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# Sustainable financial financing is a road map for achieving carbon neutrality in the Iraqi environment according to Iraq's climate trends -Suggested vision

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Abstract

The research aims to draw attention to the role of the Iraqi banking sector in managing the climate change risk profile according to Iraq's sustainable Vision 2030 and its accession to the Paris Climate Agreement under Law (31) for the year 2020 · Through the research contribution to setting the main pillars of the guiding principles for sustainable financing by the international proposals of the International Green Financial System Network (Network for greening the financial system-NGFS). In addition to addressing the sustainable initiatives announced by the Central Bank of Iraq, the research will focus on the renewable energy initiative that was unique to the Central Bank of Iraq to achieve carbon neutrality while proposing guidelines for sustainable financing to respond to carbon reefs 'In addition to developing disclosure in the banking sector in a so-called disclosure of carbon footprint reports through indicators for these reports 'The research reached many conclusions, most notably the absence of a guide for sustainable financing in the Iraqi banking sector, despite the existence of initiatives to achieve sustainability that were limited to individual instruction. In addition to the recommendations made by the research, which centred on proposing reports to follow up the application of the guiding principles of sustainable financing with the issuance of carbon footprint reports for each bank.

#### Introduction

With the entry of the second millennium, the earth increased suffering from untold activities that harmed the environment to highlight what it is called global warming, global warming, melting bipolar ice, desertification, and the Earth's inadequacy of life during the near future, so the countries of the world, through their political leaders, have worked to stop this flagrant violation of the environment from During the Paris Climate Agreement 2015, as an attempt to improve the environmental impact and reduce risks, accounting and auditing professional bodies were present in this by issuing auditing standards as the standard (3410) rate and sustainability

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reports according to (SASB) And initiative (GRI) In addition to the guidelines and instructions issued by the countries of the world on sustainable financing in the banking sector and green laundry reports on the disclosure of greenhouse gas emissions that met the opposition and lack of acceptance by stakeholders to be The trend towards disclosing carbon footprint reports and the emissions inventory process as a basic measure of real sustainability reports for economic units, which aims, through the disclosure of carbon footprint, to develop effective strategies to reduce gas emissions, achieve carbon neutrality, and reduce The associated risks of considering the economic unit as a carbon issuance unit, and by disclosing carbon footprint reports, the units are working on an effective reduction, and that this reduction needs guidance on sustainable financing in support of the reduction 'Based on the foregoing, the research includes three axes. The first axis includes research methodology and previous studies. The most important features of the current research, the second axis include sustainable financing and carbon footprint disclosure, and the third research is the applied aspect- With a suggested vision. Finally, the most important conclusions and recommendations.

#### The first axis

#### Research methodology and previous studies Research Methodology

**Search problem:** With the steady increase in emissions from major gases (Global Warming) in the world in general and in the Iraqi environment where Iraq is considered one of the climate-fragile countries according to the global report and the financial stability report 2021 issued by the Central Bank Iraqi, and with Iraq's international harmony to reduce damage, protect the environment, and work to reach zero emissions to fulfill Iraq's obligations to enter into the climate treaty under the law (31) For the year 2021, initiatives increased by the Central Bank of Iraq to contribute to achieving carbon neutrality 'However, the problem that arises is the absence of guiding principles for sustainable financing, the necessary frameworks for sustainable financing, the availability of the necessary resources for that, the theoretical and applied foundations for that, and the identification of ways to disclose the carbon footprint of each bank, and accordingly it is raised The following research question: -

- What are the main pillars for drawing a road map for sustainable financing in the Iraqi banking environment?
- Is it possible to build a guide for sustainable financing in the Iraqi banking environment capable of including disclosure principles to reach carbon neutrality? Is the effective way to do this transparently to disclose the carbon footprint?

**Research aim:** The research aims to establish the main principles of climate sustainability to reach zero carbon neutrality while proposing indicators for the disclosure of the carbon footprint.

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The importance of research: The importance of research stems from the urgent need to pay attention to the environment and reduce the phenomenon of global warming by what has been reached by the reality of the Iraqi climate environment and its consideration of climate-fragile countries and the need to frame the guide with guiding evidence to finance the sustainability responsive to animals Carbon and supportive methods for this through carbon fingerprint disclosure reports.

**The search hypothesis:** The research is based on the premise that a guide for sustainable financing in the Iraqi banking environment can be prepared with the construction of an indicator to disclose carbon neutrality reports by disclosing the carbon footprint of the banking sector.

