DEVELOPMENT SCENARIO SELECTION AND ORIENTATION PROPOSAL FOR KEY ECONOMIC SECTORS SUPPORTING THE STRATEGIC ENVIRONMENTAL ASSESSMENT OF DIEN BIEN PROVINCIAL PLANNING (2021-2030) WITH A **VISION TO 2050**

Doan Ha Phong, Ta Thu Hang, Doan Manh Hung, Tran Viet Tung ⁽¹⁾The Viet Nam Institute of Meteorology, Hydrology and Climate Change

Received: 12/8/2024; Accepted: 26/8/2024

Abstract: The Strategic Environmental Assessment (SEA) for the "Dien Bien Provincial Planning for the 2021-2030 period, with a vision to 2050" is conducted on the basis of Viet Nam's legislative framework, national and regional planning, as well as the economic development orientation of Dien Bien province. In this article, potentially environmentally impacting content of the planning will be discussed, in which, development scenarios will be proposed and feasible scenario for the development of Dien Bien Province, the development targets, and orientations of important economic sectors will be selected. Three growth scenarios have been proposed for Dien Bien Province: the baseline scenario, the high growth scenario, and the breakthrough scenario. The most feasible one is the high growth scenario. In this scenario, the main specific targets by 2030 are: The average economic growth rate in the 2021-2030 period is 10.51%/year, in which the agriculture, forestry and fishery sector and the industry - construction sector will grow at the rate of 6.54% and 18.64%/year, respectively, in which the figure for the industry sector is 17.30%/year and that of the service sector is 7.15%/year. Regarding the economic structure by 2030, the agriculture, forestry and fishery sector will account for 12.0%; the industry - construction sector will account for 44.3% (in which the share of the industry sector is 15.4%) and the figure for the service sector is 39.6% of the province's Gross National Produc (GRDP). The research oriented the development of a number of important sectors such as: industry, construction, tourism, trade and services, and agriculture, forestry and fishery. Selecting feasible development scenarios with specific targets will contribute significantly to proposing development orientations for sectors having great impacts on the environment to support the SEA of Dien Bien Provincial Planning for the 2021-2030 period, with a vision to 2050.

Keywords: Planning, SEA, development scenario, development orientation, growth rate.

1. Introduction

According to the Law on Environmental Protection No. 72/2020/QH14 dated November 17, 2020 [1], Strategic Environmental Assessment (SEA) is the analysis and prediction of environmental impacts of strategies, planning, and development plans to provide solutions to minimize adverse impacts on the environment, serving as the basis to incorporate environmental protection measures into a strategy, planning, and development plan to

Corresponding author: Ta Thu Hang E-mail: tathuhang311@gmail.com

ensure sustainable development goals. The task of developing "Dien Bien Provincial Planning for the 2021 - 2030 period, with a vision to 2050" is one of the subjects required to undergo SEA according to the guidance of Decree No. 08/2022/ND-CP dated October 10/01/2022 of the Government detailing several articles of the Law on Environmental Protection [2] and Circular No. 02/2022/TT-BTNMT dated January 10, 2022 of the Ministry of Natural Resources and Environment detailing the implementation of several articles of the Law on Environmental Protection [3].

Carrying out SEA for "Dien Bien Provincial

Planning for the 2021-2030 period, with a vision to 2050" is based on Viet Nam's legislative framework; the relationship of the proposed planning with the other planning and strategies; the potentially environmentally impacting content of the planning; the scope of implementation of strategic environmental assessment; environmental components, natural heritages, regional socio-economic conditions likely to be affected by the planning; the impacts of the planning on the environment; and the solutions adopted to maintain positive trends and minimize negative trends of major environmental problems.

This article will focus on the potentially environmentally impacting content of the planning. Based on the perspectives, goals and development vision of the planning, development scenarios will be proposed and feasible scenarios, targets and development orientations for important sectors will be selected. Development scenarios will be presented using indicators such as total GRDP, average GRDP, and economic structure. Forecast models in these scenarios have high practical significance, especially for developing economies that are in a period of significant increase in investment for development, such as Dien Bien province.

