these trained BCs can organize special financial literacy camps for different segments of excluded population like micro-enterprises for instance.

IIBM Guwahati has taken the initiative in organizing specially designed training programmes for BCs/CSPs with the objective of creating a pool of trained BCs who can function as trainers/counsellors for not just savings bank products, but also insurance, government sponsored schemes, digital/technology related aspects and of course with an element of credit counseling.

This issue of *IIBM Digest* contain articles on National Strategy for Financial Inclusion, bank frauds, clean energy, DRT & SARFAESI, and solar energy. We welcome your contributions in terms of articles and research papers on banking & finance and also suggestions for improvement of *IIBM Digest*.

Dr. K. Ramesha
Director, IIBM

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A BRIEF ACCOUNT OF THE NATIONAL STRATEGY ON FINANCIAL INCLUSION

Dr K Ramesha
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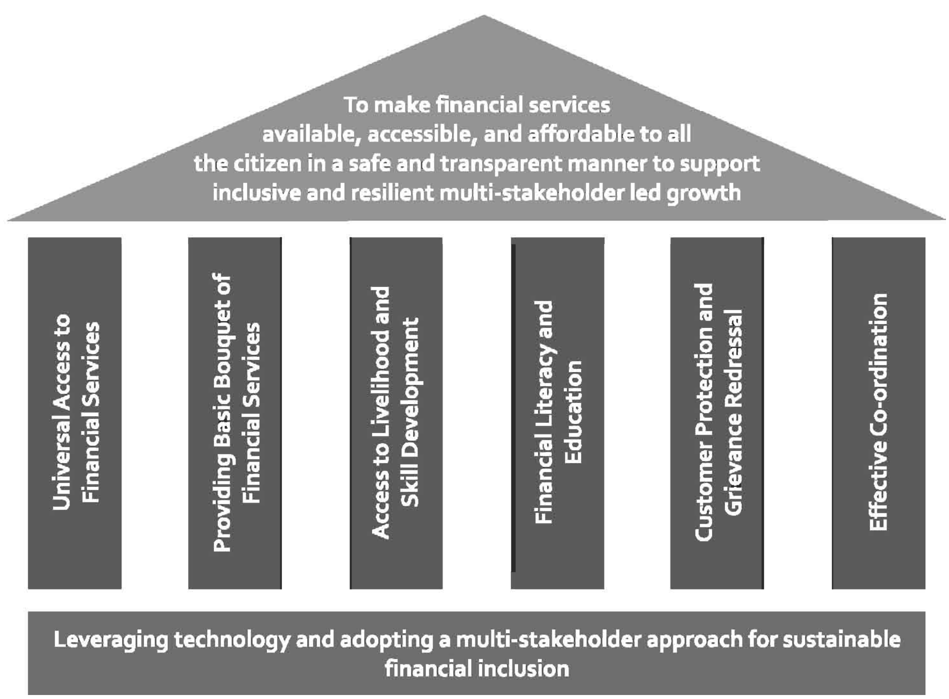
Introduction

Given the importance of inclusive growth and the policies towards this direction, financial inclusion assumes greater importance as access to finance by the poor and vulnerable groups is a prerequisite for poverty reduction, social cohesion, and inclusive growth. Access to financial services is especially powerful for the poor as it provides them opportunities to build savings, make investments and avail credit. Importantly, access to financial services also helps the poor insure themselves against income shocks and equips them to meet emergencies such as illness, death in the family or loss of employment.

Thanks to the initiatives of Reserve Bank of India and the Government, the progress of financial inclusion has been commendable in the recent past. The schemes of the Government such as PMJDY has created a long-lasting impact and the total number of accounts as of day under the scheme exceeds 37 crores with substantial deposits exceeding Rs. 1.1 lakh crores. In addition, there have been products like PMJJBY, PMSBY, APY and MUDRA to further financial inclusion. Besides, the banking sector regulator has been nudging the banks to promote financial inclusion and also has strengthened financial architecture with payment banks/SFBs, digital initiatives, strengthening last-mile delivery and so on. While schemes and products are aplenty for financial inclusion and the figures of the number of accounts and deposits are very good, there remains concerns with regard to regional disparity in the progress of financial inclusion, low level of product usage despite accessibility and most importantly lack of awareness amongst the financially excluded and those who are new to financial inclusion products.

As the Strategy document rightly points out "while a lot of efforts have been undertaken to increase financial inclusion in the country, a lot of steps are further needed to ensure adequate access to financial services and usage of these services by various segments of the underserved and un-served population in India, so far". Further, the Strategy aims at financial inclusion from a broader perspective for promoting economic wellbeing, prosperity and sustainable development. It is against this backdrop that the Strategy sets out the objectives which are briefly discussed below.

Strategic Pillars of National Strategy on Financial Inclusion



Pillar 1 – Universal Access to Financial Services

With regard to the first pillar viz., Universal Access to Financial Services, since the launching of PMJDY the access points have improved substantially. Notwithstanding this progress, some of the regions/areas like for instance North Eastern Region with its unique geographical constraints and other disturbed areas/districts, the access needs to be made available. The recommendation towards this end as indicated in the Strategy is laudable and reproduced here. "In order to achieve the objective of providing universal access to financial services, it is important to provide robust and efficient digital network infrastructure to all the financial service outlets / touch points for seamless delivery of the financial services. It is also recommended to extend the digital financial infrastructure to co-operative banks and other specialised banks (Payments Banks, Small Finance Banks) as well as other non-bank entities such as fertilizer shops, Office of the Local Government bodies / Panchayats, fair price shops, common service centres, educational institutions etc. to promote efficiency and transparency in the services offered to customers. Banks may endeavour to sort out issues relating to remuneration, need for furnishing cash-based collaterals and cash retention limits, etc. to strengthen the BC network". The Action Plan and the Milestones for the realization of this Universal Access to Financial Services that are contemplated in the Strategy are;

- Increasing outreach of banking outlets of Scheduled Commercial Banks /Payments Banks/ Small Finance Banks, to provide banking access to every village within a 5 KM radius/ hamlet of 500 households in hilly areas by March 2020.

- Strengthen eco-system for various modes of digital financial services in all the Tier-II to Tier VI centres to create the necessary infrastructure to move towards a less cash society by March 2022.

- Leverage on the developments in fin-tech space to encourage financial service providers to adopt innovative approaches for strengthening outreach through virtual modes including mobile apps so that every adult has access to a financial service provider through a mobile device by March 2024.

- Move towards an increasingly digital and consent-based architecture for customer onboarding by March 2024.

Pillar 2 - Providing Basic Bouquet of Financial Services

While the PMJDY has been successful, the penetration of credit, insurance and pension products which are also part of the Bouquet, has not yet made a dent worth mentioning. Therefore, the Strategy recommends that "the objective of providing a basic bouquet of financial services can be achieved through designing and developing customized financial products by banks and ensuring efficient delivery of the same through leveraging of Fin-tech and BC networks. It is recommended that banks should strive for capacity building of their BCs so that they can be utilised for delivery of a wider range of financial products such as life/ non-life insurance products, pension products, mutual funds etc". Towards achieving this objective, the Action Plan and the Milestones proposed are;

- Every willing and eligible adult who has been enrolled under the PMJDY (including the young adults who have recently taken up employment) to be enrolled under an insurance scheme (PMJJBY, PMSBY, etc.), Pension scheme (NPS, APY, etc.) by March 2020

- Capacity building of all BCs either directly by the parent entity or through accredited institutions by March 2020

- Make the Public Credit Registry (PCR) fully operational by March 2022 so that authorised financial entities can leverage on the same for assessing credit proposals from all citizens.

Pillar 3 – Access to Skills & Livelihood

Recognizing the fact that financial inclusion is only a means and not an end by itself, the Strategy emphasizes on sustainable livelihood generation, especially with a focus on the bottom of the pyramid population. The Strategy highlights the importance of coordinated and collaborative effort between the banks, Government and Skill Development Agencies to help the new entrants to the financial sector. Towards this end, the Strategy recommends that "while ensuring access to livelihood and skill development requires multi-dimensional efforts, it is recommended to attain convergence of objectives of various employment generation and skill development programmes like National Rural Livelihoods Mission

(NRLM), National Urban Livelihoods Mission (NULM), Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and other state level programmes through an integrated approach. New entrants to the formal financial system should be informed about such programmes and provided assistance through information dissemination and coordination". The Action Plan and the Milestones set out for Pillar -3 are;

• All the relevant details pertaining to the ongoing skill development and livelihood generation programmes through RSETIs, NRLM, NULM, PMKVY shall be made available to the new entrants at the time of account opening. The details of the account holders including unemployed youth, and women who are willing to undergo skill development and be a part of the livelihood programme may be shared to the concerned skill development centres/ livelihood mission and vice versa by March 2020

• Keeping in view the importance of handholding for the newly financially included SHGs/Micro entrepreneurs, a framework for a focused approach ensuring convergence of efforts from civil society/ banks/ NGOs to increase their awareness on financial literacy, managerial skills, credit and market linkages needs to be developed by National Skill Development Mission by March 2022.

Pillar 4 - Financial Literacy and Education

One of the main reasons for the low usage of financial services by new entrants to the financial sector has been lack of awareness about their benefits/advantages. Today, financial literacy has been recognized as an important component of the financial inclusion strategy. From bank-led financial inclusion and literacy, the strategy rightly recognizes the multi-agency approach to financial literacy. In this regard, the recommendation given in the Strategy is quite timely and pragmatic, which is reproduced here. "Since financial literacy and education are bedrocks of a vibrant financial system, it is important to make sustained efforts in this direction. It is recommended that the existing mechanism of SLBC/ DCC/ DLRC be leveraged and coordinated efforts are made by RBI, NABARD, NRLM resource persons, NGOs, PACS, Panchayats, SHGs, Farmers' Clubs etc. to promote financial literacy at grassroots levels". The Action Plan and the Milestones for this Pillar 4 are;

• Develop financial literacy modules through National Centre for Financial Education (NCFE) that cover financial services in the form of Audio-Video content/ booklets etc. These modules should be with specific target audience orientation (e.g. children, young adults, women, new workers/ entrepreneurs, senior citizens etc.) by March 2021

• Focus on process literacy along with concept literacy which empowers the customers to understand not only what the product is about, but also helps them how to use the product by using technology led Digital Kiosks, Mobile apps etc. through the strategy period (2019-2024)

• Expand the reach of Centres for Financial Literacy (CFL) at every block in the country by March 2024

Pillar 5- Customer Protection & Grievance Redressal

With the low levels of awareness about the financial services as also the risks emerging from digital financial services, an architecture for the protection of the rights of customers and a robust grievance redressal mechanism becomes imperative to further the financial inclusion. Further, Customer Data Protection and Information/Cyber Security are also the new frontiers that needs to be addressed under the customer protection framework. The Strategy, while recognizing the important aspect recommends that "Since financial system acts as a conduit in channelizing capital from the savers to the entrepreneurs who need it, and in turn meets the transactional and financial needs of the individuals, the importance of trust in the system remains paramount. Therefore, it is imperative to have a robust customer grievance redressal mechanism at different levels. It is recommended that internal audits should also assess the qualitative efficacy of the customer grievance redressal mechanism already in place in the banking system viz., Internal Ombudsman Scheme". The Action Plan & Milestones for this Pillar 5 are;

• Strengthening the Internal Grievances Redressal Mechanism of financial service providers for effectiveness and timely response by March 2020.

