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NGUYEN THI THU THUY

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**DOCTORAL SCHOOL FOR MANAGEMENT AND ORGANIZATIONAL
SCIENCES**

Head of Doctoral School

Prof. Dr. FERTŐ IMRE DSc.

Doctor of the HAS

Supervisors

Prof. Dr. LÁSZLÓ VASA habil. PhD

Prof. HORVÁTHNÉ Dr. KOVÁCS BERNADETT PhD

**BUILDING NEW RURAL AREAS AND ITS IMPACTS ON
SUSTAINABLE RURAL DEVELOPMENT IN VIETNAM**

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Written by

NGUYEN THI THU THUY

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2. Introduction

FAO (Food and Agriculture Organization of the United Nations) statement in year 1995 of the celebration of 50 years' operation programs (since 1945) for a better quality of life declared that there was no room for complacency. "Because the needs of increasing populations, poverty, malnutrition, land degradation, deforestation, pollution, loss of biological diversity and the overexploitation of the oceans remind us that no organization can rest on its laurels. No single organization or aid agency can tackle these problems alone. Based on this scene, FAO organization had stated that:

- We must seek better and sustainable ways and means to meet and overcome these challenges; - We must reduce waste and improve efficiency in the channels and systems we use;
- We must work in more effective partnerships; - We must transform agriculture to combine increased productivity with sustainability of natural resources." (Loftas et al., 1995)

No more words need to interpret more for the FAO's declaration here. Because it would conceive in term of the famous old English proverb in the chapter One: Rural poverty unperceived of Chambers (1983) in the article "Rural development: Putting the Last First": "What the eye does not see, the heart does not grieve about." (Chambers, 1983)

Having the same looks of FAO, through the modern agendas nowadays, the world leaders have agreed on an ambitious development agenda to end poverty and hunger by 2030. Therefore, the Rural Development Report 2016 of IFAD (International Fund for Agricultural Development) organization detected that the world has rapid changes so are altering the development landscape. "... At the same time, climate change, erratic energy prices and complex and protracted conflicts have delivered a variety of shocks. ... Despite impressive

reductions in poverty and undernourishment globally, that progress has been uneven, and economic inequality across the developed and developing world alike is increasing.” (IFAD, 2016)

The Rural Development Report of IFAD (2016) had drawn the central role of rural development under Agenda 2030. Because a scene of rural people in the world such as “Smallholders still dominate agricultural systems in developing countries, and they are still key to food security. ... They also face long-standing barriers to accessing resources, technology, inputs, finance, knowledge and markets. As a result, smallholders lack resilience and the capacity to take advantage of emerging opportunities.” (IFAD, 2016)

So IFAD, (2016) stated that a transformation of rural areas is needed to enable rural people to capitalize on changes in the world around them, rather than be further marginalized by them. From this side, IFAD, (2016) emphasizes on opportunities of development for rural people.

Working out with the world circumstance and being as the members in a lot of international programmes and organizations, Vietnam is more and more to be a reliable foundation to tackle many shortcoming and challenges of country. “Over the past fifteen years, Vietnam has made the task of realizing the Development Goals by 2015 ... Vietnam is a genuine developmental success story, especially in the field of poverty reduction and economic performance. The country has transformed itself - from one of the poorest countries in the world to a middle-income nation by 2010.” (MPI of Vietnam, 2015)

Since signing on the Millennium Declaration at Millennium Summit (2000) for poverty eradication, development and protecting the environment, Vietnam steadfastly upheld these commitments. The Vietnamese state was consistent and determined with its policy orientation to develop the economy in parallel with improving social life and protecting the environment. This orientation was well reflected in the country’s Constitution, in major national socio-economic

development strategies and plans as well as in normative documents issued by the Party and the Government. (MPI of Vietnam, 2015)

In overview of a book “Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy”, a country declaration had issued that: “After 30 years of economic reforms since the launch of Đổi Mới in 1986, Vietnam has recorded significant and historic achievements. ... The country’s ambitions had aptly captured in the Vietnamese constitution, which sets the goal of “a prosperous people and a strong, democratic, equitable, and civilized country”. There is a firm aspiration that by 2035, Vietnam will be a modern and industrialized nation moving toward becoming a prosperous, creative, equitable, and democratic society. On the other hand, by the success from 30 years of renewal (Doi Moi in 1986), Vietnam has raised expectations for the future. (World Bank, MPI of Vietnam, 2016)

My scientific research in this PhD dissertation is based on the reviews of rurality in order to study the undergoing of rural development in the world context; and especially in scope of building new rural areas and its impacts on sustainable rural development in Vietnam. During process of analysis for the PhD topic, I included the survey research in a small commune - Hong Lac commune of Red River delta in Vietnam as a scientific experiment for a linkage of theoretical framework and practical experience.

