

# GREEN ENERGY IN THE AREA OF BANKING IT INDUSTRY

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## Abstract:

One aspect of globalization that we are greatly missing as we progress through the twenty-first century is the loss of greenery. Businesses and corporations have begun to alter their operations in an effort to increase greenery to the greatest extent possible as people in this society become increasingly concerned about the environment. Green banking in the banking industry entails a combination of operational improvements, technology, and a shift in client behaviour. It entails encouraging people to behave in an environmentally friendly manner. Switching to online banking instead of branch banking, paying bills online instead of by mail, opening CDs and money market accounts at online banks rather than large multi-branch banks, or locating the local bank in your area that is taking the most steps to support local businesses are all examples of this. initiatives that are environmentally friendly In order to make our environment more humane and boost our economic productivity, the concept and scope of green banking have gotten a lot of attention in India. This study also looks at recent developments in the field of sustainable development made by Indian banks, as well as the challenges that banks face in putting them into practise. According to the findings, in order to make our environment more humane and sustainable, there is a critical need to raise

awareness of green banking, implement it, and follow it as much as possible in today's business world of innovative technologies.

**Keywords:** Green Energy, many sorts of sources, benefits, and applications, sustainable Development, CDs, Green Mortgages, and Green Loans are all terms used to describe green banking.

## INTRODUCTION:-

### GREEN BANKING

Green banking is similar to traditional banking in that it considers all social and environmental factors; it is also known as ethical banking. The goal of ethical banks has always been to protect the environment. These banks function similarly to traditional banks in that they aim to protect the environment and are governed by the same authorities. Green Banks give more weight to environmental factors than traditional banks; their goal is to provide good environmental and social business practises; they check all factors before lending a loan, including whether the project is environmentally friendly and has any future implications; and you will be awarded a loan only if you follow all environmental safety standards. Green banking is a simple concept to define. Green banking entails promoting environmentally friendly practises

and lowering your banking-related carbon footprint. This can take many forms.

1. Rather than going to a branch, use online banking.
2. Paying bills online rather than by mail.
3. Using online banks instead of large multi-branch banks to open accounts.
4. Identifying the local bank in your area that is leading the charge in supporting local green initiatives

## GREEN ENERGY

Energy from renewable sources is any form of energy derived from solar, geophysical, or biological sources that is renewed at a rate that is equal to or greater than its rate of use by natural processes. RE is derived from the natural environment's continuous or recurring flows of energy, which include biomass, solar energy, geothermal heat, hydro-power, tide and waves, ocean thermal energy, and wind energy. However, it is possible to withdraw heat from a geothermal area faster than heat flows can replace it or burn biomass more quickly than it can grow. The rate at which direct solar energy is used, on the other hand, has no bearing on the rate at which it reaches the Earth. Fossil fuels (coal, oil, and natural gas) do not fit this definition because they are not replenished in a timely manner compared to their rate of use.

Renewable energy sources are frequently referred to as alternative energy sources because most industrialised countries do not rely on them as

their primary source of energy. Instead, they rely on nonrenewable energy sources like fossil fuels or nuclear power. Because of the energy crisis in the United States in the 1970s, dwindling fossil fuel supplies, and the dangers of

nuclear power, renewable energy sources such as solar, hydroelectric, wind, biomass, and geothermal have grown in popularity.

Renewable energy is derived from the sun (which has a "unlimited" supply) or other sources that can theoretically be replenished as quickly as they are depleted. These resources will be available for thousands of years or longer if they are used at a sustainable rate. Unfortunately, some potentially renewable energy sources, such as biomass and geothermal, are being depleted in some areas due to a rate of use that exceeds the rate of renewal. depicts the energy flow from source to service.

In the world, there are two types of energy sources: renewable energy sources and non-renewable energy sources.

