Developing green banking activities at the Agricultural Promotion Bank (Laos)

Duan LIU, PHONESAVANH ANISA

(Business school of Hunan University, Changsha /Hunan Province, 410082)

Abstract: Previous studies confirmed that green banking is an inevitable direction of the financial industry. So that this issue has been emerging as the most important issues with more and more attention of researchers and practitioners in the world. But in Laos, this issue is still new and has only a little research that require a lot of research to clarify the situation and mechanism development. These recent years, green banking activities that have been deployed more at the Agricultural Promotion Bank, Lao but with a small scale. The main aim of this research is to synthesis the literature on the green banking topic, clarify nearly all activities of APB in general as well as the green banking activities in particular. This research also proposed some solutions in terms of developing green banking activities in APB in the near future.

Keywords: green banking, green credit, environment, Laos, sustainable development

1. Introduction

In recent years, climate change, depletion of natural resources, and polluted environment have had certain impacts on the stability of human living environment. These are problems that have made almost countries in the world concerned, including Lao. In Lao, the National Strategy on Climate Change and updated scenarios for reacting to climate change have been implemented, emphasized the nexus between climate change and economic development. Sustainability, while acknowledging that climate change is a common challenge that requires the hands of the entire society including the Government, ministries, sectors, localities and the business community.

Considering from the environmental aspect, our country's current growth model is still mainly based on the use of many natural resources, affecting the environment and increasing the impacts of climate change. The process of industrialization and urbanization will decrease natural resources and increase CO2 emissions. According to the Energy Information Administration, CO2 emissions will increase from more than 113 million tons in 2010 to nearly 471 million tons in 2030. Lao's economy in recent years has mainly developed by tissue "brown economy" that means economic growth mainly depends on the resource exploitation with low efficiency, generating a lot of waste, causing environmental pollution, outdated production technology... Therefore, Lao measures are required to transform growth patterns in the face of increasingly severe climate change. The shift towards a "green economy" model is the optimal option for sustainable development and poverty reduction in Lao.

Lao has identified green growth as an important issue of sustainable development, ensuring fast, efficient, and sustainable economic development and making an important contribution to the implementation of the National Strategy on Climate Change. The overall goal of the Green Growth Strategy is "Green growth, moving towards a low-carbon economy, enriching natural capital becomes a key trend in

sustainable economic development; reducing emissions and increasing the ability to absorb greenhouse gases gradually become mandatory and important indicators in socio-economic development".

As a financial intermediary, the banking system is an important link in deciding investment capital for socio-economic development. Therefore bank system play a strategic role in the process of sustainable development firm. The implementation of solutions from the banking industry will contribute to the orientation of the bank's credit flow into green, environmentally-friendly projects, thereby bringing benefits for society. On the national side, green banking development - green banking positively contributes to a balanced and harmonious development between the economy, the environment and society, contributes to poverty reduction, poverty reduction and quality improvement. People's life avoid environmental and social risks that many countries have encountered due to too much emphasis on economic development but neglect the ecological environment; consistent with the general trend. This is an opportunity for international green financial and credit institutions to invest capital in Lao.

As a leading commercial bank in credit financing for green growth models, Lao Agricultural Promotion Bank (APB) was selected as one of the four commercial banks to pilot implementation of the program. Green banking for the period 2017-2022. With the deep awareness that sustainable development brings stable income for business and production people and helps APB reduce credit risks, over the past time, APB has always focused on credit projects and production plans. Agricultural export and business develop in a safe, efficient, sustainable manner, protect the environment and the environment. For these evidence, this research focuses on the Developing of green banking activities at Agricultural Promotion Bank (Lao). The main aim of this research is to clarify the green banking activities, understand the development of green banking activities at APB, then propose solutions to develop green banking activities at APB in the coming time.

To reach the end, the current study first applied the synthesis method to collect some related research in the field to have a comprehensive view in the green tendency in the banks in the world. From that, this research propose the necessary of deeper research green banking in APB as well as in Lao. After that the author collected, summarized and analyzed the green credit of APB recent years to have a deep understanding the situation of green banking activities at APB. Besides, this thesis also utilizes the statistics, observation methods.