3. Literature review

This PhD dissertation synthesizes methodology of rural development study, rural policies and it makes comparisons with the practical issues to conceive a promotion of building new rural areas in disciplines and to supply a background for data analyses of the Vietnam case in National target programme “Building new rural areas period 2011-2015”.

Firstly, I consider the statement of European Communities (EC, 2008) in the Reference Document No. 5 in order to have information of rural studies briefly. “Rural development has to be a prominent part of the development agenda as three out of every four people in developing countries live in rural areas and rural growth has proven to be an important precursor for country development in general.”

As well as, this document had another statement that: “As awareness builds up of the contributions that agriculture and rural development (ARD) can make to poverty reduction, ARD is again becoming central to national and international development agendas.” (European Communities, 2008)

Therefore, those statements can appreciate with the topic of this PhD dissertation about study in building new rural areas or rural transformation or rural development process in developing country, Vietnam. In another hand, Vietnam is one of the “transforming economies” - a country in a progress of transition from agriculture-based into transforming economy since the Renewal or Doi Moi progress for whole socio-economic development from year 1986 to nowadays.

3.1 Approaches of rural development study

3.1.1 Sectoral approach, Farming systems research (FRS) approaches, participation approach

Deriving from the judgment of a relation between theory and practice in study about rural development, I had carried out a preliminary search through some various approaches.

Firstly, there was a concept about sectoral approach such as: “[...] sectoral approaches are not enough to resolve the multi-faceted problems of the rural population in a holistic manner. Sectoral approaches only perceive the rural population in a specific role: i.e., the farmers as food producers, the sick as patients or beneficiaries of a health care station.” (Schmidt-Kallert, 2005). Meaning of this approach is that rural areas are located in large areas, they are affected by natural conditions and diversified levels. Rural development with the sectoral approach could concentrate in specified sectors of rural areas during progress of socio-economic development.

The EC (2008) in the Reference Document No. 5 has adopted the definitions that “rural development is to be understood as a multi-sector concept” and supported a new Guideline. “A sector approach is a way of working together between government, development partners and other key sector stakeholders. It is a process that seeks to broaden government and national ownership over public sector policy and resource allocation decisions within the sector”. This guideline distribute the EC conduction for policy making of countries in rural development under sector approach.

Secondly, Farming systems research (FRS) approach was the suitable and equitable approach for farmers by confirmation of Norman (2002). “.... the FSR approach that evolved was based on the notion that: one had to begin with understanding the problems of farmers from the perspectives of farmers; and that solutions had to be based on a proper understanding of their objectives and their environments, including both biophysical and socioeconomic components.” Rural development process can put in whole aspects of society, economy, environment and political position of rural areas when it put farmers at the central issue of solutions. “The new approach was that not only did

farmers have a right to be involved in the technology development and evaluation process, but that their inputs were essential”. (Norman, 2002). It is clearly that this approach can encompass whole issues to develop rural areas more than sectoral approach.

Finally, to searching a popular methodology in rural development study, there was definition of Participation approach of de Campos Guimaraes, (2009) such as “[It is] ... a process of equitable and active involvement of all stakeholders in the formulation of development policies and strategies and in the analysis, planning and implementation, monitoring and evaluation of development activities”. According to this discipline, the author stated that “To allow for a more equitable development process, disadvantaged stakeholders need to be empowered to increase their level of knowledge, influence and control over their own livelihoods, including development initiatives affecting them.” Clearly, the participation approach also put the central role of rural stakeholders in the process of equitable and active involvement.

Derive from the academic terms of Sectoral approach, Farming Systems Research (FSR) approach, Participation approach, this PhD dissertation continues to review about top-down approach, bottom-up approach as below. In study about rural development namely “Participatory and Negotiated territorial development (PNTD)”, FAO, (2005) proposed two transformations for the reality of rural development in the world. First, it is a failure of top-down approaches and the rise of bottom-up concepts and second is current challenges in addressing rural development issues.