• Develop a robust customer grievance portal/ mobile app which acts as a common interface for lodging, tracking and redressal status of the grievances pertaining to financial sector collectively by all the stakeholders by March 2021

• Operationalize a Common Toll-Free Helpline which offers response to the queries pertaining to customer grievances across banking, securities, insurance, and pension sectors by March 2022

- Develop a portal to facilitate inter-regulatory co-ordination for redressal of customer grievance by March 2022

Pillar 6 - Effective Coordination

The success of any programme especially of the scale that the financial inclusion/literacy warrants, depends on effective coordination amongst the agencies and stakeholders. As now the approach to financial inclusion is multi-agency one, it must be emphasized that the Government, the Regulators, Financial Service Providers, Telecom Service Regulators, Skills Training institutes etc. coordinate in a manner that results in customers use the services in a seamless and sustained manner. The focus shall be to consolidate gains from previous efforts through focus on the improvement of quality of service of last mile delivery viz., capacity building of Business Correspondents, creating payments system ecosystems at village levels to deepen the culture of digital finance leading to ease of use and delivery. The recommendation of the Strategy in this respect is "the sheer size and diversity of India makes it imperative for policymakers to follow a coordinated approach in meeting various objectives of financial inclusion. While for instance SLBC/DCC/BLBC are in place for coordination among various stakeholders, it is recommended that members of the same leverage such platforms to the maximum through assigning specific responsibilities to all. Further, promoting co-ordination through technology and adopting a decentralized approach to planning and development by creating separate smaller forums will help accelerate local level financial inclusion". The Action Plan with Milestones to be achieved under this Pillar 6 are;

- Clearly articulate the responsibilities/ expectations of each of the stakeholders at the grass-root level to ensure convergence of action between the Government/ Regulators/Financial Service Providers/Civil Society etc. With the Lead Bank Scheme completing 50 years in 2019, SLBCs may review and implement the vision, action plans and the milestones to be achieved during the NSFI period (2019-24)

- With advancements in Geo-Spatial Information Technology, a robust monitoring framework leveraging on the said technology can be developed for monitoring progress under financial inclusion with special emphasis given to Aspirational Districts, North Eastern Region and Left -Wing Extremist affected Districts. A monitoring framework and a GIS dashboard to be developed by March 2022.

Conclusion

The National Strategy on Financial Inclusion which is a forward looking with clear milestones to be achieved over the years, is concise and timely. The Strategy rightly focusses on strengthening digital infrastructure and also roping in non-banking entities such as fair price shops, fertilizer shops, educational institutions, panchayats to buttress the progress. Probably, a strong digital infrastructure with stable connectivity and electricity would greatly facilitate financial inclusion in the north-eastern region. The existing products, especially with regard to insurance and pension, may have to be made customer-centric in terms of design/development considering the needs of the new entrants to the formal financial system. The Strategy categorically points out that in order to deliver a bouquet of financial products and services, the capacity building aspects of BCs must be reckoned. The stakeholders especially banks/NABARD/RBI should encourage BCs in obtaining certifications/qualifications or training from institutions like IIBM Guwahati, in regions like north-east where progress of financial inclusion has been tardy.

Linking financial inclusion with livelihood activities for sustainable development is a welcome step as rightly emphasized in the Strategy document. What must be noted is the fact that only BCs or such entities including NGOs can create awareness amongst the poor about a plethora of Government schemes and also play the role of a facilitator. Once again training of BCs/NGOs plays an important role in this regard. Financial literacy is another relatively less recognized area. What needs to be recognized is financial literacy is not just about banking/insurance/pension products. It's also about creating awareness about opportunities available for livelihood activities, schemes and subsidies available, and probably entrepreneurship as well.

In so far as customer protection and grievance redressal are concerned, the Strategy points out that in the months/years to come a lot needs to be done by banks, regulators and the Government. Recommendation to create a portal to facilitate inter-regulatory coordination for customer grievance is a welcome one. The involvement of several agencies for implementation of schemes/programs is not uncommon in India, despite the fact that involvement of several agencies without effective coordination results in wastage, non-achievement of objectives and avoidable delay. The Strategy highlights the importance of effective coordination amongst agencies like SLBC/DCC, civil society organizations, NGOs etc, for furthering financial inclusion. Probably, its time to think of rejigging SLBC/DCC to ensure that they supervise effectively the ground level entities like panchayats, cooperatives etc in regard to financial inclusion.

BANK FRAUDS IN INDIA– AN ANALYSIS

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Abstract:

The growing number of bank frauds in India is a serious matter which adversely impacts the working of banks, markets and payment system. These also shake the confidence in the banking system and the integrity and stability of the economy. Besides, a sharp growth in the number of frauds and the amount involved in them during the recent past, innovative approaches adopted by the culprits, have made it difficult to detect and prevent them. Appreciating the seriousness of the issue, both the Government and RBI have been initiating steps from time to time to ensure effective detection and prevention mechanism in banks. But these need to be supplemented by strengthening professionalism and corporate governance & business ethics, besides promoting education and training in banks. More importantly, efforts are called for creating seriousness among the bank staff in dealing with frauds. Appreciating this felt need, the article is specially written for bank officers to develop a fair understanding of bank frauds by discussing analysis of frauds, modus of operandi, Know Your Principles for prevention of frauds, measures taken by Government and RBI, present arrangements for investigation of frauds in banks and suggestions to strengthen the machinery in banks for detection and prevention of bank frauds

Introduction:

Fraud' under Section 17 of the Indian Contract Act, 1872 includes any of the acts committed by a party to a contract, or with his connivance, or by his agents, with intent to deceive another party thereto or his agent, or to induce him to enter into the contract. In the context of banking business, 'Bank Fraud' is defined in the Report of Reserve Bank of India (RBI) Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds, 2011 which reads: 'A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank'(1). Bank frauds in India are on the rise which is a matter of concern to banks and RBI. Consequently, the impact of fraud can be huge in terms of likely disruption in the working of the markets, banks, and the payment system. Besides, frauds can have a potentially debilitating effect on confidence in the banking system and may damage the integrity and stability of the economy. Besides a sharp growth in the number of frauds and the amount involved in them, innovative approaches under technology driven banking have been adopted by culprits in perpetrating bank frauds which is becoming difficult even to detect them and undertake preventive measures. In this backdrop, this paper attempts to study bank frauds by examining analysis of bank frauds, modus of operandi of frauds, Know Your Principles for prevention of frauds, Reserve Bank of India (RBI) and Government of India (GOI) initiatives, investigation of frauds in banks and offers suggestions to strengthen the machinery in banks for detection and prevention of bank frauds

Analysis of Bank Frauds

With the sweeping changes in the scope and magnitude of banking transactions witnessed in the past few decades, the emergence of hybrid financial products, the increasing trend of cross border financial transactions &the dynamics of real-time fund movement and transformation, bank frauds are on the rise both in terms of number and quantum. Hence, it was felt necessary for RBI to create a database relating to bank frauds for review and monitoring.

Accordingly, RBI made it mandatory for scheduled commercial banks (SCBs) to report fraud cases way back in July 1970. In 2005-06, such reporting was extended to urban co-operative banks (UCBs) and deposit taking Non-Banking Financial Companies (NBFCs), registered with RBI. In March 2012, NBFC-ND-SIs (systemically important, non-deposit taking NBFCs) having an asset base of Rs. 100 crore and above were also brought under the reporting requirements. According to the data given by RBI in response to an RTI query as on June 13, 2019, of the total 53,334 cases of frauds reported during 2008-09 and 2018-19 fiscal years, involving a whopping Rs 2.05 lakh crore, the highest of 6,811 were reported by the ICICI Bank involving Rs 5,033.81 crore (2). The state-run State Bank of India (SBI) reported 6,793 fraud cases involving Rs 23,734.74 crore, followed by HDFC Banks which recorded 2,497 such cases involving Rs 1,200.79 crore. Further analysis of fraud related data suggests that, a quantum jump in the amount involved in frauds during 2017-18 was on account of a large-value fraud committed in the gems and jewellery sector, mainly affecting Punjab National Bank. Further, during 2017-18, public sector banks (PSBs) accounted for 92.9 per cent of the amount involved in frauds of more than Rs.1 lakh, as reported to the Reserve Bank; private sector banks accounted for 6 per cent. Public Sector Banks (PSBs) also accounted for about 85 per cent of the cumulative amount involved in frauds during 2017-18 and, private sector banks accounted for a little over 10 per cent. At the system level, frauds in loans, by amount, accounted for more than 75 per cent of frauds involving amounts of Rs.1 lakh and above, while the number of frauds in deposit accounts was at just over 3 per cent. Within the loan category of frauds, PSBs accounted for a major share (87 per cent) followed by the private sector banks (11 per cent).The share of PSBs in frauds relating to 'off-balance sheet items' such as Letter of Credit, Letter of Undertaking, and Letter of Acceptance was higher, at 96 per cent. Of the seven classifications of fraud in alignment with the Indian Penal Code, 'cheating and forgery' was the major component, followed by 'misappropriation and criminal breach of trust'. In 'cheating and forgery' cases, the most common modus operandi was multiple mortgage and forged documents. Further, Mumbai (Greater Mumbai), Kolkata and Delhi were the top three cities in reporting of bank frauds under 'cheating and forgery' category. In respect of staff involvement in frauds, banks reported that it was prominent in the categories 'cash' and 'deposits', though these together had a much smaller share in the overall number of fraud incidents and the amount involved(3). Due to increasing number of frauds, banks reported a total loss of about Rs 70,000 crore during the last three fiscals up to March 2018. The extent of loss in fraud cases reported by scheduled commercial banks (SCBs) for the last three years stood at 16,409 16,652 and 36,694 as on March end, 2015-16, 2016-17and 2017-18 respectively. While the bulk of banking frauds was loan-related, it is observed that there has been a significant jump in card and internet banking related frauds during 2017-18. A total of 972 such incidents were reported in 2017-18, roughly three per day. The banking sector lost a total of Rs 168.74 crore to organised crimes directed at ATMs in the past three years. With a lot of essential financial services shifting to the digital space, the number of frauds targeting online transactions has also increased. In 2017-18, a total of 911 frauds were committed using debit and credit cards. The total of money that went into the wrong hands stands at Rs 65.26 crore (4).

In view of the alarming rise in Bank frauds, in 2017, the Central Vigilance Commission (CVC) analysed the top 100 banks frauds in the country. The analysis focussed mainly on the Modus Operandi; Amount involved; Type of lending viz. Consortium/ Multiple/Individual; anomalies observed; loopholes that facilitated perpetration of concerned fraud and systemic improvements required to plug the loopholes in the system & procedures, etc (5). The Top 100 Banks frauds were analysed industry-wise and credit facility-wiseThe CVC report discusses Modus Operandi and loopholes/lapses and offers suggestions for systemic improvement. Lastly, a quick estimate puts the average number of all transactions that happen every day in the banking system stood at 10 crores, which is enormous. But the number of frauds per million banking transactions was about 0.4, which is not a very high figure (6). However, efforts should be made to keep a check on the rising trends in bank frauds. In this regard, it would be interesting to know about reasons for bank frauds

Reasons for Bank Frauds:

A study conducted at IIM Bengaluru identifies the causes of bank frauds. Accordingly, bank frauds are primarily due to lack of adequate supervision of the top management; collusion between the staff, corporate borrowers and third party agencies; weak regulatory system; lack of appropriate tools and technologies in place to detect early warning signals of a fraud; lack of awareness of bank employees and customers; and lack of coordination among different banks across India and abroad. Further, delays in legal procedures for reporting, and various loopholes in system are the reasons of frauds. Also, the lack of specialized forensic audit as well as a good legal understanding of frauds is one of the reasons (7). For the detection and prevention of bank frauds, it is necessary to understand about the modus operandi of frauds.

Modus of Operandi of Frauds:

Bank frauds can be divided into three main sub-groups related to: Technology, Advances and KYC (mainly in deposit accounts). Nearly, 65 percent of total fraud cases were technology related covering frauds committed through /at internet banking channel, ATMs and other alternate payment channels like credit/ debit/prepaid cards. Frauds related to deposits are relatively less in number and value. But, the frauds in advances portfolio accounted for a major proportion (64%) of the total amount involved in frauds. Relatively speaking, large value advances related to frauds (>Rs. 1 crore) have increased both in terms of number and amount involved over the years. Modus operandi in these frauds and preventive & mitigation strategies are discussed as under :

(1) Technology Related Frauds: The cumulative total of a number of cases and the amount involved in technology related frauds as at March end, 2013 stood at 1,11,655 and Rs. 357.33 crores respectively. Though the average amount involved in frauds is less than Rs. 31,000, banks should be constantly on the guard to provide a secure environment for customers to conduct banking transactions. While banks' customers have now become tech-savvy and started using online banking services and products, fraudsters are devising newer ways of perpetrating frauds by exploiting the loopholes in technology systems and processes. Fraudsters have employed hostile software programmes or malware attacks, phishing, Vishing (voicemail), SMSishing (text messages) and Whaling (targeted phishing on High Networth Individuals) techniques apart from stealing confidential data to perpetrate frauds. With cyber-attacks becoming more frequent, the RBI has advised banks in February 2013 to introduce certain minimum checks and balances like introduction of two factor authentication in case of 'card not present' transactions, converting all strip based cards to chip based cards for better security, issuing debit and credit cards only for domestic usage unless sought specifically by the customer, putting threshold limit on international usage of debit/ credit cards, a constant review of the pattern of card transactions in coordination with customers, sending SMS alerts in respect of card transactions etc. to minimize the impact of such attacks on banks as well as customers. Regarding the electronic modes of payment like NEFT and RTGS, it is the responsibility of the user to ensure that his unique ID and password are properly secured and do not get misused due to his laxity. And, banks, on their part, should also ensure that these payment channels are safe and secure. Towards this end, RBI has advised banks to introduce preventive measures such as putting a cap on the value/number of beneficiaries, introducing system of issuing alert on inclusion of additional beneficiary, velocity checks on number of transactions effected per day/per beneficiary, considering introduction of digital signature for large value

payments, capturing internet protocol check as an additional validation check for any transaction, etc.