Gross product of the area is the final result of production activities carried out by resident production units in a certain area, often a region. At provincial level, GRDP is calculated according to the production method [5].

GRDP per capita is an important indicator in comparing and evaluating the level of economic development and standards of living between countries or regions, provinces and cities and it is also one of the bases for calculating the human development index (HDI) [5].

Economic structure is a set of organic relationships between economic sectors and economic components. The economic development of a province will be evaluated based on economic structure indicators [5].

Proposing development scenarios and selecting feasible scenario with specific targets will contribute significantly to proposing

2. Data and Methodology

2.1. Statistical methods

The research compiles statistics on existing information and data related to key economic sectors (industry - construction, agriculture, forestry and fishery, and service sector) and calculates the GRDP. This method allows for the compilation of statistics on data from many different sources on labor force, total factor productivity, hydropower, wind power, infrastructure, urbanization, tourist arrivals, rubber, macadamia, and medicinal plantation area, etc. of the province. The data is reviewed, processed, and arranged in time series as a basis for analysis and evaluation.

2.2. Calculation and forecasting model building method

The growth rate of gross domestic product (GDP) is calculated at comparable prices according to the following formula [5]:

GDP growth rate (%) =
$$\frac{GDPn_1}{GDPn_0} \times 100 - 100$$
 (1)

Where: $GDPn_i$: GDP at comparable prices of the reporting year; $GDPn_o$: GDP at comparable prices of the year before the reporting year.

The model is built based on independent, multivariate regression equations. The model considers factors affecting economic growth in the industry - construction, agriculture, forestry and fishery, and service sector, thereby forecasting GRDP growth of the province.

The construction of estimation equations is predicated on the theory of economic growth, which is based on the ability to exploit, mobilize and effectively use investment capital and labor in the province. The land factor has been included, but it is not statistically significant because land usage cannot be divided into specific sectors as many areas are multipurpose. In addition, for provinces with low population density and large surplus land area, investment capital will be the main factor of impact. For example, while the industrial and service land area of the province decreases in some years, the GRDP of these two sectors still grows.

Factors affecting the growth of industries include the ability to increase or mobilize investment capital and labor in the province. Thus, the explanatory variables used in the model not only comprise investment capital and labor (like the simple Cobb-Douglas function model in economic theory), not only consider trends, but also consist of variables representing economic fluctuations in the 2021-2030 period when the province has new projects invested or put into operation.

Steps in building the model include:

- Step 1: Check the correlation between the industries' growth rate and past labor and investment factors.

- Step 2: Forecast investment and labor growth in the BAU scenario.

- Step 3: Build the baseline scenario.

- Step 4: Introduce shocks in the model.

3. Result and Discussion

3.1. Development scenarios

The development scenarios of Dien Bien province include baseline scenario, high growth scenario and breakthrough scenario. These scenarios are all based on the assumption that in 2023, Viet Nam has basically recovered from the impact of the COVID-19 pandemic.

3.1.1. Baseline scenario

The baseline scenario is the business-asusual scenario, where investment capital in industries and labor grow at the rate of the previous period (except for unusual years). In addition, registered projects will continue to be implemented, potential projects will be implemented at 50% of the set target (in terms of added value, the target may not be achieved due to unachievable scale or market fluctuations in prices).

According to Table 1, in the baseline scenario, by 2030, the province's GRDP will be 22.5 trillion and by 2050 it will reach 89.3 trillion at 2010 comparable prices. The province's GRDP growth rate will be 6.73%/year and 7.13%/year in the 2021-2030 and 2031-2050 period, respectively. The highest growth rate will be experienced by the construction sector, reaching 13.65% due to many large projects being implemented such as hydropower, transportation, housing, commercial areas, wind power, solar power, urban planning, highway, macadamia processing plants, and large tourism projects, etc.

The industry sector will have an average growth rate of 12.09% in the 2021-2030 period since this is the key development period for the province, especially when the transport infrastructure attracts investors to Dien Bien province, in addition to the development of supporting industries driving up macadamia harvest. This is also a period when hydropower, wind power, and solar power plants begin to come into operation. By the 2031-2050 period, macadamia yielding area in the province will increase dramatically and the macadamia processing industry will become an important industry of the province when the annual macadamia yield surpasses 100 thousand tons.