Renewable energy sources are generated directly from nature, such as the sun, rain, wind, and tides, and they can be generated repeatedly whenever needed. Renewable energy sources are plentiful and unquestionably the cleanest energy sources available on the planet. Solar energy, biomass energy, wind energy, tidal energy, hydro energy, and geothermal energy are all examples of renewable energy sources. It is possible, for example, to use solar energy, which is then converted into electricity. Geothermal, wind, and tide energy, as well as biomass energy from plants, can all be used in various ways. Natural weather patterns on Earth are used to generate wind. Hydro-power is generated by rivers and dams.

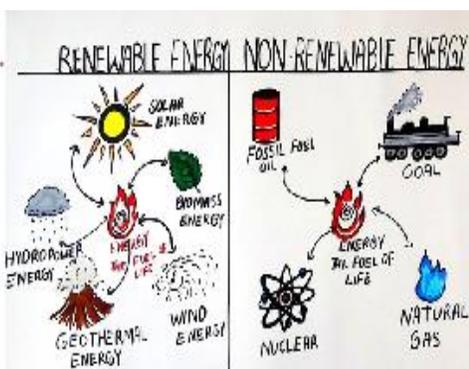
The Sun's light and radiation provide solar energy. Geothermal energy is derived from the heat released beneath the ground by the Earth. Wind, sun, ocean, and geothermal energy are all abundant and absolutely free of charge, which is one of the benefits of renewable energy. Renewable energy sources emit

extremely little or no carbon dioxide, making them environmentally beneficial. Another advantage is that, unlike non-renewable equivalents, it is not required to rely on any country to supply renewable energy sources.

Nonrenewable resources are unfriendly to the environment and can be harmful to our health. The majority of energy consumed in the world today comes from non-renewable energy sources. These sources of energy can be regenerated in a short amount of time. Natural gas and oil are generated from the remains or fossils of ancient plants and animals. After millions of years of pressure and temperature fluctuations, we've been left with these relics. Oil, coal, natural gas, and nuclear energy are examples of nonrenewable energy sources. Nonrenewable energy sources have the advantage of being readily available, inexpensive, and simple to utilise. Nonrenewable energy is used to change one sort of nonrenewable energy into another.

Nonrenewable energy sources have the major disadvantage of being finite and will run out at some point in the future. As a result, the cost of these non-renewable energy sources will skyrocket. They also have a significant impact on the environment and are a major contributor to climate change and global warming. Nonrenewable energy sources, which are not environmentally friendly, can have a negative influence on human health.

Fig.1: Diagram of Renewable and Non-Renewable Energy



As a result, we will explore many types of green energies, their benefits, and uses in this study.

### GREEN BANKING PRODUCTS

Giving loans to a project or business that is considered environmentally sustainable is referred to as "green loans."

**Green Mortgages:** A green mortgage is a type of loan that offers you a money-saving discount or a larger loan than usual as a reward for making energy-efficient improvements or purchasing a home that meets certain energy-efficiency standards.

**Green Credit Cards:** Credit cards are going green, whether it's through environmentally friendly rewards, biodegradable credit card materials, or promoting paperless banking.

**Green Savings Accounts:** In the case of Green Savings Accounts, banks make donations based on customer savings. The more money they save, the more money they give to the environment in the form of contributions or donations made by banks.

**Mobile banking and online banking:** These new age banking forms result in less paperwork, mail, and bank customer visits to branch offices, all of which is good for the environment.

### SCOPE OF GREEN BANKING IN INDIA

In terms of cutting costs, increasing productivity, improving profitability, controlling and managing Non-Performing Assets (NPAs), facing risks, performing Asset Liability Management, managing interest rate changes, handling foreign exchange rate fluctuations, complying with regulator requirements, and finally improving customer service to their highest satisfaction, banks have made significant progress. To obtain green credit cards and green

mortgages, green banking avoids as much paper work as possible and relies on online/ electronic transactions for processing. Less paperwork means fewer trees will be cut down. It also entails raising awareness of environmental and social responsibility among banking executives, allowing them to engage in environmentally friendly business practises.