2. Literature review

Talking about environment and development refers to a very special relationship, the environment is the object and also the area for development, while development is the cause of environmental changes. In the specific link between economic development and environmental protection, the bank acts as an intermediary that has an indirect impact on the environment through customer activities. In addition, the environmental management in a bank has many similarities with risk management. The quality control of the loan portfolio not only helps banks minimize possible losses, but also increases the profitability and reputation of the bank. Therefore, one of the responsibilities of the bank is to actively and proactively manage environmental and social risks in operating internal activities, and actively seek and exploit products and environment-friendly business opportunities.

Green banking is the amount of credit that a bank gives to projects that do not

pose a risk or protect the environment ^[1, 2]. In other words, green banking is credit in the form of financing, loans and other forms of credit, which take into account environmental impacts and enhance environmental sustainability, for example: loans to companies to invest in energy, water and fuel saving projects; to reduce waste or pollution; to build and exploit renewable energy facilities (geothermal, bio-energy, hydroelectricity, wind energy, solar energy, etc.). With the goal of energy saving projects, renewable energy and clean technology, green banking products contribute to the great benefits of economic development towards green growth. By reducing the negative impacts of the business sector on the environment and society, green banking not only plays an important role in protecting the environment but also contributes to the sustainable development of the economy health. Therefore, developing green banking lines is a very necessary action in the current context.

Green economy is one that aims to improve people's lives and social assets, while focusing on minimizing environmental hazards, ecological crises and resource scarcity ^[3, 4]. This is considered a new model, contributing to solving global challenges such as climate change and depletion of natural resources. Green growth is the process of "greening" the traditional economic system and a strategy to move towards a green economy ^[5, 6]. In other words, green growth is a strategy that seeks to maximize economic output and minimize the ecological burden. Green growth is an approach to achieving economic growth, with the aim of reducing poverty, ensuring the environmental sustainability. Green growth focuses on growth quality through promoting ecological efficiency. Moreover, green growth differs from traditional growth in that it does not take the motto "development first, then protection of environment", but also take the prediction, prevention and integration of environmental protection, and reduce carbon emissions production and business as the driving force for growth.

Another concept that needs to be mentioned is green banking. In a broad sense, "green banking is a sustainable bank", in which a few studies show that a bank for sustainable development, investment decisions need to look at the big picture and take action in a way that benefits consumers, economically, socially, and the environment. At that time, there existed a close relationship between the bank and economic, social and environmental factors. A bank can only develop sustainably if its interests are linked with those of society and the environment. In a narrow sense, "green banking" refers to business activities of banks that encourage activities for the environment and reduce carbon emissions, for example, to encourage customers to use green products and services; applying environmental standards when approving loans or granting preferential credit for projects to reduce CO2, renewable energy... As a financial intermediary, promoting economic growth, the bank plays a role making an important contribution to the sustainable socio-economic development of the country. Therefore, green banking policies are an important solution to drive the economy towards green growth.

Green banking carries all the characteristics of banking credit as follow:

First, banking credit lends in the form of currency. Lending in currency is a kind of credit that is popular, flexible and suitable for all types of people in the national economy.

Second, banking credit lends mainly with borrowed capital from all members of the society, not entirely owned by banks such as usury or commercial credit.

The process of mobilization and development of banking credit is relatively independent of the movement and development of the social reproduction process.

During the economic crisis, production and circulation of goods stagnated, but the demand for banking business not only decreasing, but also maintaining to prevent bankruptcy. On the contrary, during the booming economic period, enterprises expanded production, goods circulation increased sharply but banking credit could not meet the demand. This is a very normal phenomenon of the economy.

In addition, green banking has the following characteristics that are distinct from traditional banking: First, green banking/ credit is a type of credit in the form of financing, loans and other forms of credit, which take into account the impact of the project, the loan plan on the environment because environmental protection is an important contribution to the sustainable development of the economy [7, 8]. Second, green banking gives priority to projects and loan options focusing on minimizing ecological crisis and scarcity of natural resources [9, 10]. Green banking has a lof of benefits to economy, and banks. Specifically, green banking concentrate, accumulate capital to provide to the economy. Commercial banks help to concentrate temporary idle capital sources of entities in the economy, from small capital sources of each entity into large amounts of capital to finance investment and consumption of enterprises, the state and citizen[11, 12]. Green banking makes an important contribution to environmental protection and climate change combat. Green banking is a very important tool for capital accumulation and concentration, thereby helping to accumulate and focus on the application of environmentally-social technologies in production. Credit granting process compose of steps as follow [12, 13]: Step 1: Prepare loan application; Step 2: Credit analysis; Step 3: Make credit decisions; Step 4: Disbursement; Step 5: Credit monitoring and step 6: Liquidate the credit contract.

