

**MINISTRY OF PLANNING AND
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**MULTIDIMENSIONAL POVERTY IN MIDLANDS AND
NORTHERN MOUNTAIN REGION: CASE OF LAOCAI
PROVINCE**

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SUMMARY OF DOCTORAL THESIS

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PREFACE

1. The necessity of the study

Poverty reduction in Vietnam has achieved remarkable progress and is internationally recognized: the poverty rate per capita (in monetary spending) has fallen sharply from 57% in 1990 to 13.5% in 2014. However, such achievement of poverty reduction has not been recognized as sustainable poverty reduction by both international community and the Government of Vietnam. The risk of falling back into poverty remains high, and local poverty and inequality persist. Poverty, including extreme poverty, is still widespread among ethnic minorities (EMs) and areas where EMs reside. In addition, new forms of urban poverty have emerged among immigrants and informal sector laborers resulting in the retardation of economic growth and social stability.

The reality has forced the Government of Vietnam to change its approach in attacking poverty. The shift of approach from unidimensional poverty (material poverty) to multidimensional poverty (MP) - human poverty is a reflection of a change in mindset and perception of poverty in line with socioeconomic development trends. As the level of human development is higher, the people's minimum needs will also change. Accordingly, the human needs then are no longer only material needs, but also comprising non-material needs relating to integral human development.

Midlands and Northern Mountain region (TDMNPB) is home to many EMs groups. Thanks to separate policies in economic development as well as poverty reduction, the lives of EMs have had many positive changes. However, there is a large number of EMs are daily facing difficulties both in material and spiritual aspects. In particular, the geographical gap (although the infrastructure has been improved greatly as compared to the past thanks to the investment policy) still exists narrowing opportunities for access to markets, medical services and education. Among the provinces in the TDMNPB, Lao Cai province is the typical case conversing all above features. Lao Cai is located in the TDMNPB and has a large proportion of ethnic minorities in material poverty. However, compared with other provinces, Lao Cai province has some outstanding advantages such as having more developed economic conditions. Hence, there is a part that has escaped from income poverty but is still poor in other aspects. If the multidimensional assessment is carried out in Lao Cai province, the research results may be valuable to recommend the Government to deal with the MP in EMs.

Stemming from the above reasons, the selection of the topic *"Multidimensional poverty in Midlands and Northern Mountain region: case of Lao Cai province"* is meaningful and necessary.

2. New findings of the thesis

2.1. Theoretical contributions

The thesis has built a new set of indicators to suitably measure the MP in mountainous areas. This set of indicators is measured under 5 dimensions with 12 components. Specifically: (1) The medical dimension includes accessing to medical services and health insurance; (2) The educational dimension includes the level of children's schooling and adult education; (3) The dimension of living conditions includes housing quality, housing area per capita, daily-life water sources, hygienic latrines, telecommunications services and facilities for accessing information; (4) The income dimension with the component indicator being income per capita/month and (5) The dimension of accessing to social security with the component indicator being social insurance.

2.2. Practical contributions

- This is the first study using the latest household living standard survey data set (VHLSS in 2016 and VHLSS in 2018). The thesis provides the most up-to-date and comprehensive picture of MP in the TDMNPB with the focus on Lao Cai province.

- A number of poverty reduction solutions have been proposed for the TDMNPB with a focus on Lao Cai province being placed in the context of national poverty reduction taking into account the specifics of the region, which can serve as a reference for managers and policy makers on poverty reduction in the coming period.

3. Structure of the thesis

In addition to the introduction, conclusion, and appendix, the thesis is structured with 4 chapters.

Chapter 1

OVERVIEW OF WORKS AND THE DIRECTION OF THE STUDY

1.1. OVERVIEW OF RESEARCH WORKS

1.1.1. Overseas research works relating to multidimensional poverty

a) Research on multidimensional poverty

“Assessment of poverty in the world” by the World Bank (WB), (1995). “Conceptual Framework for Poverty Measurement and Poverty Alleviation Policies”, Louis – Marie Asselin Anyck Dauphin (1999). Human Development Report by United Nations Development Agency (UNDP), (1997). “World Development Report: Attacking Poverty” by the WB, (2000). In which, the WB affirmed that the nature of poverty is multidimensional, specifically: (1) material poverty, measured by income or consumption or in other words, poverty by income; (2) deficiency of medical services and education; (3) vulnerability and prone to risk; (4) the state of having no voice and power. The United Nations report on the

implementation of the Millennium Development Goals (2003), emphasizes the need to assess "poverty" on the basis of basic human "rights" (including economic, social, cultural, political and civil rights).

b) Research on multidimensional poverty measurement index

Although the nature of poverty is recognized as multidimensional, the actions of the countries that initially attacked poverty, in fact, have approached one-dimensional poverty. This was only resolved when the Human Poverty Index (HPI) appeared in the "Human Development Report 1997" of UNDP (1997). Alkire and Foster's poverty measurement method is highly appreciated and employed. However, this method does not fully assess all aspects of poverty in terms of human development. To overcome this, a new comprehensive poverty assessment measure has been developed that is the Multidimensional Poverty Index (MPI) proposed in "Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development". by UNDP (2010) to replace HPI. The introduction of MPI has significant meaning to developed countries where poverty is no longer a priority problem under the previous perspective.

1.1.2. Domestic studies relating to multidimensional poverty

a) Researches on multidimensional poverty

"Poverty Assessment and Strategy" of the WB (1995). "Poverty Elimination and Hunger Eradication in Vietnam" by UNDP (1995). Vietnam Poverty Assessment Report "Attack on Poverty" of the World Bank (2000). The WB has conducted a nationwide study on "Poverty" in the report on poverty assessment in Vietnam (2003). In order to have a comprehensive view on poverty reduction achievements in Vietnam, the study on "Poverty Reduction in Vietnam: Achievements and Challenges" conducted by the Vietnam Academy of Social Sciences (2011) has summarized poverty reduction achievements which are highly appreciated by the international community. Success and challenges in poverty reduction were once again mentioned in a study conducted a year later "Well Begun, Not Yet Done: Vietnam's Remarkable Progress on Poverty Reduction and the Emerging Challenges" by the World Bank (2012) in the Vietnam Poverty Assessment Report 2012. In order to explain the difficulties in poverty reduction among EMs, "Research report on reviewing ethnic policies and proposing to build a Ethnic Minority Policy system until 2020" has been implemented by Dang Kim Son and colleagues (2012). Oxfam and ActionAid sponsored the implementation of some studies which is "Poverty reduction model in some typical ethnic minority communities in Vietnam" and "The role of village institutions in poverty reduction in some typical EMs communities in Vietnam", (2013). With the study "Solutions to poverty reduction and hunger eradication for socioeconomic development in the Northwestern provinces of Vietnam", author Nguyen Thi Nhung (2012) has focused her study in the Northwest provinces. "Report on poverty

assessment with the participation of the community in Lao Cai province” conducted by the Department of International Development of the United Kingdom (2003) and “Hunger eradication and poverty reduction in Lao Cai province” prepared by Do Thuy Linh (2007); the study on "Development of border gate economic zones with hunger eradication and poverty reduction in Lao Cai province" authored by Giang Thi Dung.