### ***Banks will benefit from the following:***

Green banking has a lot of advantages for banks. It helps to mitigate the following risks in the banking sector:

a)Credit Risk: Banks have incurred direct and indirect costs as a result of climate change and global warming. Extreme weather conditions have been observed as a result of global warming, affecting the economic assets financed by banks, resulting in a high incidence of credit default.

Credit risk can also arise inadvertently when banks refer businesses that are negatively impacted by changes in environmental regulations.

b) Legal risk: Banks, like other businesses, are subject to legal liability if they fail to follow applicable environmental regulations. In the event that they actually take possession of pollution-causing assets, they may face direct lender liability for cleanup costs or claims for damages.

Reputation Risk:Banks are more vulnerable to reputation risk as a result of rising environmental awareness, if their direct or indirect actions are viewed as socially and environmentally damaging. The financing of environmentally objectionable projects creates reputational risks.

### ***Benefits of Green Banking in India***

a) Avoids Paper Work:Electronic banking Almost all Indian banks are computerised or use a core banking system (CBS). As a result, there is plenty of room for banks to go paperless or use less paper for office correspondence, audits, and reporting, among other things. These banks can switch to electronic correspondence and reporting, reducing deforestation.

b)Creating Awareness to Business People about Environment: Many NGOs and environmentalists use awareness programmes, seminars, and other means to raise environmental awareness among the general public. Banks may associate themselves with such programmes by sponsoring them. Furthermore, many corporations are implementing similar programmes in their own fields, such as a car manufacturer's "free pollution check programme."Banks may form alliances with such businesses.

These will help to improve the bank's image.

c)Loans at Comparatively Lesser Rates:

Banks can also offer green bank loans with financial incentives for environmentally friendly products and projects such as fuel efficient vehicles, green building projects, housing and house furnishing loans, and solar energy system installation loans, among other things.

d) Environmental Standards for Lending: Banks follow environmental lending standards, which is a great idea that will encourage business owners to change their operations to be more environmentally friendly, which is good for future generations.

e) Creating Awareness to Business People about Environment:Raising Environmental Awareness among Business People; Many NGOs and

environmentalists are spreading environmental awareness among the general public by organising awareness programmes and seminars, among other things. Banks may associate themselves with such programmes by sponsoring them.

f)Loans at Comparatively Lesser Rates: Banks can also offer green bank loans that include financial incentives. Fuel-efficient vehicles, green building projects, housing and house furnishing loans to install solar energy systems, and other environmentally friendly products and projects are examples.

## USES OF GREEN ENERGY

Renewable energy can be used in a variety of ways in both residential and commercial settings.

The most common source of renewable energy is sunlight, also known as solar energy. Solar panels can be installed in both residential and commercial spaces where there is plenty of sunlight.

Wind turbines could be built in other places where there is a lot of wind to generate renewable energy. The energy obtained can be used to pump water or charge the sailboat's battery.

Another popular renewable energy source is biomass. It's used to generate electricity as well as a transportation fuel. Bio-energy is the term for the use of biomass as a renewable source of energy.