1- **Previous studies and the contribution of the current research:** Research currents were concerned with confirming the disclosure of the risks of global warming and the importance of issuing a specific or reasonable report on companies' disclosure of global warming and attention to the professional characterization of the confirmation of greenhouse reports.

Jacob and Al-Jajawi tested 2023 In tagged research (The professional requirements of the auditor are used by Standard 3410 and their reflection on reports of confirmation of global warming, gas emissions and benefits for users of financial reports - oil companies operating in Iraq – Model ) Confirmation practices in Iraqi companies to disclose greenhouse gases and they are disclosed according to the carbon detection database (CDP) There are increasing barriers to confirmation services for greenhouse gas disclosure and detection of tampering or material misstatement (Jacob and Al-Jajawi .12.2023) While a goal Proba & Anupam To a statement of the effect of external confirmation

On the voluntary disclosure of climate change to Finnish companies with a sample of 228 companies between 2010 – 2015. On the stock exchange that issued sustainability reports, including the disclosure of greenhouse gases according to the draft disclosure (CDP) Wan The confirmation service for these reports has a positive impact on the corporate level and there are determinants of voluntary disclosure such as the size of the company, And the age and size of its assets and the confirmation services provided by Before major international companies are set to confirm the service (2019.33. Proba & Anupam). Jacob and Al-Qaisi were targeted in the tagged search (towards Building Suggested indicator for accounting disclosure and confirmation of greenhouse gas emissions – A pilot study in the Iraq financial market) to build an indicator for the disclosure of greenhouse gases in the Iraqi environment, according to international and local requirements. (Jacob and Al-Qaisi 2020. 22).

While a goal Simnet & Nugent To review developments in the methods of measuring and disclosing greenhouse gas emissions and related confirmation services that add more confidence to them and the need to develop accounting and auditing

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standards to suit the changing needs of the environment And the availability of instructions that give the external auditor the ability to express an opinion and give independent reasonable assurance about the risks of disclosure and that the guidelines are international to facilitate the comparison process and these views were the beginning of the launch of a standard amendment 3410. (2009.17 Simnet & Nugent) Jacob and others aimed to test the readiness of the Iraqi environment to deal with climate developments and protect the environment through three dimensions: Fulfilling the requirements for confirming the retention gas disclosure service, the professional merit of the auditors according to the global framework, the type and nature of the information required by the stakeholders and that the Iraqi environment is ready for that (Jacob and others. 2021. 17). The bottom line is that there is an increasing trend and global interest in disclosing global warming, developing accounting practices and enhancing auditing procedures to ensure transparency in disclosure and reliability in the financial statements. The contribution of the current research is characterized by finding a guide for financing Sustainable support for climate sustainability with the suggestion of an indicator to disclose the carbon footprint report to respond to international requirements in zero carbon neutrality.

#### The second axis

#### Sustainable financing and carbon footprint disclosure

**Sustainable financing:** One of the topics of concern to the regulatory authorities in various countries of the world is the challenges of climate change on the financial sector 'As it became possible for the monetary and financial authorities in the Arab countries to play a pivotal role in promoting the transition towards green and sustainable financing based on taking environmental risks resulting from climate change into account when formulating goals and taking Financial decisions (Arab Monetary Fund, 2022,1).

The 2015 Paris Agreement on Climate Change, in which decision-makers, regulators and practitioners focused on environmental sustainability In particular, addressing global warming, where Article 2 of the Paris Convention requires signatories to align financing flows with carbon dioxide emissions, global warming and development based on taking climate change into account Where the main global climate change agreement aims to define the critical role of the financial sector in this field through sustainable financing, which is part of a global movement to spread the concept of (( sustainable development )) is directed in a way Essential towards shaping the role of financial institutions to become an essential contributor to achieving sustainable development goals ( Arab Banking Association, 2022,1).