Why the question: “Failure of top-down approaches and the rise of bottom-up concepts” actual? Because “I in the last 30 years, technical assistance projects were mainly based on top down, supply-driven approaches. Interventions had defined by sectoral issues (agriculture, natural resource planning and management, soil and water conservation, etc.) and addressed only partially the constraints and potentialities of the territories they dealt with. Therefore,

they were rarely adapted, nor adaptable, to local contexts.” (FAO, 2005). Obviously, FAO, (2005) had detected an important sign with confirmation that RD is a sector discipline and it had two ways to deal with by top down approach (traditional way) and bottom-up approach (new way).

“*What is the current challenges in addressing rural development issues?*” The response is that all global processes, regional changes, national adjustment and development policies influence dynamics and functioning of rural areas. “Since territories are open systems, they are constantly influenced by and influence external forces. ... The natural resources upon which people rely are changing, markets and economic processes are shifting, information is rapidly spread, institutional environments are less stable.” (FAO, 2005)

Looking back some main approaches to study “rural development” at theoretical scope, this PhD dissertation would research the challenges and achievements of rural development programmes to overcome the difficulties of transformation of living conditions and order to change rural areas into an attractive place. By these facts, farmers and rural residents could improve the life in homeland, do not immigrate into city.

3.1.2 Concepts of the “three pillar” and Collective action

To find better approaches for rural development study, I continue to refer the literature of three pillars of development, and collective action theory in hereafter. Those literatures would interpret for the aim of a survey research in this PhD dissertation. *How to find the internal advantages and endogenous development through the survey research in a small commune in Red River delta in Vietnam?* While it is an entity under the process of the National target programme in building new rural areas period 2011-2015 in Vietnam.

3.1.2.1 Concept of sustainability assessment, the ‘three pillar’

In research “Conceptualising sustainability assessment”, (Pope et al., 2004), explained the concept of three pillar (Gibson, 2001) such as “Many definitions

of sustainability are based upon the ‘three pillar’ or ‘triple bottom line’ (TBL) concept. The three-pillar TBL model separates development issues into social and economic factors, emphasising that “material gains are not sufficient measures or preservers of human well-being.”

On the other hand, Pope et al., (2004) stated that “The notion of ‘assessing for sustainability’ implies that sustainability is a societal state, or perhaps more realistically a series of societal states, with particular characteristics or conditions, defined by sustainability criteria.”

3.1.2.2 Collective action theory

Reviewing a theory of collective action, this PhD dissertation aims at the usage of this theory to blueprint a survey research in a commune of Red River delta under the National target programme in building new rural areas period 2011-2015 in Vietnam.

Vanni, (2014) extracted a description of Olson (1965), Wade (1987), and Ostrom (1990) about the importance of Collective action theory in the research “The Role of Collective Action”. The description was that “During the last few decades an increasing amount of literature on collective action and natural resources has emerged, with a great emphasis on the conceptualization of collective action and on the analytical framework necessary to study it.”

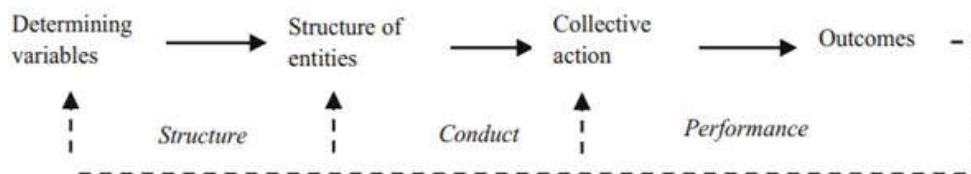


Figure 1. Structure, conduct and performance of collective action (Vanni, 2014, p: 23)

It is simply to apply the collective action for rural development process (*See the Figure 1*) while we need to promote the empowerment of rural

communities to have effective outcomes. This explanation can find at the Framework of collective action theory as below (*Table 1*).