## TYPES OF GREEN ENERGIES

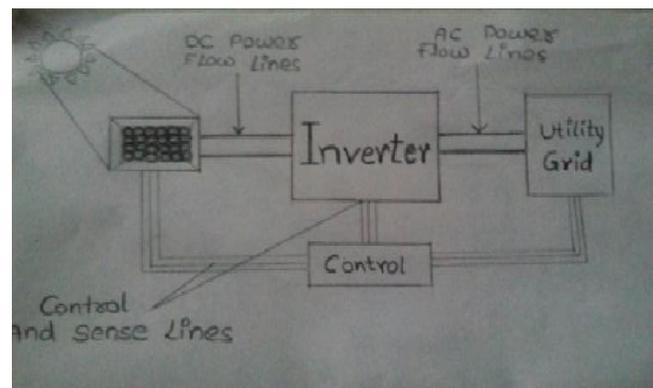
### 1. SOLAR ENERGY

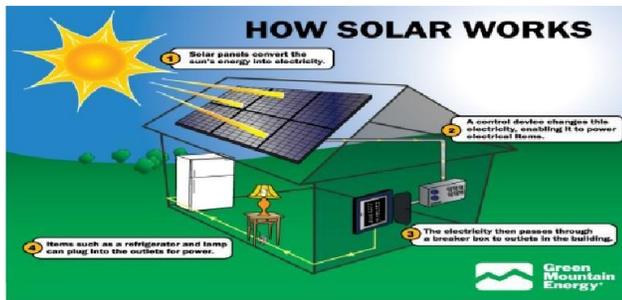
The sun is a massive source of solar energy that provides energy to all living things on the planet. It is a renewable and clean energy source that produces nearly 10,000 times more energy than the earth can produce in the twenty-first century.

We can use solar energy as green energy because it is the most suitable renewable energy source that provides us with energy directly and indirectly, such as hydro, wind, and so on, while also having the least impact on the environment because it does not contribute to carbon dioxide emissions and does not contribute to global warming in any way. It can be directly converted into useful energy using a variety of technologies that fall into two categories:

i)Solar Photovoltaic (PV): Photovoltaic cells convert solar energy directly into electricity. The solar cell was only successfully developed in 1975, so this technology is relatively new. Solar cells use the photoelectric effect to generate electricity from the sun's light. They are positioned in such a way that they capture as much sunlight as possible.

Photovoltaic modules are PV system components that are arranged in such a way that they can be used in specific applications. While the PV array accounts for the majority of the initial system capital cost, the "balance of the system" components have the greatest impact on the overall installation's reliability, efficiency, and safety. The sun is converted into direct current using photovoltaic modules (DC). Through an inverter, the direct current is converted to alternating current (AC) and adjusted to meet the power characteristics of the utility grid or the load.





Ii) Solar Thermal: The use of the sun's heat energy is referred to as solar thermal. For starters, solar radiation can be absorbed in solar "collectors" to provide low-temperature solar space or water heating. Solar radiation can be concentrated by parabolic mirrors in large-scale applications to produce high temperatures, which can then be used for direct heating or to generate electricity. For instance, using a traditional heat engine.

To produce high temperature output, solar thermal power plants concentrate solar radiation on a small area.

The steam produced by this heat is then allowed to fall onto a turbine-generator, which generates electricity.

## HYDRO ENERGY

Because the sun's energy powers the global hydrologic cycle, hydro energy is considered renewable. It is a form of energy derived from the water cycle, which is a continuous process of falling and fast-moving water that generates electricity.

Hydroelectric power is a well-established form of renewable energy that already provides a significant amount of electricity, accounting for roughly 19% of global electricity . The vast

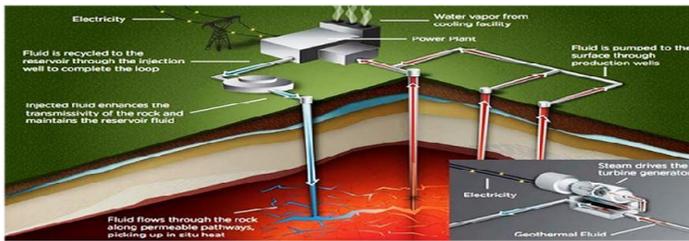
majority of hydroelectric power generated today comes from large-scale projects.

Furthermore, there is more room for small-scale hydroelectric projects to develop because:

1. Large-scale schemes can generate hundreds of megawatts and require the construction of large dams to provide sufficient head to the turbine.
2. Small-scale schemes have less capacity, require smaller dams, and have a lower environmental impact.
3. Micro scale schemes generate power in the kilowatt range and are used in small villages and private residences.

## GEO THERMAL ENERGY

Because 'geo' means 'earth' and 'thermal' means 'heat,' geothermal energy is defined as energy generated in the form of heat from the radioactive decay of materials within the earth. It is a renewable and long-term energy source. Larderello was the site of the first geothermal power plant. Magma, which is created by the radioactive decay of uranium and potassium beneath the earth's crust, emits a great deal of heat. Hot dry rock resources can provide about 4 million MW of capacity, according to the US National Renewable Energy Laboratory (NREL), which is more than all of the electricity used in the US today. When we compare geothermal in terms of size and consistency, it comes out on top. It has the potential to play a critical role in creating a cleaner, more sustainable power system.



