# *Chapter 9:*
# Environment and Social Risk Assessment and its Importance for The Indian Financial Sector

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Even when the global financial crisis happened in the year 2008, the slowdown experienced by the Indian economy was much less compared to its impact on the economy of other countries. How then, did the present crisis of Non-Performing Assets[176] (NPAs) manifest?

Before we discuss that, we take a look at the exponential growth of NPAs within the Indian banking sector (Table 9.1). Starting from 2008 until the year of the release of RBI's latest Financial Stability Report i.e. 2018, NPAs have multiplied by a factor of 18, in gross terms (as judged by the values of Gross NPAs), and by around 4.2 times, relative to the rise of banks' total gross advances (GA), (as judged by ratio values of gross NPAs to the gross advances).

**Table 9.1: Growth of NPAs in the indian banking sector (amount in Rs. Crores)**

| All Scheduled Commercial Banks | | | | | | |
|---|---|---|---|---|---|---|
| **Year** | **Gross Advances[i]** | **Gross NPAs[ii] (Crores)** | **Gross NPAs Ratio SCBs** | **Net Advances[iii]** | **Net NPAs[iv]** | **Net NPAs Ratio SCBs** |
| **2008** | 25,07,885 | 56,309 | 2.2 | 24,76,936 | 24,730 | 1.0 |
| **2009** | 30,38,254 | 68,328 | 2.2 | 29,99,924 | 31,564 | 1.1 |
| **2010** | 35,44,965 | 84,698 | 2.3 | 34,97,092 | 38,723 | 1.1 |
| **2011** | 40,12,079 | 97,900 | 2.4 | 42,98,704 | 41,700 | 1.1 |
| **2012** | 46,65,544 | 1,42,903 | 3.0 | 50,73,559 | 65,019 | 1.3 |
| **2013** | 59,88,279 | 1,94,074 | 3.2 | 58,79,773 | 98,609 | 1.7 |
| **2014** | 68,75,747 | 2,64,195 | 3.8 | 67,35,213 | 1,42,383 | 2.1 |
| **2015** | 75,60,665 | 3,23,345 | 4.2 | 73,88,160 | 1,75,841 | 2.4 |
| **2016** | 81,67,344 | 6,11,607 | 7.5 | 78,96,467 | 34,98,200 | 4.4 |
| **2017** | 84,76,705 | 7,91,800 | 9.3 | 81,71,698 | 4,33,100 | 5.3 |
| **2018** | ~88,36,206 | 10,25,000 | 11.6 | ~84,91,803 | 5,18,000[v] | 6.1 |

Source: RBI

i. **Gross Advances** - Gross advance amount" means the sum payable to the payee or for the payee's account as consideration for a transfer of structured settlement payment rights before any reductions for transfer expenses or other deductions to be made from such consideration. (https://definedterm.com/gross_advance_amount)

ii. **Gross non-performing assets (GNPAs)** - Gross NPA is the amount outstanding in the borrowal account, in books of the bank other than the interest which has been recorded and not debited to the borrowal account (https://www.gktoday.in/gk/what-is-the-difference-in-gross-npa-net-npa/)

iii. **Net Advances** - means the principal amount of the outstanding Advances (inclusive of Advances that have been requested for any outstanding Purchase Commitments which have traded but not settled) minus the amounts then on deposit in the Accounts (including cash and Eligible Investments) representing Principal Proceeds (https://www.lawinsider.com/dictionary/net-advances)

iv. **Net non-performing assets (NNPAs)** is the amount of gross NPAs less –

a. interest debited to borrowal and not recovered and not recognized as income and kept in interest suspense
b. amount of provisions held in respect of NPAs, and
c. amount of claim received and no appropriated
(https://www.gktoday.in/gk/what-is-the-difference-in-gross-npa-net-npa/)