b) Studies on multidimensional poverty measurement index

The United Nations Children's Fund (UNICEF), the Ministry of Labour, Invalids and Social Affairs (MOLISA) and UNICEF Viet Nam conducted the study “Where do poor children in Vietnam live? Developing and applying a multidimensional approach to children” (2008). In the “Report on analyzing the situation of children in Vietnam” Rebecca Rios Kohn et al. (2010) also used a set of criteria to evaluate MP among children that many countries around the world have used to analyze the situation of poor children in Vietnam. “Analysis of the situation of children in Dien Bien province” was carried out by the People's Committee of Dien Bien province - UNICEF Viet Nam (2017). The “Report on MP in Vietnam” was conducted nationwide by the General Statistics Office (GSO) and UNICEF Viet Nam (2011). UNDP with Hanoi City People's Committee and Ho Chi Minh City People’s Committee conducted a study on “Hanoi - Ho Chi Minh City Urban Poverty Assessment" (2010).

Before Vietnam changed its poverty assessment methods, a group of researchers (Le Ha, Nguyen Cuong and Phung Tung) of the Mekong Development Research Institute conducted a study on MP in “MP: Evidence from Vietnam”, (2013). After the Government of Vietnam changed its poverty assessment methods to multidimensional perspective for 2016-2020 period, the MOLISA, the Center for Analysis and Forecasting - Vietnam Academy of Social Sciences, the GSO, the Mekong Development Research Institute and UNDP in Vietnam prepared “MP Report in Vietnam – Reducing Poverty in All Dimensions to Ensure Quality of Life for All” (2017). Lo Thi Duc (2019), in "MP in Vietnam: sustainable poverty reduction 2016 - 2020", stated that the measurement of MP implemented in Vietnam since 2016 has shown its feasibility, usefulness and effectiveness in the implementation of poverty reduction and social security policies.

1.1.3. Research gaps

The overall results of the studies show that the researches has been done with various contents both in theory and practice. However, there are some gaps remain: Most of the approaches and evaluations are based on uni-dimensional poverty criteria or the national general MP standard. There have not been many studies on MP in the direction of developing a separated poverty line for measurement and assessment. Most of the studies employed the results of poverty assessment basing on the poverty line published by the MOLISA or the GSO, there are not many studies that

directly use data from the VHLSS prepared by the GSO for analysis and evaluation. There have not been any studies comprehensively evaluating the MP in the TDMNPB and Lao Cai province.

1.2. RESEARCH DIRECTION

1.2.1. Objectives of the research

a) General objectives

On the basis of theoretical analysis and assessment of the current situation, to propose solutions for reduction of MP in the TDMNPB, with a focus on Lao Cai province, thereby contributing to recommending the Government in formulating poverty reduction orientation in the period 2021 - 2030, as well as planning a system of policies to ensure the reduction of MP according to the given target.

b) Specific objectives

Systematize the theoretical basis and international experience on MP. Analyze the current situation of MP in the TDMNPB through the case study in Lao Cai province. Analyze factors affecting the MP in the TDMNPB through the case study in Lao Cai province. Propose solutions to reduce the MP in TDMNPB with the focus on Lao Cai province in the coming period.

1.2.2. Research subjects, scope and questions

a) Research subjects

Subjects of the thesis are MP and issues related to MP.

b) Research scope

- In terms of content: the thesis focuses on developing criteria for measuring MP and using this newly built measurement criterion to measure the MP situation in the TDMNPB, in which the focus is Lao Cai province. The data used for measurement is mainly the data set provided in VHLSS (2016, 2018).

- In terms of location: the thesis focus on studying the MP in the TDMNPB through the case study of Lao Cai province in order to make recommendations for poverty reduction in Vietnam from a multidimensional perspective.

- In terms of time: study the current situation of MP during 2011-2018, propose solutions for reduction of MP during 2021 - 2030.

c) Research questions

The thesis raises three main researches questions:

Firstly, is it critical to identify MP in Vietnam? How to measure? How to identify and measure MP in regions? Which factors affecting MP in Vietnam? Secondly, How is the current situation of MP in Vietnam in the TDMNPB? Thirdly, the research results on MP in the TDMNPB: Does the case study of Lao Cai do any help to policy-makers in developing poverty reduction strategy in Vietnam after 2020. In particular, is it necessary to have specific policies to apply for regions in resolving differences?

1.2.3. Approaches and analytical frameworks

The thesis applies four approaching methods, from general to practical, general to specific approach; systematical approach; sustainable development approach; and needs-based approach. Accordingly, the thesis forms the following analytical framework:

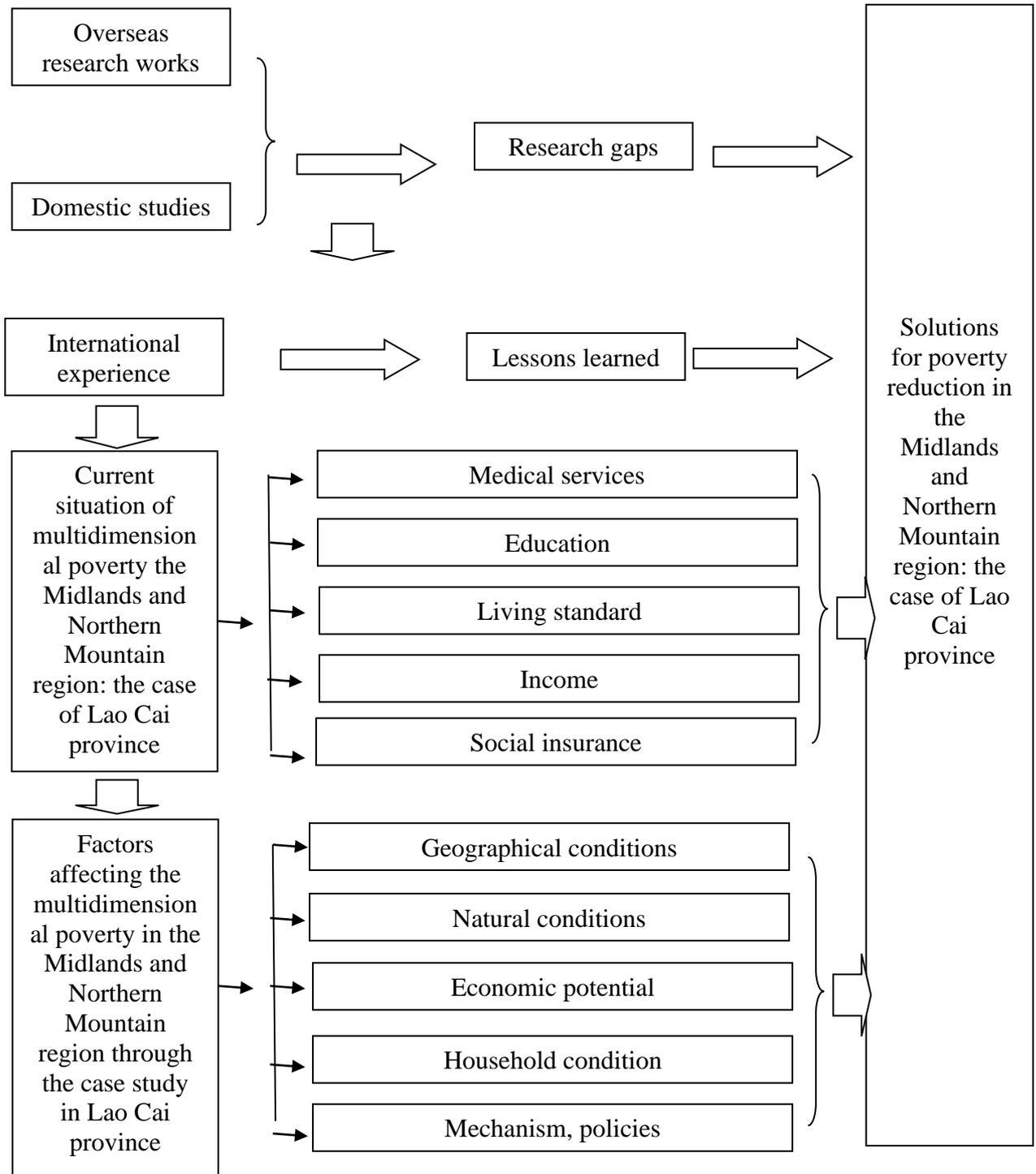


Figure 1.1: Thesis' analytical framework

Souce: summarized by author

1.2.4. Research methodology

a) Collecting information and secondary data

- The secondary source of information for evaluation of the MP in the thesis is taken from VHLSS - GSO.

- Along with the data source taken from above mentioned living standard surveys, the thesis also uses secondary information from a number of other sources.

b) Collecting information and primary data

To get more information and evidence for the thesis, a survey with the participation of 60 people (Table 1.1), dividing into 3 groups was conducted, specifically as follows:

Table 1. 1: Subjects of survey

TT	Subjects of survey	Number of respondents (person)
1	Civil servants and public employees at Central level	15
2	Civil servants and officials of Lao Cai province	35
3	Scientists	10
Total		60

Source: Summarized by Author

Chapter 2

THEORETICAL BASIS, MEASUREMENT INDICATORS AND INTERNATIONAL EXPERIENCE ON MULTIDIMENSIONAL POVERTY

2.1. THEORETICAL BASIS ON MULTIDIMENSIONAL POVERTY

2.1.1. The concept of multidimensional poverty

As defined by the thesis, MP is understood as the deficit of many basic and advanced aspects of human life in accordance with socio-economic conditions in each period, including the level of income that affords minimum standard of living, opportunity to access basic social services such as medical service, education, housing, clean water, sanitation, information and pursue further needs such as participating in socio-political and economic life, having a voice, being respected, being given opportunities and conditions to be able to withstand possible risks and demonstrate capacity and desire of the poor themselves.

2.1.2. The role of assessing and promoting multidimensional poverty reduction

The assessment and promotion of MP reduction has two roles, namely: deeper identification and better reflection of poverty; and provide more basis for the Government to issue supportive policies.

2.1.3. Features of assessing and promoting multidimensional poverty reduction

The assessment and promotion of MP reduction has four main features, specifically: large inclusively, synchronous implementation, multi-resource investment, and with significant, comprehensive and sustainable effectiveness.

2.1.4. Content reflecting multidimensional poverty

There are three contents in the thesis reflecting MP, including: income, welfare, and capacity.

2.1.5. Factors affecting multidimensional poverty

Factors affecting MP include: geographical locations and natural conditions; economic potential and infrastructure in service of production and life; characteristics of poor households; and policies to support economic development and poverty reduction.

2.2. INDICATORS FOR MEASUREMENT OF MULTIDIMENSIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAIN REGION AND LAOCAI PROVINCE

2.2.1. Some sets of multidimensional poverty measurement indicators in the world and in Vietnam

1) UNDP Multidimensional Poverty Measurement Index

The Human Poverty Index (HPI) was first used by UNDP to measure MP and the results are presented in "Human Development Report" in 1997. HPI reflects the poverty in three essential aspects of human life mentioned in the Human Development Index.

2) The Oxford Multidimensional Poverty Index

MPI measures poverty on three essential aspects of life with 10 indicators, specifically: (1) Health dimension is malnutrition and premature death. (2) Education dimension is the state of not attending school for the first five years and children are not being able to afford for schooling. (3) The living standard dimension is the state that people are not being able to access to electricity, clean water, latrines, living in shabby houses, using dirty cooking ingredients, and having no minimum means of transportation.

3) Multidimensional poverty measurement indicators of some countries in the world (Mexico, Bhutan, Colombia, South Africa, Malaysia)

4) Multidimensional poverty measurement indicators are generally applied in Vietnam

At the national level, Vietnam began to use the MP measurement index from 2016 to 2020 to replace the previous uni-dimensional poverty (food poverty) measurement index. The criteria for measurement of multidimensional poverty includes two groups of indicators according to the Decision No. 59/2015/QĐ-TTg dated November 19, 2015 of the Prime Minister, specifically: the group of indicators on income include only one indicator which measures the monthly income per capita; the group of

indicators on the level of deprivations of basic social services includes 5 dimensions (services) with 10 indicators, including (1) the health dimension with two indicators: access to medical services and health insurance; (2) the education dimension with two indicators, namely the educational level of adults; schooling situation of children; (3) the housing dimension with two indicators namely: housing quality and housing area per capita; (4) the living standard dimension with two indicators namely: domestic water source and latrines; (5) information accessing dimension with two indicators namely: using telecommunications services and facilities for accessing information.