## Wind Power

Wind energy is the energy produced by wind turbines using the flow of the wind. It is a renewable energy source that can be used as a substitute for fossil fuels.

Wind energy is a clean source of energy that does not pollute the environment or emit harmful gases such as greenhouse gases. As a result, it is regarded as one of the green energy sources. Wind is a type of solar energy that is caused by the sun's heating of the atmosphere, the earth's rotation, and the irregularities on its surface. Wind turbines are typically found on large farms. By December 2014, wind power capacity had increased to 369.553 MW, and total wind energy production had risen to a record high of 369.553 MW. around 4% of total electricity consumption . In general, all large wind turbines have the same structure, which consists of a horizontal axis wind turbine with a three-bladed upwind rotor. Each turbine in a wind farm is connected to a medium-voltage power collection system and a communication network. Between the turbine generator and the collector system, we now use a combination of variable speed generators and partial or full scale power converters in wind turbines. A wind turbine is a machine that converts wind kinetic energy into electrical energy.

## Vibration energy

Vibration energy:- can be harvested from a large crowd or heavy traffic on the road, as well as

vibrations from tall buildings, long bridges, vehicle systems, railroads, and ocean waves. The vibration energy can be converted into electric energy and stored, which can be used to power a variety of low-power electronic appliances, and large vibration energy harvesting systems can produce 1 W to 100 kW or more .

Vibration energy is the mechanical phenomenon that occurs when a vibration occurs around a point that is in equilibrium. Everything in the world vibrates at some frequency, some of which are detectable and some of which are so high that they are undetectable to the naked eye.

## CHALLENGES

The main obstacles that banks face when implementing green banking strategies. The challenges are as follows:

- a) Overcoming Obstacles to Going Green: While green banks support great causes, they face numerous obstacles as for-profit businesses. They are expected to face more challenges than a typical bank, just like those socially conscious and environmentally conscious mutual funds.
- b) Diversification is important: Green banks will screen their customers, and they will naturally limit and restrict their business to those who qualify. They'll have a smaller profit base to support themselves with a smaller pool of customers. If they concentrate their lending on a few industries, they make themselves much more vulnerable to economic shifts.
- c) These banks are still startups: According to reports, it takes a typical bank 3 to 4 years to break even. Many green banks in operation today are still in the early stages of development. It doesn't help that these

banks are attempting to regain their footing in the midst of a downturn.

d) Banks are "Specialized" institutions: While a green bank's main goal is to do good by assisting those who care for the environment, the question here is how much money is invested in these businesses and the eco-friendly industry. "Making a profit" does not always imply "saving the environment."

(iv) Higher operating expenses and costs: Due to the types of customers they serve, green banks also require specialized talent, skills, and expertise. Employees with additional training, such as loan officers, are required and knowledge of how to deal with green businesses and customers. Furthermore, giving such clients breaks in the form of reduced loan rates can eat into their profit margins.

(v) Reputation Risk: Banking institutions are more likely to lose their reputations as a result of growing environmental awareness if they are involved in large projects that are viewed as socially and environmentally damaging. There have also been a few instances where implementing an environmental management system has resulted in cost savings, increased bond value, and other benefits (Heim, Getal, 2005).

In a few cases, implementing an environmental management system reduced risk, improved environmental stewardship, and increased operating profit. Risks to one's reputation when funding environmentally and ethically questionable projects.

(vi) Appropriate legislation has yet to be drafted: The government must draught appropriate environmental legislation for banks and ensure that it is enforced. The issues in India are that

legislation is still being drafted, and in some cases, things are not being strictly enforced, but things can change quickly, causing major compliance issues for the companies involved and increased risk for the banks that have lent to them. Stakeholders, employees, customers, governments, and the general public should all be involved in ongoing discussions about environmental issues.

vii) Lack of environmental audits: Environmental audits are required to determine the environmental status of a facility, property, and operation, as well as to identify regulatory compliance status, past and present issues, as well as any project-related environmental risks and obligations. These should be carried out by a third-party organisation or a team of environmental investigators.

