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GREEN FINANCE AND THE SUSTAINABLE DEVELOPMENT GOALS: A REVIEW OF SOME INTERNATIONAL EXPERIENCES

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Abstract:

Financial institutions show more interest in traditional energy projects (oil and gas) than green projects, mainly because there are still many risks associated with these new technologies and provide a lower rate of return, if we want to achieve the sustainable development goals, we need to open New green environment file; By financing green projects and expanding financing for investments that provide environmental benefits, through new financial instruments and new policies, such as green bonds; Green instruments; And green banks; Green banking; And financial technologies, community green funds, etc., which are known collectively as "green financing". In this study, green finance was addressed in some countries, in order to draw lessons from the successful experiences that can be applied in Algeria. These countries have made green finance a political priority, as they have formulated national action plans or "road maps" to transform the economy and the financial sector into a green economy and green finance.

Keywords: Green Finance; Green bonds; Sustainable financing; Green investment; Green Sukuk.

JEL Classification: G2 ; G3 ; Q01 ; Q42 ; Q56 ; Q57.

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Introduction: The green economy has been the latest method for achieving the sustainable development goals, and this is through the new mechanisms and tools in the field of green finance. The purpose of this type of financing, as stated by the United Nations Environment Program, is to increase the level of financial flows (from banking, microcredit, insurance and investment) from the public, private and non-profit sectors to sustainable development priorities. The aim is to harmonize financial systems, and to work with countries, financial regulators and financial sectors, to guide the allocation of capital to the sustainable development that will shape future production and consumption patterns. Financial mechanisms such as green bonds help with this alignment as they strengthen public-private partnerships for sustainable development.

Green finance (or sustainable financing) instruments such as green bonds and bonds can also focus on other thematic issues such as social bonds, sustainability bonds, or SDG bonds; And green instruments, to act as a strong bridge to the sustainable development goals. From this standpoint, we can raise the following problem: What are the mechanisms of green financing to achieve the goals of sustainable development? Or what are the public and private sources of green financing, and what are the challenges and opportunities in linking them to green projects?

1- Objectives of the study: This topic is considered a topic of international concern; Therefore, the United Nations Environment Program issued an important guide to the green economy and sustainable development. From this standpoint, our study aimed to focus on the topic of financing environmental projects that have a relationship with green investments. This is through identifying the mechanisms and tools of green financing to achieve the goals of sustainable development, as well as reviewing the experiences of some countries that have made great strides in this field. As well as benefiting from its experiences by bypassing the restrictions and challenges imposed on green finance.

1-1- Methodology of the study: The researcher used the descriptive and analytical method as it relies on describing and analyzing international experiences. To take advantage of them and apply to the Algerian economy.

2- The Conceptual Framework for Green Finance

To know what green finance is and how important it is in achieving the sustainable development goals, we will talk about it in some detail in the following points:

2-1- Definition of green finance: In view of the lack of an internationally agreed (accurate and generally accepted) definition of green finance; However, we can define it as follows:

- Green finance is a broad term that can refer to financial investments flowing into sustainable development projects and initiatives, environmental products, and policies that encourage the development of a more sustainable economy. Green finance includes climate finance but is not limited to it. It also refers to a wider range of „other" environmental objectives, for example industrial pollution control, water sanitation, or biodiversity protection. Mitigation and adaptation finance is specifically related to climate change related activities: mitigation financial flows refer to investments in projects and programs that contribute to reducing or avoiding greenhouse gas emissions (GHGs) whereas adaptation financial flows refer to investments that contribute to reducing the vulnerability of goods and persons to the effects of climate change (Höhne, Khosla, Fekete, & Gilbert, 2012, p. 7).
- Green finance is often used interchangeably with green investment. However, in practice, green finance is a wider lens including more than investments as defined by Bloomberg New Energy Finance and others. Most important is that it includes operational costs of green investments not included under the definition of green investment. Most obviously, it would include costs such as project preparation and land acquisition costs, both of which are not just significant but can pose distinct financing challenges (Zadek & Flynn, 2013, p. 7).
- For the banking sector, green finance is defined as financial products and services, under the consideration of environmental factors throughout the lending decision making, ex-post monitoring and risk management processes, provided to promote environmentally responsible investments and stimulate low-carbon technologies, projects, industries and businesses (Barnes & Han, 2013).
- Green financing is to increase level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities. A key part of this is to better manage environmental and social risks, take up opportunities that bring both a decent rate of return and environmental benefit and deliver greater accountability.