The agriculture, forestry and fishery sector will have a higher growth rate compared to the previous period, reaching 5.02%/year. During this period, the province will invest heavily in developing the macadamia industry. Although the contribution to GRDP of these investments will not be significant, macadamia can still significantly boost the province's growth rate, even in a scenario with a planting rate of only 50% of the planning's target due to large planting area and relatively low agricultural GRDP starting point. In the 2026-2030 period, the macadamia yielding area will increase rapidly, especially in the last years of this period from 2028-2030, adding significantly to the province's GRDP growth.

The service sector will experience low growth in the 2021-2030 period with an average rate of 3.75%/year. However, after 2030, major transport projects will be inaugurated including the highway connecting Dien Bien with other provinces. Along with the development of Dien Bien's tourism infrastructure and potential

projects such as the one upgrading the road connecting Dien Bien with Luang Prabang in Laos, the service sector will witness significant growth at a rate of approximately 8.44%/year.

GRDP of the industry, construction and service sector will increase rapidly and the proportion of the agriculture, forestry and fishery sector's GRDP will gradually decrease to 10.4% in 2030. The share of GRDP of the industry and construction sector will climb to 25.4% in 2030, with the fraction of GRDP of the industry sector steadily increasing between 2021 and 2030, reaching 7.3%. The service sector will still account for a large proportion of the province's total GRDP, however, the proportion of this sector will decrease in the 2021-2030 period and after 2030 due to the rapid growth of the agriculture, forestry and fishery and industry-construction sector.

Dien Bien's average GRDP per capita at current prices by 2030 is estimated at 79.4 million/person/year. The province's labor productivity will also increase rapidly, reaching 127.1 million/worker by 2030.

						Growth rate (%)	
No.	Indicators	Unit	2020	2030	2050	2021- 2030	2031- 2050
1	Total GRDP		11,753,255	22,537,847	89,325,342	6.73	7.13
2	GRDP of agriculture, forestry and fishery	Million VND at 2010 comparable	2,130,758	3,477,614	8,125,390	5.02	4.33
3	GRDP of industry - construction		2,463,895	8,493,776	30,279,090	13.17	6.56
а	GRDP of industry	price price	785,824	2,460,604	10,389,675	12.09	7.47
b	GRDP of construction		1,678,070	6,033,172	19,889,416	13.65	6.15
4	GRDP of service		6,623,304	9,574,802	48,400,631	3.75	8.44
5	Taxes and subsidies		535,298	991,654	2,520,230		
6	Average GRDP	million current dong/person	33.2	79.4	229.3		
	Economic structure						
7	GRDP of agriculture, forestry and fishery	%	18.4	10.4	4.6		
8	GRDP of industry - construction	%	18.8	25.4	17.9		
а	GRDP of industry	%	6.9	7.3	4.3		
b	GRDP of construction	%	12.0	18.1	13.6		
9	GRDP of service	%	58.3	30.9	27.5		
5	Taxes and subsidies	%	4.5	3.2	1.4		
10	Labor productivity	million current dong/person	56.71	127.12	325.69		

Table 1. Results of baseline scenario

Source: Absolute values are calculated at 2010 comparable prices [4]. Source: Estimates of the research team

3.1.2. High growth scenario

The assumptions of the high growth scenario are similar to those of the baseline scenario with the exception that potential projects will be implemented at 70% of the set target.

The high growth scenario is the most feasible one even after taking into account some small sectoral risks. In this scenario, the province's GRDP growth rate in the 2021-2030 period will be 10.51%/year and 8.61%/year in the 2031-2050 period (Table 2). The agriculture, forestry and fishery sector will grow at the rate of 6.54% per year, which is 1.52% higher than the baseline scenario. The contribution of this sector to the province's GRDP will gradually decrease from 18.4% in 2020 to 12.0% in 2030 because its GRDP growth rate is much lower than that of other sectors.