(viii) Less emphasis on environmental risk management: After the post-transaction period, environmental risk management receives less attention.

(ix) Non-automation of business processes: Most banks do not automate their business processes. For effective energy management, banks should conduct energy audits in all of their offices. Using compact fluorescent lighting (CFL) can help banks save a significant amount of energy.

x) A lack of clear policies: To change current management systems to incorporate sustainability issues, clear policies are required.

xi) Skilled employees are in short supply: In order to properly implement the strategies, skilled employees are required.

## VARIOUS INDIAN BANKS' GREEN BANKING INITIATIVES

**SBI:** (SBI) has become the country's first bank to invest in green energy generation by installing solar panels. Windmills for use by captives. In the states of Tamil Nadu, Maharashtra, and Gujarat, as part of its green banking initiative, has installed 10 windmills with a combined capacity of 15 MW. It plans to install an additional 20 MW capacity of windmills in Gujarat soon, bringing the total capacity of windmills in Gujarat to 100 MW within five years. Windmills are built with the specific goal of reducing reliance on polluting thermal power, rather than for purely economic or business reasons. In 2010, SBI introduced the Green Channel Counter (GCC) facility at its branches to replace the traditional paper-based banking system (SBI, 2014). The bank had also partnered with Suzlon Energy Ltd to generate wind power for a few of its branches by installing wind turbines. Gujarat, Tamil Nadu, and Maharashtra have a lot of windmills (Business Standard, 2014). It is a signatory to the Carbon Disclosure Project, through which it engages in a variety of environmentally and socially sustainable initiatives through its branches located across the country (WWF-INDIA, 2014). The Export-Import Bank of India (EXIM) and the State Bank of India (SBI) have agreed to provide long-term loans of up to 14 years to Astonfield Renewable Resources and Grupo TSolar Global SA of Spain for the construction of solar plants in India (Yadav & Pathak, 2013).

**ICICI Bank Ltd** – According to ICICI Bank (2014), the 'Go Green' initiative includes activities such as green products/offerings, green engagement, and green communication with customers. -

The bank provides environmentally friendly products and services, such as I Instabanking: - It is a service that allows customers to bank from anywhere and at any time using internet banking, mobile banking, IVR banking, and other methods. Customers' carbon footprint is reduced because they no longer require a physical statement or travel to bank branches. They are waiving half of the processing fee for auto loans on models that use alternative energy sources, such as Honda's Civic Hybrid, Tata Indica CNG, Reva electric cars, Mahindra Logan CNG versions, and Maruti's LPG version.

Hyundai's Santro Eco and Maruti's 800, Omni, and Versa. Customers who purchase homes in LEED certified buildings have had their processing fees reduced by the bank.

**IndusInd:** India's IndusInd Bank has launched its Green Office Project, in which it has installed solar-powered ATMs in various cities in order to save energy and reduce CO2 emissions.

**YES Bank:** Yes Bank India has a portfolio of projects in the alternative energy and clean technology sectors.

**HSBC Group:** For data centres, paper consumption, and business air travel, HSBC has separate targets. The goals are to increase efficiency, reduce the company's operational impact on the environment, and save money.

**IDBI:** IDBI Bank offers a variety of Clean Development Mechanisms (CDM) services to its customers.

**HDFC Bank** – According to HDFC Bank (2013), the bank is taking various steps to reduce its carbon footprint in the areas of waste management, paper usage, and energy efficiency: - The bank is encouraging its employees to reduce their use of

natural resources and greenhouse gas emissions. They are reducing the use of paper by sending e-transaction advices to their corporate customers, communicating with their high net worth customers via electronic media, and encouraging their retail customers to use e-statements. The bank is also promoting energy conservation by switching to CFL lighting, turning off all lights at all branches after 11 p.m., and establishing green data centres with cutting-edge technology.. The organisation is experimenting with renewable energy by installing 20 solar ATMs, including a pilot ATM in Bihar, and replacing ATM batteries with Lithium-ion batteries. They also manage their waste by forming partnerships with vendors who recycle paper and plastic. The bank is purchasing green products that meet the requirements of the Central Pollution Control Board and are Energy Star rated.