Regarding duplicate debit/ credit cards, banks need to improve the peripheral and system security in ATM locations and, at the same time, educate their customers about using their payment cards with due caution. Similarly, cases of circulation of fraudulent e-mails and SMS messages conveying winning of prize money have become matter of a concern in recent times. Many a times, innocent people fall prey to such e-mails and pay money in designated accounts, which is then quickly siphoned off through ATMs located in far flung areas of the country. For this purpose, the fraudsters generally use deposit accounts in banks with lax KYC drills or accounts which remain inoperative for long. Banks, therefore, not only need to caution their customers to guard against such temptations for easy money. In fact, the inadequacy of KYC drill would render any subsequent investigation process meaningless. RBI, as a part of its financial literacy programme, constantly seeks to caution the general public through print media, electronic media and on its web-site not to get enamored by the false promises made in such e-mails. Apart from enlisting active co-operation from their technology vendors, banks must look to build a close rapport with other banks, investigative agencies and regulators to ensure that there is a prompt and coordinated exchange of information, whenever required. With the spread of mobile banking, banks would need to closely engage with the telecom service providers for reducing the technology related fraud risk. Banks could also consider seeking insurance coverage as a risk transfer tool and a mitigant for the financial losses arising from technology induced fraudulent customer transactions.

(2) Advances Related Frauds:

Majority of the credit related frauds are on account of deficient appraisal system, poor post-disbursement supervision and inadequate follow up. In this regard, RBI in its circular of August 07, 2004 highlighted major deficiencies observed in credit area which shall lead to frauds. These are observed at both at sanction and post sanction stage(8). At the sanction stage, there are major deficiencies noticed. For Instance, sanctions are made deviating from the laid down policy / lending norms. Ad-hoc limits are sanctioned frequently even if the company has regular limits and, the same are running irregularly. Credit limits are sanctioned by branch/Zonal Office/Central Office level functionaries in excess of their delegated powers. The sanctioning authorities overlook the irregularities pointed out by the lower level functionaries in the borrowal account. The sanctioning authorities are not given full facts about the borrowers and the project by the officials in controlling office/branch. Sanctioning authorities overlook the fact at the time of takeover of accounts that the borrowing company has irregular accounts with the previous bank/s. There have been instances where some of professionals like chartered accountants, valuers and advocates involved in the loan assessment and, sanctioning processes have also facilitated the perpetration of frauds by colluding with the borrowers to fabricate fudged financial statements, inflated security valuation reports and defective search reports for title deeds of mortgaged property based on which banks have been led to overestimate the funding requirements and security cover for the same. Cases of multiple financing against the same security are also observed. In the same way, there are major deficiencies at post-sanction stage. For instance, the terms and conditions prescribed at the time of sanction of loan facilities are subsequently relaxed without justification by the sanctioning authorities themselves while disbursing funds. In respect of high valued advances, cases of diversion of funds are not reported to the bank's Board for their information and action in the matter. As regards working capital limits, failure to detect the disappearance of stock given as security has resulted into misappropriation of funds/sale of stock and receivables without the knowledge of banks. Further, there could be a failure to ensure the adequacy of the security offered by the borrowers, and to verify whether the same asset is mortgaged to another bank. Periodical review of accounts is not undertaken after the funds are lent by the banks. Excess drawings, permitted by the branch/Regional Office level functionaries in the borrowal accounts, are ratified by the Head Office in a routine manner without examining the need for such permissions, at times, frequently. Lastly, limits sanctioned are allowed to be interchanged indiscriminately by the branch officials without proper authority.

For the prevention of fraud in the credit areas, certain measures are suggested. To mention a few of them, in cases of diversion of funds, the lending bank should obtain a certificate from the borrowers on a quarterly basis furnishing details of accounts opened with other banks. Generally, banks rely on the certificates of valuation given by the external valuers which in some cases are found to have shown grossly inflated values. It is, therefore, suggested that banks shall set up independent 'Valuation Cell' within banks themselves. Immediate action should be taken where the malafide / gross negligence on the part of dealing officials are noticed. Wherever there is a prima-facie case against the dealing officials, appropriate action in terms of CVC guidelines for their inclusion in the list of officers with doubtful integrity, should be initiated by banks in consultation with the CBI. Banks should evolve a process of check-listing which enables them to examine any deficiencies while releasing the funds to the borrowers or monitoring the end use of funds. Lastly, there is a need for building up a cadre of officials with proper educational background and training to take care of larger projects financed by the banks.

(3) Frauds related to Deposits

There are several ways of perpetrating frauds in deposits area. These include opening of new fictitious deposit accounts by persons not properly identified by the bank followed by depositing of fake/stolen/forged instruments in such accounts and then withdrawing proceeds, manipulation in inward/outward clearing, by passing unauthorized entries in the books accounts, giving free access to unidentified so called middlemen/agents of the original depositor and withdrawing the amount, debiting impersonal accounts such as Imprest Clearing Account/ Suspense account, laxity in the safe custody of critical stationary etc. In these regards, banks should ensure that deposit accounts maintained with them are fully KYC compliant. Newly opened accounts with unusual banking operation should be under check. Further, timely rectification of entries in Suspense Accounts, and Reconciliation of entries in Clearing Adjusted Account should be ensured, adequate safeguards should be in place in respect of TTs, DDs and Pay Orders. Operations in dormant accounts should be under watch. The banks should also have a system of generating alerts to monitor transactions in accounts which are inoperative for long or where transactions are not in conformity with general trend and customer risk profile.

Know Your Principles for Prevention of Frauds:

In 2015, in his speech delivered by Shri R. Gandhi, Deputy Governor, RBI (9), three Know Your Principles are suggested for banks to prevent a fraud. These include: Know Your Customer (KYC), Know Your Employee (KYE) and Know Your Partner (KYP). Regarding the first KYC, the emphasis is on the different types of documents to be obtained from an account holder which will establish that KYC norms have been followed. In a scenario where many frauds are committed by submitting forged and fabricated documents, KYC becomes very important. A bank, apart from obtaining the relevant documents, should make an effort to KYC in the real sense regarding his background, his stated activities/profession, what his signature/style of operation etc. A robust KYC system envisages an understanding of his pattern of transactions and will let the bank draw up a customer profile. Once this is established, any exception to the norms can raise a red flag and tracked or confirmed with the customer. At the bank level, it is possible to segment its customers based on their risk profile and transaction patterns and develop appropriate response systems for exceptional patterns noticed and fortify systemic level controls. About the second KYE, several frauds are committed by insiders. Bankers are generally people of integrity. The selection process is highly sensitized in this respect. Banks have to take extra care to have continuous vigil on their staff. Background checking for antecedents, checks and balances, periodic rotations, vigilance assessments and internal audits techniques will have to be employed to know the employees better and as preventive measures. The last one is KYP. Modern day banking necessitates that a bank join hands with partners, agents, vendors etc. Outsourcing peripheral and several operational activities involves deploying and trusting somebody else's employees. Varied activities as diverse as cash logistics to IT and data management are being entrusted to third parties. Banking Correspondents and Banking Facilitators are emerging as another set of persons closely associated with a bank. If frauds are to be prevented effectively, banks have to know their partners.

RBI and Government Initiatives:

Besides suggesting specific preventive measures for frauds relating technology, advances and deposits as discussed above, both the RBI and the Government have taken several initiatives. To elaborate, RBI advised banks to strengthen the role of the Chairmen and Managing Directors (CMDs)/Chief Executive Officers (CEOs), Audit Committee of the Board (ACB) and Special Committee of the Board to evolve robust fraud risk management systems and implement effective fraud risk mitigating measures. They are responsible for effective investigation of fraud cases and prompt and accurate reporting to appropriate regulatory and law enforcement authorities. The Board of the banks/ACB should also ensure a periodical review of the procedures and processes to avoid loopholes, if any, in their policy guidelines. More importantly, the top management should organize fraud awareness training for its employees focusing on the prevention and detection of fraud. Further, providing individuals a means to report suspicious activity is a critical part of an anti-fraud program. Towards this end, a system of protected disclosure scheme has been evolved which is regulated by CVC in case of public sector banks and RBI in case of private and foreign banks. Reserve Bank has also advised private and foreign banks operating in India to upgrade their internal vigilance mechanism to the same level as is applicable in case of public sector banks in terms of CVC guidelines in the matter.

Information sharing is vital fraud prevention and alert mechanism. On its part, Reserve Bank shares information with all banks detailing the modus operandi of fraud cases reported by any bank together with details of the entities involved in the perpetration of such frauds in the form of confidential caution advice. This also serves to encourage a periodic review of existing guidelines, identify loopholes on the basis of caution advice, if any, and initiate corrective steps. It has also issued instructions requiring banks to report negligence or involvement of entities like chartered accountants, valuers and advocates resulting in the perpetration of frauds, to their professional oversight bodies for appropriate deterrent action. Today, most banks have put in place a system of checking the credit history of a borrower through credit information companies like the CIBIL. Considering that fraudulent borrowers could still seek credit from the banking system even after defrauding one bank, it calls for setting up of 'fraud registry' on the lines of credit information bureau. Further, fraudulent borrowers are prohibited to get access to banking facilities. Government, on its part, enacted Prevention of Anti Money Laundering Act, 2002 the for preservation of records and reporting of certain information such as cash transactions of more than Rs 10 lakhs, fake notes, suspicious transactions such as those relating to terrorist activities to RBI. In addition, it has changed the norms to reduce the liability of customers with regard to card related frauds. The liability will be shared by banks and customers depending on the circumstances under which the fraud took place. Customers are exempted from liability if the fraud has happened due to negligence of the bank or a third-party breach where the liability is not on the bank or the customer, but on the system. On the other hand, customers will have to bear the loss if fraud has occurred due to negligence on their part. In such cases, customers are liable for losses accrued before they report the same to the bank.

Further, RBI has introduced stricter norms to appoint a correspondent bank abroad by a bank in India. "Shell Bank" should be avoided in which case the bank abroad is only on paper. A list of terrorist organizations is circulated by RBI for banks to undertake necessary precautions in banking transactions. List of wilful defaulters and non-cooperative borrowers is also in circulation among banks. On the advice of RBI, banks are expected to freeze of assets of suspicious parties. PAN should be quoted for cash transaction of more than Rs. 50,000. In addition, Forensic Laws expect a detailed scrutiny of Legal Documents of high value advances to detect early warning signals of fraud.