The development of green banking depends of the determinants as follows: economic development; legal environment; competitors; State economic policies and programs; the development in the world and the demands of the customers.

3. Development of green banking activities at Agricultural Promotion Bank

3.1. Generalization of APB

On March 21, 1993, the Lao PDR issued Agreement 45 / BOL to establish specialized banks, so that on June 21, 1993, Prime Minister signed the Decree number 92/PM to established Agricultural Promotion Bank (hereinafter referred to as APB)

The Government has had many solutions to remove difficulties and obstacles to motivate the developing economy, especially improving the investment environment, enhancing the competitiveness of the economy, removing nodes for business. Therefore, the socio-economic situation of our country has made significant positive changes in most fields. Macro economy is stable, inflation is controlled; production and business continued to grow; economic restructuring achieved some results; investment in the private sector has strongly changed; hundreds of thousands of newly established enterprises... GDP growth in 2019 reached 6.2%, inflation was controlled at less than 5%.

As a leading commercial bank in Lao's banking system, with nearly 110 domestic branches and transaction offices, APB focuses on expanding its network of activities all over the districts and communes to create conditions for customers in all regions and regions of the country to easily and safely access bank capital. Currently, APB has a large number of customers with over millions of production households and tens of

thousands of businesses. The extensive operation network contributes to APB's remarkable strength in enhancing its competitiveness in the integration period but there are many challenges.

2019 can be considered a particularly difficult year because agricultural production is affected by droughts, natural disasters, marine environmental incidents, and agricultural output is facing difficulties in the global value chain integration is getting deeper and deeper... However, through synchronous implementation of many solutions from proposing policy to implementation, APB's credit activities still achieved the target, set quality, continued customs affirms the key role in credit investment and providing financial services to the agricultural, rural and farmers sectors. With outstanding loans in the agricultural and rural sectors accounting for 50% of the total outstanding loans in this sector of the entire banking industry, APB has been and is playing an active role in the implementation of the Project on restructuring the property agricultural export in Lao and implementing development policy of the Party and State. Total outstanding loans to the economy in LAK reached 2,450 million LAK, an increase of 17.5% compared to the beginning of the year, reaching the growth target assigned by the State Bank in 2018. Credit structure continues to shift in the right direction; loans for agriculture and rural areas reached 1,154 million LAK, increased 494 million LAK compared with the beginning of the year, accounting for 70% of total outstanding loans; loans for production households and individuals reached LAK 1,047 million, an increase of 23%...

In the national action plan on green growth 2014-2020, the State Bank is assigned to take the lead in implementing the task of "Improving the institution and strengthening the financial and credit capacity of commercial banks serving green growth". To implement this decision, the Department of Credit for Economic Sectors has developed a Green banking Program for a number of sectors in the period 2018-2020

Conditions for participation in the program: Enterprises invest in the green areas of the program; having feasible loan projects and plans which are appraised and decided to lend by credit institutions;

Lending principles: Comply with the current commercial lending principles of credit institutions to customers;

Loan term: short, medium and long term (preferably medium, long term if the customer has demand);

Lending interest rate: 1% -2% / year lower than normal lending rate of each term;

Collateral: Credit institutions decide whether to mortgage or not to mortgage loans according to law provisions;

Risk appropriation and treatment: Comply with current regulations.

3.2. Development of green banking at APB

With a huge network of 110 branches, transaction offices and nearly 30 years of experience operating in the agricultural and rural markets, setting up a centipede system "to each village makes APB always affirm its position. Lao's leading bank, especially in the agricultural and rural sectors. As part of the action program to develop green banking, from November 1, 2019, APB launched a preferential credit program for "Clean Agriculture" with a capital funding scale of 50,000 million LAK, directing credit to clean agricultural production. As follows:

Subjects of the program are enterprises, cooperatives, unions of cooperatives, owners of large-scale clean agricultural production farms. Priority is given to traditional

customers who only have relationship with APB. Lenders include supply of inputs (plants, breeds, animal feed, high-quality fertilizers...); production (building factories, barns, ponds, greenhouses, farming, processing, equipment and other production costs...); consumption (purchasing, preserving and consuming agricultural products...). Regarding the lending interest rate, depending on the level of participation in the supply chain of inputs - production - consumption, customers are entitled to a lower preferential interest rate from 0.5% to 1.5 % compared with the interest rate for agricultural and rural loans according to current regulations of APB. As follows:

First, customers perform 1 of 3 stages (supply of input materials - production consumption) APB decreases 0.5% compared to the interest rate for agricultural and rural loans according to APB's current regulations. Customers perform 2 out of 3 stages (supply of input materials - production - consumption), APB decreases 1.0% compared to the interest rate for agricultural and rural loans according to APB's current regulations. Second, customers perform all 3 stages (supply of input materials - production consumption) APB decreases 1.5% of the interest rate for agricultural and rural loans according to APB's current regulations. Third, regarding collateral, depending on the type of customer, APB will consider granting a credit without collateral for or partly secured with assets. Customers are considered by APB for credit without collateral. Fourth, for cooperatives, unions of cooperatives and farm owners, APB considered for unsecured loans at the following levels. A maximum of LAK 1 billion for cooperatives and farm owners; A maximum of LAK 2 billion for offshore aquaculture or fishing cooperatives, providing offshore fishing services; aquaculture farm owners; Unions of cooperatives operating in rural areas or doing business and production in the agricultural sector. A maximum of LAK 03 billion for the unions of cooperatives for offshore aquaculture or fishing, providing services for offshore fishing. Fifth, for customers who satisfy the following contents: (i) have no bad debts at APB and other credit institutions within the last two years to the time of applying for credit, (ii) rank A or higher according to the to determine APB's internal credit rating, (iii) enterprises must have audited preceding year financial statements; APB considered and decided to grant short-term credit without collateral. Sixth, for businesses, cooperatives, unions of cooperatives borrowed under the linkage model. Enterprises, cooperatives, unions of cooperatives sign supply and consumption contracts with organizations and individuals directly engaged in agricultural production and are considered by APB to give loans without collateral maximum 70% of the value of the project, the loan plan under the link model; Enterprises, cooperatives and key cooperative unions sign contracts to implement value chain link projects in agricultural production with organizations and individuals directly engaged in agricultural production by APB Loans consider unsecured loans up to 80% of the project's value, loan plan under the linkage model. Enterprises, cooperatives, unions of cooperatives that have production and business projects, plans in agricultural zones with high technology application or high application agricultural areas, are considered by APB where loans to lend have collateral up to 70% of the value of a technology transfer or product sale contract that results from the customer's high-tech application manufacturing.

4. Solutions for developing green banking activities at APB

4.1. Opportunity and challenges of green banking

Nowadays, the economy of Lao faced enormous pressure from member

countries, and concerns about domestic goods not being able to compete with international products raised a demand. There is an urgent need to actively expand and improve the quality of domestic products. However, improvements in quality also need to be accompanied by improvements in operating models in order to meet environmental standards in the right direction of the economy in the new era. Currently, most domestic enterprises are in a shortage of capital, a series of projects and models of sustainable development cannot be implemented because of limited budget supply. Resources for green finance are becoming essential. Experience from countries around the world shows that green growth projects often encounter difficulties in raising capital because the State can only meet a modest part, the rest is equity or mobilized from other channels. This is a land that brings many sustainable benefits for credit institutions themselves (profit, reputation...), for businesses to borrow money as well as for the community. It can be seen as the real space that commercial banks need to pay attention to, especially in the current increasingly positive liquidity and capital input context.

Despite great potential and bringing technological innovation opportunities to the current economy, green banking still faces obstacles such as: legal system incomplete; risk management system incomplete; lack of information on green banking; financial resources limited; policy of government for developing green banking activities in the future.

4.2. Propose solutions and conclusion

First, develop green banking policies consistent with APB's activities

Green banking activities must be within the framework of the law. However, legal documents usually only provide framework provisions, less specific and detailed regulations on issues related to green banking activities of banks. Therefore, specific and detailed regulations on green banking issues are very important for each bank to effectively implement this activity. For APB, when rural agriculture is the top priority, the development of policies on clean agriculture, high agriculture is completely in accordance with the green banking development policy of the Government and the State Bank of Lao.