Green financing could be promoted through changes in countries' regulatory frameworks, harmonizing public financial incentives, increases in green financing from different sectors, alignment of public sector financing decision-making with the environmental dimension of the Sustainable Development Goals, increases in investment in clean and green technologies, financing for sustainable natural resource-based

green economies and climate smart blue economy, increase use of green bonds, and so on (the United Nations Environment Programme (UNEP), 2021).

So includes green finance; Financing public and private green investments (including upstream and capital costs) in the following areas (Lindenberg, 2014):

- ✓ environmental goods and services (such as water management or protection of biodiversity and landscapes).
- ✓ prevention, minimization and compensation of damages to the environment and to the climate (such as energy efficiency or dams).
- ✓ the financing of public policies (including operational costs) that encourage the implementation of environmental and environmental-damage mitigation or adaptation projects and initiatives (for example feed-in-tariffs for renewable energies).
- ✓ components of the financial system that deal specifically with green investments, such as the Green Climate Fund or financial instruments for green investments (e.g. green bonds and structured green funds), including their specific legal, economic and institutional framework conditions.

2-2- Concepts and Terminology Related to Green Finance: The term "green finance" is closely related to related concepts, such as climate finance, sustainable finance and green investment; Explanatory definitions of these terms can be provided below:

2-2-1-Green investment: Green investment is defined as the total capital cost of moving to a green economy, such as reducing greenhouse gas emissions, securing food systems, water and forests, transportation and waste management. Invest in the basic physical and organizational infrastructure, structures and facilities needed to operate a community or enterprise; Enables economic growth and facilitates the daily life of citizens. It also refers to investment in transport infrastructure (vehicles, roads, railways, etc.), water, energy, and communications, and investment in green infrastructure; which expresses the infrastructure that enables economic growth and at the same time improves the environment (air quality, citizens' health). , And enable to conserve natural resources, reduce emissions and enable adaptation to climate change. Green infrastructure could also include low-carbon, renewable energy plants, sustainable and low-carbon vehicles and transportation, and energy-efficient and climate-resilient buildings (Zadek & Flynn, 2013, p. 7). Therefore, green finance represents a broader

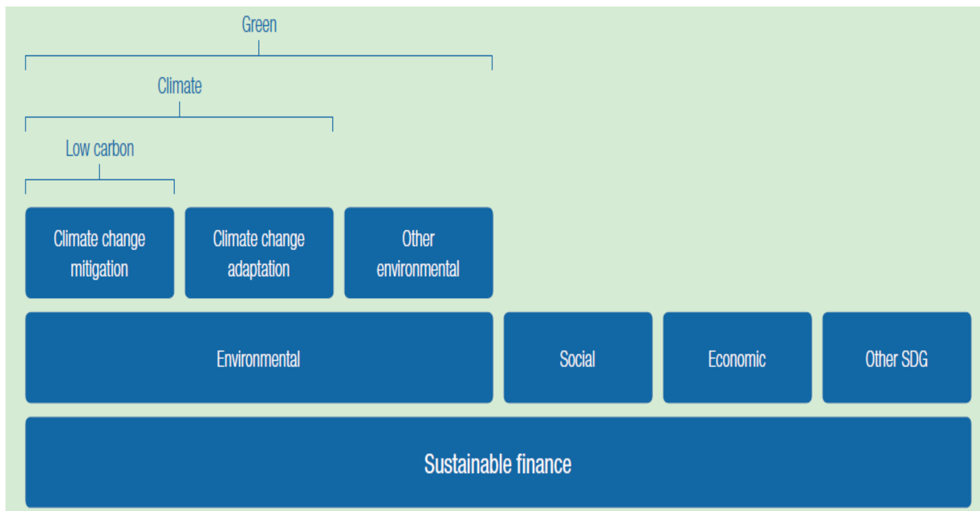
lens than green investment because it includes the cost of capital, and unlike green investment, which includes operational costs such as project preparation and land acquisition costs.