The concept of sustainable financing refers to the process that sets environmental and social considerations and governance (ESG) at Consideration when making any investment decisions related to the financial sector, which leads to more long-term investments in sustainable economic activities and projects and includes

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environmental considerations 'Mitigating climate change, ways to adapt to it, as well as the environment on a larger scale, as well On biodiversity, pollution prevention and the circular economy (WHO,2021,11), supporting sustainable financing is ensuring the transfer of capital flows to companies and investments Projects and technologies that contribute to a sustainable world with low carbon emissions, as the goal of the financial sector is simple if we start from the base 'Where should every financial decision be made at the individual level taking into account climate change, and not only at the institutional level Because incorporating the principles and practices of sustainable financing at the individual level into their actions and decisions leads to a smooth and simple transition towards financial sustainability, beyond the broader perspective of sustainable financing The risks of climate change. Indeed, the climate emergency cannot be successfully addressed without addressing the broader aspects of economic and social sustainability, as well as providing broader shared prosperity for current and future generations (International Monetary Fund .2.2022). And sustainable financing in banks according to the definition of the Central Bank of Egypt means that banks finance projects that take into account the environmental component of society, such as clean and renewable energy projects ' Sustainable financing also means that banks finance projects that take into account the social component of small, medium and micro industries and projects with labor intensive that create more job opportunities (Public financial control .7.2021).

The concept of carbon footprints; Carbon footprint concept (Carbon footprint) Derived from the concept of environmental footprint and environmental impact, great attention was paid in the nineties of the twentieth century, and the carbon footprint is defined as the total greenhouse gases resulting from industrial, service or personal emissions (its measurement is an effort to reduce the negative effects of these emissions (CARBON FOOTPRINT STANDARD. 2.2021) (The carbon footprint is usually calculated in tons per year, the carbon footprint is one part of the environmental footprint, it only measures emissions of gases causing climate change The idea of a personal carbon footprint promoted a major advertising campaign for the fossil fuel company (BP) In 2005, designed by the Oglevi Agency, the campaign aimed to divert attention from the fossil fuel industry to individual consumers and asked people to calculate their fingerprints and provide them with ways to "follow a carbon diet".

This strategy, which was also applied by several major companies in the field of fossil fuels, drew many of its ideas from other campaigns conducted by the tobacco and plastic industries to shift the blame for the negative effects of these two industries (smoking minor 'Cigarette Punishment Pollution, Plastic Pollution) from industry-based companies and dumping it on individual options.

On the level of international interest, the UK government launched a net carbon-free procurement policy note 06/21 (PPN 06/21) That entered into force at the end of

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September 2021. This has major implications when bidding in government and related bodies, which require (carbon footprint per company) annually and reach net carbon zero by 2050. It also requires disclosure and the publication of this information (. 2021 Net Zero Carbon Procurement policy).

The concept of disclosing a carbon footprint: The process of assessing and disclosing the carbon footprint of economic units has become an unforgettable demand after the British government's commitment to reduce greenhouse gas emissions in the Kingdom by (60%) By the year 2050 In an initiative to solve the problem of global warming, economic units have begun to voluntarily disclose the emissions of gases issued by their units for reasons such as risk management, rationalization of spending, and trademark protection 'Attracting investments and social responsibility, and those economic units have prepared themselves through evidence they have developed. The process of disclosing a carbon footprint is essential to gain credibility, as it reassures stakeholders, in particular, integrity The comprehensiveness and transparency of economic unit accounts, as this disclosure enables the economic unit to conduct the evaluation actively or Establishing the necessary procedures to determine its carbon footprint, regardless of its size, field, or location in which it operates, as well as the possibility of benefiting from the additional control and increased experience provided by the fingerprint reporting process. And Carbon Detection Project helps ( Carbon Disclosure Project (CDP)) It is an international non-profit organization that includes the United Kingdom, Japan, India, China, Germany, Brazil and the United States of America, companies and cities in detecting their environmental impact. This project aims to make environmental reports and risk management a commercial standard, leading to disclosure, vision and action towards a sustainable economy in the coming years, nearly 20,000 organizations have revealed their environmental information through CDP (www.suppliers.rolls-royce.com)

#### Carbon disclosure is related to all types of economic units, as follows: -

- Institutions that already report greenhouse gas emissions within mandatory programs and are willing to expand the range to include economic unity in general.
- Institutions operating in sectors that will soon be included in greenhouse gas emissions programs.
- Economic units that voluntarily report a carbon footprint to comply with the Carbon Disclosure Project.
- Small or medium-sized enterprises looking for a first step towards upgrading their environmental contributions.

#### Benefits of disclosing a carbon footprint:

In line with the climate index for the year 2022( COP27 ) And determine the appropriate methodology in estimating the amount of carbon and its fingerprints for economic units, as the European Commission has determined, in line with the 2030

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emissions targets for the European Union, a goal that no less than (55%) On the 1990 levels, after which the European Union voted to achieve a reduction to the level (60%) Through the adoption of climate pressure tests issued by the International Monetary Fund, the European Union has achieved increased interest by the banking sector in issuing reports in support of financial reports 'As well as strengthening databases with the so-called carbon market to reduce emissions by creating a financial incentive to invest in low emission technologies 'And manage greenhouse gas emissions for economic units according to the greenhouse gas protocol and according to the World Resources Institute according to (ISO14064) As well as full compliance with the standard GHGPROT Thermal carbon, which is based on (Kyoto Protocol) And an agreement Changes Climatic for the United Nations IPCC. http://unfccc.int/resource/docs/convkp/kpeng.