Fraud Risk Management:

In the context of the framework for dealing with Loan frauds in banks, few steps have been taken up. For instance, Identification of Red Flagged Account (RFA) needs a special mention which is one where a suspicion of fraudulent activity is thrown up by the presence of one or more Early Warning Signals (EWS). These signals in a loan account should immediately put the bank on alert regarding a weakness or wrong doing which may ultimately turn out to be fraudulent. A few Early Warning Signals include: financing the unit far away from the branch, substantial increase in unbilled revenue year after year, disproportionate increase in other current assets, huge related party transactions, not routing of sales proceeds through bank etc. The most effective way of preventing frauds in loan accounts is for banks to have a robust appraisal and an effective credit monitoring mechanism during the entire life-cycle of the loan account. In detection of fraud, auditors have a vital role to play. Coming across the instances of fraudulent transactions in the account, they should immediately bring it to the notice of the top management and Audit Committee of the Board (ACB) for appropriate action. In case of accounts classified as 'fraud', banks are required to make provisions to the full extent immediately, irrespective of the value of security. However, in case a bank is unable to make the entire provision in one go, it can spread it to four quarters provided there is no delay in reporting. Further, banks have taken initiative in bringing up Fraud Risk Management (FRM) Solution in the digital platform of the respective products and services offered. FRM solution is an additional authentication which is added into the system to calculate the risk profile of the user. The system will understand the transaction and usage pattern of the user and identify the risk associated in performing the transaction/activity based on the risk profile of the user and the transaction is challenged with second factor authentication. In other words, the system will Allow / Challenge / Deny the transaction of the user based on the risk associated with the transaction. (i) If risk associated with the transaction is low, system will allow the user to perform the transaction. In such cases only PIN will be required to perform the transaction/activity. (ii) If risk associated with the transaction is high, system will challenge the user to answer any one of the already opted security questions. Based on the answer the user will be allowed to perform the transaction. (iii) If risk associated with the transaction is very high, system will deny the user from performing such a transaction and system will automatically intimate the same to FRM cell for analysis. Apart from the FRM solution, banks have come up with measures of self-locking the account when it is not being used i.e., blocking the transactions

Investigation of Frauds in Banks:

As observed in banks, each bank has a Chief Vigilance Officer to investigate a fraud committed by the staff up to Rs 25 lakhs after informing the police and the RBI. Any fraud beyond Rs 25 lakhs is referred to CBI. Investigation team in banks conducts investigation to fix staff accountability and initiate staff side action lacks in objectivity and fairness. Staff-side action includes suspension immediately after the bank reaches the conclusion of involvement of the staff member. Criminal complaints are lodged with police (CBI). Further, banks have to report frauds of Rs 1 crore and above to RBI which creates a Data Base and issues a circular based on new frauds reported. Chief Vigilance Commissioner guides and monitors investigation of frauds. There are several issues associated with investigation of frauds in banks. In general, investigation function is not paid sufficient attention so far as public sector banks are concerned. The general trend in such cases is to include a large number of officials in the probe so that the investigation is both delayed and diluted. Even in instances where investigations are concluded, there is a tendency to hold only the junior level officials involved in post disbursement supervision account and ignore the lapses on the part of higher officials who are involved in sanctioning of the advances. Many a times, the internal investigation is put on hold when the probe is handed over to external investigation agencies. But the completion of internal probe would also assist in carrying out prompt investigation by the law enforcement agencies and the perpetrators of fraud can be brought to book. While fixing accountability, there would be a need to categorically establish malafide intention/ malfeasance on the part of the erring employee involved in fraud cases so that the other officials do not become wary of sanctioning even good credit proposals. In the backdrop of the above deficiencies, a need is felt to tone up internal investigation function in banks. In addition, many more steps are needed to strengthen both detection and prevention of frauds in banks. Towards this end, few suggestions are offered

Suggestions:

1. The government shall consider an independent specialized cadre of officers in banks who are capable of carrying out an effective and time bound investigation of such scams. In respect of mega frauds and technology based frauds, this arrangement is needed. For this purpose, selection of such officers shall be on the lines of recruitment of IAS/ IES officers. But, in short term, the government shall consider forming this cadre with a pool of commercial bankers, RBI and CBI officials through lateral recruitment. Further, there should be a dedicated department/cell in banks equipped with legal assistance which serves as a single point of contact with investigating agencies and facilitates easy access to relevant documents.

2. There needs to be effective coordination between banks and agencies such as the Central Board of Direct Taxes (CBDT) to share vital information on personal wealth of promoters. In case of any information that may raise a red flag, the CVC and the RBI should jointly investigate the promoters for fraudulent activities.

3. Banks have to ensure corporate governance at the highest levels. The top management needs to set guidelines and policies for ethical practices and standard procedures to maintain zero tolerance to negligence and fraudulent activities.

4. Various types of audits are undertaken by banks such as statutory audit, risk-based internal audit, concurrent audit, information systems audit and special audits. These need to be tightened for the purpose of obtaining early warning signals of frauds. In particular, the concurrent audit has to be carried out on a real-time, or near-real-time basis.

5. There is a need to improve exchange of information between all stakeholders to instill and maintain financial discipline among the users of funds and prevent negative information arbitrage to the detriment of the system. Bank Board should ensure that the audit processes and the internal systems and control are capable to identify vulnerable areas, raise red flags and plug loopholes quickly and effectively (10).

6. Delays should be avoided in reporting frauds to appropriate authorities, conducting investigation and fixing staff accountability, which in effect leads to shielding of the main culprit while the blame is generally shifted to the junior level officials. More importantly, it is necessary that a strong foundation is built by leveraging robust IT systems, framing effective policies and procedures, laying down strict compliance processes, setting high integrity standards, developing efficient monitoring capabilities and initiating strict punitive action against the culprits in a time bound manner. This is necessary not just for the safety of banks but for ensuring the stability and resilience of the overall financial system and sustaining the confidence that various stakeholders have in its strength and integrity.

7. Job rotation in critical areas of banking operations and branches should be strictly followed. Compulsory leave should be granted at regular intervals to the staff operating in critical areas banking and also to a branch manager. Star performers as identified in banks should be kept under watch. Further, posting of senior officers to Inspection department should be made compulsory for higher promotion. In addition, the alert staff member should be suitably honored.

8. Investigation team members should be given an opportunity to undergo a training programme to acquire necessary skills to conduct investigation timely & objectively and initiate staff action within a given time limit. Similarly, banks should regularly reorient and train their personnel so that they fully understand the importance of internal controls in their respective work place. Besides class room training, there shall be regular e-modules with e-certifications and updates made available to the officers at large.

Conclusion:

Bank frauds are on the rise which is a matter of concern to all the stakeholders. The impact of bank frauds can be huge in terms of likely disruption in the working of the markets, financial institutions and the payment system. Besides, frauds can have an adverse effect on confidence in the banking system and may damage the integrity and stability of the economy. It can also bring down banks, undermine the central bank's supervisory role and even create social unrest, discontent and political upheavals. The vulnerability of bank frauds has been heightened by technological advancement in recent times. In addition, mega frauds in lending area continues affecting overall financial status of banks. Hence, both the Government and the RBI have been taking steps to ensure early detection of frauds and initiate both corrective and preventive steps. But to supplement these, efforts need to be strengthened to create awareness among the staff in banks on seriousness of the problem. It is also necessary to adopt professional and coordinated approaches in conducting investigation of frauds timely and meaningfully .Lastly, the top management in banks has a major role to play to set guidelines and policies for ethical practices and standard procedures to maintain zero tolerance to negligence and fraudulent activities. Towards this end, banks have a long way to go.

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INDIA'S STRIVE TOWARDS RENEWABLE ENERGY: THE OPPORTUNITY OF MICRO SOLAR PROJECTS

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Introduction

Climate Change is one of the most critical issues of the present time. The impact of climate change can be gauged from changing weather patterns that affect the overall climate including rainfall, food production, seawater level, flood and many more. The impacts of climate change are global and leave a catastrophic effect on all living creatures on the earth. The excessive emission of greenhouse gases is regarded as one of the prime causes for rising temperature on the earth. The rapid industrialization, large scale deforestation among others have contributed to multiply the quantity of greenhouse gases in the atmosphere. According to the International Renewable Energy Agency, renewable energy generation is crucial to check the rising global temperatures and for a long-term policy against climate change. Renewable energy sources are capable of supplying 80 per cent of the world's electricity by 2050. The shift towards renewable energy sources would massively cut carbon emissions and effectively help in mitigating climate change [1]. The growing concern over climate change has forced countries across the globe to shift the policy on energy generation towards non-fossil energy sources. According to the International Energy Association (2019), globally coal occupies the largest share as the main source of fuel in the generation of electricity. [2] Therefore, it is obvious that the shift of non-renewable to renewable energy is vital in the fight against climate change and global warming.

India, with a huge population (about 1.36 billion) and a rapidly expanding economy, has witnessed an increasing demand for energy. Among many factors, the continuing urbanization and rapid expansion of the economy are often mentioned for the expanding energy demand. However, India is not an exception and this growing energy demand is mostly met through the non-renewable energy sources generally by coal. It is worth mentioning that out of India's total installed capacity, 60 per cent is thermal energy of which coal is the main component. India's size of the population and continuously rising demand for energy causing a deep-rooted impact on the climate because of its reliance on fossil fuel as the main source of energy. However, of late India along with countries across the world has also shifted its strategic policies regarding energy generation towards the renewable sector. Over the years, many policy initiatives have been taken to expand the generation capacity of renewable energy in the country. Being one of the major emerging economies, India has set ambitious targets for the generation of renewable energy. The country presently has one of the world's largest renewable energy expansion programmes being the 4th in wind power, 5th in solar power and 5th in overall renewable energy installed capacity.

Apart from the concern over climate, the renewable energy sources particularly solar energy has provided an alternative solution of sustainable, uninterrupted and adequate energy supply to a huge section of the population particularly in rural remote areas of the country. Without solar powered energy sources, a vast majority of the rural population were left out from the access of affordable, continuous and sustainable energy supply. With the help of small or micro solar unit, a large section of the population have been able to transform their occupation for a better livelihood. The availability of sustainable, uninterrupted and reliable power supply has enabled many livings in extreme poverty to explore better livelihood or other options with increased income. For example, solar power enabled sewing machines, portable water pumps, egg incubators, milking machine among others have greatly benefited many small and micro entrepreneur in expanding their business and providing livelihood to many others.

In this brief paper, we shall discuss two pertinent issues in the context of renewable energy. First, we shall discuss different initiatives by the government in promoting the renewable energy sector. In addition, we shall make an attempt to discuss the achievements and difficulties associated with programmes.

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[1] https://www.irena.org accessed on 24/12/2019
[2] 38 per cent of electricity are produced using coal as the primary source.

Second, this paper discusses the impact of solar powered energy in the contribution of generating livelihood among micro entrepreneurs in rural areas.

India's Strive towards Renewable Energy

It has been mentioned earlier that there is a growing demand for energy in India. Moreover, an uninterrupted and adequate supply of electricity is crucial for many ambitious projects of the government including Make in India. According to a report by the NITI Aayog, India has large-scale conventional power resources. As of 2015, India had installed electric generation capacity which can produce up to 260 GW against the required 140 GW during peak demand period [3]. Despite such a huge capacity, the power shortages and blackouts are very common in large parts of the country. Such a deficit in power generation as compared to the demand is often attributed to insufficient availability of fuel and the high cost associated with the procurement of fuel for the power plants. In this context, renewable energy sources like solar and wind power providing an alternative or additional choice to the policymakers. It has been pointed out that India has tremendous potential in the generation of renewable energy. According to the NITI Aayog report, India's solar potential is greater than 10 thousand GW and its wind potential could be higher than 2 thousand GW.

The Government of India is making a consistent effort to develop the renewable energy sector. India's strive for renewable energy dates back to the attempt for energy self-sufficiency during the 1970s. In the backdrop of the oil shocks of the 1970s, it was realized that a policy shift towards new and renewable energy is essential. The abrupt and sudden rise in the oil price and uncertainties with the supply had a severe adverse impact on India's balance of payments position. Subsequently, to tackle the situation, GoI established the Commission for Additional Sources of Energy (CASE) under the Department of Science & Technology in 1981. The main responsibility of the commission was to formulate policy and implementation of those policies. The commission was also bestowed with the duties for the development of new and renewable energy sector. In 1982, a new and separate department namely the Department of Non-conventional Energy Sources (DNES) was created in the then Ministry of Energy. Subsequently, in 1992, DNES became the Ministry of Non-conventional Energy Sources which was further renamed as the Ministry of New and Renewable Energy in 2006 [4]. In India, energy is listed as a concurrent item, given this constitutional status strategic policy initiatives to expand and promote renewable energy are framed by the state and central government. In order to create awareness about the threat of climate change and to give the first push towards renewable energy, GoI releases National Action Plan on Climate Change (NAPCC) in 2008. The plan outlined eight missions including a specific focus on Solar Energy. The Action Plan attempts to significantly increase the share of solar energy in the total energy generation. The Action Plan highlights that being a tropical country, India receives good sunshine for longer hours which in turn reflects the potential of solar power as the source of energy [5].