According to Table 2, in the 2021-2030 period, Dien Bien's construction sector will grow sharply due to the simultaneous implementation of construction projects, notably transportation, housing and hydropower projects, etc., contributing directly to the province's GRDP. The GRDP growth of the construction sector in this period is expected to reach 19.22%/ year and remain at 7.31%/year from 2031 to 2050. The driving force for growth in the latter period is the construction of macadamia processing plants and the development of solar and wind power projects when the province's hydropower potential has been fully exploited.

The industry sector will also experience significant growth in the 2021-2030 period with an average growth rate of 17.30%/year, which will then stabilize at 8.66%/year in the period of 2031-2050. The share of the industry sector in total GRDP will increase steadily in this period (from 6.9% to 15.4%) due to the rapid growth of many industries.

	Indicators	Unit	2020	2030	2050	Growth rate (%)	
No.						2021- 2030	2031- 2050
1	Total GRDP		11,753,255	32,118,793	167,473,302	10,51	8,61
2	GRDP of agriculture, forestry and fishery	Million VND at 2010	2,130,758	4,013,946	14,646,166	6.54	6.69
3	GRDP of industry - construction		2,463,895	13,611,986	60,341,656	18.64	7.73
а	GRDP of industry	comparable price price	785,824	3,876,705	20,421,245	17.30	8.66
b	GRDP of construction	price price	1,678,070	9,735,282	39,920,411	19.22	7.31
4	GRDP of service		6,623,304	13,218,907	88,246,609	7.15	9.96
5	Taxes and subsidies		535,298	1,273,953	4,238,871		
6	Average GRDP	million current dong/person	33,2	119,1	458,9		
	Economic structure						
7	GRDP of agriculture, forestry and fishery	%	18.4	12.0	8.2		
8	GRDP of industry - construction	%	18.8	44.3	29.1		
а	GRDP of industry	%	6.9	15.4	12.4		
b	GRDP of construction	%	12.0	28.9	16.6		
9	GRDP of service	%	58.3	39.6	60.3		
5	Taxes and subsidies		4.5	4.1	2.4		
10	Labor productivity	million current dong/person	56.71	190.52	651.75		

Table 2. Results	of high	growth scenario
------------------	---------	-----------------

Source: Absolute values are calculated at 2010 comparable prices [4]. Source: Estimates of the research team

The growth trend of the service sector in this scenario is similar to the baseline scenario. Accordingly, the 2021-2025 period will still be the preparation period while the years 2026-2030 and beyond 2030 will be strong development periods. In this scenario, the service sector will play an increasingly important role, accounting for 60.3% of total provincial GDP by 2050. If the GRDP growth rate remains stable, by 2030 the province's GRDP per capita can reach 119.1 million VND/person/year, nearly four times higher than that in 2020.

3.1.3. Breakthrough scenario

The breakthrough scenario occurs if the province effectively executes its labor and investment-attracting policies, all the potential projects proposed by the provincial People's Council are invested, and there are no market or pandemic risks in the province. The sectors' growth trend will be similar to the baseline scenario and the high growth scenario, however, the GRDP growth rate of the province will be much higher.

According to Table 3, if this scenario is implemented, the province's growth rate will reach 13.59% and 9.79%/year in the 2021-2030 period and 2031-2050 period, in turn. To achieve such a breakthrough growth rate, the two primary sectors driving the province's rapid growth between 2021 and 2030 will be the industry and construction sector, particularly in the first half of that period, from 2021 to 2025.

	Indicators	Unit	2020	2030	2050	Growth rate (%)	
No.						2021- 2030	2031- 2050
1	Total GRDP		11,753,255	42,026,814	271,977,983	13,59	9,79
2	GRDP of agriculture, forestry and fishery	Million VND at 2010 comparable price price	2,130,758	4,337,266	21,474,635	7.37	8.33
3	GRDP of industry - construction		2,463,895	19,574,524	114,332,532	23.03	9.23
а	GRDP of industry		785,824	5,249,375	34,233,970	20.91	9.83
b	GRDP of construction		1,678,070	14,325,149	80,098,562	23.92	8.99
4	GRDP of service		6,623,304	16,561,397	129,693,690	9.60	10.84
5	Taxes and subsidies		535,298	1,553,627	6,477,126		
6	Average GRDP	million current dong/person	33.2	155.9	727.7		
	Economic structure						
7	GRDP of agriculture, forestry and fishery	%	18.4	13.0	12.1		
8	GRDP of industry - construction	%	18.8	63.3	54.2		
а	GRDP of industry	%	6.9	20.9	20.8		
b	GRDP of construction	%	12.0	42.5	33.4		
9	GRDP of service	%	58.3	49.6	88.6		
5	Taxes and subsidies	%	4.5	5.0	3.7		
10	Labor productivity	million current dong/person	56.71	249.48	1033.50		