2-2-2-Climate finance: Climate finance refers to local, national or transnational financing (drawn from public, private and alternative sources of financing) that seeks to support mitigation and adaptation actions that will address climate change. The Convention, the Kyoto Protocol and the Paris Agreement call for financial assistance from Parties with more financial resources to those that are less endowed and more vulnerable. This recognizes that the contribution of countries to climate change and their capacity to prevent it and cope with its consequences vary enormously. Climate finance is needed for mitigation, because large-scale investments are required to significantly reduce emissions. Climate finance is equally important for adaptation, as significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate. In accordance with the principle of “common but differentiated responsibility and respective capabilities” set out in the Convention, developed country Parties are to provide financial resources to assist developing country Parties in implementing the objectives of the UNFCCC. The Paris Agreement reaffirms the obligations of developed countries, while for the first time also encouraging voluntary contributions by other Parties. Developed country Parties should also continue to take the lead in mobilizing climate finance from a wide variety of sources, instruments and channels, noting the significant role of public funds, through a variety of actions, including supporting country-driven strategies, and taking into account the needs and priorities of developing country Parties (UNFCCC, 2020).

2-2-3-Sustainable Finance: Sustainable finance refers to any form of financial service integrating environmental, social and governance (ESG) criteria into the business or investment decisions for the lasting benefit of both clients and society at large. As A sustainable financial center is a financial marketplace that, as a whole, contributes to sustainable development and value creation in economic, environmental and social terms. In other words, one that ensures and improves economic efficiency, prosperity, and economic competitiveness both today and in the long-term, while contributing to protecting and restoring ecological systems, and

enhancing cultural diversity and social well-being. As Activities that fall under the heading of sustainable finance, to name just a few, include sustainable funds, green bonds, impact investing, microfinance, active ownership, credits for sustainable projects and development of the whole financial system in a more sustainable way (Swiss Sustainable Finance). Sustainable Finance can also be understood as stocks and flows of financial resources and assets (across banking, investment and insurance) which is aligned with a broader range of environmental, social and economic objectives - most fundamentally, the delivery of the SDGs (Scharfe & Espinosa, 2017, p. 12). In Figure (01) below; We can show the link between climate, green finance and sustainable finance:

Figure number (01): Green finance terminology.



Source: (Scharfe & Espinosa, 2017, p. 12)

2-3- Green finance products and services: Green finance covers a wide range of financial products and services, which can be broadly divided into banking, investment and insurance products. Examples include green bonds, green labeled loans, green stocks, green investment funds, and climate risk insurance to finance green or environmentally friendly projects.

2-3-1- Green bonds: It is any type of bond instrument where the proceeds will be used exclusively to fund or refinance partially or completely new or existing eligible green projects, and the bonds that mix between green and social projects intentionally are referred to as sustainability bonds, and in

order to name the bond and accept it as "Green", it is necessary; Determine how the proceeds of the bond will be used. Likewise, most bonds that are designated by issuers as "green" fall within the list of eligible project categories that cover a wide range of environmental sectors and targets, ranging from renewable energy and energy efficiency, transportation and buildings to the environmentally sustainable management of living natural resources to climate change adaptation (The International Capital Market Association (ICMA), 2017).

2-3-2- Green Labeled Loans: Green loans are any type of loan instrument made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects (The International Capital Market Association (ICMA), 2018).

2-3-3- Green investment funds: A green fund is a mutual fund or another investment vehicle that will only invest in companies that are deemed socially conscious or directly promote environmental responsibility. A green fund can come in the form of a focused investment vehicle for companies engaged in environmentally supportive businesses, such as alternative energy, green transport, water and waste management, and sustainable living (Chen, 2021).