# The benefits of disclosing the carbon footprint of economic units contribute to: -

- 1. Preparing for international and domestic legal legislation to reduce carbon.
- 2. Management of Carbon-related risks and identification of areas for development.
- 3. Improving effectiveness and rationalizing spending through rational energy consumption.
- 4. Achieving credibility through environmental responsibility.
- 5. Motivating and involving working human resources by integrating them into carbon reduction plans.
- 6. Managing reputation risks: Provides reassurance Economic unity takes into account all kinds of Operations and emissions.
- 7. Attracting investments: Providing reliable information to financial markets and insurance companies works on Strengthening the reputation of economic unity, which leads to greater access to capital Through rates on the increasing numbers of market indicators such as FTSE4Good And DJSI Sustainable competitiveness by proving that economic unity takes the issue of environmental impact seriously and that it is greatly concerned with it by disclosing carbon footprint reports.
- 8. Carbon neutralization: The carbon footprint of the economic unit is independently supported The basic disclosures provided by carbon neutralization through the confirmed account are based on best practices, thus ensuring the functioning of the economic unit Towards finding programs to achieve effectiveness and not purchasing a greater amount of carbon equation balance to achieve carbon neutral.

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9. Future protection of the economic unit, ensuring its compliance with laws and instructions, and meeting the requirements of impartiality Carbon, and the future trend towards conditional commitment is not voluntary.

Checking and Assurance the disclosure of the carbon footprint: The auditor adds to the carbon footprint reports in the economic units a significant added value, as the following is available: - Project Sendercate, the World's Opinion (Disclosure Climate Impact is a shrewd exercise)

#### a. Credibility

Documentation by the auditor gives a degree of credibility when it comes to the process of reporting and disclosing environmental information. It will have an impact on the parties concerned as stakeholders

#### b. integrity

The independent audit process assures stakeholders that the data is reliable and credible has been presented honestly that it does not contain any material errors and has been collected and examined transparently and reliably.

#### c. Transparency

The proportion of greenhouse gas emissions documented by an external party demonstrates a commitment to transparency and responsibility as a step towards green governance.

#### d. Compatibility

The audit by the auditor confirms the compatibility of the data contained in the report by the protocols established and works to ensure the accuracy of the data for the purposes specified for it through the instructions provided by professional bodies such as the Board of Auditing Standards And international emphasis.

#### e. Reliability

Includes that the audit by the auditor results in more accurate and reliable emissions data EN 45011 – An important and independent professional certification of the special documentation process 'In addition to adopting the international auditing standard 3410.

**International actors related to sustainable financing:** The bodies concerned with sustainable financing have multiplied by their importance, as follows:

- 1- Center for Financial Inclusion (CFI): Focuses on comprehensive financing To strengthen the comprehensive financial systems for people with income achieved all over the world.
- 2- International Finance Corporation (IFC):-It is a member of the World Bank Group, the largest credit institution focused on supporting and developing developing countries, established in 1956 www.IFC.org
- 3- European Organization for Sustainable Development(EOSD):-Includes 35 countries represented by financial sector regulatory bodies, bank unions, sustainable development and environmental stakeholders, based in —Germany · It was established

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by the laws of the European Union to work on the implementation of the Union's sustainable development strategy, and it also falls under its competence to develop policies, prepare initiatives 'Designing training programs and exchanging experiences between member states of the European Union and the rest of the member states.