Tahle 3	Results	of breakth	nnuah	scenario
Tuble 5.	nesuits		nouyn	Scenuiro

Source: Absolute values are calculated at 2010 comparable prices [4]. Source: Estimates of the research team

What makes the scenario feasible is Dien Bien province's current small economic scale. as a result, major investment projects-such as the development of 120 thousand hectares of macadamia or commercial housing projectscan have a significant impact on it's GRDP. With their substantial total investment capital, these two projects have the potential to increase the industry-construction sector's GRDP growth rate to more than 20% annually. Furthermore, the service sector, with a particular emphasis on tourism, will be the province's primary growth driver between 2030 and 2050. Currently, there is a lot of potential for Dien Bien to attract more tourists. Previously, due to the remote terrain and underdeveloped aviation infrastructure, the province had difficulty attracting tourists from the southern provinces or foreign tourists due to connecting flights. Similar to Binh Dinh, the number of this group of tourists will increase significantly at the opening of the international airport, which will lead to a series of infrastructure projects serving the tourism sector.

3.2. Scenario selection and specific targets

The above analysis demonstrates that:

The base scenario is unlikely to materialize unless there are major events that affects province's ability to attract investment. In addition, market impacts, especially on the agricultural market (coffee, rubber, macadamia) can also be shocks that prevent the province from achieving its expected goals.

The breakthrough scenario is also unlikely to happen because there are many factors that can influence its feasibility. The first one is market risk. In recent years, the prices of coffee and rubber have remained low (especially rubber prices, which have only increased again in 2021). The province's potential macadamia development projects poses the second risk. Although the market potential for macadamia is still relatively large, most of it is in developed countries with different tastes and more stringent requirements for ensuring food hygiene and safety. Consequently, if the province does not have timely policies to promote processing quality and market access, it is very likely that supply will increase sharply while there is no output market, leading to a decrease in prices. In addition, there are other risks such as the impact of natural disasters on productivity and output of agricultural products or the impact of geopolitical fluctuations in the world.

The high growth scenario is the most feasible one for Dien Bien province. This scenario has not only factored in the benefits of investors pouring into the province once its infrastructure is finished but also prepared for market risks and disadvantages regarding the rapid development of macadamia products. Scientific and technological advances that help increase the province's total factor productivity and difficulties regarding quality of labor are also taken into account in this scenario.

In this scenario, primary specific targets by 2030 are as follows:

- The average economic growth rate in the 2021-2030 period is 10.51%/year, in which the agriculture, forestry and fishery sector and the industry - construction sector will grow at the rate of 6.54% and 18.64%/year, respectively, in which the figure for the industry sector is 17.30%/year and that of the service sector is 7.15%/year.

- Regarding the economic structure by 2030, the agriculture, forestry and fishery sector will account for 12.0%; the industry - construction sector will account for 44.3% (in which the share of the industry sector is 15.4%) and the figure for the service sector is 39.6% of GRDP.

- The total investment capital at current prices required to achieve the development target in the 2021 - 2030 period is about 326 trillion VND.

At the same time, in the high growth scenario, total greenhouse gas emissions of Dien Bien province will be significantly reduced by 2030 and the province will move towards net zero emissions by 2050.

- By 2030, total greenhouse gas emissions will be reduced by 43.5% compared to the BAU scenario. The emissions from the energy, agriculture, LULUCF, waste, and industry

sectors will be reduced by 32.6%, 43.0%, 70%, 60.7%, and 38.3%, respectively. Also, carbon sequestration will be increased by 20%.