Table 1. Framework of Collective action theory in rural development studying

Part 1 (Source: Vanni, 2014, p: 21, 22, 24)	
Definition of Marshall (1998)	Collective action as an “action taken by a group (either directly or on its behalf through an organization) in pursuit of members’ perceived shared interests.
<p>Specificity: Common features of collective action are “the involvement of a group of people, shared interests, common and voluntary actions to pursue those shared interests (according to Meinzen-Dick et al., 2004)”.</p> <p>Although collective action is often associated with activities carried out by formal organizations, according to Ostrom (2004), more attention should pay to informal collective action, where local networks or local groups of people organize and coordinate local action in order to achieve specific short-term purposes.</p>	
Types of collective action: by distinguishing of Davies et al., 2004	
<i>Cooperation</i> (Davies et al., 2004)	<i>bottom-up, farmer-to-farmer collective action.</i> While some bottom-up collective actions may receive government support, others may carried out without government support (OECD 2013).
<i>Coordination</i> (Davies et al., 2004)	<i>top-down, agency-led collective action.</i> Some top-down collective actions be promoted by government policies but do not receive any support, while other collective actions receive support by local and/or government (OECD 2013).
Four basis factors of collective action: by clarification of Agrawal, 2001	
1. Resource system characteristics	The characteristics of the natural resources (type of goods) involved and on the knowledge and predictability of such resources, since information and communication on natural resources.
2.Group characteristics	the characteristics of the group involved, which should have an appropriate size and homogeneity and ... it should allow the participants involved in the collective actions to increase their social relationships.
3.Institutional arrangements	determined by the involved institutional arrangements which, according to the main studies on the topic (Ostrom 1990; Wade 1988), should involve locally devised and simple rules and rely on effective monitoring and sanction systems.
4.External environment	external forces and authorities ... may be interpreted as both financial and non-financial support. Financial support is particularly relevant at the initial stage of the collective action (Mills et al. 2010) and ... non-financial support is related to the need of governments to play a pro-active role in setting basic rights, guidelines, rules (also with penalties and sanctions) and public objectives which may encourage collective action (Ayer 1997).

The role of collective action: increasingly analyzed also in the context of agriculture and rural development.	
Part 2 (Source: Meinzen-Dick et al., 2004, p: ii, 1, 5)	
Method for studying collective action	With renewed recognition of the importance of collective action in many aspects of agriculture, natural resource management, and rural development programs in developing countries, there is a need for research on the factors that affect its emergence, as well as its performance.
Evidences of collective actions	include collective decision-making, setting rules of conduct of a group and designing management rules, implementing decisions, and monitoring adherence to rules.

Summarizing of Table 1, Vanni, (2014) had an idea: “the involvement of different levels of government (either central or local), which may provide the most effective support to the different strategies...”; and Meinzen-Dick et al., (2004) had another idea: “collective action requires the involvement of a group of people, it requires a shared interest within the group and it involves some kind of common action which works in pursuit of that shared interest. ... This action should be voluntary, to distinguish collective action from hired or “corvee” labor...” Look at Table 1 and summaries of authors (Vanni, 2014; Meinzen-Dick et al., 2004), I recognize a new distribution from collective action theory. This discipline can use for the analysis of research topic in building new rural areas of my PhD dissertation because it is the involvement of a group of people when they contribute the activities as the collective participators in rural areas.

3.2 Theoretical framework of rural development and inner-cross aspects of sustainable rural studies

3.2.1 General frame of rural areas concepts

In general, the imagination of rural areas is not easy to draw by unique conception in rural studies. Therefore, rural areas should become the first conception in rural studies and it can embrace with some descriptions such as “Most of the world’s poor live in rural areas. ... Part of this correlation between

rurality and poverty is given by the fact that some countries indirectly define the poor as rural. As one of the most accepted characteristics of development is a secular decline in the share of agriculture, countries with larger rural population's shares are expected to be poorer since the main activity in the rural economies is likely to be agriculture.” (Anriquez et al., 2007)

From this look of rural areas or rurality, my PhD dissertation collects conceptualizing of rurality as the first syntheses of rural studies worldwide.

In the chapter about conceptualizing rurality of the Handbook of Rural Studies, Cloke (2006) stated such as “The concept of rurality lives on in the popular imagination and everyday practices of the contemporary world. The rural stands both as a significant imaginative space, connected with all kinds of cultural meanings ranging from the idyllic to the oppressive, and as a material object of lifestyle desire for some people - a place to move to, farm in, visit for a vacation, encounter different forms of nature, and generally practise alternatives to the city.... Yet as soon as attempts are made to deconstruct the rural metanarrative, much of that conceptual strength dissipates into the nooks and crevices of particular locations, economic processes and social identities.” (Cloke, 2006)

From this concept, I can summary that each rural area is a large part of a significant imaginative space and a material object of lifestyle with full dimensions of particular locations, economic processes and social identities.