- 4- Sustainable Banking Network (SBN):- It is a network of the International Finance Corporation IFC It includes 38 countries represented by their financial sector regulatory bodies, bank unions and emerging markets that are committed to developing sustainable financing in line with international practices and are the most important international body concerned with preparing private policies for sustainable financing. (The Central Bank of Iraq has been a member since 2019), based in Washington USA.
- 5- Network of Greening Financial System (NGFS): The network includes 42 countries represented by the financial sector regulatory bodies and bank unions, through which experiences are exchanged and international best practices applied in the field of environmental protection and facing climate change are discussed and the French Central Bank in Paris, the network coordinates.
- 6- The International Alliance for Financial Inclusion Alliance for Finnish Inclusion (AFI)

Is the world leader in financial inclusion support, based in Kuala Lumpur – Malaysia It includes financial inclusion policymakers from more than 95 countries to exchange international experiences and best practices in promoting financial inclusion (The Central Bank has been a member since 2013) In 2019, the Alliance created a working group specializing in inclusive and sustainable green financing Inclusive Green Finance Working Group

The Central Bank of Iraq Initiative for Sustainable Finance: The Central Bank of Iraq issued in (2022/1/3) The number of uncles 1 And related to the controls of financing electricity generation systems from renewable energy. That will allow citizens and various institutions to purchase the electricity systems generated By renewable energy within the resources of his initiative through banks. This initiative comes in line with the state's orientation to abide by the decisions of the Paris Climate Conference, as it was launched by The Central Bank of Iraq, in cooperation with the Higher Committee for Lending in the Council of Ministers, is an initiative to shift to the use of renewable energy sources to reduce carbon emissions and improve the environment and with the participation of environmental and energy experts generated from renewable sources 'To set the executive framework for financing such development projects, whether at the level of individuals or investors in the field of clean energy.

The Central Bank of Iraq, in cooperation with the relevant authorities, will support the preparation of controls requiring owners of residential investment projects to rely

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on renewable sources to secure part of the electrical energy as a condition for its inclusion in the initiative of the Central Bank to finance housing projects. The Central Bank of Iraq and the Commission are looking forward to Supreme Lending that Iraq depends on renewable energy in the coming years and in this context 'The central bank decided to directly install solar electricity generation systems on a number of its buildings in Baghdad and its branches in Basra, Mosul and Erbil to secure part of its electricity needs. The Central Bank of Iraq called on the authorized banks to facilitate the procedures for those wishing to obtain renewable energy initiative loans 'And the adoption of new mechanisms that give the borrower from this initiative the right to choose the lending bank without the need to transfer the settlement of his salary, if he has another bank, and to obtain the instalments due on the borrower through the electronic clearing system. As for non-national borrowers, borrowing from the banks participating in this initiative is made in exchange for guarantees accepted by the lending bank Although the overall initiative to finance the generation of electric energy percentage of expenses from it is very small (250 million Iraqi dinars, which constitutes 0.025 of the total amount of the initiative) Pulled by private banks (Elaf and the international bank).

#### The third axis the practical side

To enhance the role of the Central Bank of Iraq in achieving carbon neutrality in the Iraqi environment and for the lack of general guidance instructions regarding sustainable financing to achieve carbon neutrality, the research proposes strategic frameworks to build the foundations for this financing The necessary resources and the parties contributing to the financing by proposing the following guidelines: -

# Requirements for building a supportive banking system for sustainable financing

- [1] Future vision: Supporting financial and banking stability, achieving sustainable development goals and achieving Carbon neutrality.
- [2] Importance at the banking sector level and the country level: -
- a) Importance at the level of the banking sector: Translate the directives of the central bank in achieving a concept of Sustainable financing that supports financial and banking stability and achieving sustainable development. And earn Sustainable financing from international financing bodies.
- b) Importance at the country level: Compliance with the international treaty to which Iraq is a treaty Climate, as well as improving the Iraqi environment.

# The knowledge bases for sustainable financing in the Iraqi environment 1- Concepts:

a. The concept of sustainable financing: It is financing aimed at supporting environmental and social activities Governance in seeing and planning banks when granting credit or when taking Investment decisions, the issuance of sustainable tools, or the creation of sustainable financial instruments.

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- b. **Sustainable financial instruments:** They are the tools issued by banks in all their forms and names, but they are involved in the aim of supporting sustainable financing.
- c. Iraq Stock Exchange Index for Sustainability Climatic: -Propose a sustainability indicator that includes a set of key and sub-indicators to disclose climate sustainability.
- d. Carbon neutrality or climate neutrality (Carbon neutrality): It is to minimize carbon emissions and obtain zero net carbon emissions by balancing a measured amount of carbon with a quantity of carbon that has been isolated and achieved in many ways, most notably the transition to a green economy and environmentally friendly projects.
- e. Ways to reach carbon neutrality: Through voluntary reduction of carbon emissions in various sectors.
- **2- The importance of sustainable financing to support carbon neutrality: -** Sustainable financing is of great importance in achieving financial and economic stability. As well as Making infrastructure more sustainable, avoiding costly reforms and reducing the widespread consequences of natural disasters for people's livelihoods and well-being.