In a renewed thrust towards solar energy, the National Solar Mission was launched in 2010 with an objective to make India a global leader in solar energy. The Mission had an ambitious target of deploying 20 thousand MW of grid connected solar power by 2022 which has further been revised to 1 lakh MW by the year 2021-22. The Mission also aimed at reducing the cost of generation of solar power through various initiatives including aggressive R&D in the field of solar energy and production of raw materials, components and products required in the generation of solar energy domestically [6].

Moreover, many financial supports have also been rolled out for the promotion of renewable energy generation. For example, the union budget of 2018-19 announces the zero-import duty on components of solar panels. This is expected to give a boost to domestic solar panel manufacturers. Other financial incentives include off grid and decentralized renewable energy systems and devices for meeting energy needs for cooking, lighting and productive purposes. Thus, the government is attempting to reduce the costs, increased reliability to make renewable energy an attractive and alternative option for meeting the energy needs in a sustainable manner [7].

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[3] The data are as per the Report on India's Renewable Electricity Roadmap 2030, published by NITI Aayog, Government of India.
[4] https://mnre.gov.in/ accessed on 19/12/2019
[5] Government of India- National Action Plan on Climate Change
[6] https://mnre.gov.in accessed on 26/12/2019
[7] Economic Survey Volume I, Government of India

Recent Policy Initiatives

The most recent policy thrust to a greener energy regime is manifested in the Government of India's transformative energy vision to produce 175 GW of renewable energy by 2022. Solar power has been given a place of pride in the renewable basket with the specific policy pronouncement of the Jawaharlal Nehru National Solar Mission (JNNSM). Similar policy-level initiatives, such as the provision of 24X7 power availability across the country by 2019, are clear reflections of the thrust laid on renewable energy. This emphasis also further reiterated by India's global climate pledges made to UNFCCC through Intended Nationally Determined Contributions (INDCs). The global climate commitment of sourcing 40 per cent of its energy from renewable energy by 2030 is a clear indication of policy-level priorities on renewable energy [8].

Government has also launched Kisan Urja Suraksha Evam Utthaan Mahabhiyan (KUSUM) scheme. On a pilot basis, the KUSUM scheme aims around 2.75 million solar pumps and 1 GW decentralized solar power plants in uncultivable lands of farmers to enhance the income of farmers.

However, the installation of a renewable energy system such as Solar Energy involves somewhat high initial investment. To promote investment in Renewable Energy, the Government of India (GoI) has introduced several initiatives including subsidy among others. Given the initiatives by GoI, the banking sector is required to play a vital role by intervening in the renewable energy sector extending timely, adequate and affordable credit.

Renewable Energy through Micro Projects

In many occasions, the irregular power supply is identified as a major livelihood obstacle, particularly in rural areas. The irregular and inadequate power supply has a significant negative impact on the economic viability in all activities. The advancement of frugal innovation, which offers affordable products and services for consumers in the emerging and developing countries widens the scope of livelihood in rural areas where hitherto the grid power supply was inadequate or expensive [9]. Combined with the frugal innovation, the Photovoltaic Solar Panels has created many opportunities in rural areas. Apart from portable water pumps used in irrigation to sewing machines, the solar powered enabled technology is greatly benefitting the poor masses in the rural areas. The GoI has also initiated several schemes to promote the small scale and micro units.

Several non-governmental organizations are also working towards spreading awareness of PV solar panels and its use in small and micro enterprises. SELCO Foundation one among those not for profit public charitable trust. It is a prominent name in spreading awareness and helping out many rural entrepreneurs in technical as well as financial issues related to solar energy. Recently IIBM which is a pioneer institute in the field of banking and related areas in the North-East (NE) collaborated with SELCO foundation to acquaint the bankers and micro entrepreneur in the NE region with basic technical knowledge about solar energy, the available government schemes and financial benefits in the installation of solar energy panels. In the NE region, SELCO foundation is working in different locations helping several micro entrepreneurs right from getting the financial assistance for installation of solar panels to providing solar energy powered small and micro equipment. SELCO has shared two such cases one in Assam and another in Meghalaya where the technological intervention using solar powered equipment is done to improve the livelihood of the micro entrepreneur [10].

In the first case, the SELCO foundation with its local support installed and solar energy powered blower for a blacksmith in the Nalbari district of Assam. Before the installation of the electric blower, the blacksmith used a manual blower which involved a lot of time, effort and additional labour. Having dependent on manual labour, his overall production was limited to a great extent. However, the installation of the solar powered blacksmith blower has significantly reduced his labour requirement. As a result, the productivity of the micro- entrepreneur has considerably increased paving way to earn more income.

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[8] https://pib.gov.in/newsite/PrintRelease.aspx?relid=128403 accessed on 27/12/2019

[9] In an ordinary sense, frugal innovation is associated with giving non-affluent customers opportunities to consume affordable products and services suited to their needs (Weyrauch, T. and Herstatt, C. (2017) What is frugal innovation? Three defining criteria. Journal of Frugal Innovation. 2(1), 1-17.)

[10] The case studies are compiled by SELCO foundation. We sincerely acknowledge the contribution of Ms Nayana Hazarkia of SELCO foundation for providing us access to the case studies.

Solar Energy Powered Blacksmith Blower at Nalbari (Assam) Photo Courtesy: SELCO

Solar Energy Powered Printing Machine at Ri Bhoi (Meghalaya) Photo Courtesy: SELCO

In the second case, an entrepreneur in the Ri Bhoi district in Meghalaya was supported with stationery equipment for printing and photocopy. During the identification of the location, it was realized that the Patharkhmah area of Ri Bhoi district is a center place. With 2 bank branches, 4 schools and a weekly market, the area has a constant demand for printing, photocopy and other stationery goods. However, the erratic power supply and frequent load shedding had severed the productivity of the existing entrepreneur. Long waiting period for a simple print or photocopy is a regular scenario which was also affecting the productivity and income of the micro entrepreneur in the market. Under the guidance of SELCO and financial support from Meghalaya Rural Bank, a local entrepreneur come forward to install a solar energy powered system for printing and photocopy purpose. With uninterrupted power supply and constant demand, the micro entrepreneur has now been able to generate two times more revenue to support his family as compared to the previous period.

Conclusion:

Adequate and uninterrupted supply of power is considered as the backbone for the rapid and sustainable development process of any economy. Because of global warming, changing weather pattern and overall climate change, countries across the globe have shifted their focus to produce more renewable energy such as solar and wind energy instead of conventional fossil fuel. In a similar line, the GoI is also making a constant effort on priority basis to make access to sustainable and clean energy sources. It is well accepted fact that energy, particularly electricity is a vital indicator in an economy. Many important social indicators such as income, poverty, climate change are crucially attached to the availability and affordability of energy. It is often argued that for better and sustainable economic future; affordable, reliable and sustainable energy to all sections of the population across the country irrespective of the geographical area is indispensable. Although the GoI is pushing for the generation of more solar energy, the take off in this direction is yet to be achieved as in general the solar powered sources are not preferred. The initial high investment in the installation of solar panels is considered as one of the major challenges in this regard. On the one hand, the government tries to protect and encourage the domestic manufacturer by imposing tariff and import duties and on the other hand the government desires to procure cheap solar equipment to boost the solar energy sector. This conflict has finally resulted in high price of solar panels and the associated equipment leading to the high installation cost. Many banks are also reluctant to lend in large solar power projects due to several apprehensions. Prominent among them are large non-performing assets in the thermal power sector and falling tariffs of solar power. Several experts have argued that fixing tariffs for solar generated tariff could create non-performing assets in the renewable energy sector [11]. Therefore, the nature of the financial support particularly in terms of suitable credit etc.

is presently inadequate. In this context, the micro solar panels with a small investment can be focused particularly in rural areas. The micro panels are beneficial on two fronts. First, these panels can supply uninterrupted clean energy to a remote location which in turn generates livelihood prospects and improve the efficiency of rural households. On the other, it also contributes to India's ambitious aim of shifting towards renewable energy to combat the menace of climate change. Organizations like IIBM and SELCO are therefore have to position themselves to play a greater role to impart and aware the potential entrepreneur and lender about the benefits and opportunities of solar powered renewable energy.

[11] https://economictimes.indiatimes.com/industry/energy/power/lenders-reluctant-to-fund-renewable-energy-projects/articleshow/65850835.cms?from=mdr

CLEANS IMPACT FOOTPRINTS IN DRE AND SUPPORTIVE FINANCING CHANNELS IN THE NORTH EASTERN REGION

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About Decentralized Renewable Energy

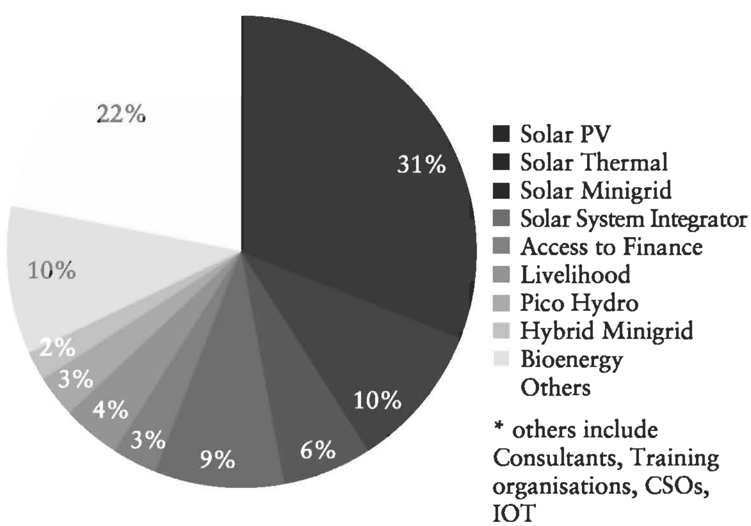
Decentralized Renewable Energy (DRE) or Off Grid Renewable Energy refers to any system that uses renewable energy to generate, store (in some cases), and distribute energy in a localized way. Unlike grid connected renewable energy plants, DRE provides energy to remotest areas which are not dependent or connected to the grid. Various DRE solutions provided by DRE practitioners and enterprises are listed below:

- Solar energy products and services like Lanterns, Home Systems, Micro/Mini Grids, Pumpsets, solar powered agri processing machines, solar thermal applications etc.
- Bioenergy - Biogas plants, Biomass gasifiers/microgrids, Improved Cookstoves(household and commercial), Waste to Energy plants etc.
- Hydro- Pico turbines/water mills, power plants.
- Wind- Pico turbines, power plants and systems.
- Hybrid systems (solar-wind, solar-biomass etc.)

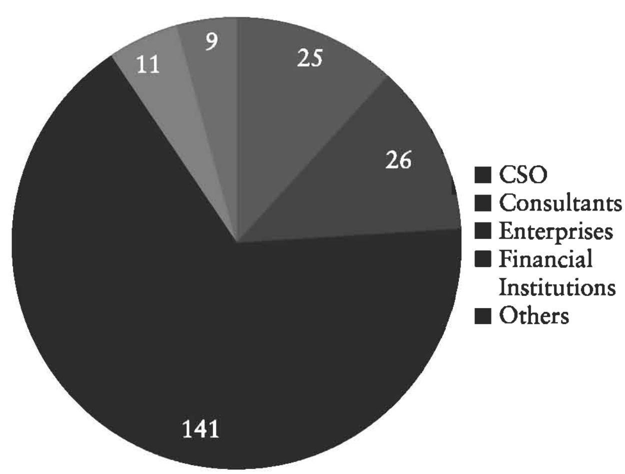
About Clean Energy Access Network

Clean Energy Access Network (CLEAN) is an all India representative of Decentralized Renewable Energy (DRE) Micro, Small and Medium Enterprises (MSME) in India. It was launched in 2014 with a clear commitment to support, unify and grow the decentralized clean energy sector in India. It brings together diverse stakeholders working across India to provide clean energy solutions, with a membership of more than 200 members.