Continually, this PhD dissertation gathers one more definition of rural areas. “Rurality is a widely defined concept. Rurality maybe defined in traditional description term including the level of population density, the rate of population loss and gain, settlement size, local economic structure and landscape (Skuras,1998)” (Stathopoulou et al., 2004)

Another concept of rural areas is interpreted that “rural areas are those parts of the space economy which are least affected by the process of urbanization and are therefore more associated with a much more dispersed pattern of

population distribution and economic activity. They are also affected by varying levels of peripherality, depending on their distance from markets and their access to service.” (Grimes, 2000)

3.2.1.1 Clarification of rural areas in OECD countries

OECD countries have important distinguish for rural region. “The traditional definition of rural as “not urban” still lingers in some countries. ... The OECD has been developing an extended territorial classification mostly based on population densities, location of main urban centres and journey-to-work flows. Within this approach, rural regions classified into “close to cities” or “remote”. This places about 80% of rural inhabitants in rural regions close to cities, and 20% in rural areas that are further removed.” (OECD, 2017)

The OECD regional typology based on two main territorial levels as TL2 and TL3 and there are three types of rural regions. (*See Table 2*).

Table 2. The OECD regional typology and three types of rural regions

The Territorial Level 2 (TL2)		The Territorial Level 3 (TL3)	
- the first level below the national one - administrative units in most countries		- the territorial level above the local level - administrative units in some countries	
	predominantly urban	intermediate rural	predominantly rural
Rural inside the functional urban area (FUA)	Rural outside but in close proximity to the FUA	Rural is remote from the FUA	
These rural areas are part of the catchment area of the urban core and their development be intimately linked to that of the city.	These rural communities often enjoy a good industrial mix, which makes their local economies more resilient.	Primary activities play a relevant role in the regional economy.	

(Source: OECD, 2017, p: 8)

3.2.1.2 View of FAO about rural areas

The ESA Working Paper No. 07-02 of FAO (2005) had an explanation for question “*What is rural?*” such as “Having defined rural development it is

essential to define what is rural.... The first methodology is to use a geopolitical definition. First, urban is defined by law as all of the state, region, and district capitals (centers), and by exclusion all the rest is defined as rural. The other popular methodology is to use observed population agglomeration to define urban,... while by exclusion the rest is defined as rural.” (Anriquez et al., 2007)

3.2.2 Evolution of study about rural development

Chambers, (1983) drawn a challenge of rural areas where main actors are outsiders and poorer rural people don't have efficient approach to understood about the uninteraction as well as don't have the encouragement to solve the reality of rural development initiatively. “Outsiders are people concerned with rural development who are themselves neither rural nor poor. Outsiders underperceive rural poverty. They are attracted to trapped in urban ‘cores’ which generate and communicate their own sort of knowledge while rural ‘peripheries’ are isolated and neglected. The direct rural experience of most urban-based outsiders is limited to the brief and hurried visits, from urban centres, of rural development tourism.

As a result, the poorer rural people are little seen and even less is the nature of their poverty understood... But who should act? The poorer rural people, it is said, must help themselves: but this, trapped as they are, they often cannot do.” (Chambers, 1983)

Therefore, this PhD dissertation would find some conceptions of rural development according to the aims of chapter Literature review about general rural studies.

3.2.2.1 Rural development in definition of World Bank

World Bank's sector policy paper issued in 1975 had an important definition about rural development: “Rural development is a strategy designed to improve the economic and social life of a specific group of people - the rural poor. It

involves extending the benefits of development to the poorest among those who seek a livelihood in the rural areas. The group includes small-scale farmers, tenants and the landless.”

Beside the characteristics of rural development, this paper (World Bank, 1975) presented the guidance of rural development programme when this knowledge is still being an effective learning for developing countries at present, especially for the case in Vietnam. “A national program of rural development should include a mix of activities, including projects to raise agricultural output, create new employment, improve health and education, expand communications and improve housing.”

3.2.2.2 Principles of rural development programmes of FAO

According to the book “Guide to Extension Training” of FAO, rural development is a discipline that be considered with reference to agriculture. Because agriculture is the basis of the livelihood of most rural families and there is recognition that rural development is just as important as the building up of urban, industrial complexes. (Oakley et al., 1985)

From this approach, there is a question “*What is be seen a context of rural development?*” The response is that “Rural development is a process of analysis, problem identification and the proposal of relevant solutions. This process usually encompassed within a programme or a project, which seeks to tackle the problem identified. As well as rural development programmes attempt to solve the problems that are not only agricultural; such programmes must also tackle the social or institutional problems found in rural areas”. (Oakley et al., 1985).