**Risks arising from climate change:** These relate to the ability of the financial and banking institutional sector to bear the economic costs and financial losses resulting from the increasing factors leading to the risks of climate change, which we can call the factors driving physical risks, as the sector may bear intangible financial risks. The ways may be to reduce emissions and shift towards carbon neutrality or zero emissions. The risks arising from climate change can be illustrated in Figure (1).

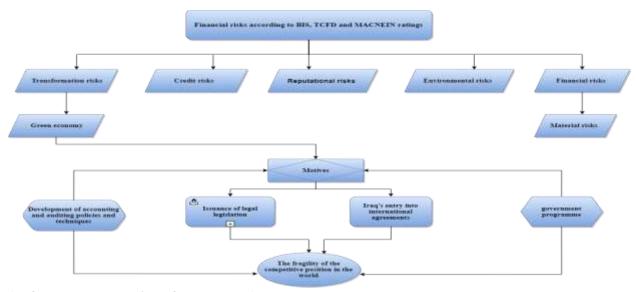


Figure (1) Risks arising from climate change

(Reference: Preparation of researchers)

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**A.Financial risks and material:** Based on the guidance provided by Basel on pressure tests, hypotheses can be used that can be used in pressure tests for the banking sector to measure material risks

The hypothesis of material risks from least to most and my agency: -

- 1- The occurrence of losses in the bank's environmental fixed assets.
- 2- The high rate of failure of individuals and companies to pay climate-related loans and intensive withdrawal on deposits.
- 3- A decrease in the value of real estate and shares and the percentage of coverage of real estate guarantees as supportive investments for climate.
- **B. The risks of transformation:** According To pressure test frameworks issued by Basel Can be used? Hypothetically the risks of moving and switching from less to more severe measure these risks are as follows: -
- 1- High stumbling rate for sectors with high carbon emissions.
- 2- High rates of stumbling in the agricultural and oil sectors.
- 3- High unemployment rates and a decline in major economic variables.
- 4- High market risk Carbon and uncertainty.

It requires the transition to a low carbon economy Extensive change in legislation and laws technology and market to address related mitigation and adaptation requirements Climate change

- **C.Risks of reputation:** Done Selection Climate change is a potential source of associated reputation risks to change Imagine Customers or society contribute to or diminish the organization in the transition to a low-carbon economy.
- **D.Market risks:** Through shifts in supply and demand on Some goods and products And services where Related risks and opportunities are taken Climate in consideration when financing.
- **Components Dimensions of sustainable financing:** It is all related to the environment, especially carbon emissions, or the so-called global warming and the adoption of renewable energy, and it includes: -
- [1] **The environmental dimension is warm:** Everything related to the environment such as climate change, emissions of gases and carbon, water and air pollution and global warming.
- [2] **The warm social dimension: -** It includes factors that have social impacts such as job creation, improving living conditions, attention to sustainable development, sustainable planning, and human resource rights.
- [3] **The greenhouse effect dimension:** Everything related to the institutional aspect, such as creating a greenhouse governance committee, instructions related to the board of directors, the number of its meetings, the number of its members and the rights of shareholders.

The main principles of sustainable financing: The proposed guide is based on a set of the following principles illustrated in Figure (2).

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(Reference: Preparation of researchers)

#### The first principle - Professional departments for bank workers: -

Strengthening the professional walls of bankers in terms of building enabling capabilities in building strategies that support sustainability 'Training bank workers in applying the guiding principles of initiatives, emissions disclosure and areas of environmental responsibility, with an interest in supporting workers to obtain international professional certificates regarding emissions handling (Environmental Disclosure Specialist)

# The second principle – defines the foundations for sustainable financing Through serious steps, it is thus achieved: -

- 1) The pillars that stimulate the sustainable financing process in all the activities of the bank and finding entities Supportive of that.
- 2) Encouraging climate-supporting initiatives and providing banking facilities for the private banks that finance Emerging projects with interest or good loans.
- 3) Investing in environmentally friendly projects with zero carbon diffraction, and developing markets Carbon pricing.
- 4) Issuing green financial instruments and encouraging bold capital for projects with emissions Zero.
- 5) Extending cooperation in the field of sustainable financing and cooperation with international bodies such as the financing institution International (IFC) (EOSD) (SBN) (AFI) And (CFI).
- 6) Greening the banking financial system.
- 7) Relying on international standards in sustainable financing through the principles issued by the nations United Environment and aimed at a sustainable banking system that can be employed in and from the Iraqi banking environment:
- A. Transparency and accountability in terms of adopting an indicator of transparency, disclosure and commitment to disclose Emissions in bank financial reports and the permissible limits for these emissions.