2-3-4- Climate risk insurance: Climate risk insurance is a vital instrument within a comprehensive climate risk management system, spanning a continuum of prevention, risk reduction, risk retention and risk transfer such as insurance schemes. Climate risk insurance can play numerous roles at individual, community, country, regional (international) and global levels - in providing security against the loss of assets, livelihoods and even lives in the post-disaster period; ensuring reliable and dignified post-disaster relief; setting incentives for prevention; providing certainty for weather-affected public and private investments, and easing disaster-related poverty and spurring economic development (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and KfW Development Bank, 2015, p. 5).

2-3-5- Green Stocks: Green stocks are stocks in environmentally friendly companies. Some investors will for instance see investments in large scale hydro-power as environmentally friendly since it reduces our reliance on fossil fuel, while other green stock investors stay away from large scale

hydro-power due to concerns regarding ecosystem disturbances. There are investors that invest in green stocks purely for financial reasons, but there are also many investors that put their money into green stock companies not just to make money but also because they want to help making the world a better place (Investment tools, 2021).

3- Islamic products for green financing: The Islamic financial industry comprises four key segments: Islamic banking, Islamic funds, takaful (Islamic insurance) and the sukuk market. While the four segments can contribute to financing the SDGs, the sukuk segment attracted greater attention recently with the development of green and SRI sukuk. Sukuk also enable the targeting of a wider, global investor base comprising both conventional and Islamic investors (Aassouli, 2020).

3-1- Green and Blended Finance: The OECD defines blended finance as the strategic use of development finance for the mobilization of additional finance towards sustainable development in developing countries. This requires reconsidering other sources of financing while leveraging the limited public and development finance funds.

A good example to consider is Islamic social finance. The Islamic social finance sector broadly comprises traditional Islamic institutions such as zakat (almsgiving) and waqf (endowments), as well as Islamic microfinance. These segments usually target the bottom of the pyramid populations, who lack access to basic safety nets such as education, appropriate health systems, food and other basic needs.

Zakat and waqf are at the heart of the Islamic economic system as they promote the principles of social justice, solidarity, brotherhood and mutuality whereas microfinance enables small businesses that usually cannot access traditional financing modes, to access financing for small projects that generate income and therefore reduces their reliance on charity.

3-2-Green Sukuk: The Green Sukuk are regular bonds with one distinguishing feature; proceeds are earmarked for projects with environmental benefits, primarily projects that address climate change mitigation and adaptation, but also natural resources depletion, loss of biodiversity and air and water pollution. Green bonds often carry social co-benefits such as access to clean energy and water, health improvements, and poverty alleviation through better resilience to climate change and

development of sustainable infrastructure (SAHARI & HENNICHE, 2020, p. 159).

The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) defines sukuk as certificates of equal value representing undivided shares in ownership of tangible assets, usufructs and services or (in the ownership of) the assets of particular projects or special investment activity.

The sukuk market is one of the fastest growing segments in the Islamic financial industry with about 24.2% of the total global Islamic financial assets and new issuances amounting to $93 billion in 2018 according to the Islamic Financial Services Board (IFSB).

Often qualified as Islamic bonds, sukuk represents an innovative instrument for financing green projects. Their asset-backing requirement facilitates their link to the real economy and therefore widens the scope of environmental sectors that can be financed. In addition, sukuk can be structured in various ways using single or hybrid Islamic contracts such as agency, partnership and leasing contracts. This flexibility facilitates financial innovation in addressing specific financing needs.

The green sukuk market development was also supported by the implementation of enabling frameworks such as the Malaysian Securities Commission's SRI Sukuk Framework and the recent Indonesia green bond and green sukuk framework (Aassouli, 2020).

4- The concept of sustainable development and its objectives

4-1- The concept of sustainable development: The concept of "sustainable development" has become a global political engine that directs the economic and strategic future of nations. Through irresponsible consumption and production patterns, human beings have harmful effects on the environment, which endangers the earth and future generations. In the past, the distinctive feature of development and prosperity in countries was scientific and economic development, in which the environmental accountability of policies, industrialization and daily human consumption was absent for hundreds of years, which led to the exacerbation of crises that were

manifested in climate change, the erosion of biodiversity, pollution and loss of natural resources.

on the other hand; These economic and scientific development efforts have not fulfilled the aspirations of the world order, governments and sociologists when it comes to tackling the chronic social problems plaguing the world in which we live. Poverty, illiteracy and income disparity still prevail in many countries around the world.