- By 2050, ensure that total greenhouse gas emissions reach net zero and that emissions peak in 2035, then decrease rapidly. The emissions from the energy, agriculture, LULUCF, waste, and industry sectors will be reduced by 91.6%, 63.1%, 90%, 90.7%, and 84.8%, respectively. Carbon sequestration will be increased by 30%.

Based on the socio-economic development and carbon neutrality by 2050 goals of Dien Bien province, the development orientation for some key sectors is proposed as follows.

3.3. Development orientation for key industries and sectors

The orientations are based on the development direction of important sectors, with development perspectives and goals consistent with the development direction in the socio-economic and industrial development planning of Dien Bien Province, of the Northern Midlands and Mountains and of Viet Nam, creating links between economic regions, localities, and economic sectors and on the basis of the province's strengths.

3.3.1. Development orientation for key industries

- Mineral exploitation and processing industry: Focus on exploiting minerals that Dien Bien province has potential advantages, develop in-depth processing industry and produce high value-added products such as: Coal; iron ore, copper ore (Muong Cha, Tuan Giao, Tua Chua); lead, zinc, gold (Phi Nhu-Dien Bien Dong), etc., increase investment in innovation, technology synchronization, and modern equipment to gradually increase the level of mechanization, increase the mineral recovery coefficient, utilize resources efficiently, protect the ecological environment, and have strict control by state management agencies.

- Construction materials manufacturing industry: By 2030, continue to develop the construction materials manufacturing industry based on the province's mineral advantages: Brick and tile clay, cement clay, cement limestone, cobblestone, paving stone, white stone, marble, roofing stone, common construction stone. Strive to maximize the capacity of Dien Bien cement factory and diversify products, develop construction materials based on effective exploitation of local labor force.

- Agricultural, forestry, food, and medicinal products processing industry: Develop agricultural, forestry, food, and medicinal processing industry associated with developing raw material areas, based on the potential advantages of land and soil in developing agricultural products such as rice, coffee, tea, cassava, macadamia, combine with afforestation.

- Mechanical engineering industry, repair, manufacturing and production of metal products: Develop mechanical workshops, process metal products, manufacture agricultural tools and household appliances, repair electronics in urban and concentrated rural residential areas, promoting the industrialization of agriculture in rural areas.

- Textile and footwear industry: Support the construction, restoration and development of traditional craft villages and weaving industries, produce brocade products (bags, wallets, traditional costumes, etc.) to support tourism.

- Water production and distribution, and waste treatment industry: Ensure the production, supply and consumption of clean water according to the water supply system, focus on investing in rural water supply projects, especially for communes in mountainous, remote, border, and resettlement areas, focus on collecting and treating wastewater and waste in areas where treatment plants have been invested to prevent environmental damage.

- Production of local traditional products: Encourage and invest in developing traditional craft villages and occupations associated with tourism development such as brocade weaving in Nua Ngam and Muong Luan commune, Na Tau bamboo and rattan weaving village, etc., encourage the development of other small handicrafts (processing dong vermicelli in Na Tau, making rice paper and dried vermicelli in Thanh Hung, etc.).

3.3.2. Development orientation for the agriculture, forestry and fishery sector

3.3.2.1. Agriculture sector

- Developing food crop sector: Develop food production towards increasing product value and quality; manage and protect the existing rice production land, especially in Muong Thanh field; gradually reduce upland rice area to switch to growing fruit trees, macadamia trees, and animal feed crops; stabilize the corn growing area and carry out intensive farming to ensure food security; develop livestock farming.

- Developing fruit tree and industrial tree sector: Stabilize and improve the quality of existing fruit tree lands; increase safe production areas, reduce the use of chemical fertilizers and pesticides; monitor, forecast and implement measures to prevent and control pests and diseases; focus on post-harvest processing and preservation technology and creating commodity products; manage and effectively exploit coffee, rubber and tea plantations, improve product quality and value.