Member Focus Area



Member by Entity Type



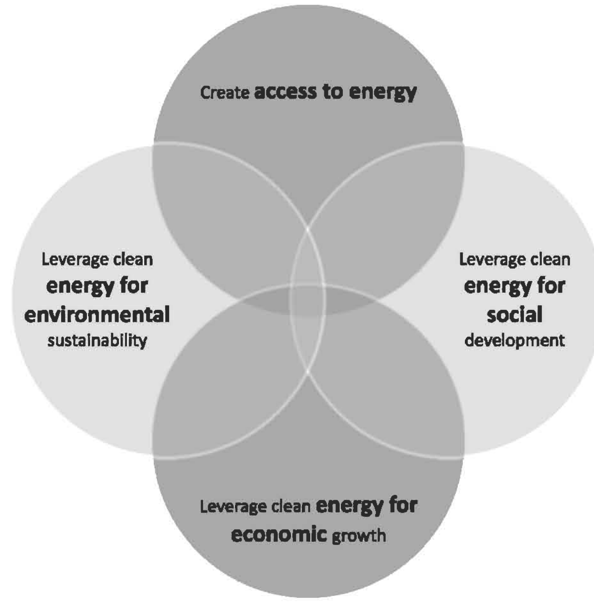
Source: CLEAN

Role of DRE in Energy Landscape of India

DRE solutions have an important role to play in achieving universal energy access and going beyond basic access to energizing livelihoods. India being the world's 4th largest carbon emitter would need the adoption of DRE to positively contribute to ratified Paris agreement to reduce CO2 emissions.

It is important for the country to collectively work towards meeting the SDGs. The government through its flagship schemes is addressing the issue of energy access and have made a commendable achievement till now. A lot needs to be done to provide reliable and affordable supply of electricity and clean cooking solutions. DRE solutions are rapidly emerging as promising solutions for rural livelihoods and enterprises. A good mix with DRE will support productive uses and income augmentation.

DRE members are widely spread throughout India and paint an impressive picture of economic, social and environmental development in the country's DRE sector. CLEAN member organizations work towards the installation of DRE technologies. They work to reduce the usage of kerosene, water and prevent the production of large amounts of waste thereby not only helping the environment but also the economy and society at large.



DRE market in India

The DRE market potential is estimated to be over 100 billion $ and these solutions require greater recognition and policy support in national and state energy systems in India to truly achieve the goal of 'Energy for all'.

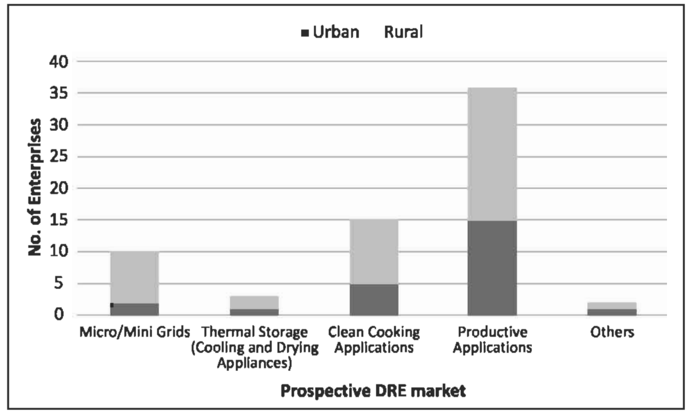
TABLE 3 Estimated overall DRE market potential in India

Technology	Potential	Market potential (USD billion)	(INR crore)	Source/Assumptions
Off-grid solar Pv [1]				
Solar PV lanterns	0.9 GW	5.3	34,450	(UNDP, 2015)
Solar-powered telecom towers	3.5 GW	12.5	81,250	(UNDP, 2015)
Street lighting	3.5 GW	15	97,500	(UNDP, 2015)
Total off-grid solar PV		**65.8**	**4,27,700**	
Solar thermal [2] (Solar water heaters+ solar concentrators+ solar cookers+ dryers+ air heaters)	100 Gwth	30	1,95,000	(UNDP, 2015)
Clean cooking systems [2]				
Family-size biogas plants	7.4 million	3.4	22,200	Total potential for biogas has been estimated at 12.4 million of which ~5 million has been installed. Average unit cost for a 2 m^3 plant is assumed to be INR 30,000 (USD 462)
Improved biomass cookstoves	55 million	2.1	13,813	Estimated, considering 167.8 million rural households (Census 2011) of which 55 million will not be covered under LPG and biogas schemes. Considering an average price of INR 2,500 (USD 38) per cookstove
Productive applications for rural livelihoods	1 million	2	13,000	Estimated, by assuming that at least 1 million MSME enterprises have potential for DRE by 2032. each costing INR 1.3 lakh (USD 2,000).
Total market potential		**USD 103.3**	**INR 6,71,713**	

1 - Potential till 2022, 2 - Potential till 2032, 1 USD = 65 INR
Sources: (UNDP, 2015), CLEAN Analysis

With the penetration of the electricity grid and LPG, enterprisesare innovating their business model and identifying the right fit for technologies for meet energy demand. In the 3rd edition of the State of Decentralized Renewable Energy 2018-19 it was reported that as the market is moving from access to development, it is anticipated that the market segments for (a) livelihood and productive applications, (b) DC energy efficient appliances, (c) clean cooking solutions and innovative technologies, etc. will support the growth of the DRE sector in the coming years.

FIGURE 2.4 New Markets



Note: A single enterprise could have selected both urban and rural options. Sample size- 42. Source: CLEAN Survey and Analysis.

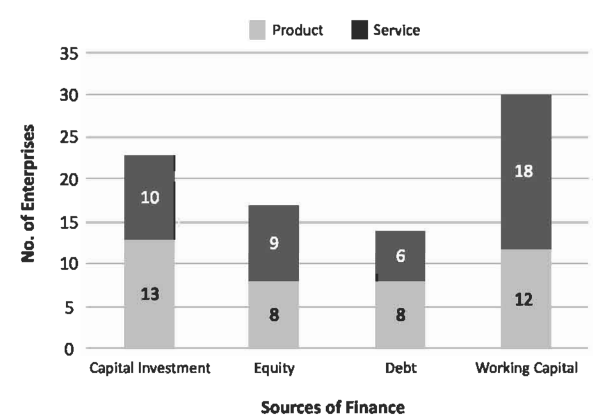
Source: State of the Decentralized Renewable Energy Sector in 2017-18, Clean Energy Access Network

Financing requirements of the DRE enterprises

DRE enterprises comprise of both product development/manufacturers as well as service providers/system integrators. Below is an excerpt from the report on the financing requirements. Working capital has been the major source of finance required by DRE enterprises. These DRE enterprises are mainly product oriented enterprises.

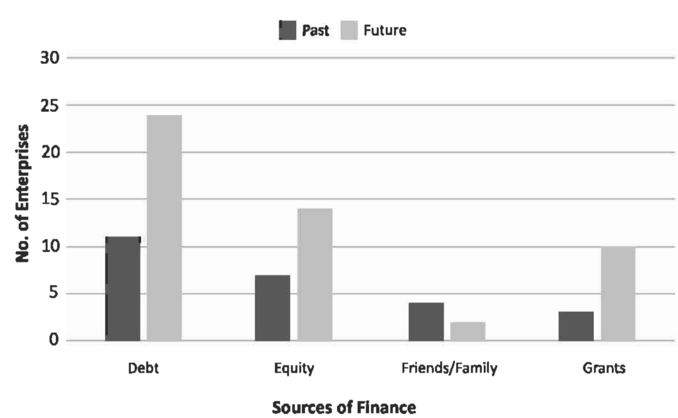
It has been reported that, both debt and equity are major sources of financing in the past and continue in the future as well. However, there is an increasing interest to access finances from impact funds, corporate social responsibility (CSR) funds, grants, and micro finance institutions (MFIs).

FIGURE 1.1 Financial needs of enterprises



Sample size- 42. Source: CLEAN Survey and Analysis 2019.

FIGURE 1.2 Sources of finance



Sample size- 36. Source: CLEAN Survey and Analysis 2019.

Excerpt: Most organizations that were at the initial level of operations were self- funded. Those who did manage to get loans in the initial phase could only get them for a short term. Challenges include limited end-user financing, lack of outreach of MFIs in specific regions, and MFIs' tie-up with specific brands. High interest rates charged by MFIs and banks seeking collateral for sanctioning loans were also cited as major challenges.

Financing mechanisms for the DRE sector

1. Enterprises Financing

• Equity investors create pathway for their portfolio companies to raise capital from additional sources once their models are proven and also those who are willing to explore investments in upcoming enterprises. Equity availability in DRE has increased, however, they are available only from strategic investors via one-off deals in firms with some minimum scale. Deployment is a challenge with mismatch of return expectations and seed funds are not available due to limited innovation.

• Availability of debt is a constraint for new and small developers in DRE sector. It is important to note that most of the funds are not always exclusively for clean energy technologies but are sector agnostic and focused on low income markets. There is a growth in concessionary debt commitments due to increased market maturity and global momentum. But Bank's limited knowledge about the technologies and business models makes it difficult to evaluate proposals. Lack of sufficient collateral and 3 years of proven track record is a major challenge regardless of the technology and enterprise age. Non-banking financing institutions (NBFCs) are more inclined towards large corporate debt and haven't ventured into the sector also they have a higher interest rate which acts as a barrier.

• Central Government Programmes to support rural electrification involves various schemes like:

1. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) for Strengthening of sub-transmission and distribution system in rural areas and feeder separation into agriculture and non-agriculture.

2. National Solar Mission (JNNSM) governed by local bodies and state governments focuses on the installation of 20 million decentralised solar PV systems.

3. Saubhagya focuses on electrification of all households in rural and urban areas.

• CSR capital Identify opportunities for deployment and creating leverage for their grant/ subsidy capital that creates social as well as economic impact in areas of interest. Insufficient awareness amongst the enterprises on how CSR funds can be used for energy access initiatives acts as the biggest challenge. There is a lack of knowledge about the technologies, their application, sustainability and impact.

• Carbon financing under the Clean Development Mechanism (CDM) was a popular financing mechanism for projects which cut down on GHG emissions by supplying clean energy. However, uncertainty around the Kyoto Protocol and a sharp decline in carbon prices has made this less attractive.

• Crowdfunding is a method of raising capital through the collective effort of friends, family, customers, and individual investors. It is yet to pick up in India's off-grid RE space. Online crowdfunding platform/agencies help in raising funds but regular repayment (with interest) needs to be returned to the agency. At present, enterprises are not completely aware about this source.

2. End User Financing

• Bank loans: The role of banks (Regional Rural Banks (RRB) or Grameen Vikas Banks, Public Sector banks, Commercial banks) in consumer financing has been primarily driven by the MNRE subsidy scheme for various off-grid RE solutions. Poor after-sales records have eroded consumer and bankers' confidence in the off-grid RE solutions. Prior experience with inferior quality off-grid RE products has made bankers' apprehensive around the operability and bankability of off-grid RE technologies. Sensitising bankers on financing technologies such as solar water pumps highlighted the importance of demystifying such technologies.

• Microfinancing: This mode of financing depends heavily on the reach and activity of MFIs in a region. The key disadvantage is the high interest rate offered by MFIs. In addition, most MFIs offer top-up loans to existing account holders to cut down on transaction costs. The biggest obstacle in engaging MFIs has been the poor after-sales maintenance by several enterprises which has eroded MFI trust in these solutions.

• Government interventions in DRE in North East India

The Ministry of New and Renewable Energy (MNRE) has given special attention to the development of renewable energy in the entire North Eastern region. A separate budgetary allocation of 10% has been done for deployment of grid & off-grid solar energy system, small-hydro projects, biogas plants, etc. in this region.

• 70 lakh solar study lamps were distributed to school going children across selected states including Assam under the "Solar Study Lamp Scheme" of MNRE during 2017-18. In Assam, during 2018-19, a total of 4,45,994 solar study lamps were distributed.

• Under the Atal Jyoti Yojana (AJAY) Phase-II, Solar LED Street Lights in rural, semi-urban and urban areas are being installed in all States of North-East including Sikkim.

• Under Off-grid and Decentralised Solar PV Applications Programme Solar Street Lights (Total- 138,210) and Solar Study Lamps (Total- 1,126,376) have been allocated. New projects for installation of off-grid solar power plants up to 25 kWp have been sanctioned for the North-East States.