## ADVANTAGES OF GREEN ENERGY

### 1. SOLAR ENERGY

It is a clean source of energy that produces no harmful gases as a by-product, so it has no impact on the environment or human health. Solar energy is an efficient way to power many commonplace things like calculators and other low-power consumers. It is a better source of energy for future generations because it lasts forever (infinite).

2. HYDRO ENERGY It is a clean source of energy because it produces no by-products during the conversion process. Hydroelectric power is a domestic source of energy, allowing each state to produce its own energy without relying on international fuel sources. It is a reliable, affordable, and vast source of energy.

3. WIND ENERGY is a clean fuel source that does not pollute the environment. Wind turbines

do not emit acid rain or greenhouse gases into the atmosphere, and they are a cost-effective renewable energy source.

Land around wind turbines can be used for other purposes, such as farming, and when combined with solar energy, they can provide a reliable and consistent supply of electricity.

### 4. GEOTHERMAL ENERGY:

5. It is a less expensive and more accessible source of energy that is used for bathing, heating homes and offices, cooking, and other purposes.

By utilizing geothermal energy sources, current generations of humans will not jeopardise future generations' ability to use their existing resources to the same extent.

It is also cost-effective, dependable, sustainable, and environmentally friendly, and geothermal energy is thought to have excellent potential for mitigating global warming due to its low emissions.

### 5. VIBRATION ENERGY

1. Vibration energy harvesting replaces batteries in medical implants, which is good for the environment because batteries contain heavy metals that are toxic.

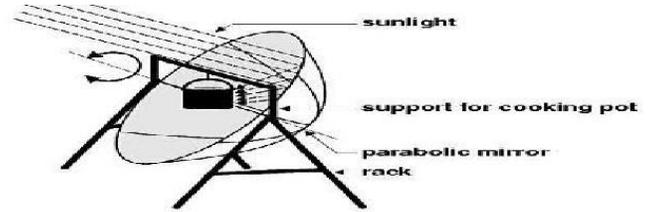
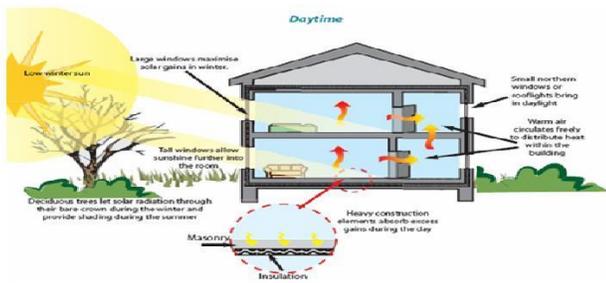
2. Vibration damping and vibration isolation can be used to reduce noise in the environment, which occurs primarily in industries or as a result of aircraft.

## APPLICATIONS OF GREEN ENERGY

1. Use in calculators, road signs, satellites, etc. as solar

energy.

2. Passive space heating by solar energy.



3. Warm up and keeping the food fresh by solar energy.

7. Wind and solar power vehicles

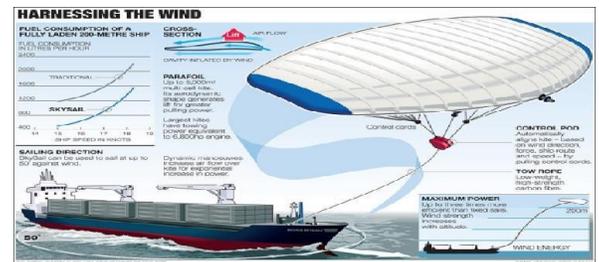
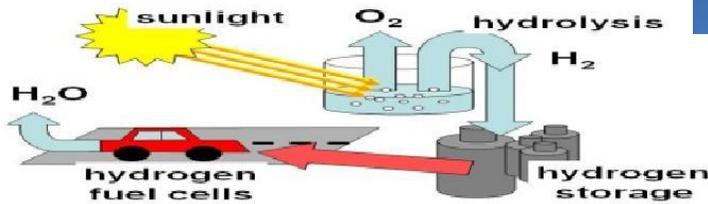