- Developing the livestock sector: Focus on growing livestock for the purpose of producing commodities in favorable and advantageous areas; promote the conversion of livestock farming, grass planting, animal feed processing methods, and the application of science and technology; improve productivity, output, and quality of fresh meat; ensure meat safety and quality standards; focus on preserving and developing indigenous livestock breeds; create high-quality, high-value specialty products, with a focus on developing grass-fed livestock farming (buffalo, cow, goat), and pig farming.

3.3.2.2. Forestry sector

Develop the forestry sector into a key economic sector in the agricultural structure of the province. Promote macadamia production, agroforestry production, non-timber forest products, landscapes development, and sustainable tourism types.

Develop agroforestry, urban forestry, landscapes and sustainable tourism types associated with forest resources, effectively implement payment for forest environmental services policy including forest carbon absorption and storage services, rental services for ecotourism.

3.3.2.3. Fishery sector

Develop the fishery sector in a sustainable and effective manner while protecting the ecological environment; promote aquaculture diversification, adopt intensive farming technology to improve productivity, quality and product value; promote aquaculture in irrigation and hydroelectric reservoirs and also in river and stream associated with the conservation and development of endemic and rare aquatic resources.

3.3.3. Development orientation for the tourism sector

3.3.3.1. International tourist market

Focus on effectively exploiting traditional international tourist markets such as France, China, Sweden, Germany, Korea, Japan, Laos, etc.,

Strengthen links with provinces and cities such as Hanoi, Lao Cai, Quang Ninh and neighboring provinces to expand the tourist market to China, Taiwan, ASEAN and European countries with long stays, large disposable income, and a desire to experience nature and traditional cultural identity of ethnic groups.

Key markets include France, Europe, Korea, Japan, Australia, Laos, China and potential markets inlcude Taiwan, Southeast Asia, North America, etc.

3.3.3.2. Domestic tourist market

Currently and in the future, the domestic tourist market is still the main market for Dien Bien tourism. Therefore, the province need to focus on exploiting the domestic tourist market from Hanoi and connecting with the midland and northern delta provinces such as: Quang Ninh, Hai Phong, Thai Binh, Hai Duong, Bac Ninh, Bac Giang, Vinh Phuc. These are provinces with strong growth rates in the Northern Viet Nam, especially for activities in industrial parks and clusters. Connecting to attract visitors in major centers across the country such as Ho Chi Minh City, Da Nang, Can Tho, etc. is also important.

Tourism product orientation: Main product

groups are based on three primary pillars: (1) Cultural - historical tourism; (2) Tourism based on national cultural identity and exploring natural landscapes; (3) Resort, entertainment, and health care tourism.

3.3.4. Development orientation for the trade and service sector

3.3.4.1. Domestic trade

- Develop commercial activities with the main focus on systematizing and diversifying commercial distribution channels (combining traditional and modern ones) and widely apply e-commerce.

- Orient and create conditions for enterprises, cooperatives, and business households to cooperate in developing the market, building a sales agent system, and developing a franchise network.

- Develop e-commerce transactions, complete e-commerce and telecommunications infrastructure, build a Dien Bien e-commerce trading floor, and ensue information security in e-commerce transactions.

3.3.4.2. Border gate economy and international trade

Developing border gate economy plays an important role in the economic development of Dien Bien province.

+ Take advantage of and effectively exploit the advantages of border gates with Laos and China.

+ Upgrade A Pa Chai - Long Phu border gate pair to a bilateral border gate, upgrade Huoi Puoc - Na Son and Si Pa Phin - Huoi La border gates, and open Na Bung - La Phu Chai and Nam Dich - Huoi Hia sub-border gates in the 2021-2030 period.

+ Promote investment, introduce policies and mechanisms to attract investment to develop Tay Trang border gate economy; complete the infrastructure at Huoi Puoc border gate; upgrade current road and build new ones such as QL4H, QL12, QL12D, provincial roads connecting border gates, build logistics centers, propose the Government to upgrade A Pa Chai (Viet Nam) - Long Phu (China) opening to a main border gate to attract businesses and trade. + Develop synchronous border gate infrastructure, increase the application of information technology, modernize customs procedures at border gates and border openings.