From this scope, the concept of "sustainable development" gradually emerged to become, at the present time, the main goal and goal of the United Nations and civil society. Countries and policymakers finally acknowledge that the current state of environmental degradation seriously threatens the survival of humankind. Although this concept was first introduced in 1972 on the world stage, it was only formally presented in 1982 as a clear concept for the first time when the World Commission on Environment and Development (WCED), chaired by Brundtland, presented a report under the title “Our Common Future.” It defined sustainable development as follows: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (IISD, 2020). Accordingly, sustainable development is based on the concept of aligning social and economic development with environmental priorities in order to limit the current environmental degradation and climate change while preserving natural resources as much as possible without exceeding their ability to regenerate for the future of future generations.

4-2- Sustainable Development Goals: The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. The 17 SDGs are integrated-that is, they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. Except that there Six SDGs that get the biggest boost from Green finance : 6, 7, 9, 11, 13 & 15 (United Nations Development Programme Arab States, 2021).

4-2-1- Clean water and sanitation: Ensuring universal access to safe and affordable drinking water for all requires that we invest in adequate

infrastructure, provide sanitation facilities, and encourage hygiene at every level. Protecting and restoring water-related ecosystems such as forests, mountains, wetlands and rivers is essential if we are to mitigate water scarcity.

4-2-2- Affordable and clean energy: Ensuring universal access to affordable electricity means investing in clean energy sources such as solar, wind and thermal. Adopting cost-effective standards for a wider range of technologies could also reduce the global electricity consumption by buildings and industry.

4-2-3- Industry, innovation and infrastructure: Investments in industry, infrastructure and innovation are crucial drivers of economic growth and development. With over half the world population now living in cities, mass transport and renewable energy are becoming ever more important, as are the growth of new industries and information and communication technologies.

4-2-4- Sustainable cities and communities: Making cities safe and sustainable means ensuring access to safe and affordable housing, and upgrading slum settlements. It also involves investment in public transport, creating green public spaces, and improving urban planning and management in a way that is both participatory and inclusive.

4-2-5- Climate action: Helping more vulnerable regions, such as land locked countries and island states, adapt to climate change must go hand in hand with efforts to integrate disaster risk measures into national strategies. It is still possible, with the political will and a wide array of technological measures, to limit the increase in global mean temperature to two degrees Celsius above pre-industrial levels. This requires urgent collective action.

4-2-6- Life on land: Halting deforestation is also vital to mitigating the impact of climate change. Urgent action must be taken to reduce the loss of natural habitats and biodiversity which are part of our common heritage.

5- A review of some international successful experiences in the field of green finance: In this axis, we review the experiences of the green financial sector in some countries, in order to draw lessons from the successful experiences that can be applied in Algeria. These countries have made green

finance a political priority, as they have formulated national action plans or "road maps" to transform the economy and the financial sector into a green economy and green finance. Such plans contain measures to facilitate the financial sector financing of green projects. National action plans help coordinate financial sector authorities and line ministries, which is essential to achieving results. Germany, Britain, China, France, Indonesia and Brazil are examples of countries that have developed a national strategy to transform their financial system into a green financial system.

5-1- The French Experience: The 2015 French Low-Carbon National Strategy envisioned important reallocation of investments towards projects that contributed to energy transition. The strategy, produced by the Minister of Environment Sustainable Development and Energy, envisioned an ambitious reduction in greenhouse gas emissions (75% by 2050, compared to 1990). A wide set of measures in different sectors (e.g. residential housing, transport, agriculture, industry etc.) were included in the strategy. As a transversal theme, the financial sector should mobilize resources towards projects that would facilitate achievement of that goal.