Second, increased capital mobilization: Improving the service quality in deposit mobilization: warm, polite, quick settlement, timely payment to customers upon request. Diversifying forms of mobilization, increasing competitiveness in capital mobilization. In addition to competing on interest rates, banks also have to apply other forms of customer stimulation such as saving savings, giving gifts right after sending money or giving gifts on holidays, New Year's Day, and birthdays for loyal customers. Banks should consider to expand the scale of activities at grassroots levels to attract savings and payment deposits of individuals and businesses. The expansion scale will promote the development of services of deposit, payment, money transfer, automatic teller machine (ATM)...

Third, improving customer rating: The customer rating can be done according to the following criteria: Environmental and social impacts, prestige. Evaluate the customer's financial situation through criteria such as equity capital, working capital, receivable debts, liabilities, earned profits. For individuals who take out loans, the bank should consider the stability of their jobs, monthly income, and the sense of law observance in the locality.

Fourth, developing strict loan management principles to avoid credit risks: green banking activity involves many objects from businesses, individuals, and

management agencies. Therefore, risks are diverse, requirements for risk prevention, and improvement of green banking quality are always the top concerns of each participating bank. Therefore, a credit policy must have specific binding provisions on types of loans, loan size, and necessary factors to ensure loan security.

Fifth, credit appraisal: for a project with the participation of green banking, appraisal is an important step in the loan approval process, it is decisive to the credit quality, the bank's ability to recover capital and the environmental and social effects of loans. Pre-loan appraisal must be done strictly, strictly according to the credit process, requiring credit officers, in addition to mastering the profession, must also have knowledge and understanding of the field of production and business activities of customers, to accurately evaluate the effectiveness of the customer's production and business plan. It is especially important in the appraisal stage to determine the effectiveness of the plan, the risks to the environment and society because this is the main source of the bank's debt collection and ensures the criteria of green banking.

Sixth, training staff with high expertise and professional ethics: the legal environment for banking activities in general and credit activities in particular is gradually improving according to international practices. The government delegates autonomy to commercial banks, autonomy in lending decisions and self-responsibility and self-exposure of risks. The commercial banks also exercise the right to decentralize their branches and subordinate units, and give certain decentralization to their staff. Therefore, the risks in the professional process, the ethical risks of the bank staff will be at risk of increasing if commercial banks and branches of the bank cannot establish a barrier of strict inspection, control and supervision closely and effectively, preventing credit risks from within.

Seventh, improving technology level: promote development of software to help manage and analyze debt quality quickly and accurately. One of the pillar of green banking that is Internet – based solutions. Banks are initially focusing on deploying payment services via Internet, e-banking transfer, online registration account and card procedures and storing customer information on computers to limit wasteful resources (papers, electricity...).

Eighth, propagating and raising awareness about green banking: Measures to propagate and widely disseminate information are needed to raise banks' awareness of the benefits and efficiency of green banking provision. In addition, it is necessary for banks to believe that participating in and implementing regulations on environmental risks will not only help the economy and society in the green development orientation in general, but also new business opportunities for the bank, helping the bank to develop stably.

Nineth, promote international cooperation: strengthen international cooperation to share information, study and learn from experiences to adjust green banking activities scientifically and appropriately to the current situation of the country. Promote international cooperation to build a legal corridor for green banking. Experts say that in order to promote green banking growth, first of all the legal corridor must be full. Currently, the regulations on environmental risks for credit loans are not sufficient. This makes it difficult to consider and appraise projects that pose risks to the environment or not.

Tenth, other specific solutions: Develop and implement measures to promote

credit growth in general and green banking in particular in the direction of encouraging environmentally and socially friendly businesses: research and development of green banking products, implementing credit programs with incentive policies for green growth projects, business and production projects. Improve service quality, create favorable conditions for green banking growth, access to finance projects, business and production plans associated with effective green growth. Perform regular and periodic inspection and supervision for environmental and social risk management in credit granting to customers, ensuring environmental and social risk management in Credit granting has become a regular, continuous and highly effective task.

5. Conclusion

Through researching the content of the topic "Developing green banking activities at the Lao Agricultural Promotion Bank", the author found that green banking activity has been and is a very urgent issue that Lao commercial banks in general and APB in particular have to pay attention to aim for safe and sustainable business. In fact, green banking activity is still a relatively new issue in Lao that has not been interested in developing by many commercial banks.