**v.** https://www.firstpost.com/business/banks-bad-loans-pile-crosses-rs-10-lakh-crore-up-rs-1-39-lakh-crore-in-march-quarter-the-npa-mess-explained-in-7-charts-4496431.html

Also, the GNPAs-GA ratio was relatively stable from the year 2008 until 2011 (fluctuating merely between 2.3 and 2.4). However, starting 2012, this ratio saw an upward trend reaching almost 4 within a span of three years (2011 to 2014); and in the next three years (i.e. approaching 2017), the same ratio was sitting at 9.6. Presently, this ratio stands at 11.6 for the Indian banking sector. So, it gives us an idea of how the trend has shown a progressive rise of the NPAs in the past decade.

In 2016, Raghuram Rajan, the ex-Governor of RBI, while addressing the Public Accounts Committee[177], highlighted the following as some of the main reasons for the growing NPAs within the banking sector[178]:

1. Overall economic slowdown
2. Willful default, loan frauds and corruption
3. Delays in statutory and other approvals for projects under implementation
4. Aggressive lending practices during upturn as evidenced from high corporate leverage
5. Laxity in credit risk appraisal, loan monitoring in banks
6. Lack of appraising skills for projects that need specialized skills

In terms of project-related financing by banks and financial institutions (FIs), four of the six highlighted causes—delays in statutory and other approvals for projects under implementation, aggressive lending practices during upturn as evidenced from high corporate leverage, laxity in credit risk appraisal and loan monitoring in banks, and lack of appraising skills—highlight some of the major gaps existing currently in the appraisal and monitoring process of banks as well as their lack of internal capacity.

In many cases, the four issues that are stated above could have been addressed if the internal credit appraisal process of banks and FIs was sound and unbiased. However, that is currently not the case in most of the banks and FIs. Lack of adequate provisions to address environmental and social (E&S) risks prior to the financing of the projects is one of the major gaps that exist within the current project loan appraisal process (aka internal credit appraisal process) within the Indian banks and FIs.

A three-year long analysis done by Centre of Science and Environment (CSE) through various meetings/consultations with banks officials and from the review of other published documents, reports, articles, etc., available in the public domain, has revealed the lack of E&S assessment as a major gap in the existing credit risk appraisal process of the banks. Majority of the E&S issues arise as a result of improper checks; lack of importance given to the delays in obtaining project-related statutory and other approvals; inadequate project planning; poor assessment especially of environmental and social risks; concealing critical issues; and land-related conflicts originating from inadequate compensation, poor Resettlement and Rehabilitation (R&R) benefits and ownership rights settlement.

# Credit appraisal process

There is not much information available about the general format of credit appraisal process that has been specified by the Reserve Bank of India (RBI) for scheduled commercial banks (SCBs) in India. However, the process for credit appraisal is broadly similar for all SCBs.

In the most basic scenario, for a loan, a bank officer considers the following 5 Cs of credit at the preliminary stage before proceeding to the process of credit approval.

**BOX 1 – 5 CS OF CREDIT ASSESSMENT**

1. **Character** – An investigation into the character of the borrower during the screening process
2. **Capacity** – Assess the management capability (by assessing factors like qualification, experience in the sector, leadership qualities, etc.) that is indicative of the capacity of the business/borrower, to ensure that the investment is safe and sound.
3. **Capital** – Assesses the vested stake of the prospective borrowers in the business, the amount of capital that borrower has in the form of assets (liquid, fixed, etc.), represents his/her repaying capacity.
4. **Collateral** – The quality of security accepted as collateral against a prospective loan that is evaluated in terms of title, marketability and its present and future value.
5. **Condition** – Evaluating the position of the prospective borrower's business in terms of the business cycle before considering the proposal.

Source: https://www.pwc.in/assets/pdfs/publications/2018/demystifying-credit-assessment-in-banks-an-indian-perspective.pdf (viewed on 25 September 2018)

All banks and financial institutions (FIs) that are engaged in the lending process have their own panel of officials for assessing the credit worthiness of the borrower. Even though the 5 Cs[179] mentioned are kept in mind and followed, there are significant gaps that exist.