In combining income-based poverty criterion and basic needs deprivation criterion, it can be concluded that: (1) A poor household in a rural area is a household that meets one of the following two criteria: having monthly income per capita of 700,000 VND or less; or having monthly income per capita of from over VND 700,000 to VND 1,000,000 and having at least 3 deprivations in accessing basic social services. (2) A poor household in urban areas is a household meeting one of the following two criteria: having monthly income per capita of 900,000 VND or less; or having monthly income per capita of from over 900,000 VND to 1,300,000 VND with at least 3 deprivations in accessing basic social services.

2.2.2. Proposing a set of indicators to measure the multidimensional poverty in the Midlands and Northern Mountain region and Lao Cai province

MP in the study will be approached gradually in accordance with the poverty concept of Capability perspective: (1) Ensuring human ability to afford the desired life (2) Ensuring food, basic needs; and further needs for respect, participation and voice (3) Developing policies to improve income; increase level of access to and enjoyment of basic needs; and ensuring further needs such as creating favorable conditions for capacity development in one's own way, increasing the participation in community activities, enhancing resilience to risks, reducing vulnerability to threats and socio-economic shocks... This approach, combining with international experience, the Multidimensional Poverty Measuring instrument is gradually determined to consist of five dimensions: Health, Education, Living conditions (including sub-dimensions of housing, clean water and sanitation, accessing information as defined in the National Poverty Line for the period 2016 - 2020); Income (becoming an independent dimension, this is a necessary condition to ensure a minimum standard of living. It is no longer a combined factor as defined in the national poverty line for the period 2016-2020); social security accessibility (this factor is newly added as social security is seen as a result of development, using the social insurance index). The assessment of current MP situation during 2016 - 2020 will be calculated according to this proposed measure.

2.3. EXPERIENCE ON POVERTY REDUCTION OF SOME COUNTRIES

Lessons learnt from experiences of China, Korea, and some ASEAN countries: identifying appropriate metrics; designing a national database system for effective and practical monitoring and evaluation; developing a system of policies to meet practical needs; defining the right roles and providing adequate support for the parties involved; focusing on the main contents and mobilizing non-state resources to participate in the context of limited resources.

Chapter 3

CURRENT SITUATION OF MULTIFUNCTIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAIN REGION: THE CASE OF LAO CAI PROVINCE

3.1. CHARACTERISTICS OF THE MIDLANDS AND NORTHERN MOUNTAIN REGION: THE CASE OF LAO CAI PROVINCE

Give an overview on natural, socio-economic characteristics

3.2. CURRENT SITUATION OF MULTIFUNCTIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAIN REGION: THE CASE OF LAO CAI PROVINCE

3.2.1. Current multidimensional poverty index in Midlands and Northern Mountain region and Lao Cai province

a) The existing multidimensional poverty rate index

The MP rate index (H) of Lao Cai province decreased from 0.181 in 2016 to 0.112 in 2018. In other words, the MP rate of Lao Cai province in 2018 was 11.2% per year, higher than the average MP level of the TDMNPB (8.6%) and 2.4 times higher than the general national MP level (4.6%). Compared with other provinces in the TDMNPB, Lao Cai province ranks 6th out of 14 provinces in the severity of the MP. For the TDMNPB, the H-index is 0.086 or the MP rate of the TDMNPB is 8.6%, the second highest in the country and higher than the national average rate.

b) Concentration index of multidimensional poverty

The concentration index of MP (A) or the average deprivation point of MP households in Lao Cai province is 0.435, higher than the general deprivation level of the TDMNPB (0.431) and the national deprivation (0.412). Thus, the incidence of MPI in Lao Cai province and severity is higher than the general level of the region. The deprivation level of Lao Cai province is still at average level, ranking 6/14. For the TDMNPB, the index A or the average deprivation point of MP households is 0.431, the highest point in the country.

c) Existing multidimensional poverty index

When doing the assessment of MP in Lao Cai province both in terms of width and depth, the MPI of Lao Cai province is 0.076, much higher than that of the whole country (0.019) and still higher than the general index of

the region. (0.059). Lao Cai ranked the 7th out of 14 in the whole region. Thus, the situation of MP in Lao Cai province is at the average level of the region but still more serious than that of the whole country. The depth of poverty in Lao Cai province is not too different from other provinces but the number of poor households in the province is big. Therefore, the MPI is high. For the TDMNPB, when the assessment of MP is conducted both in width and depth, the MPI index is 0.037, lower than that of the Central Highlands, much higher than the index of the whole country (0.019).

3.2.2. Poverty index in each dimension of the Midlands and Northern Mountain region, and of Lao Cai province

- Access to health services

The understanding of access to health services in the period 2016 - 2018 has changed compared to the previous period. According to VHLSS 2016, the deprivation indicator of accessing health services in Lao Cai province is very low (0.4%), much lower than that of the whole nation (1.4%) and of the region (0.9%). The severity level is only 12th out of 14 provinces in the region (table 3.1). However, there was a huge change by 2018 in the rate of this deprivation. Specifically, health services access deprivation rate increased from 0.4% to 1.4%, making Lao Cai province 2 out of 14 provinces in the TDMNPB having the highest rate of deprivation in medical services access.

Table 3. 1: Deprivation in accessing medical services

No	Indicators	2016	2018	2016 vs 2018
		0,6		
1	Lao Cai Province	0,4	1,4	-0,6
2	TDMNPB	0,9	1,0	-0,1
3	Nationwide	1,4	1,9	-0,5

Source: Calculation from the results of VHLSS 2016, 2018

- Health Insurance

According to the data given in VHLSS 2016 and 2018, the deprivation rate in health insurance is quite low in 2016 (10/14 provinces) and medium in 2018 (7/14 provinces), lower than the general deprivation level of the whole country and of the TDMNPB.

Table 3. 2: Deprivation of health insurance

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	14,1	9,1	0,5
2	TDMNPB	24,3	12,3	12,0
3	Nationwide	40,64	23,5	17,14

Source: Calculation from the results of VHLSS 2016, 2018

- Children's schooling level

The national deprivation rate in the child education dimension in 2016 was 3,2%, which means that there are more than 3 out of every 100 households have children of school age aren't sent for school. In the case of Lao Cai province, the deprivation of this indicator is 5,6%, much higher than the national average deprivation rate

Table 3. 3: Child education deprivation

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	5,8	3,8	2,0
2	TDMNPB	3,2	2,1	1,1
3	Nationwide	3,2	2,4	0,8

Source: Calculation from the results of VHLSS 2016, 2018

Lao Cai province is the one with a high level of deprivation, ranking 5th/14th. According to the data given in VHLSS 2018, although the individual child education deprivation rate of Lao Cai province is still higher than the general national and regional deprivation rate, there has been an improvement in the ranking of deprivation levels (the rank of deprivation level in 2018 is the 3th out of 14 provinces).