- Develop products that meet export standards.

- Diversify export markets, strengthen and expand relations with Yunnan Province, China, expand markets to ASEAN countries such as Laos, Thailand, Cambodia and effectively utilize economic and trade cooperation programs between Viet Nam and ASEAN partners and China.

3.3.5. Development orientation for the construction sector

- Develop the construction industry into an economic sector that plays a driving role in the province's development in the coming period, accounting for a large proportion of the economic structure of Dien Bien province, and meeting the development needs of other important sectors with the construction of hydroelectric and wind power projects with new technologies; implement housing projects, civil work projects, and develop high-class tourist areas; and meet the development needs of industrial and agricultural production sectors.

- Finish the construction planning at all levels, strengthen planning management, construction licensing and post-construction licensing inspection.

- Continue to improve the legal system, mechanisms and policies to promote a smooth, stable, transparent real estate market that has a reasonable structure, utilize resources efficiently, especially land, and contribute to stabilizing the macro economy and promoting growth.

- Strengthen control over the quality of investment projects.

- Accelerate the process of building a database system for the construction industry.

4. Conclusion

- 03 development scenarios for Dien Bien province have been proposed, including: Baseline scenario, high growth scenario and

breakthrough scenario. 01 scenario with specific targets has been selected, namely the high growth scenario, this is also the most feasible scenario for Dien Bien province. The primary specific targets by 2030 are as follows: The average economic growth rate in the 2021 - 2030 period is 10.51%/year, in which the agriculture, forestry and fishery sector and the industry - construction sector will grow at the rate of 6.54% and 18.64%/year, respectively, in which the figure for the industry sector is 17.30%/year and that of the service sector is 7.15%/year. Regarding the economic structure by 2030, the agriculture, forestry and fishery sector will account for 12.0%; the industry construction sector will account for 44.3% (in which the share of the industry sector is 15.4%) and the figure for the service sector is 39.6% of GRDP

- Moved towards net zero emissions by 2050.

- Oriented the development of a number of important sectors: Industry sector (Mineral exploitation and processing industry; construction materials production industry; agricultural, forestry, food, and medicinal products processing industry; mechanical engineering industry, repair, manufacturing and production of metal products; textile and footwear industry; water production and distribution industry, waste treatment; and production of traditional local products), agriculture, forestry and fishery sector (Development of food crops, fruit trees, industrial crops, livestock, forestry, and fishery), tourism sector (international and domestic tourist market), trade and service sector (Domestic trade, border gate economy, and international trade), and construction sector.

Contributions of each author in the article: Conceived the study: Doan Ha Phong; Performed the analysis: Ta Thu Hang, Doan Manh Hung, Tran Viet Tung.

Declaration: The authors certify that the manuscript is their own research work, has not been published before and has not been copied or plagiarized; there is no conflict of interest among the authors.

Reference

- 1. Law No. 72/2020/QH14 dated November 17, 2020 on Environmental Protection
- 2. Decree No. 08/2022/ND-CP dated January 10, 2022 on the elaboration of several Articles of the Law on Environmental Protection.
- 3. Circular No. 02/2022/TT-BTNMT dated January 10, 2022 on the elaboration of several articles of the Law on Environmental Protection.
- 4. Dien Bien People's Committee (2024), *Dien Bien Provincial Planning for the 2021 2030 period,* with a vision to 2050.
- 5. Decision No. 05/2023/QD-TTg dated February 24, 2023 on promulgating the System of statistical indicators at provincial, district and commune levels.
- 6. Statistical Yearbook of Dien Bien Province in 2021.
- 7. Decision No. 109/QD-TTg dated January 27, 2024 approving Dien Bien Provincial Planning for the 2021 2030 period, with a vision to 2050.
- 8. Law No. 21/2017/QH14 dated November 14, 2017 on planning.
- 9. Decree No. 37/2019/ND-CP dated May 07, 2019 on the elaboration of the Law on Planning.
- 10. Decision No. 555/QD-TTg dated May 16, 2018 approving the adjustment of the Master Plan for the Socio-Economic Development of Dien Bien Province by 2020, with a vision to 2030.