• Under the KUSUM scheme launched for farmers for installation of solar pumps, solarisation of existing agriculture pumps and installation of grid-connected renewable power projects, CFA up to 50% of the benchmark cost of tender cost, whichever is lower, is available to North-Eastern States.

• In the Bioenergy space, MNRE has allocated targets to the State Rural Development Departments for implementing the New National Biogas & Organic Mannur Programme (NNBOMP) in the North-Eastern states during the year 2018-19. The programme aims to set up a total of 10,500 biogas plants in the North-Eastern Region. A Biogas Development & Training Centre for providing training & technical support under NNBOMP has been continued and functional at Department of Mechanical Engineering, IIT, Guwahati, Assam.

DRE Case Studies from North East

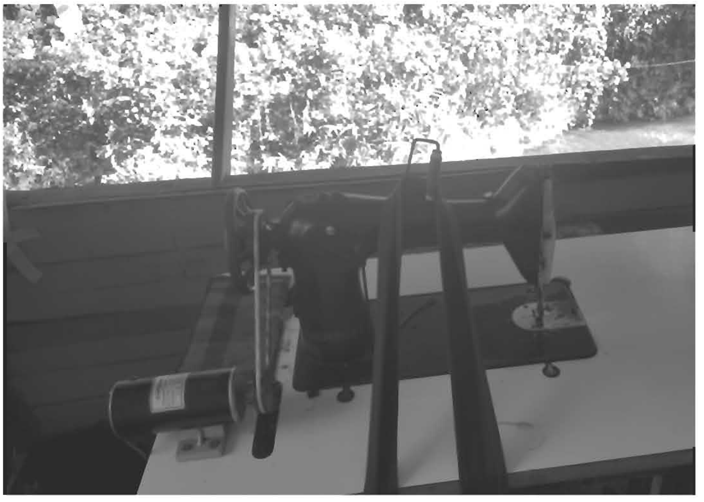
1. Solar Powered Irrigation Pumps

Solar Powered Irrigation Pumps have been widely used by farmers across the country. It is commercially viable with low operational and maintenance costs. It has enabled farmers to increase their productivity and reduce drudgery, thereby resulting in a significant improvement in their income. The pumps generally have a payback period of 3-5 years. The lifecycle of the solar panels is 25 years approximately. The pumps require minimal maintenance, have no fuel costs and result in water savings. Various payment models are offered to end users by DRE enterprises for purchasing the pump. Some of them include pay-as-you-go, seasonal contract, first loss default guarantee, joint liability group, etc. Financial linkages to the pumps have been enabled by the government under the KUSUM scheme.

2. Solar Powered Silk Reeling Machine

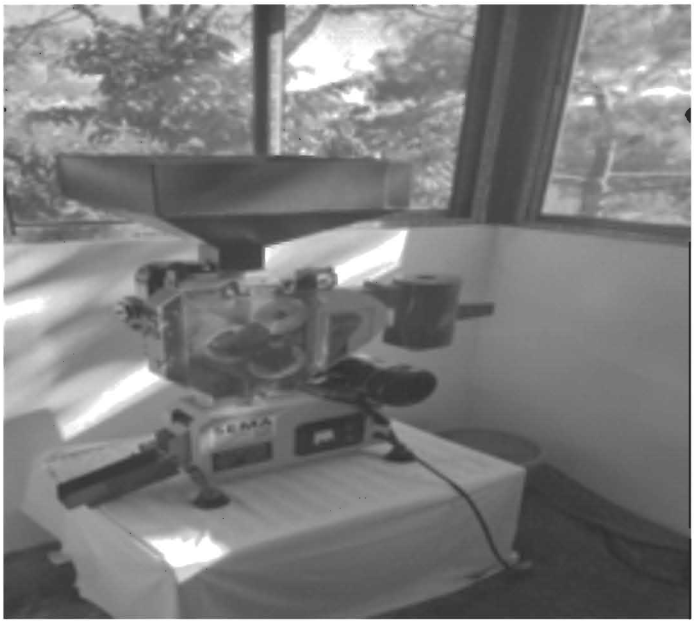
Resham Sutra has developed a range of affordable electric reeling machines, in collaboration with the Central Silk Board, for traditional artisans, mostly rural women who struggle to produce silk in large volumes and make a good living. Many of the reeling machines are powered by solar energy. These machines vastly improve the working conditions and have helped generate higher income for over 9,000 silk workers. Resham Sutra provides holistic support for customers by providing access to raw materials and finding markets for their products. They also provide the artisans with training and long-term maintenance. The machines are distributed through partners who bring part or total funding or help facilitate financing. 70% sales have been eligible for government subsidy which Resham Sutra helps facilitate.

3. Solar Powered Sewing Machines



The solar powered sewing machine comes with an automatic pedal and an efficient DC motor. SELCO has also helped in getting financial assistance in order to construct better infrastructure for shops and install lighting and a fan. The system is designed to run for 8 hours a day and provides a battery backup of 8 hours/day. The machine enables the tailor to stitch more clothes in a day while eliminating the drudgery involved in manually pedaling the sewing machine. The increased productivity has led to a significant increase in income as well.

4. Solar Powered Agri Processing Machines



Agriculture Processing machines like rice hullers, flour mills, spice grinding machines requires specific machinery and a substantial amount of energy, both of which are unavailable to small-scale farmers due to unavailability of electricity or the unreliability of the same. Alto precision offers a solution with their solar powered rice hullers which address the mentioned issues faced by farmers. It has a capacity of 100kg/hour and can be used for up to 8 hours in a day. The huller can be brought individually or by farmer producer organisations. Several other agri processing machines can be powered by solar and reduce the dependence of energy supply in remote regions of the North- East.

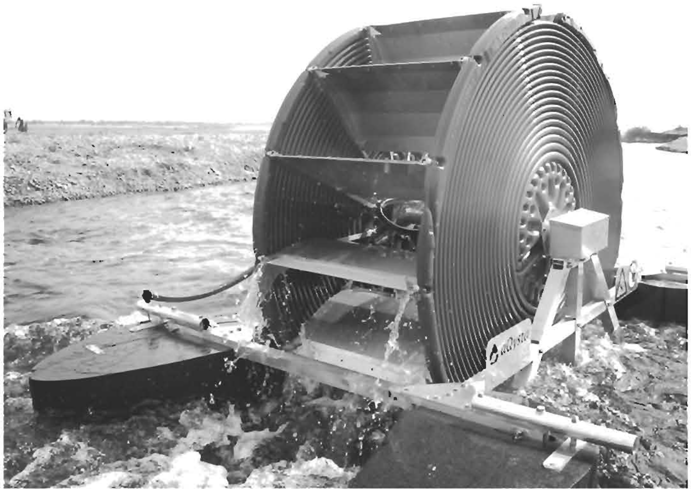
5. Solar Power Cold Storages and Refrigerators

India wastes about 18% of fruits and vegetables every year due to lack of cold storage facilities (Centre for Public Policy Research, 2016). These facilities are still unavailable at the farm level and unaffordable to small and medium farmers. Ecofrost is a portable, solar-powered cold room developed by Ecozen. It is developed to be used for on-farm cooling and storage of produce post- harvest. With a wide range of temperature control measures, it is ideal for storing fruits, vegetables, flowers, and other perishable commodities. The product is primarily designed for energy-starved areas and does not depend on grid electricity. With a break-even period of two years, the product can help farmers give over 40% increase in profits.

6. Solar Dryers

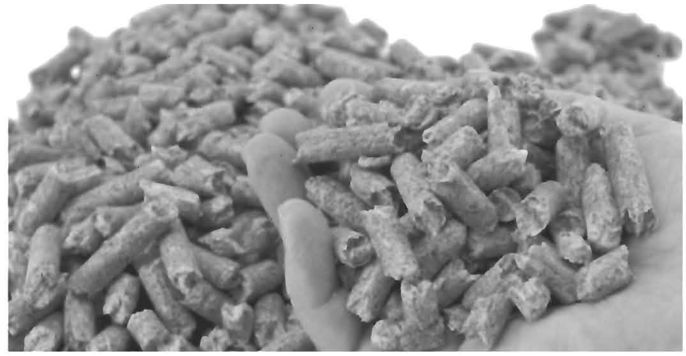
An estimate of 67 million tonnes of produce is wasted in post-harvest losses due to lack of cold storage and alternative processing facilities. Solar Dryers is now enabling farmers in India to dry pineapple, ginger, tomato, banana, and fish etc. resulting in faster drying leading to better quality of products with higher market value. The dryers significantly reduce the duration of drying as compared to sun drying, have better nutrient retention, and higher market value of end product.

7. Kinetic Energy powered irrigation system



The Barsha Pump, developed by Netherlands-based aQysta, is a low-cost solution for small and medium-sized farmers to irrigate their fields without the use of fuel or electricity. The system uses the kinetic energy of flowing rivers to pump water onto nearby farmlands. Depending upon the soil, crop, climatic conditions, and irrigation technique, one Barsha Pump can irrigate up to 2 hectares of land, making it an effective product for agriculture-dependent households. Using the EASI-Pay project, an initiative of aQysta, 21 Barsha pumps have been sold and installed in Nepal.

8. Briquetting and Pelleting



For efficient usage of biomass, it is converted into briquettes so that it is made compatible to burn in boilers and furnaces and can be transported over long distances. Generally, it is informed in a cylindrical shape with the most common size of 90mm diameter and length of 200-300mm. It is carbon neutral as it is made from agriculture residue and saves 700-750 kg of CO2 by burning per tonne of briquette.

9. Biogas based Cooking Grid

In far off villages, the penetration of LPG has been an issue due to lack of proper roads and infrastructure. This results in households needing to collect LPG cylinders from several kilometers away when firewood in unavailable. To address this issue, Gram Oorja has developed a biogas based cooking grid in Dhopeshwar, Maharashtra. The biogas plant is operated with cattle dung as feeding material. The village community has more than 250 cattle which produce over 2 tonnes of cow dung per day. A Village Energy Committee is established by Gram Oorja which maintains billing and controls daily operations. An in-depth study was conducted prior to the installation of the cooking grid to develop a clear understanding of the community's ability and willingness to pay metered bills. The tariff structures developed to ensure long term sustainability of the system and pay for operation and maintenance costs. Additionally, an initial installation charge is levied upon every household to encourage a sense of ownership and support

10. Micro-Hydro Plant

Micro-hydro is a renewable energy technology which is proven to be an appropriate energy solution for remote villages which are not connected to the grid. A perennial fed water body is essential for operating an MHP. In most cases, the electricity generated provides for domestic and livelihood needs of the village community. The plant is built and commissioned mostly through donor programmes or government schemes and the community takes over the day-to-day operations and maintenance. A 50 kW micro-hydro plant has been installed by Anderson Tea Estate in Umlun in Ri Bhoi district. The plant is currently not dependent on the grid due to reliability issues and is used to run tea estate operations. The estate produces over 60 tons of tea from its 300-acre plantation.

Interventions to scale up clean energy solutions in North East

1. Awareness programme and capacity building of end consumers - Consumer awareness advertising campaigns were highlighted as the need of the hour to spur demand for off-grid energy products in the North-East region.

2. Training of financiers/bankers - Identifying the correct financiers and training them is an important need to reduce the financing challenges. Financiers/investors focussed on sectors such as water, health, education, agriculture should be encouraged to act as potential funders for DRE.

3. Leverage existing schemes - Leverage DRI, MUDRA Yojana, CGTMSE, Startup India, MSME scheme, PMEGP Scheme, General Credit Card, Kisan Credit Card (KCC), Women Development Credit Schemes, etc. to provide affordable credit to end-users to buy off-grid energy solutions.

4. Increased networking events - There is a need to facilitate linkages of start-ups and established enterprises with early-stage investors, social impact funders etc. Annual networking events and investor fora could be a potential medium for facilitating enterprise-financier linkages.

DRE Enterprises Key Asks from Financiers

- Soft capital to scale business and skilled human capital for sustaining growth

- Support in innovative structuring of loans for enterprises and end consumers

- Easier availability of end-user financing

- Social impact should be a key parameter in deciding viability of business model

- Transparency and equitable partnership between enterprise and financing entities.