- Adult education

According to VHLSS 2016–2018, the deprivation rate of adult education indicator in Lao Cai province fluctuates between 23%, that is, for every 100 people aged from 15 and over in Lao Cai province, there are 23 people do not have a high school diploma, currently no longer attending school, twice higher than the national deprivation rate, much higher than the deprivation rate of whole region. This deprivation rate of Lao Cai is rather high (ranking 5th, 6th out of 14 in 2016, 2018 respectively) meanwhile province's economy is quite developed.

Table 3. 4: Adult education deprivation

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	23,0	21,0	2,0
2	TDMNPB	15,3	15,1	0,2
3	Nationwide	11,6	11,5	0,1

Source: Calculation from the results of VHLSS 2016, 2018

- Housing quality

Regarding housing quality indicators, Lao Cai province has a relatively high deprivation rate (32,2% and 26,3% in 2016 and 2018 respectively), twice as much as general deprivation rate in the TDMNPB and 4 times higher than that rate of the whole country. Thus, it is about 1/4 to 1/3 the number of households in Lào Cai province living in unstable

houses, temporary houses and simple houses. According to statistic results in 2018, the quality of housing Lao Cai province ranked 3rd out of 14 provinces in the region.

Table 3. 5: Deficit of housing quality

TT	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	32,2	26,3	5,9
2	TDMNPB	16,7	13,9	2,8
3	Nationwide	7,9	6,1	1,8

Source: Calculation using the results of VHLSS 2016, 2018

- Housing area per capita

Compared to the whole country, the data given in the VHLSS shows that the deprivation rate of housing area per capita in Lao Cai province is not high (6,5%), that is, for every 100 households, there are more than 6 households living in a house having the average area per capita less than 8m². This rate of deprivation is equal to the general rate of the whole country and slightly higher than the general rate of the TDMNPB.

Table 3. 6: Deprivation of housing area

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	6,5	6,3	0,2
2	TDMNPB	5,6	4,3	1,3
3	Nationwide	6,5	5,2	1,3

Source: Calculation from the results of VHLSS 2016, 2018

- Domestic water sources

The deprivation rate of domestic water in Lao Cai is quite high (23,7%), that is, nearly a quarter number of households in Lao Cai province are currently using unsanitary sources of domestic water in 2018. As of 2018, this rate has decreased to 14,2%, which helped to lower the level of deprivation in the province from the rank of 6th to the rank of 8th out of 14 provinces having a high rate of domestic use water deprivation.

Table 3. 7: Deprivation of domestic use water

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	23,7	14,2	9,5
2	TDMNPB	18,7	13,2	5,5
3	Nationwide	6,6	4,3	2,3

Source: Calculation from the results of VHLSS 2016, 2018

- *Latrines*

In 2016, the deprivation rate of latrines in Lao Cai province was 29,7%, that is, nearly one-third of households in Lao Cai province used unhygienic latrines. This deprivation rate is much higher than that of the whole country (16,2%) and nearly equal to the general deprivation rate of the TDMNPB (30,4%). As of 2018, this rate dropped to 16,7%, is still higher as compared to the rate of the whole country and the region.

Table 3. 8: Shortage of latrines

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	29,7	16,7	13,0
2	TDMNPB	30,4	15,8	14,6
3	Nationwide	16,2	9,7	6,5

Source: Calculation from the results of VHLSS 2016, 2018

- *Using of telecommunication services*

The deprivation rate in the using of telecommunication services in Lao Cai province in 2016 is 8,3%, in other words, for every 100 households, there are more than 8 households not having a phone or using the internet. As of 2018, there was a significant improvement as this rate dropped to 4,7%. The level of deprivation in using of telecommunication services in Lao Cai was quite high at the 4th out of 14 provinces (in 2016) and at the 5th out of 14 (in 2018) when compared to the region.

Table 3. 9: Deprivation of telecommunication services

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	8,3	4,7	3,6
2	TDMNPB	5,9	3,7	2,2
3	Nationwide	6,2	4,7	1,5

Source: Calculation from the results of VHLSS 2016, 2018

- *Facilities for accessing information*

In 2018, the deprivation rate of facilities for accessing information in Lao Cai province was 12%, in other words, for every 100 households, there are 12 households having no facilities for accessing information such as televisions, radios, computers or not being able to listen to commune and village radio stations. This rate of deprivation was higher than the general rate of the whole nation and region. Specifically, it ranked the 6th out of 14 in the region.

Table 3. 10: Deprivation of facilities for accessing information

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	7,6	12,0	-4,4
2	TDMNPB	8,6	9,1	-0,5

3	Nationwide	3,0	3,4	-0,4
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Source: Calculation from the results of VHLSS 2016, 2018

- Income dimension

The income deprivation rate of Lao Cai province decreased from 20,1% in 2016 to 15,1% in 2018. This rate is nearly three times higher as compared to the rate of the whole country in 2016 and more than 3 times in 2018. The income deprivation rate of Lao Cai province both in 2016 and 2018 was also higher.

Table 3. 21: Income deprivation

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	20,1	15,1	5,0
2	TDMNPB	18,2	14,0	4,2
3	Nationwide	7,3	4,3	3,0

Source: Calculation from the results of VHLSS 2016, 2018

- Social insurance access

Table 3. 32: Deprivation in accessing social insurance

No	Indicators	2016	2018	2016 vs 2018
1	Lao Cai Province	21,0	25,8	-4,8
2	TDMNPB	21,4	22,8	-1,4
3	Nationwide	28,0	27,5	0,5

Source: Calculation from the results of VHLSS 2016, 2018

According to VHLSS' data, the deprivation in social insurance indicators of Lao Cai province increased from 21% (in 2016) to 25.8% (in 2018). This deprivation rate is still low as compared to that rate of the whole country and higher than that of the TDMNPB in 2018 (22.8%). However, in terms of ranking, it dropped from 7th to 5th out of 14 provinces

3.3. FACTORS AFFECTING MULTIDIMENSIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAIN REGION: THE CASE OF LAO CAI PROVINCE

Analyze the factors affecting the MP in terms of geographical location, natural conditions, economic potential, household characteristics, mechanisms and policies.

3.4. GENERAL ASSESSMENT ON MULTIDIMENSIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAIN REGION: THE CASE OF LAO CAI PROVINCE

3.4.1. Achievements

There are 4 outstanding achievement: the number of MP households reduced quickly; the indicators of poverty components tend to decrease; essential socio-economic infrastructure is prioritized for investment; The

income, material and spiritual life of the poor have been improved positively.