France's green finance development approach was based on setting up mandatory climate change-related disclosures, official labels for green financial products, and supporting public financial sector investments and issuances. Disclosure requirements. France became the first country to pass a law introducing mandatory extensive climate change-related reporting under art. 173 of the July 2015 Energy Transition Law. It strengthened mandatory carbon disclosure requirements for listed companies and introduced carbon reporting for institutional investors, defined as asset owners and investment managers. While climate-related reporting focuses mainly on the impact of the organization's activities on climate change, the French Energy Transition Law also mandates reporting on the impact of climate change on the organization's activities and assets. The law provides investors with broad flexibility in choosing the best way to fulfill the objectives, based on a 'comply or explain' approach, albeit they are encouraged to follow best practices.

Regarding Official Labels for green financial products. The French Label for the Energy and Ecological Transition, TEEC (Transition Energetique et Ecologique pour le Climat) was launched in late 2015. This label's aim is to shift capital to green investments. Such green certification ensures the

transparency and quality of the environmental characteristics of the financial products in question through an audit by an independent third-party expert (Novethic, who in 2009 launched the first European label for Socially Responsible Investment funds, or SRI[1] , which take ESG criteria into account). Fixed income/credit funds that want to be labeled TEEC should be significantly invested in green bonds, issued in accordance with the Green Bond Principles, for more than 83 percent of their net asset Value. A decree establishing an SRI label was launched on January 2016 recognizing funds that incorporate ESG considerations on its asset allocation. Funds wishing to obtain the SRI label must apply to one of the certification bodies approved by the French accreditation committee (COFRAC). There are currently two certification bodies: AFNOR Certification and EY France.

By the end of 2015, even before the official launch of the SRI labels, France was already the most developed SRI market in Europe with assets over USD$ 43 billion. The French Responsible Investment market was primarily boosted by state-linked asset owners like the French Reserve Fund (FRR), the French civil servants complementary pension schemes, which are development financial institutions. France's issuance of an EUR 7 billion sovereign green bond helps increasing the depth and liquidity of green bond markets (Damianova, Guttierez, Levitainskaya, Minasyan, & Nemova, 2018, p. 72).

5-2- The German Experience: Germany is among the earliest originators of green finance with sophisticated policies and systems already in place after decades of development. Founded in 1948, the KfW Development Bank played a vital role in the entire green finance system and launched various green financial products. The KfW Development Bank's financial products for energy conservation and environmental protection are free from government intervention (from early stage financing to later stages of financial product sales) all business activities are carried out through an open and transparent public tendering to ensure a fair and transparent operation. The role of the German government is to provide interest rate

[1] - The Novethic SRI Label is awarded to funds managed strictly on the basis of Environmental, Social and Governance criteria (ESG). Every year the research center measures coherence in ESG analysis, its impact on issuers' selection and the end quality of portfolios.

discounts and formulate relevant administrative measures, which ensures the efficient and fair use of capital.

Currently, the KfW Development Bank has become one of the largest banks in Germany with total assets worth €261 billion. The KfW Development Bank provided capital to Federal Germany's reconstruction after World War II and later began to offer long- term loans for German companies and, in recent two decades, increasingly provided green loans in such areas as environmental protection, energy conservation and new energy. For instance, the KfW Development Bank provided 1 percent low- interest loans for efficient energy conversion projects and loans to energy efficient new buildings and energy efficiency renovations of existing buildings. Successful experiences of the KfW Development Bank are as follows (UNEP, 2015, p. 5):

- First, prior to issuing loans, the KfW Development Bank evaluates the economic performance of a proposed project and approves lending under the risk control model of commercial banks.
- Second, as a state- owned bank, the KfW Development Bank takes upon itself the mandate to promote the development of German companies and economy.
- Third, the KfW Development Bank is neutral and does not compete with commercial banks. The KfW Development Bank wholesales capital for the retail of commercial banks, i.e. the KfW Development Bank's credit capital is not directly lent to borrowers but transferred by commercial banks to borrowers through on- leading and thus constitutes a relationship of cooperation rather than competition with commercial banks.
- Fourth, despite its state ownership and the oversight of a government- appointed supervisory board, the KfW Development Bank functions without government intervention and credit issuance authority rests with the board.
- Fifth, the KfW Development Bank does not rely on government subsidies for business operation. Supported by government guarantee, the KfW Development Bank enjoys relatively low costs of financing in the international capital market.
- Sixth, upon the KfW Development Bank's founding, the Law Concerning Kreditanstalt für Wiederaufbau was adopted to establish its legal status and role.

