

# Status of Green Finance in India: Blocks to Green Investments

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**Abstract**—This article throws a light on the status of green finance in India along with blocks to green investments. Since various initiatives have taken from the leading banks to give a boost to green financing in India but still there are a lot more to keep the promise of green building programs because co-operations across the government at various level are very important.

Indian government should support its cities by increasing the funding which suits energy savings Although various steps are being taken by government in the recent years including solar parks, green cities, green campuses but still there is a long way to go to nourish this going green campaign. This study also includes the most common obstacle to the growth of “green city” which is the lack of funding for environmentally friendly infrastructure. Green Financing and green investment ( there are different types of green investment which is nothing but the contributions of investors to achieve green growth. ) are the two building blocks of going green Campaign and for the transition to this green growth pathway, Dramatic upgrades in technology, skills, policies and business models, along with an aligned public consciousness are needed.

**Keywords:** Green Finance, Green City, Green Investment, Green Building Programs, Eco friendly, and Energy Saving etc.

## 1. INTRODUCTION

It is a tough task to define the Green Finance Completely because there are no specific parameters defined internationally to bring to a definite meaning. Green finance is a market based investing or lending program that factors environmental impact into risk assessment or in other words green finance encompasses a broad spectrum of sources for environmental oriented technologies, projects, industries or business as well as financial products or services like green bonds, insurance, loans etc.

Green finance is future oriented which pursues economic growth, financial industries development and environmental protection. Particularly green finance can be divided in two parts:

1. The finance to minimize environmental costs.
2. The finance to support green growth.

In India green growth is an adopted agenda where the concern has been increased on environmental degradation caused by industrialization. There has been realization of the need to take corrective measures to protect environment, the focus has shifted to adopt appropriate production processes to minimize energy conservation and hence Reduce (Waste), Reuse and Recycle have emerged as thrust areas of various activities. But there is still lack of information about availability of alternative clean technologies and advantages of investing in such technologies. In India, SIDBI has taken several initiatives to promote lending for green and energy efficient technology in MSME (Micro, Small and Medium Enterprise) sector such as:

- Focused lending schemes for promoting investment in clean production and energy efficient technologies.
- Promoting investments in production process under bilateral lines of credit from Germany and Japan.

Financial Institution have started going green by offering green products and services to appeal to more environmentally friendly consumers such as: Green Car loans, Energy efficient mortgages, Eco-savings deposits and green credit card.

Along with the green financing, green investment is another instrument to achieve green growth. Green Investment activities focus on companies or projects that are committed to the conservation of natural resources, the production/discovery of alternative energy sources, implementation of clean air and green finance projects and other environmentally conscious business practices.

## 2. OBJECTIVES OF THE STUDY

Objective of this study is to assess the programs and initiatives taken by the Indian government and other financial institution to encourage the going green campaigns and to report that in India there is a long way to go to achieve the objective of green growth. Here we also access the barriers to renewable energy investments in India.

1. Tracking of companies' performance in the environmental set and social governance which participates to be the best.
2. The conceptual work of economic performance of companies within a specific sector. This is said to be as thematic indices.
3. The conventional indices that give companies weights according to the climatic condition

### 3. RESEARCH METHODOLOGY

This research study will use the primary data and secondary data collected from various available research works conducted on green finance and its ramifications and try to establish some correlation between them.

### 4. DATA ANALYSIS AND INTERPRETATION

**Financial Development System:** The green finance has increased from 8.3 million dollars to 18 million dollars during 2012-2013 and 2013-2014 (Table 1). Well green finance in 1999-00 accounted for nearly 59 percent of the total Finance area as compared to only 29 percent in 2012-2013. Private finance and public finance collection the major share (58.7 per cent) followed by foreign Banks (31.5 per cent). During the period from 2012-2013, the funds had been decreased from 3.6 million dollars to 2.7 million dollars.

**Table 1: Private finance and public finance support in Percentage share of different session**

Funds Generate	2012-2013 Funds(In Millions )	percentage	2013-20134 Funds (In Millions )	PERCENTAGE
Private Finance	88.3	28	80.10	31.5
Public Finance	57	31	66.89	58.7
Foreign Contribution	33.88	20	42.7	4.7
Other sources	89	15	22.9	5.1
Total	268.18	100	212.59	100

Source: Central Statistical Organization (CSO), Statistical Abstract, India, 2012-13 and 2013-14

During the fifty years since independence, the Government had spent about Rs.2, 31,400 crores (at 1996-97 prices) on major, medium and minor financial sectors. Table 2 shows that though the plan outlay for green finance sector has increased over the years, the percentage distribution of fund allotted for the green finance and flood control shows a decreasing trend except during the Sixth plan and annual plan 1979-80. No wonder during the VIth plan period (1980-85), the growth rate in agriculture of 5.7% exceeded the growth rate in GDP of 5.5% for the first time.