And once the 5 Cs of credit assessment checks out, the officer moves on to the next step, that is the credit appraisal process[180].

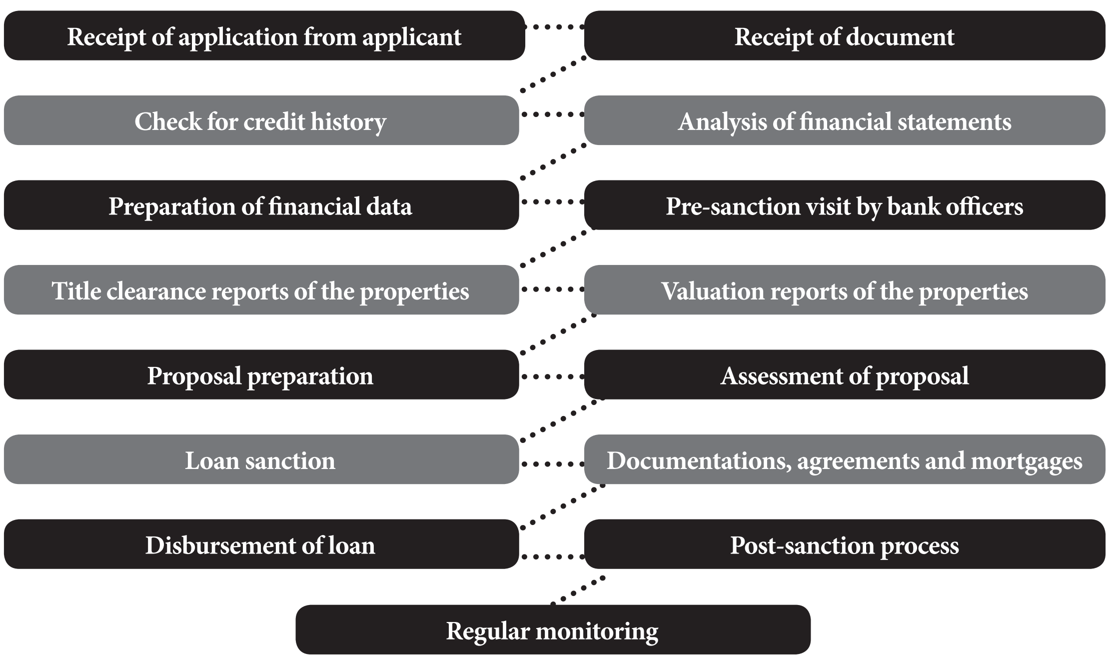


**Figure 9.1: General process to credit appraisal process**[181]

Simply stated, credit appraisal is a process that is used as a tool to assess the overall feasibility of the proposed project. Each stage within this process further corresponds to more detailed and specific appraisals.

a) **Receipt of application from the applicant** is the first step where the borrower submits an application, which has comprehensive details about the project as well as the borrower[182].

b) **Receipt of documents** is the part where specific documents are required to validate the borrower and the authenticity of his/her business(es).

c) **Check for credit history** which is necessary for the bank managers to conduct credit investigation of the prospective borrower.

d) **Analysis of financial statements** which is required to identify the financial strength and weakness of a business establishment including the assessment of the working capital of the borrower.

e) **Preparation of financial data** that includes aspects like market demand projections, production capacity, sales cost of production and profit covering the period of repayment, breakeven point in terms of sales value, rates of return, security margin, cash flow and fund flow statements which are some of the financial data that needs to be prepared by the credit managers and submitted to the bank officials[183].

f) **Pre-sanction visit by bank officers** that involves a site visit to the prospective borrower's properties – either business/firm premises and/or factory premises as well as residential premises.

g) **Title clearance reports of the properties** which includes legal reports by an approved advocate on the properties, which are to be obtained as collateral, cleared as per the banks approved format indicating a clear, absolute and marketable title.