3.4.2. Shortcomings and limitations

There are 5 shortcomings and limitations, including: the deprivation rate in MP households in the TDMNPB and Lao Cai province is quite high; the deprivation rate in some poverty dimensions remain relatively high; the MP measurement instrument does not fully reflect the increasing needs of the poor; the gap between rich and poor tends to increase; and the database system for monitoring, examining and assessing poverty has not yet met the requirements.

3.4.3. Causes of the shortcomings, limitations

There are 7 causes of the shortcomings and limitations, including: the measurement of MP is not appropriate; the policy system related to poverty reduction is still not synchronized; effectiveness of state management on poverty reduction is still limited; the economic environment and infrastructure are not yet guaranteed; the database system for monitoring, examining and assessing poverty has not yet met the requirements; household conditions are not favorable; unfavorable geographical and natural conditions.

The MP assessment results of Lao Cai province in comparison with those of TDMNPB show that the judgments about Lao Cai province reflect the current situation of MP in the TDMNPB. On the other hand, the natural, socio-economic conditions and policies related to poverty reduction of Lao Cai province are similar to and represent for those of the TDMNPB. Therefore, from the case study of Lao Cai province, in order to solve the poverty problem of Lao Cai province particularly or of the TDMNPB generally, it is necessary to determine the viewpoints and orientations for reduction of MP, ensuring local specificity and placing in the general MP reduction context of the whole country.

Chapter 4

SOLUTIONS FOR MULTIDIMENSIONAL POVERTY REDUCTION IN THE MIDLANDS AND NORTHERN MOUNTAINOUS REGION: THE CASE OF LAO CAI PROVINCE

4.1. CONTEXT RELATING TO MULTIDIMENSIONAL POVERTY IN THE MIDLANDS AND NORTHERN MOUNTAINOUS REGION, LAO CAI PROVINCE DURING 2021-2030

4.1.1. International context

The world in the period of 2021 - 2030 with vision to 2045 will have many intertwined opportunities and challenges. First of all, the industrial revolution 4.0 is a great opportunity for any country which can successfully seize it. Second, the new generation of international integration is creating opportunities for all countries to participate in a new and more

comprehensive game. Third, the market-oriented economy and market mechanism with the basic principles are natural and human resources will operate to where these resources are used most effectively. Fourth, global climate changes (e.g. global warming, saltwater intrusion, sea level rise...), out-of-control diseases (H5N1, COVID-19, African swine fever...) have been being more and more densely and causing great impacts not only on the economy but also on society and people. Fifth, the issues of sustainable development, comprehensive development, no one is left behind in the development process has been seriously considered. Development goes along with hunger eradication and poverty reduction. Effective participation and success will only be achieved if there are the guidelines, directions and the right way of acting. Achieving the reduction of multidimensional poverty is one of the appropriate steps in the coming years.

4.1.2. Domestic context

Vietnam is considered a successful country in poverty reduction. However, Vietnam still faces many limitations and challenges. Firstly, whether or not Vietnam will overcome the middle-income trap to become a developed country with high-income and will be able to promote its strength to become a high-income industrialized country by 2045. For the poverty reduction target: striving to accomplish the goals under the 2030 Agenda for Sustainable Development; synchronously deploying solutions to reduce multidimensional poverty sustainably and inclusively, especially in EMs areas; continue to implement the National Target Program on Sustainable Poverty Reduction; substantial renewal of the approach to poverty reduction with conditional support policies, reduction of gratuitous support, arousing the will to take the initiative to get out of poverty by the poor themselves and reducing social inequality.

4.2. PERSPECTIVES AND ORIENTATIONS FOR MULTIDIMENSIONAL POVERTY REDUCTION IN THE MIDLANDS AND NORTHERN MOUNTAINOUS REGION, LAO CAI PROVINCE DURING 2021-2030

4.2.1. Multidimensional poverty reduction perspectives

There are 3 perspectives on MP reduction, including: poverty reduction in provinces and regions must be placed in the national context; sustainable poverty reduction in all aspects and ensure accessing to disadvantaged groups of the society; and monitoring and evaluation works must be completed to meet the requirements of poverty reduction progress assessment

4.2.2. Orientations for multidimensional poverty reduction

- Develop a multidimensional poverty measure reflecting various dimensions

Considering the change in the concept of poverty, it is initially material poverty, then it is the deprivation of basic social needs, and finally

is lack of voice in social activities. The choice of poverty dimension will change over time. Currently, poverty in Vietnam in general and in the TDMNPB in particular with dimensions of income-based poverty/basic needs satisfactory have been prioritized in the national poverty reduction strategy. The achievements in poverty reduction from the perspectives of income and basic needs satisfactory show that it is time for Vietnam in which the TDMNPB to supplement the poverty dimension/index reflecting the participation of the poor in the society.

- Develop a system of multidimensional poverty reduction policies considering regional factors to increase effectiveness and sustainability

The transition from unidirectional poverty to MP requires the adjustment of policy system. The change in the concept of poverty in Vietnam is currently based on the approach of the world, in which the WB's approach is outstanding. Therefore, the strategy to attack poverty proposed by the WB is valuable in the formulation of a policy to reduce poverty in Vietnam. In the "World Development Report 1990" (1990), the WB outlined a strategy for hunger eradication and poverty reduction, which mainly focused on material poverty and limitations in accessing to basic services such as education, and medical. In 2000, after a decade, the WB continued to propose a three-pronged strategy to address multidimensional poverty. The Vietnam Development Report in 2000 titled "Vietnam – Attacking Hunger and Poverty", (2000). The content of the strategy includes: (1) Expanding opportunities for the poor; (2) Empowering the poor; (3) Strengthening social security. In 2018, the WB issued an updated report on poverty in Vietnam titled "Climbing the ladder - Poverty Reduction and Shared Prosperity in Vietnam", (2018). The contents of the strategy remain its value. In addition, the WB recommended focusing on priorities for socio-economic development, including enhance labor productivity and invest in infrastructure and salary growth without losing competitiveness; implement education reforms to balance opportunities and develop the skills of the workforce; accelerate agricultural restructuring through changing agricultural land use patterns, enhancing land use rights and improving skills of poor farmers.

- The implementation of multidimensional poverty reduction requires an appropriate monitoring and evaluation database system

Monitoring and evaluation is the process by which data is collected and analyzed to inform poverty reduction policy-makers who implement poverty reduction interventions. These interventions are national target programs and general or separate policies in poverty reduction.

- The multidimensional poverty reduction will be more difficult in the future in terms of speed and extent

MP reduction targets those who are the poor, who living in poor areas. It is difficult for poverty reduction in poor areas, also known as "core poverty" or "chronic poverty", "inherent poverty".