**Table 2: Contributions for finance Sector in Five Year Plans**

Period	Amount (Rs. Crore)	Percentage Distribution
III Plan (1961-66)	64.7	7.8
Annual plans(1966-69)	71	7.1
IV plan(1969-74)	54.1	8.6
V plan(1974-79)	36.5	9.8
Annual plans(1979-80)	27.9	10.6
VI Plan(1980-85)	89	12.5
VII plan(1985-90)	19.9	7.6
Annual plan(1990-91)	74.1	6.8
Annual plan(1991-92)	41.9	6.5
VIII Plan(1992-97)	25.3	7.5
IX Plan (1997-02)	40	6.5
X Plan (2002-07)		6.8

Source: The Economic Survey 2007-12

All the five year plans have given considerable importance to the creation of additional green finance potential. In 1947, High priority has been given to green finance with nearly 10 percent of all planned outlays since 1950 being invested in green finance and agriculture sectors. This has resulted in about 0.6 million has of new finance schemes being developed every year. About Rs 7500 crores are invested every year in green finance programmes in India.

**Table 3: Funds Requirements for various purposes of development of Green finance in India. (In billion dollars)**

Purpose	Demand in 2000	Demand in 2010	Demand in 2025
Domestic products	42	56	73
Green Products	541	688	910
Energy products	8	12	23
Food Products	2	5	15
Others	41	52	72
Total	634	813	1093

Source: Report of 10<sup>th</sup> Five Year Plan (2007-12)

The green finance areas estimation of the entire country has been done as on March 2004. In most of the states, the unit for assessment of green finance has been the administrative units of except for the states of Andhra Pradesh, Karnataka and Maharashtra where green finance has been taken as unit. The assessment unit has been divided into commands and non-command areas depending upon the availability of data pertaining to computation of The hilly areas have been excluded from the computations. The green finance in the poor quality areas have been computed separately.

**5. PROBLEMS OF GREEN FINANCE TO GENERATE FUNDS**

In India the problem of green finance has been assessed from time to time. The State-wise figures of excess salt concentration worked out by the Working Group of finance Ministry of green finance resources are given in Table 5.

**Table 5: State-wise Financial Support in India**

State	Amount (In corers)	Alkali	Total
Andhra Pradesh	150.00	22.80	27.80
Assam	-	-	-
Bihar	224.30	-	224.30
Gujarat	911.00	-	911.00
Haryana	125.20	72.00	197.20
Himachal Pradesh	-	-	-
Jammu & Kashmir	-	-	-
Karnataka	134.23	17.12	51.35
Kerala	-	-	-
Madhya Pradesh	-	35.79	35.79
Maharashtra	165.35	-	5.35
Orissa	-	-	-
Punjab	490.00	-	490.00
Rajasthan	170.00	-	70.00
Tamil Nadu	148.00	92.30	140.30
Uttar Pradesh	1150.80	-	1150.80
Total			
(a) in Thousand ha	3063.88	240.01	3303.89
(b) in million ha	3.06	0.24	3.30

In spite of the growing realisation of the urgent need for farmers' participation in the management of green finance, the progress has been slow so far. It is estimated that today only 8, 04,000 corers are being managed by green finance development (Table 6).

**Table 6: Green Finance Associate Companies**

States	No of Companies	Amount (In corers)
Andhra Pradesh	10292	480.0
Assam	509	24.09
Bihar	32	110.50
Chattishgarh	945	119.0
Gujarat	576	96.68
Karnataka	2318	158.27
Kerala	4079	149.09
Madhya Pradesh	10282	152.0
Maharashtra	1329	49.0
Orissa	13434	104.0
Rajasthan	506	61.65
Punjab	957	16.95
Tamil Nadu	1566	59.40
Uttar Pradesh	279	10.55
West Bengal	10000*	37.0*

\* All finance companies and schemes;  
Source: IMF Report 2012-13

**6. GREEN PRODUCTS/SERVICES:**

- 1) 'Green' Savings Products: - Loans for conversion of vehicles to cleaner fuels.
- 2) Energy efficient mortgages:- Offer Larger mortgages to individuals who have low energy costs.
- 3) Alternative Fuel Conversion Loans:- for conversion of vehicles to cleaner fuels.
- 4) Environmental Technology Leasing:-Provide business leases for green technology.
- 5) Home Office Conversion Loans:-Loans for seeking to start home working Community.
- 6) Housing Loans:- Loans for Communal housing/facilities.
- 7) Environmentally Sound Construction:-Provide lending at favorable terms for such activities.
- 8) Energy Efficiency Loans: - Loans for energy efficient improvements.
- 9) Private Transport Finance Packages:- Loans for combined transport services, equivalent to but cheaper than a private car.
- 10) 'Green' Investment Products: - Saving products where the money is invested in 'Green' projects.
- 11) 'Green' Children Accounts: - 'Green' saving Accounts for children.