h) **Valuation reports of the properties** include valuation reports, by approved valuers / engineers, on the properties charged to the bank.

i) **Proposal preparation** which usually includes a report that specifies the Technical, Financial and Market feasibility as well as a sensitivity analysis of the project in order to prove its viability.

j) **Assessment of Proposal** by the designated authority in the bank (like the Credit Risk Management Group, Appraisal Team, etc.) who studies the proposal to analyse the feasibility of the proposed project and assign a credit rating to the borrower and the project using internal risk matrices/models.

Prior to the assignment of a credit rating of the prospective borrower, a detailed assessment of the feasibility of the proposed project is undertaken, which aims to capture the various risk parameters associated with project lending such as managerial competence, technical feasibility, commercial viability and financial viability, etc[184].

k) **Loan Sanction** happens once all queries relating to the project/proposal are resolved and the viability is verified, at which point the designated authority communicates the loan approval along with relevant Terms & Conditions to the borrower.

l) **Documentation, agreement and mortgage** formalities are undertaken once the borrower acknowledges the Sanction Terms & Conditions; an application to comply with them is signed after which the bank and borrower execute a loan agreement.

m) **Disbursement of loan** is done as per the terms agreed upon, and the sanctioned amount is disbursed from the designated branch office either in full or in tranches to pay for approved costs as the project progresses.

n) **Post-sanction process** involves follow up, supervision and monitoring to ensure proper credit management to ensure compliance to terms and conditions, to undertaken supervision of the working of the project[185].

o) **Regular monitoring** is undertaken at regular intervals to keep a check over the activities of the borrower.

At present, the credit appraisal process gives more importance to checking the overall viability of the proposed project in terms of commercial, financial & technical viability, including its funding pattern. For other aspects of the appraisal process, including the environmental and social (E&S) risks, banks follow a simple checklist based approach that is merely a "Yes" or "No" questionnaire for all the listed environmental and social clearances mandated by the banks to sanction the desired loan. This approach lacks thorough background checks on the E&S issues, thereby, clearly pointing towards lack of specific provisions for a thorough E&S due diligence within Indian banks.

Among other major gaps in the current credit appraisal process, adequate E&S risk still remains one of the major gaps. Even though, in many cases, the importance of the E&S component as part of the credit appraisal cycle is known to the credit officers within banks and FIs, they usually choose to avoid it due to many reasons, including lack of expertise among the credit officers, addition to the total cost of the credit appraisal and therefore the subsequent cost of running the bank or the FI, etc.

## E&S risk assessment and credit appraisal process

The main challenges lie in pushing the banking regulators to mandate a comprehensive E&S risk assessment during project financing for the entire financial sector, and to make banks and FIs adopt E&S risk assessment as part of their existing credit appraisal process in order to correctly examine and thoroughly evaluate the proposed projects. Due to lack of E&S risk assessment, many banks and FIs have faced financial losses owing to project delays and cancellations resulting from one of more reasons like land conflicts, improper environmental assessment, inadequate compensation, poor R&R, etc. An audit report of Comptroller and Auditor General (CAG) of India which has pointed out several irregularities relating to allotment of land by the Government of Andhra Pradesh during 2006-11, also validates the aspect of lack of E&S consideration during project financing. In this case, the CAG report revealed that the Government of Andhra Pradesh alienated/allotted 88,492 acres of land to 1,027 beneficiaries, and many of these have resulted in land conflict issues[186].