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B. Alignment with the strategies of the Central Bank of Iraq regarding caring for the environment and the terms of an agreement in Paris.

C. External evaluation by the Central Bank of Iraq of climate initiatives launched by banks.

# The third principle - financial instruments and financial derivatives for sustainability

- 1- Adoption of green financial technology (GREEN FIN TICH) By adopting techniques
- 2- Green in the availability of banking services.
- 3- Adopting green financial instruments such as stocks and green bonds.
- 4- Create other tools according to the bank to achieve sustainable financing.

**The fourth principle – Managing the risks of carbon neutrality:** The field of strategy, planning and perceptions necessary to assess the risks, accounting measurement of retention and climate pressure tests, as well as the measures adopted to measure the progress of banks towards integrating climate and environmental risks into their work and disclosing that 'What we mean by banks using different methods and methods to assess their ability to face risks under negative conditions, and to measure the impact of these risks on a set of financial indicators for the bank 'That is, the ability that the bank has to face economic and financial shocks, and these are considered precautionary policies, according to the frameworks of pressure tests issued by Basel (III) And (IV) Nord is suitable for climate change and carbonate reefs: -

- [1] Determine the frameworks of the stress tests for carbon reefs in a specific way and methods Objectivity.
- [2] Adopting stress tests as a tool for managing risks and considering them when building Business models.
- [3] Partial and total stress test procedures for (physical, reputation and environmental) and mucus Related.
- [4] Resources are sufficient to meet the requirements of stress tests, as well as a rule Data on carbon prices
- [5] Regular review of pressure test models and methodologies.
- [6] Adopting pressure tests as a basis in the Banking Supervision Department regarding interest and meeting international requirements for climate change and emission reduction.

**Fifth principle** — **Green Governance**: - Banks adhere to the principles of institutional governance with attention to the emissions and global warming part and issue a greenhouse governance guide to participate in monitoring and managing the environment and natural resources and the impact of activities in the banking sector on the environment

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The sixth principle - Disclosure of carbon footprint reports to achieve carbon neutrality in the Iraqi banking sector: - Determine the main reports issued by the bank in general related to the disclosure of emissions and carbon neutrality, and that the control of the Central Bank of Iraq be imposed on them.

The carbon footprint reports are reports that disclose the greenhouse gas emissions index, that the aim of issuing these reports is to determine the harmful emissions ratios caused by the banks themselves 'What are the necessary measures and plans taken by the bank's management to examine these percentages and reduce their negative impacts on the environment and climate to reach carbon diffraction (zero) as defined by the Paris Climate Agreement and according to the proposed guide For sustainable financing of proposed banking activities and guidelines Carbon fingerprint reporting It is the most important part of these principles and this is done through the following: -

# Sixthly: The organizational aspect of reporting, which includes sustainable financing activities

- [1] The goal of preparing reports: It is the follow-up to sustainable financing guidelines and these mandatory reports of countries that have entered into the Paris Climate Agreement and their pledge to achieve carbon neutrality are issued for some time (12) months by the bank.
- [2] Nature and components of disclosure:- The information available in the carbon footprint report includes the activities of banks related to sustainability, and what steps have been achieved towards achieving carbon neutrality, as well as confirming according to For standard (3410) The rate regarding the information contained therein, and according to the guiding principles presented, carbon footprint reports are prepared through the use of the Revinetif Index (Refinitiv) Launched by a company (Refinitiv) It is one of The largest international companies equipped with environmental information and emissions, as well as providing electronic trading platforms linking financial markets in the world as well as working in the field of providing financial services, investment management and risk management. The importance of the indicator is that it provides an indicator and an innovative standard for measuring Carbon neutrality and corporate governance and sustainability practices that address environmental and social contributions to companies listed in the markets 'It provides the data and information necessary for investors wishing to allocate capital and investment in companies that invest in activities that are concerned with governance applications and issues of environmental conservation and are interested in managing their business in light of the importance of this escalation the information Environmental and social data and analysis and corporate governance, (Official website of the Amman Stock Exchange 2023).