As the leading commercial bank in Lao and the leader in agricultural and rural lending, APB is deeply aware of the dangers of Lao's agriculture facing a series of great difficulties and challenges in the process of economic development and international integration, climate change, environmental pollution and especially unsanitary food safety... Therefore, APB determined to take the lead in implementing the guidelines of the Home Bank. The country aims to promote green banking growth, manage environmental and social risks in credit granting activities, and desire to build a safe and sustainable agriculture.

Through factual analysis, the implementation of green banking activities at APB is still fragmented, the period 2019 - March 2020 is also quite short to assess the level of green banking growth, and the data are still few basis of comparison. Moreover, to focus on clean agriculture, high-tech agriculture, and yet to expand into many other green fields of the economy.

Green banking is a new topic in Laos, this research has a lot of contribution but there are also a lot of limitations. This research only focuses on the synthesis of the literature review, and analyzes the situation of APB, then give some suggestion for the development of the green banking activities in APB in the future. Future research can propose and test the research model that help clarifying the mechanism of banking behaviors and customer behaviors as well.

Reference

- [1] Sun H, Rabbani M R, Ahmad N, et al. CSR, Co-Creation and Green Consumer Loyalty: Are Green Banking Initiatives Important? A Moderated Mediation Approach from an Emerging Economy. Sustainability, 2020, 12(24): 10688
- [2] Bihari S C. Green banking-towards socially resonsible banking in india. International Journal of Business Insights & Transformation, 2010, 4(1):
- [3] Loiseau E, Saikku L, Antikainen R, et al. Green economy and related concepts: An overview. Journal of cleaner production, 2016, 139(361-371

- [4] Panu P. Anxiety and the ecological crisis: An analysis of eco-anxiety and climate anxiety. Sustainability, 2020, 12(19): 7836
- [5] Hickel J, Kallis G. Is green growth possible? New political economy, 2020, 25(4): 469-486
- [6] Case P, Evans L S, Fabinyi M, et al. Rethinking environmental leadership: The social construction of leaders and leadership in discourses of ecological crisis, development, and conservation. Leadership, 2015, 11(4): 396-423
- [7] Liu X, Wang E, Cai D. Green credit policy, property rights and debt financing: Quasi-natural experimental evidence from China. Finance Research Letters, 2019, 29(129-135)
- [8] Wang F, Yang S, Reisner A, et al. Does green credit policy work in China? The correlation between green credit and corporate environmental information disclosure quality. Sustainability, 2019, 11(3): 733
- [9] Liu J-Y, Xia Y, Fan Y, et al. Assessment of a green credit policy aimed at energy-intensive industries in China based on a financial CGE model. Journal of Cleaner Production, 2017, 163(293-302
- [10] Yang C-C, Ou S-L, Hsu L-C. A hybrid multi-criteria decision-making model for evaluating companies' green credit rating. Sustainability, 2019, 11(6): 1506
- [11] Lalon R M. Green banking: Going green. International Journal of Economics, finance and management sciences, 2015, 3(1): 34-42
- [12] Shakil M H, Azam M K G, Raju M S H. An evaluation of green banking practices in Bangladesh. European Journal of Business and Management, 2014, 6(31): 8-16
- [13] Nath V, Nayak N, Goel A. Green banking practices—A review. IMPACT: International Journal of Research in Business Management (IMPACT: IJRBM) Vol, 2014, 2(45-62

在老挝农业发展银行开展绿色银行活动研究

刘端, PHONESAVANH ANISA

(湖南大学工商管理学院,湖南省、长沙市,410082)

摘要:以往的研究证实,绿色银行是金融业发展的必然方向。 以至于这个问题已经成为世界上越来越受到研究人员和从业人员关注的最重要的问题。 但在老挝,这个问题还是新的,只有很少的研究,需要大量的研究来阐明情况和机制发展。 近年来,老挝农业促进银行开展的绿色银行活动较多,但规模较小。 本研究的主要目的是综合有关绿色银行主题的文献,阐明 APB 的几乎所有活动,特别是绿色银行活动。 本研究还针对近期在建行开展绿色银行活动提出了一些解决方案。

关键词:绿色银行、绿色信贷、环境、老挝、可持续发展

中图分类号: 6304020 文献标识码: A

作者简介:

刘端:博士,副教授,博士生导师,财务管理系党支部书记,副系主任。美国 University of Massachusetts, Amherst 访问学者。湖南省技术经济与管理现代化研究会理事,湖南省青联委员。 PHONESAVANH ANISA,湖南大学工商管理学硕士研究生,老挝留学生。