**7. ACCESS TO GREEN FINANCE BY SMES'**

SIDBI has been operating focused lending schemes for promoting investments in clean production and energy efficient technologies such as:

- A) Finance for energy efficiency :
- B) Green Financing: SIDBI has so far provided assistance under the JICA (Japan International Corporation Agency) scheme to more than 2000 MSMEs with aggregate assistance of more than Rs. 800 crore for cleaner production and energy saving investments.

Here is a list of some other major initiatives of SIDBI for achieving energy efficiency which has benefited a large number of MSMEs is as under;

- a) Electronic Waste Recycling Facility in Bangalore
- b) Common Effluent Treatment Plant (CETP)
- c) Mumbai Taxi Financing Scheme
- d) Auto Rickshaw Financing
- e) Solar Lanterns
- f) Information Dissemination (So far 18 awareness campaigns have been organized in MSME clusters.)
- g) Knowledge series publications on energy efficiency.

## 8. INITIATIVES TAKEN BY INDIAN GOVERNMENT

- **Green initiative** : Ministry of Corporate Affairs, Government of India has taken a 'Green Initiative in Corporate Governance' vide circulars Ref. nos. 17/2011 and 18/2011 dated April 21, 2011 and April 29, 2011 respectively allowing serving of documents by a company to its members in electronic mode through e-mails. Further, in line with recent circular (vide circular ref. no. CIR/CFD/DIL/7/2011 dated October 5, 2011) issued by the Securities and Exchange Board of India (SEBI) and consequent changes in Clause 32 of the Equity Listing Agreement, Companies can send full Annual Reports in electronic mode to its Members who have registered their e-mail addresses for the purpose.
- **JNNSM**: The Jawaharlal Nehru National Solar Mission was launched on the 11th January, 2010 by our former Prime Minister, Dr. Manmohan Singh. The Mission has set the ambitious target of deploying 20,000 MW of grid connected solar power by 2022.
- **Implementation of Solar Parks**: Govt. has taken the initiative of implementation of a Scheme for setting up at least 25 solar parks each with a capacity of 500 MW and above with a target of over 20,000 MW of solar power installed capacity in a span of 5 years from 2014-15 to 2018-19; with an estimated Central Financial Assistance (CFA) of Rs.4050.00 crore (Rs. four thousand and fifty crore only).
- **Green campus**: So far sanctions has been given for 13 campuses namely Silver Jubilee Campus of Pondicherry University; Auroville Campus (Puducherry); Dayalbagh Nagar Panchayat; School of Planning & Architecture (New Delhi); Malkapur Nagar Panchayat; KIIT University; Tezpur University; Indian Institute of Engineering, Science & Technology (BESU); Jadhavpur University; Writers Building (Kolkata); Madan Mohan Malaviya University of Technology (Gorakhpur); Orissa University of Agriculture and Technology (Bhubaneswar) and National Institute of Technology (Hamirpur) to be developed as Green Campus.
- **Solar/Green cities**: The Ministry has launched a Scheme on "Development of Solar Cities": under which a total of 60 cities/towns are proposed to be supported for development as "Solar/ Green Cities".
  - 1. Model Solar Cities**. Eight Cities are to be developed as 'Model Solar Cities'. So far, Nagpur, Chandigarh, Gandhinagar and Mysore have been identified/sanctioned.
  - 2. Pilot Solar Cities**: Fifteen Cities to be developed as 'Pilot Solar Cities'. So far Agartala, Rajkot, Shimla, Faridabad, Thane, Raipur, Shirdi, Leh, Aizawl, Puducherry, Vijaywada and Amritsar are being developed as Pilot Solar City.

## 9. FINANCIAL STATUS NOTE ON SOLAR CITIES (AS ON 15.01.2015)

- The sanctions have been issued for 48 Cities at a total cost of Rs. 2272.32 lakh /-for Master Plans, Solar City Cells and Promotional Activities of which Rs. 496.68 lakh has been released.
- An amount of Rs. 4033.37 lakh has been sanctioned for installation of renewable energy projects in 12 Solar Cities of which Rs. 1592.72 lakh has been released.
- An amount of Rs. 65.00 lakh have been sanctioned and an amount of Rs. 8.1 lakh have been released for Green Campuses.

## 10. FINDING AND SUGGESTIONS

As far as blocks to green investments are concerns there are there physical barriers such as limited access to grid connections which can limit the march of green finance along with financial, behavioral and informational hurdles.

Hence for the transition to a green growth pathway, dramatic upgrades in technology, skills, policies and more viable business projects, along with an aligned public consciousness are needed.

## 11. CONCLUSION

A Successful Green Finance development area: India India's Green Finance supply is not able to keep pace with the high economic growth rates in the country.

In order to minimize import dependency in the conventional Green Finance sectors, the Indian Government is increasingly focusing on strategies for enhancing Green Finance funds and utilizing financial sources. The main emphasis here is on MSMEs, because of their great importance for the Indian economy and in light of their huge potential for pooling funds for strengthening the going green pathway..

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