Therefore, it is necessary to have other, specific solutions and not to be hasty in mind with the desire to eliminate poverty overnight.

- Reducing multidimensional poverty in a sustainable way to curb falling back into poverty

Sustainable development is the main and mainstream trend of the whole world towards 2030. Hence, MP reduction is also a part of this mainstream trend.

4.3. SOLUTIONS TO PROMOTE MULTIDIMENSIONAL POVERTY REDUCTION IN THE MIDLANDS AND NORTHERN MOUNTAINOUS REGION, LAO CAI PROVINCE

4.3.1. Improving the multidimensional poverty measure

- Period of 2021 - 2025

Income poverty becomes one dimension among the poverty dimensions for calculating MPI. People's participation in social activities is a criterion for assessing human development, which is the most vulnerable aspect. With the foundation of the Ordinance on the Implementation of Democracy in Communes, Wards and Townships, which has been implemented for a long time, the period after 2020 is the right time to introduce an additional dimension of social participation with the criterion of not participating in any social activities in the living area to assess the extent of deprivation in poverty measurement. In addition, housing issues that reflect living conditions should be introduced into poverty dimension of living conditions. Besides, the collection and treatment of waste is becoming an urgent issue not only in urban areas but also in rural areas, affecting people's lives.

Table 4. 1: Poverty dimensions and indicators for the period of 2021 - 2025

Dimensions	Indicators
Health	- Access to medical services - Health insurance
Education and training	- Children education (aged from 5 to 14) - Adult education - Qualification of laborers in the workforce (new addition)
Living conditions (housing, clean water, sanitation, waste treatment, communication)	- Housing quality, including aspects defining what is a safe house (adjusted) - Housing area per capita - Domestic use water source

Dimensions	Indicators
	<ul style="list-style-type: none"> - Latrines - Waste collection (new addition) - Using of telecommunication services - Facilities for accessing information
Income (new addition)	Annual income per capita ensuring the minimum standard of living
Access to the social security system (new addition)	Social insurance (new addition) Employment (new addition)
Social participation (new addition)	Do not participate in any social activities in the living area (new addition)

Source: Proposed by the author

For the dimension of social security system, in addition to the criterion of social insurance, the criterion of employment will be added.

- *Period of 2026 - 2030*

This is the period harvesting achievements of economic development during 2016 - 2025, which comes into play as well as the policy of investing in improving the living conditions of households with inadequate latrine standards. The thesis assumes that the percentage of households having the deprivation in this criterion is very low and is removed from the minimum living conditions. Social security is defined as the situation of living in an area with moderate to severe burglary/robbery and other social evils that will be considered as a new criterion instead of the latrine standards.

Table 4. 2: Poverty dimensions and indicators for the period of 2026 - 2030

Dimensions	Indicators
Health	Access to medical services Health insurance
Education and training	Children education (aged from 5 to 14). Adult education Qualification of laborers in the workforce (new addition)
Living conditions (housing, clean water, sanitation, waste treatment, communication, social security)	Housing quality, including aspects defining what is a safe house (adjusted) Housing area per capita Domestic use water source. Waste collection (new addition) Use of telecommunication services Facilities for accessing information

Dimensions	Indicators
	Social security (new addition)
Income (new addition)	Annual income per capita ensuring the minimum standard of living
Access to the social security system (new addition)	Social insurance (new addition) Employment (new addition)
Social participation (new addition)	Do not participate in any social activities in the living area (new addition)

Source: Proposed by the author

4.3.2. Improving the multidimensional poverty reduction policy system

The MP reduction policy framework is designed into four different targeting groups: (1) the group of extreme MP with an average income below the food poverty line and having deficits in at least three of the remaining indicators; (2) the group of MP having a per capita income below the general poverty line and having deficit in at least one of the indicators of other dimensions, (3) the economically vulnerable group having an average income below the general poverty line but having no deficit of indicators in the remaining dimensions; (4) the vulnerable group in terms of basic social service needs, living conditions, accessing to information and to social security system, and social participation; (5) the group of near MP having a per capita income above the poverty line and having no deficit in basic social service needs, living conditions, information and social security system access, and social participation.

- Group 1: economic policy group

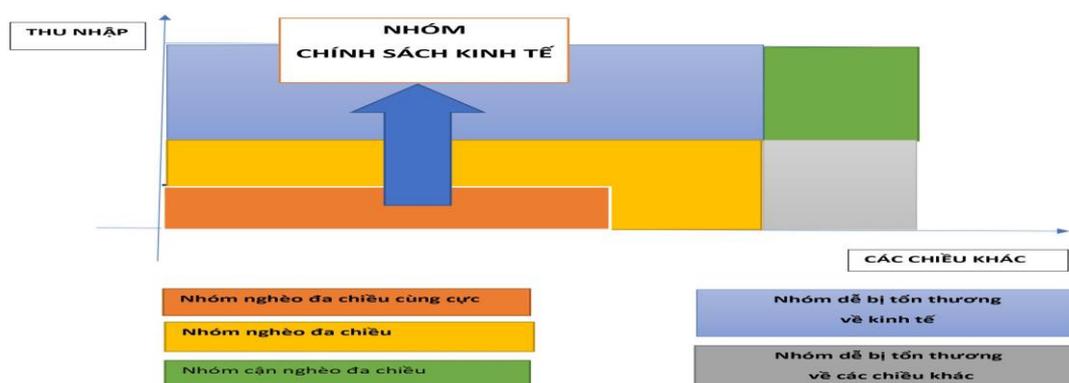


Figure 4. 1: economic policy group 1

Source: synthesized by the Author

Including: economic growth policies and job creation policies which targeting: (1) the group of extreme MP; (2) the group of MP; and (3) economically vulnerable group. Through the policies of economic growth and job creation, these subjects will have an improvement in their income, thereby gradually improving the deficits in the remaining dimensions.

- Group 2: social policy group

Including: policies on health, education and living conditions, accessing information and social security system, and social participation, which targeting: (1) the group of extreme multidimensional poverty; (2) the group of MP; (3) the vulnerable group in terms of accessing to basic social services (education, health care), living conditions, accessing to information, accessing to the social security system, and social participation. Through these supporting policies, the deficits of these above subjects will gradually be improved.