5-3- The Brazilian experience: The 2000-2004 government's multi-year plan included an environmental dimension for the first time. The focus of

the policies was on protecting the environment and managing financial risks arising from environmental degradation. The National Policy on Climate Change was approved in a 2009 law, and comprised policies for environmental preservation, management, and recovery of the territory as well as reduction of the effects of greenhouse-gas. Main instruments to achieve the policies were the introduction of a carbon trade mechanism and a national climate change fund.

Brazilian policies to green the financial sector have evolved from supporting market-led initiatives to issue regulatory requirements. Public banks have been important actors in the agenda, as early adopters of guidelines and providers of finance. Promotion of voluntary guidelines. The Brazilian Banking Association (FEBRABAN) issued green banking guidelines, which were first adopted in 2008 by five Brazilian state-owned banks and then by commercial banks in 2009. The Brazilian stock exchange has promoted sustainability for a decade, driving ESG disclosure across all listings, including through the creation of the low carbon index and the corporate sustainability index. Regarding Regulatory requirements on environmental risk management. In July 2011, Banco Central do Brasil (BCB) issued circular 3547 establishing procedures on commercial banks' Internal Capital Adequacy Assessment Process (ICAAP) and requiring them to take into account the risk of exposure to environmental damage. Through stress tests, banks have to evaluate the sufficiency of their capital to cover a variety of risks, including those arising from exposure to social and environmental damages. The BCB sets the general framework, listing the types of risks that a bank has to consider when deciding for itself how much additional capital to hold after submitting its ICAAP for independent validation. Banks that are subject to ICAAP regulation also are required to submit an annual report to BCB, outlining how they assess and calculate risks, explore implications for capital adequacy, and consider the exposure to social and environmental damages generated by the institution's activities.

as it was Brazilian public banks have been leaders in the country in the adoption of E&S credit guidelines. The two largest public commercial banks, Banco do Brasil, and Caixa Economica Federal signed the Ecuador Principles, and Banco do Brasil is part of the portfolio of the Dow Jones Sustainability Index (DJSI) of the New York Stock Exchange, which brings

together companies with the best E&S practices. Caixa created a Social and Environmental Fund that funds, among other things, projects in the areas of environmental management and recovery.107 Both banks have also developed a range of products to finance energy-efficient investments. BNDES, a Federal development bank, operates the national climate change fund and the Amazon fund (Damianova, Guttierez, Levitainskaya, Minasyan, & Nemova, 2018, p. 74).

5-4- The British Experience: The British government adopted ambitious green objectives and developed a set of plans for national infrastructure construction, reform of the electric power market, revision of the climate change tax, incentives for renewable heat energy, and a review of waste management policies. Nevertheless, even with these measures in place, financing issues still constrain the scale and speed of Britain's green transition. The UK Green Investment Bank (GIB) is the first investment bank in the world dedicated to promoting a green economy by addressing financing issues. Between 2012 and 2015, with a government investment of three billion pounds, the UK Green Investment Bank has played a pivotal role in addressing market failures that impede green infrastructure projects and further stimulated private investment. In 2015, the GIB identified five priority areas: offshore wind power, commercial and industrial wastes, conversion of waste into energy, and a 'Green Program.' During this time, at least 80 percent of investments approved by the Green Investment Bank have been allocated for these priority areas, while the remaining 20 percent can be used for other green industries such as maritime energy and carbon capture and storage.