8. Wind /kite-power cargo ships

4. Water your plants with solar powered irrigation.

9. Wind-powered activities such as wind skiing, kite flying, kite surfing, hang gliding, and more

5. for hydrogen fuel production.



6. Parabolic concentrating solar cookers.

10. Water pumps with wind power.

11. In geothermal farming, such as fish farms

## I. FUTURE SCOPE

Green energy has a promising future in almost every field of human endeavour, including industrial, agricultural, medical, and domestic.

Scientists have already discovered many forms of green energy, such as solar, wind, and hydro, and are now working on new forms of energy, such as radiation and biomass, in order to reduce the use of nonrenewable energy sources, which are rapidly depleting.

Researchers are already working on improving the efficiency of solar panels so that they can work even in cloudy weather in the coming years. A new hybrid solar and wind energy system has been developed. solar/wind hybrids, a type of hydro, are also on the way. This technology combines wind turbines with solar photovoltaic (PV) panels to produce more energy, and studies have shown that it is nearly twice as efficient as current technology[9].

There are technologies that have already been invented or that have been given only as concepts and are still being developed. These inventions enable us to create an environment that is entirely powered by renewable energy and is environmentally friendly.

## SUGGESTIONS

The following are some suggestions for banks to consider in order to properly implement green banking in India:

- a) Use their website to increase customer awareness of green banking.
- b) Increasing the use of electronic banking in various forms.

- c) Using the media to raise customer awareness
- d) Reduction of carbon footprint through energy and paper conservation.
- e) Offering customers environmentally friendly incentives.
- f) By funding an increasing number of environmentally friendly projects
- g) Bank-provided social responsibility services.
- h) To incorporate sustainability issues into current management systems, clear policies are required.

Training and development of relevant skills among bank employees, so that they can put their knowledge to good use.

## CONCLUSION

Green banking has aided in the improvement of the environment as well as the promotion of economic growth. Most traditional banks did not practise green banking or actively seek investment opportunities in environmentally friendly sectors or businesses until just a few years ago. Indian banks lag far behind their developed-country counterparts. It is critical for Indian banks to recognise their environmental and social responsibilities if they want to enter global markets. Not only among smaller alternative and cooperative banks, but also among diversified financial service providers, asset management firms, and insurance companies, these strategies have only recently become more popular. Furthermore, banks should prioritise lending to industries that have already gone green or are making serious attempts to go green.

The concept of "Green Banking" will benefit banks, industries, and the economy in equal measure. Not only will "Green Banking" help to green the

industries, but it will also help banks improve their asset quality in the future. For Indian banks, there are numerous opportunities and challenges in adopting "Green Banking" as a profitable business. If implemented properly, green banking will act as an effective ex ante deterrent for polluting industries that are exempt from other institutional regulatory mechanisms. As a result, Indian banks should adopt green banking as a business model as soon as possible in order to ensure long-term viability.

Through this paper, we hope to draw attention to the need for environmentally friendly and renewable energy, which necessitates technological advancement in order to maximise the use of green energy. Natural resources have the potential to protect the world and reduce reliance on nonrenewable resources that are on the verge of extinction.

In terms of the future, green energy is an alternative source of power generation that can provide energy in an infinite number of ways. All that is required is for people to be aware of the importance of energy conservation and environmental protection. This is a step toward generating various forms of energy with clean sources in the majority of the field (less use of fossil fuel). The demand for clean energy is growing every day; green energy will meet this

demand with more advanced technological systems. However, it will take some time before every home operates its electrical appliances using its own power generation system, such as solar panels or small wind turbines.

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