**Table 9.2** lists some of the widely known projects that have been delayed due to E&S issues.

**Table 9.2: Projects affected due to environmental & social conflicts**

| S. NO. | PROJECT | TOTAL PROJECT COST (Rs. CRORE) | EC GRANTED & DATE | DELAY | CURRENT STATUS |
|---|---|---|---|---|---|
| 1. | Gare Palma Sub Block IV/6 Coal Mining Project, Raipur, Chhattisgarh | 479 | Yes (18 May 2009) | 6 | Suspended |
| 2. | East Coast Energy Thermal Power Plant, Kakarapalli, Andhra Pradesh | Rs. 6571 cr, (which increased to Rs. 9443 cr) | Yes (9 April 2009) | 8 | Stopped[187] |
| 3. | Nagarjuna Thermal Power Plant, Sompeta, Andhra Pradesh | Rs. 12,000 cr | Yes (9 December 2009) | 8 | Scrapped |
| 4. | Nirma Cement Plant, Gujarat | Rs. 894 cr | Yes (11 December, 2008) | 7 | Under construction |

| S. NO. | PROJECT | TOTAL PROJECT COST (Rs. CRORE) | EC GRANTED & DATE | DELAY | CURRENT STATUS |
|---|---|---|---|---|---|
| 5. | Coastal Andhra Power Limited Ultra Mega Power Project, Andhra Pradesh | Rs. 17,400 cr | Yes (23 October 2007) | 11 | Stopped |
| 6. | Athena Damwe Hydroelectric Power Project, Arunachal Pradesh | Rs. 13,145 cr | Yes (12 February 2010) | 5 | Stopped[188] |
| 7. | Lavasa Hill City Project, Maharashtra | Rs. 30,000 cr[189] | Yes (09 November 2011) | 6 (Phase I) | Operational but on the verge of facing insolvency[190] |
| 8. | Dhamra Port Project, Bhadrak, Odisha | Rs. 3,200 cr | Yes (01 April 2000) | 8 (Phase I) | Currently operational |
| 9. | Vedanta Bauxite Mining Project, Odisha | Rs. 4,000 cr | Yes (22 September 2004) | 10 | Scrapped |
| 10. | Kalinganagar Steel Project, Odisha | Rs. 10,000 cr | Yes (07 November 2006) | 8 | Currently operational |
| 11. | Bhaironghati Hydro Power Project, Uttarakhand | Rs. 296.82 cr | No | 2 | Scrapped |
| 12. | Jindal's Tamnar Thermal Power Plant, Chhattisgarh | Rs. 13,410 cr[191] | Yes (18 March 2011) | 6 | Currently operational |
| 13. | Loharinag Pala Hydro Project, Uttarakhand | Rs. 2,895.1 cr[192] | Yes (8 February 2005) | NA | Scrapped in 2010 |
| 14. | Posco Steel Plant, Odisha | Rs. 52, 810 cr | Yes (7 January 2014) | 7 | Scrapped |

Source - https://www.downtoearth.org.in/news/banking-ordinance-a-bold-step-but-silent-on-considering-environmental-and-social-risk-management-to-reduce-57873 (Viewed on 25 September 2018)

Looking at the various RBI Financial Stability Reports from 2016 to the latest one published in June 2018, it has been seen that sectors like infrastructure, mining, iron and steel, power, textile, and telecommunication have the maximum contribution towards the NPAs. And since most of the loans given in these sectors are by PSBs, they account for most number of the NPAs[193].

Although there is no absolute figure of NPAs resulting due to E&S issues, many such NPAs can be attributed to the rising number of developmental projects facing closure or halt by the National Green Tribunal (NGT) and/or other government authorities, due to regulatory non-compliance and/or other conflicts. In an interim report by Rights and Resources Initiative (RRI) in 2016, which analyzed 289 land-related conflicts in 185 districts across the country, it was observed that these conflicts affected 32 lakh people, encompassing about 12 lakhs hectare (ha) of land and stalled roughly ~12 lakh crores. According to another analysis in the same report, 378 projects were stalled due to land acquisition issues and 345 projects were stalled due to clearances issues[194].

Therefore, there is an urgent need to incporate E&S risk assessment within the existing credit appraisal process of the banks. It can be a vital tool for banks and FIs as it can be incorporated within their existing current credit appraisal process without any change in any of their internal processes.