These investments are focused on commercial green infrastructure projects of a strong commercial nature. All investment opportunities will be evaluated against the following key criteria: consistency with the GIB's risk management requirements, promotion of private sector investments and green effects. The GIB operates independently from the government. As the shareholder of sole investment, the government has a seat on the board. The British government made a commitment that, as of April 2015, additional government funding will be provided to the GIB, provided that the share of net public sector liabilities in GDP declines. Headquartered in Edinburgh, the GIB has an office in London. In October 2012, the European Commission approved financial assistance for the GIB, which has strengthened the GIB's capacity to make investments across many green

areas in accordance with commercial principles. In May 2012, the GIB legislation became part of the Enterprise and Regulatory Reform Act. This legislation will ensure that the GIB will be dedicated to green investments regardless of changes in its ownership structure, which is conducive to its independence and standardization of financing conditions (UNEP, 2015, p. 4).

5-5- The Chinese experience: In 2014, China set up a green finance task force comprised of 40 experts to assess and advise on the best way for China to deliver on its decarbonizing ambitions. This task force produced a detailed report in April 2015110 which, in turn, gave birth to the Green Finance Committee of the China Society of Finance and Banking (GFC). The GFC is led by China's central bank and includes an elite group from China's financial community including the top tier regulators, banks, asset managers, insurers and thought leaders. China is recognized as having one of the most coordinated and comprehensive approaches to greening its financial system, as strong support from leadership helps to align different stakeholders. To develop green finance in China, the central bank developed information systems, non-binding guidelines, and new green financial products; the ministry of environment developed information on the environmental performance of firms; and the banking regulatory commission monitored bank activities on environmental impact. Continuing this tradition, the new Guidelines for Establishing the Green Financial System were issued jointly by the central bank (PBoC) the financial regulators, and the ministries of finance, environment and planning in 2016.

In 2012, the China Banking Regulatory Commission CBRC issued Green Credit Guidelines. These voluntary recommendations encourage banks to "effectively identify, measure, monitor and control environmental and social risks associated with their credit activities, establish environmental and social risk management systems, and improve relevant credit policies and process management." The guidelines also establish that ban supervisors shall monitor the E&S risks faced by the institutions, and provide guidance on how to improve management as warranted. The 2016 Guidelines encourage institutional investors to conduct environmental and climate risk stress testing, and call for infrastructure to support financial institutions in their due diligence and evaluations by providing tools for calculating environmental costs and evaluating environmental impacts.

the 2016 guidelines call for encouraging financial institutions to issue more green loans and commit to exploring how to leverage public finance to support the growth of green loans through mechanisms such as interest subsidies, on-lending, and loan guarantees. In 2015 POBC published the first Green Bond Guidelines, the Green Bond Endorsed Project Catalogue and the publication by the National Development and Reform Commission (NDRC), of its guidelines on green bonds, linked to fiscal support for infrastructure investment. In early 2018 PBoC and CBRC issued new guideless that address regulation of certifying institutions and establish quality control systems both through self-administered and external procedures. The 2016 Guidelines seek to develop mechanisms for green financing, particularly the securing of green credit assets through the issuance of green bonds. It also calls for expanding green investment products, including establishing a green stock index (Damianova, Guttierez, Levitainskaya, Minasyan, & Nemova, 2018, p. 76).

Conclusion : to achieve sustainable economic and financial development; Green finance has become an urgent necessity. As all countries are concerned with environmental change and pollution, and for more sustainable development; We need to identify potential green projects and verify whether they deserve green financing or not, and this is by:

- Increase green financing to generate less waste, and recycle waste into compost or other material projects.
- Increase funding in all green projects.
- Create awareness of the green economy at the grassroots level among urban and rural residents.
- Create green projects and facilitate their replication.
- Plant trees on a large scale.
- Encouraging designers and developers to build green buildings.
- Financing environmentally friendly products and projects.
- Increase microfinance to produce green products with a very low interest rate.
- Financing renewable energy sources.

In this study, green financing was discussed and an attempt was made to show that it is necessary for the development of all countries, while reviewing the experiences of successful countries in this field, and this is because global warming causes different problems in the world. Scientists and environmental experts also believe that this is due to greenhouse gas emissions. Therefore, this study confirmed that green financing for projects

reduces greenhouse gas emissions significantly. Thus, it can be concluded that Algeria has great potential for financing the green economy, especially in the field of renewable energies of all kinds. By creating green infrastructure required for green financing by overcoming barriers and creating awareness among citizens of companies to achieve more sustainable development.

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