Therefore, a significant rural development definition was that: “Rural development is a process integrated with economic and social objectives, which must seek to transform rural society and provide a better and more secure livelihood for rural people” (Oakley et al., 1985).

As the sequel description, Oakley et al., (1985) described characteristics of almost rural development programmes and this is a necessary guidance for decision-making of a RD programme. The authors said: “Rural development strategies usually take the form of programmes which implement projects in a specific rural area. Such programmes form the basis of most government and non-government efforts to assist rural areas, and they include both agricultural and non-agricultural projects...”

Clearly, Oakley et al., (1985) supplied a significant guidance that can apply for decision-making of policies, projects and national programmes effectively in developing countries until nowadays. “...While agriculture is rightly the most important objective in the development of rural areas, rural development should also embrace the non-agricultural aspects of rural life. ... It conceives the goals of rural development not simply as agricultural and economic growth in the narrow sense but as balanced social and economic development.”

Within the main principles (*See Table 3*), each actors of RD programme (decision-makers, stakeholders or parties, groups, communities, organizations...) can have different approach for implementation in order to reach the different outcomes.

Table 3. Principles of rural development programmes

1. Access	Ensure that the programme and its benefits can reach those in need.
2. Independence	Devise a programme which helps and supports the farmer, but which does not make him or his livelihood dependent upon the programme.
3. Sustainability	Ensure that the programme's plans and solutions are relevant to the local economic, social and administrative situation, even for short-term and long-term to have greater success.
4. Going forward	Technological aspects of rural development programmes should help the farmer to take the next step in his development and not demand that he take a huge technological leap.
5. Participation	Always try to consult the local people, seek out their ideas and involve them as much as possible in the programme.
6. Effectiveness	A programme should base on the effective use of local resources and not necessarily on their most efficient use. While efficiency is important, its requirements are often unrealistic.

(Source: Oakley et al., 1985, p: 2, 3, 4, 5, 7)

Viewpoint of FAO for evolution of rural development definitions: “The definition of rural development has evolved through time as a result of changes in the perceived mechanisms and/or goals of development”. (Anriquez et al., 2007). According to Anriquez et al., (2007), a response for question “What is rural development?” was that: “A reasonable definition of rural development would be development that benefits rural populations; where development is understood as the sustained improvement of the population’s standards of living or welfare.”

Table 4. Evolution of rural development definitions

In the 1960’s and early 1970’s	“Rural development is essentially a part of structural transformation characterized by diversification of the economy away from agriculture (Johnston, 1970)”
Later during the 70’s	the focus definition of rural development turned to the provision of social services to the rural poor.
Since the 1970’s	rural development as a concept has been highly associated with the promotion of standards of living and as a precondition for reducing rural poverty.

(Source: Anriquez et al., 2007, p: 3)

Having an exact definition of rural development is not possible. There are many conceptions of rural development in theoretical framework of rural studies. Illustrating for this view, Van der Ploeg et al., (2000) proposed “...Rural development means a new developmental model for the agricultural sector.... Rural development is multi-faceted in nature... multi-level, multi-actor and multi-faceted nature implies that rural development related to modernization as a paradigm shift” (Van der Ploeg et al., 2000)

3.2.2.3 Rural development in IFAD’s work

This PhD dissertation considers the IFAD Report 2016 to upgrading the rural development definitions was that “...inclusive rural transformation as a process in which rising agricultural productivity, increasing marketable surpluses, expanded off-farm employment opportunities, better access to

services and infrastructure, and capacity to influence policy all lead to improved rural livelihoods and inclusive growth.” IFAD Report 2016 confirmed that inclusive rural transformation is a critical component of inclusive growth as a whole, and of sustainable development in all its dimensions - social, economic and environmental.

3.2.3 Concepts of Sustainable development

Finding conception of sustainable development in rural areas to emerging the important role of sustainable development toward the National strategies, programmes and sustainable rural development is the aim in this section.

3.2.3.1 Sustainable development by UNs definitions

The Declaration “Our Common Future” of UNs in Brundtland, (1987) is a popular definition of sustainable development study. The definition stated such as “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations, 1987)

However, the features of sustainable development are the most important knowledge. They contain some main aspects as a stream such as: “i) Development involves a progressive transformation of economy and society. ii) A development path is sustainable in a physical sense could theoretically be pursued even in a rigid social and political setting. iii) Physical sustainability cannot be secured unless development policies pay attention to such considerations as changes in access to resources and in the distribution of costs and benefits.” (United Nations, 1987) Those features supplied a comprehensive image about sustainable development and it plays significant role till nowadays.