The use of the climate change indicators issued by the organization (Germanus) The International Climate Action Network and the New Climate Institute where the

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indicator assesses countries' capacities to manage change and focuses In particular, the goals of sustainable development and the future of climate readiness, where it revolves around three pillars of capacity, which are government, companies, individuals and society, and contains 150 variables. Accordingly, the carbon neutrality index can be prepared as follows:

[3] The proposed indicator for banks to disclose the carbon footprint to respond to carbon neutrality

#### Firstly -General requirements for all banks

- 1) Disclosure of compliance with the requirements of attention to professional human resource walls in promotion of Their banks by applying sustainable financing: -
- a. Training plans and programs prepared by the bank for the banking sustainability of human resources Regarding sustainable financing.
- b. Knowledge communication regarding accounting practices on expansion by disclosing retention Thermal and including it in training programs for accountants and bank auditors.
- 2) Disclosure of the percentage of integration of environmental, social and institutional elements when applying financing Sustainable in the bank
- a. The strategies in place to promote sustainable financing are clear, understandable, and integrated Within Vision Future.
- b. Establishing a committee to manage sustainable financing and sustainability risks.
- c. The limits of environmental risks in general and the risks of carbon in particular, according to the international standards disclosed about her.
- d. Disclosure of the types of climate-related risks.

Secondly: - Enhanced disclosure of carbon neutrality

- [1] The evidence available in the bank regarding carbon neutrality, includes the carbon footprint for business, carbon markets, and disclosure of other related matters.
- [2] Disclosure of the achievements made by the bank in issuing Bonds or any financial innovations Regarding the response to carbonated reefs.
- [3] 3- Carbon fingerprint calculations of the bank's business are determined according to For tables prepared based on Standards International.
- [4] 4-Carbon fingerprint reports are audited and confirmed by an external auditor.
- [5] The bank has a monthly updated database on the global market. GDP
- [6] The bank has official links with the carbon markets, through which daily trading is organized Carbon derivatives and tools.
- [7] The number of initiatives undertaken by the bank to respond to carbon reefs by international protocols United Nations climate agreements IPCC And the National Climate Strategy.
- [8] The bank provides an inventory of greenhouse gas emissions as a result of its activities Internally and externally, according To measure, disclose and verify emissions (MRV).

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[9] The bank has a climate governance guide and discloses the indicators it adhered to according to the guide.

[10] There is an annual assessment of climate policies according to performance indicators and calibration set for neutrality Carbon by the central bank.

# Third:-Disclosure of sustainable financing strategies that respond to carbon reefs in the bank.

- 1) Financing research and development expenses related to clean energy.
- 2) Granting zero-interest loans to environmental researchers.
- 3) There are investments by the bank in clean energy source projects that include:
- a. Green Sukuk and Bonds.
- b. Sustainable financing tools for green social debt.
- c. sustainable financial derivatives.
- d. Carbon capture, use and storage projects.
- 4) There are bank financing tools to enable small and medium-sized sustainability projects.

# Fourthly:- Disclosure of environmental indicators (Environmental Index ) In the financial market In which the bank trades its shares

- 1. The Global Climate Risk Index (GCRI)
- 2. Environmental Health Index.
- 3. Social employment index.

#### **Conclusions and recommendations**

#### **Conclusions**

- 1) There has been an increasing interest in climate change locally to harmonize with global concerns, given that Iraq has become a party to the Paris Climate Treaty and has obligations to the world to reduce its gas emissions to achieve zero neutrality.
- 2) The need for detailed guidance in general frameworks, principles and assumptions that necessitated the existence of the proposed guide to sustainability and the proposed indicator for the disclosure of the carbon footprint.
- 3) Countries that have committed themselves as parties to the Paris Climate Agreement have taken vigorous steps to achieve carbon neutrality.
- 4) The renewable energy initiative launched by the Central Bank of Iraq did not achieve its goal due to the decrease in loans that were withdrawn for the main purpose.

**Recommendations:** The research came out with a set of recommendations, most notably the following: -

1) The unified disclosure of the banking sector about the carbon footprint of its activities is the first step to spreading like this A unique type of disclosure in various sectors in the Iraqi environment. And obliging the banks listed in the Iraq Stock

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Exchange to disclose such a statement after issuing clear and explicit instructions issued by the Securities Commission.

- 2) Adoption of the proposed guide related to sustainable financing as well as the proposed indicator on Carbon footprint.
- 3) The Central Bank of Iraq has made efforts to evaluate the initiative to finance electric power generation projects from renewable sources and develop proposals for improvement.
- 4) Provide the Iraqi library with research that has been met by carbon neutrality.

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