ROLE OF DEBT RECOVERY TRIBUNALS & UTILISATION OF SARFAESI ACT 2002 IN RECOVERY OF NPAS IN THE BANKS

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Abstract

India is a fast-developing economy. The economy of India is characterised as a developing market economy. India is the world's third largest economy by purchasing power parity& fifth by nominal GDP. The Indian financial sector is one of the key drivers in shaping and developing its economy at a fast pace. The Indian financial sector is dominated by banks.

Lending money is one of the primary functions of the Banks and they are required to recover interest on loans and the principal amount as per the sanction terms. Delay or default in interest repayment or the principal amount or the installments makes the loan account overdue. If the loan account remains overdue/ past due beyond the stipulated time, the loan account is classified as Non –Performing Asset (NPA).

In NPA accounts, banks can not recognise Income and have to provide for loan losses, in case loan accounts continue to be NPA. This makes recovery of dues in NPA accounts very important task for the banks. Banks had legal recourse to recover their dues through courts, but disposal of cases by the courts took very long time. Under Recovery of Debts due to the banks and financial institutions Act 1993 (known as DRT ACT 1993),banks had one more recovery option to approach DRT or DRATs for speedy adjudication of disputes related to mounting levels of NPAs in the banks.

However, banks in India did not have power to take possession of securities and sell them on their own, without intervention of courts. The Government recognised the imperative need for empowerment of the banks to take possession of the securities and sell the securities on their own for speedy recovery of their dues, without intervention of the courts. Thus Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002- known as SARFAESI ACT 2002- was enacted by the Government to help the banks saddled with the increasing NPAs.

This paper analyses the role played by Debt Recovery Tribunals, Debt Recovery Appellate Tribunals and SARFAESI ACT in speedy recovery of increasing NPAs in the banks and finds that these legal channels have not been able to help the banks for various reasons, in recovery of their dues to the extent/scale, it was envisaged by the Government.

Introduction

Securitisation in India has been in existence since early 1990s. The Recovery of Debts due to the Banks and Financial Institutions Act (DRT Act) was enacted in 1993. Banks with the passage of time experienced misuse ofDRT ACT by the unscrupulous borrowers, in tandem with the lawyers, caused inordinate delays in the orders/ judgement.

A review of DRT Act 1993 made by the Government brought forth the realisation that there was no existing legal provision in India to facilitate securitisation of financial assets of the banks which resulted in slow/poor recovery of NPAs. The Government also accepted recommendations of the Narasimhan Committee. And thus, SARFAESI Act was enacted in year 2002 much to the relief of the banks.

SARFAESI Act empowered the banks to initiate recovery action on their own against the borrower/mortgagor/ guarantor, without involving the lawyers and the courts, in the NPA accounts where securities were charged to the banks by either way of Pledge or Hypothecation or Mortgage or assignment.

SARFAESI Act 2002 took precedence over DRT Act 1993. The objective behind its enactment was the sale or securitization or reconstruction of Non-Performing Assets by banks and financial institutions in favour of Assets Reconstruction Companies, registered with the Reserve Bank of India under SARFAESI ACT 2002.

Brief Features of Debt Recovery Tribunal & Debt Recovery Appellate Tribunal

Debt Recovery Tribunals were constituted under RECOVERY OF DEBTS DUE TO THE BANKS AND

FINANCIAL INSTITUTIONS ACT 1993 (RDDBFI Act 1993) which came into force on 25th. June 1993. The RDDBFI Act 1993 act had been introduced to provide a speedy remedy for recovery of Debts since there had been considerable difficulties experienced therefor. DRTs were established to help banks and financial institutions in speedy recovery of their debts.

The pecuniary jurisdiction of DRTs, as per the RDDBFI Act 1993, was ten lakh rupees & above. This monetary limit has been raised to twenty lakh rupees & above with effect from September 2018. As per the Ministry of Finance – Department of Financial services-Government of India Notification No. S.O 4312(E) dated 06/09/2018 the central government has considered it "necessary to raise the pecuniary limit from ten lakh rupees to twenty lakh rupees for filing an application for recovery of debts in debt recovery tribunals and that the provisions of the said act shall not apply where the amount of debt due to any bank or financial institution or to a consortium of banks or financial institutions is less than twenty lakh rupees."

This notification is aimed to reduce the burden of pending cases in DRTs. It made clear that Banks will not go to DRTs in cases, where the limit amount due is less than Rs.20.00 lakh.

DRTs were to adjudicate the debt related disputes and also issue recovery certificate within a period of 180 days. Any party aggrieved with the DRTs order/ judgement could approach DRAT by virtue of his right to file an appeal in 45 days before the DRAT. This time limit of 45 days was reduced to 30 days by an amendment dated 01/09/2016. DRAT can consider the appeal even after the expiry of 30 days, if it is convinced of the reasons for delayed/non- filing. The aggrieved party can approach the High Court. Any aggrieved party when approaches Tribunal with appeal has to deposit 50% of the amount of the debt. This amount was earlier 75% of the debt amount which has been brought down to 50%. Moreover, DRAT has the discretion to further reduce the amount to be deposited upto 25% of the dues amount. DRAT also are mandated 180 days' time to decide the appeal. The Appellate Tribunal plays a dual role under the DRT act of 1993 as well as the SARFAESI act of 2002. It has been experienced by banks that DRATs are unable to decide the appeal within a mandated period because;

• Borrowers are able to easily secure Stay, after paying 25% to 50% of dues amount to DRAT and roam about free of worry.

• In the event of DRAT not concurring with the decision of DRT, the banks/secured creditor may approach the High Court. But it again takes a long time in High Courts due to the number of pending cases of diverse nature there. Borrowers enjoy the delay.

• DRATs are not available in many states of the country. Any aggrieved party has to go to those states where DRTs have passed order or where DRAT is located. Litigation becomes a costly affair.

• Many a time the post of Chairman of DRAT will be lying vacant for a considerable period giving much discomfort to banks.

There are39 DRTs & 5 DRATs in India.

The locations are given in the Table 1

Appellate Tribunal	Allahabad	Chennai	Delhi	Kolkata	Mumbai
Jurisdiction over DRTs	Allahabad Dehradun Lucknow Jabalpur Patna Ranchi	Bangalore (1,2) Chennai (1,2,3) Coimbatore Ernakulam (1,2) Madurai	Chandigarh (1,2,3) Delhi (1,2,3) Jaipur	Cuttack Guwahati Kolkata (1,2,3) Hyderabad (1,2) Siliguri Vishakhapatnam	Ahmedabad (1,2) Aurangabad Mumbai (1,2,3) Nagpur Pune

Source: RBI

Features of SARFAESI Act 2002

SARFASEI Act, introduced in 2002, provides two methods of recovery of Non -Performing Assets as name of the act denotes- asset securitisation and asset reconstruction. SARFAESI act was enacted by the Government so that the banks could tackle huge NPAs in banks & was benchmarked against the international standards and best practices. SARFASEI Act empowers banks to recover the debts by enforcing the security/ secured assets by giving 60 days' notice provided the account was classified as NPA.

The constitutional validity of SARFAESI act 2002 was challenged in the Supreme Court in Mardia Chemicals Ltd. V. Union of India A.I.R. 2004 S.C.2371 (2004) S.C.C. 311. Supreme Court while upholding the validity of the Act and its provisions, also asserted that the reasons for not accepting the objection or points raised in reply to the notice served upon them, need to be communicated to the borrowers necessarily by the creditor, before proceeding to take measures under section 13(4), especially since, till the stage of making of the demand and notice under section 13(2) of the Act, no hearing can be claimed by the borrower.

After the above decision of the Apex Court, the Government introduced section 13(3A) in the SARFAESI Act by way of an amendment with effect from November 11, 2004.

After service of the notice under section 13(2) of the Act, if the borrower submits his objection within 60 days, the secured creditor/ bank must apply its mind to the objections raised in reply to such notice & meaningfully consider the borrower's objection and decide whether the objection submitted is maintainable or not and apprise them of the reasons for not accepting the objection within 15 days. Thereafter, banks can take possession or take over the management and appoint a receiver or take possession of secured assets charged with them. For taking physical possession, bank's Authorised Officer has to approach the chief metropolitan magistrate or district magistrate requesting their help in taking physical possession of secured assets charged with them.

At this juncture, the banks faced inordinate delays and sometimes passive actions which delayed the recovery of Banks' NPAs. Through the Finance bill 2015-16, the Government of India has brought certain changes as a part of ongoing reforms. The changes in the Act also provide that the collateral takeover process will have to be completed within 30 days by the District Magistrate.

After taking physical possession of the secured assets, banks may decide to bring the secured assets to sale as per the provisions of Security Interest (enforcement) Rules 2002. Before sale the Authorised officer shall obtain the estimated value of the secured asset and thereafter, if considered necessary, fix in consultation with the secured creditor/bank the reserve price of the assets to be sold in realisation of their dues of the secured creditor. On payment of sale price, the authorised officer shall issue a certificate of sale which will be prima facie evidence of title of the purchaser.

Any aggrieved party may approach DRT under Section 17- Right to Appeal. Any aggrieved party may approach DRAT also, after judgement is given by DRT.

Secured creditor, before enforcing his rights over the security, must comply with certain conditions such as that it should be a secured debt and an NPA with the bank also security should not be Agricultural land and last being the amount due should be rupees one lakh & above and the outstanding dues are more than 25% of Principal & Interest thereon.

Procedure

1. Under section 13 (2) a notice, is issued by the authorised officer of the bank who should be in scale IV or above, to the borrower/guarantors/mortgagors giving them 60 days' time for repayment of entire dues and also informing the intention of the bank to initiate action under section 13(4) by taking possession of the secured asset.

2. After expiry of 60 days, if the entire amount due is still not repaid, the bank can take possession of the property and bring it for sale to recover its dues by obtaining quotations or inviting tenders from public or holding public auction or by private treaty. Authorised officer shall serve to the borrower a notice of 30 days for sale under sub-rule (1).

3. Borrower can file objection with the bank. Bank is legally bound to reply to the objection, if considered maintainable by the bank, within 15 days.

4. Notice under 13(4) can be issued only by an Authorised officer of the bank. Before taking possession the notice must have been acknowledged by borrower/guarantor/

mortgagor. In case notice is returned by any of them, bank has to publish it in two leading newspapers, one in vernacular language.

5. After taking possession bank has to publish a possession notice in two leading newspapers, of which one will be in vernacular language, for general public within 7 days of taking possession.

6. The borrower/ mortgager/ guarantor can approach DRT for redressal of grievance, if any, within 45 days from the date of possession. Any party aggrieved by the decision of DRT can again approach DRAT by filing an appeal within 30 days.

7. The property taken under possession can be sold only after obtaining valuation report from Approved Valuer and thereafter issuing 30 days' notice to the borrower/ mortgagor/ guarantor, to be published in two leading newspapers of which one will be in vernacular language, having sufficient circulation in that locality by setting out the terms of sale. If the sale amount is insufficient to cover the dues, bank can approach the DRT to recover the balance amount from borrower/ guarantor.

Table-2: Details and data critically analyse the success rate/s of DRTs & SARFAESI Act on Y O Y and shows the recovery of NPAs of Scheduled Commercial banks through DRTs and SARFAESI

*Amount in billions

DRTs					
Recovery channel	2012-13	2013-14	2014-15	2015-16	2016-17
No. of cases referred	13408	28258	22004	24537	28902
Amount involved*	310	553	604	693	671
Amount recovered*	44	53	42	64	164
3 as a percent of 2	14	10	7	9	24
SARFAESI Act					
Recovery channel	2012-13	2013-14	2014-15	2015-16	2016-17
No. of cases referred	190537	194707	175355	173582	80076
Amount involved*	681	953	1568	801	1131
Amount recovered*	185	253	256	132	78
3 as a percent of 2	27	27	16	17	7

Source: RBI

Conclusion

Objective of the two legislations is to enable banks to recover their dues speedily from the unscrupulous borrowers. In the light of the data in Table-2 one finds the outcome of the action under the acts has not met our expectations.

Given to high probability of defaulter borrower staking up the matter with the High court and finally with the Supreme court, Banks have to act discreetly with fine precision as per the provisions of the Acts. This itself will serve a strong defence/a series of fortifications against the delaying tactics of the defaulting borrowers, before the High Court or Apex Court leading to a favourable judgement. It is imperative that the banks utilise these channels effectively to their advantage.

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