E&S risk assessment also has a potential to provide numerous benefits to the banks and FIs. It can help them to understand E&S risks management and use it as a tool for safeguarding the public money that they are responsible for and also for maximise their profit by minimising the rate defaults. Banks and FIs may incur additional cost in carrying out E&S risk assessment but that cost is paltry in comparision to the cost of the project and the benefits it would provide.

Further, it would provide banks and FIs an opportunity to develop internal expertise and skills to identify E&S risks, which would help them run their business operations, both effectively and efficiently. It will also allow the banks and FIs to practice sustainable and responsible banking, and address issues related to NPAs. On a global scale, these good practices will allow Indian banks and FIs to solidify their position in the global market—allowing them to penetrate the market in the West.

## Way forward

Even though there is no guarantee that the borrower will not default, a strict credit appraisal process implemented from creditor's side will help reduce the probability of default on the repayment to the bare minimum. It is also important for the banks and FIs to keep in mind that getting an Environmental Clearance (EC) from the MoEFCC does not guarantee adequate addressal of E&S risks for a given project as can be seen from the list of projects mentioned in Table 9.2. Therefore, it is imperative for lenders to safeguard their money and interests by carrying out detailed investigations of projects as well as the project proponents. To achieve this, the Indian banking sector and the banking regulators should work together and with other relevant stakeholders.

**Banks and Financial Institutions**[195]

Banks and FIs can pursue the following to ensure that they reduce their bad loans in the future:

1. Mandate E&S risk management as part of their internal financial due diligence process. This can be done by developing internal policies on how to carry out E&S assessments, and reducing the dependence on the government and thoroughly verifying the information that is prepared and submitted by the borrower appointed environmental impact assessment (EIA) consultants **(Box 2)**.

**BOX 2 – GUIDELINES FOR ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT**

Many attempts have been made and many are still being made towards incorporating E&S risk management within the Indian financial sector. However, nothing has been done on a scale that would include all the banks and FIs in order to develop a document that is comprehensive and uniform across the sector.

However, Centre for Science and Environment will, very shortly, be coming out with a guideline document which would be helpful for the Indian financial sector in addressing and managing the environmental and social issues with regards to project financing.

2. Promote sustainability in the financial sector by participating in various initiatives like Equator Principles (EP), United Nation Environment Programme Finance Initiatives (UNEPFI) and United Nation Global Compact (UNGC) as some of the banks like IDFC and Yes Bank have done.

3. Banks and FIs should disclose their investment details in the public domain. This will ensure transparency and accountability for corporate as well as project-specific loans.
4. Participate in financial as well as non-financial reporting, by adopting any process that is convenient for them. Voluntary frameworks like the Basel Accords (Basel III Pillar 3) can be useful for financial reporting. They also ensure timely classification of NPAs, which is important because if large portions of NPAs are unreported, banks can face a technical bankruptcy. For non-financial reporting, frameworks like UNGC, Global Reporting Initiative (GRI) and National Voluntary Guidelines (NVG) can be used.
5. They should also ensure capacity building of their staff, which would help them understand E&S issues and how these can be addressed.

**Banking Regulators[196]**

As Indian banks are focused on fixing their balance sheets, the government is also taking various measures to address the distressed industrial sectors. However, RBI and Ministry of Finance will have a pivotal role to play in the coming years. In 2007, RBI released a circular, titled, Corporate Social Responsibility, Sustainable Development and Non-Financial Reporting–Role of Banks, which indicated that Indian banking regulators were headed in the right direction. However, it was only an advisory document, aimed at raising awareness and to get banks to focus on Corporate Social Responsibility (CSR), Sustainable Development and Non-Financial Reporting. Thus, banks and FIs have not done much to follow these guidelines. Unlike CSR, which is mandated under section 135 of the Companies Act, 2013, E&S risk assessment and management is not a regulatory requirement, giving it minimum importance in banks and FIs' existing loan appraisal process. Therefore, the following steps can be taken by regulators to streamline E&S management within banks.