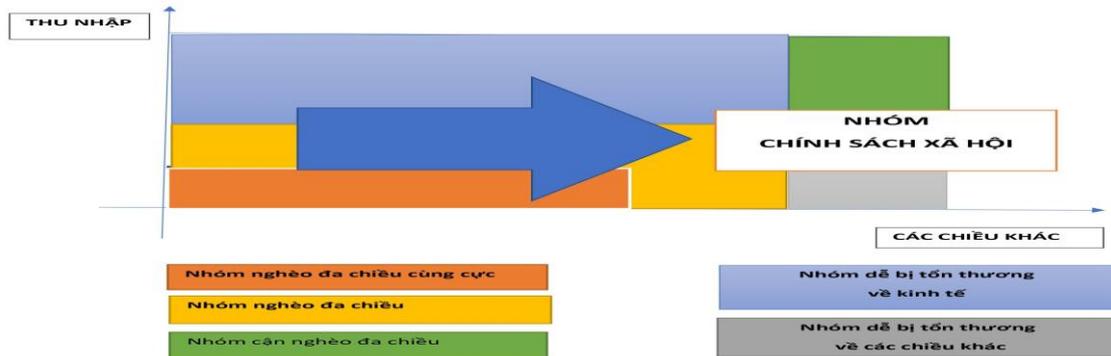


Figure 4. 2: Social policy group

Source: synthesized by the Author

- Group 3: targeting policy group

Including social programs for the poor which targeting: (1) the group of extreme MP; (2) the group of MP. Through these programs, the targeting group of MP will improve their income, at the same time, improve their capacity to access to basic social services, living conditions, and access to information.



Figure 4. 3: Targeting policy group

Source: synthesized by the Author

- Group 4: universal policy group

Including: welfare policy, education policy for all (universal education), health services – related policy, economic growth policy targeting on the group of near multidimensional poor to help them withstand risks

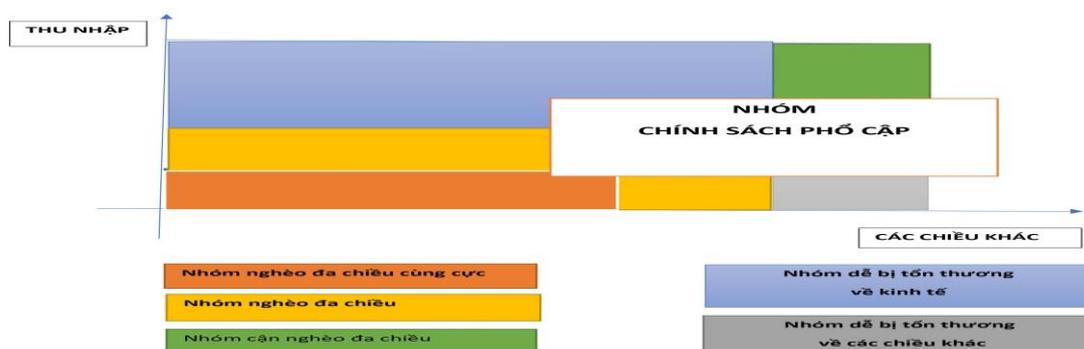


Figure 4. 4: Universal policy group 1

Source: synthesized by the Author

4.3.3. Improving data system for monitoring and evaluating poverty reduction programs/policies

The thesis outlines the principles of building a data system, thereby proposing solutions to build a data system for monitoring and evaluating poverty reduction programs/policies in terms of data sources and the quality of collected data.

CONCLUSIONS AND RECOMMENDATIONS

1. Conclusion

Theoretical framework for reducing MP in Vietnam identifies 5 dimensions with 12 components: (1) The health dimension includes the ability to access to health services and health insurance; (2) The educational dimension includes the schooling level of children and the education level of adults; (3) The dimension of living standard includes housing quality, housing area per capita, domestic use water sources, hygienic latrines, usage of telecommunications services, and available facilities for accessing information; (4) The income dimension with the component indicator being income (5) The dimension of accessing social security with the indicator being social insurance. The situation of MP in Lao Cai is worse than that of the whole country and of the TDMNPB; The severity of MP in the province is currently at average level as compared to the region, but remaining a big gap as compared with provinces with less severity; the degree of deprivation (assessing the depth of multidimensional poverty) of poor households in Lao Cai province is lower than the general deprivation of the whole region but higher than that of the whole country. Hence, when it comes to combining the assessment of MP by width and depth, the MPI of Lao Cai province is much higher than that of the whole country and the general MPI of the TDMNPB. In which, the dimensions of education and living conditions made the biggest contribution to the overall MPI of the province. The dimensions of accessing medical services and accessing information have the lowest deprivation. The difficulty in promoting the reduction of MP is the unification of the measure, including the number of dimensions/indexes suitable to the development characteristics of each area, region and locality; the policy framework has not yet ensured the goal of

poverty reduction in a multidimensional, inclusive and sustainable direction; monitoring and evaluation data systems at both central and local levels have not met the requirements of timeliness, completeness and accuracy. The solutions proposed in the thesis are to complete the MP measure, develop a policy framework for MP reduction taking into account regional factors, and improve the data system for monitoring and evaluation.

2. Limitations of the thesis

The objectives of the research have been achieved, however, some limitations on the database remain. Although the thesis uses the population living standard survey data set as the main data source, the author ultimately had to choose data from VHLSS 2016 and 2018 for his research due to the delay of the data synthesis and the discontinuity of the data. However, at the time this study was conducted, there have not many changes in economic development as well as poverty reduction policies, so the findings in the thesis are still meaningful in practical terms. In addition, the thesis proposes to develop a policy framework for MP reduction with five groups of policies targeting different subjects, including: (1) the group of extreme MP with an average income below the food poverty line and having deficits in at least three of the indicators of the remaining 6 dimensions; (2) the group of MP having a per capita income below the general poverty line and having deficit in at least one of the indicators of the remaining 6 dimensions; (3) the economically vulnerable group having an average income below the general poverty line but having no deficit of any of the indicators of the remaining dimensions; (4) the vulnerable group in terms of basic social service needs, living conditions, accessing to information and to social security system, and social participation; (5) the near MP group having a per capita income above the poverty line and having no deficit in basic social service needs, living conditions, accessing to information and to social security system and social participation. However, it is not possible to propose specific content in each policy group.

3. Recommendations for further studies

Analyze and assess the MP in the TDMNPB on the basis of VHLSS 2020 data using the proposed theoretical framework; at the same time, widen the scope of study to other areas, other subjects such as children; thereby discovering new results, laying a solid basis for improvement in terms of theory and practice. Conduct analysis and evaluation of policy groups according to each target group on the basis of the recommended MP reduction policy framework, thereby defining specific policy that needs to be revised, supplemented or improved to ensure the goal of poverty reduction is multidimensional, inclusive and sustainable./.

**LIST OF PUBLISHED WORKS OF THE AUTHOR
RELATING TO THE THESIS**

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