1. For addressing bad loans, they must adopt more preventive measures and strategies rather than focusing on the mitigation of bad loans.
2. The banking regulators should mandate E&S risk management uniformly within financial due diligence practices for all banks and FIs (public, private and foreign). Currently, EIA is not required for railway, transmission and wind energy projects, unless multilateral banks finance them. Therefore, mandating a uniform E&S risk management system across all banks will help to ensure no project proponents are granted any special favours when getting their loans sanctioned, enhancing the global competency of the Indian banking sector and minimising the bad loans cases.
3. Many countries such as Bangladesh, China, Brazil and Kenya have enacted banking regulations to address E&S risks. Regulatory frameworks of some countries also encompass regulating and monitoring the components of transparency and accountability within the banking sector through proper disclosure. This should include full disclosure for transparency, stakeholder engagement and a mechanism for grievance redressal. Regulators must also push to adapt a similar practice within their existing framework by developing standard guidelines and mandate them for all banks and FIs. This will help ensuring the up-scaling of Indian financial sector's contribution towards the Sustainable Development Goals (SDGs).
4. Push banks and FIs to undertake capacity building work for their officials in the credit appraisal team so as to develop internal expertise in environmental and social issues as well as sector specific knowledge and understanding.

175. Centre for science and environment

176. A non-performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.(https://economictimes.indiatimes.com/definition/non-performing-assets) (viewed on 25 September 2018)

177. http://www.rediff.com/business/report/rajan-asked-to-explain-real-causes-of-bad-loan-menace/20160501.htm (viewed on 25 September 2018)

178. https://www.downtoearth.org.in/news/banking-ordinance-a-bold-step-but-silent-on-considering-environmental-and-social-risk-management-to-reduce-57873 (viewed on 25 September 2018)

179. A detailed matrix on 5Cs has been formulated in Annexure for the reference.

180. http://www.pbr.co.in/May2015/13.pdf (viewed on 25 September 2018)

181. https://www.slideshare.net/BabasabPatil/credit-appraisal-in-banking-sbi (viewed on 25 September 2018)

182. https://www.icicibank.com/managed-assets/docs/business/Application-Form.pdf (viewed on 25 September 2018)

183. http://www.academia.edu/248355/Financial_appraisal_of_project_at_SBI_PROJECT_REPORT_MBA_FINANCE (viewed on 25 September 2018)

184. https://www.scribd.com/document/172674089/Credit-Risk-Management-Hdfc-Project-Report-Mba-Finance (viewed on 25 September 2018)

185. https://www.slideshare.net/tailormayank/credit-appraisal-at-central-bank-of-india (viewed on 25 September 2018)

186. https://cag.gov.in/content/report-2012-performace-audit-civil-land-government-andhra-pradesh (viewed on 25 September 2018)

187. http://www.thehansindia.com/posts/index/Andhra-Pradesh/2017-08-15/Kakarapalli-power-plant-fizzles-out/319172 (viewed on 25 September 2018)

188. https://www.downtoearth.org.in/news/demwe-hydroelectric-project-put-on-hold-34399 (viewed on 25 September 2018)

189. Environmental and Social Risks in Project Financing: Evidence from India, IFMR, Centre for Development Finance

190. https://www.moneycontrol.com/news/business/lavasa-corporation-to-face-insolvency-2901131.html (viewed on 25 September 2018)

191. Environmental and Social Risks in Project Financing: Evidence from India, IFMR, Centre for Development Finance

192. Environmental and Social Risks in Project Financing: Evidence from India, IFMR, Centre for Development Finance

193. http://www.iasscore.in/special-details-34.html (viewed on 25 September 2018)

194. The rise of bad loans – State of India's Environment Report, 2006, Centre for Science and Environment

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