3.2.3.2 Sustainable agricultural and rural development by FAO’ definition

There was a definition of FAO (1988) about sustainable agricultural and rural development and it was agreed upon by FAO member countries in 1989.

“Sustainable agriculture and rural development is “the management and conservation of the natural resource base, and the orientation of technological and institutional change so as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such sustainable development (in the agriculture, forestry and fisheries sectors) conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable.” (Avila et al., 2005). This definition based on the basis of the Bruntland Commission definition of sustainable development and its name is SARD - sustainable agricultural and rural development.

3.2.3.3 Sustainable development in OECD countries

By OECD views, there was a tangible view of measurement to answer for question “What is sustainable development?” such as “...sustainable development means integrating the economic, social and environmental objectives of society, in order to maximise human well-being in the present without compromising the ability of future generations to meet their needs. ...” (OECD Observer, 2001)

Clearly, there can be no “one size fits all” to approach sustainable development. According to OECD Observer, (2001), the pursuit of sustainable development “thus, requires improving the coherence and complementarity of policies across a wide range of sectors, to respond to the complex development challenges ahead”.

3.2.3.4 Conception of Sustainable development in Vietnam

Regarding to the argumentation of Nguyen et al., (2010), sustainability needs to contain three basic issues as follows:

- Economic growth. It is a condition for sustainability
- Environmental quality. It is a guaranty for sustainability
- Inter-generational concern. It is a guaranty for justice in each country and in the world.

Therefore, “Sustainability is a method of reasonable development in which almost countries take interest. Nowadays, the economic globalization has a wide effect to economic development on each country. Accordingly, the development of an economy has to meet the goals of economic-social-environmental effects and sustainability harmoniously and comprehensively”. (Nguyen et al., 2010)

Besides, to be broaden for understanding of sustainable rural development, Vu et al., (2002) stated such as “Objective of the study in rural economic development is a study in overall rural economy to build a sustainable rural development. Scope of research about rural economy is mainly at macroeconomics but it can research at microeconomics such as communes, villages, hamlets... or rural households.” (Vu et al., 2002)

The notions of three pillars are correlative with the concepts of rural areas, rural development and sustainable development in the theoretical framework in this PhD dissertation. It is clearly that three pillars of economic, social and environmental aspects are basic and specific disciplines for rural studies. Furthermore, it is a key note for data analysis of this PhD dissetartion.

3.3 Practical framework about rural development study in Vietnam and learning lessons of rural development policy in the EU

3.3.1 Overview of sustainable rural development in Vietnam

In Vietnam, during a long time, the planning for rural development was not comprehensive, details and clear so it was not feasible. In fact, agricultural growth depends on the decline or rise of the export price, it affects directly to income of farmers in exporting at agro - forestry - aquatic regions. The activity of non - farm, rural industry and handicraft sector still accounts for small rate. State management for rural areas has many issues at present. That is, the function and responsibility did not distinguish clearly among the government agencies and there is shortage of regulation for deploying. Besides that, the

environmental pollution and resources depression in rural areas had impacts to sustainable rural development. Income of large portion of rural population still goes around the poverty line so it is easy to impact by calamity, diseases. Weak health care and low education, and hygiene environment was not guarantee. The activity of culture in rural areas is still poor; there is not guidance for people to build rural traditional civilization and progressive cultural life.

Therefore, achievements of rural development in Vietnam (by Renewal or Doi Moi progress since year 1986) are the results of a lots funded programmes (i.e., ODA projects), of the international organizations and either by the self-sufficient efforts of country in all dimensions.

For example, the “Country report - 15 Years achieving the Vietnam Millennium Development Goals” of Vietnamese government, (2015) concluded the progress of social, economic and environmental development of country such as “The fifteen-year journey from 2001 to 2015 has featured a high growth rate with rising living standards, and strong global integration... The country has concentrated on fostering goals and constructing national indicators based on three development pillars - the economy, social and cultural sphere, and the environment.” (MPI of Vietnam, 2015)

3.3.1.1 Point of view about rural areas in Vietnam

Rural areas are the settlement for living and working of communities with mainly activities of agricultural production. Rural areas locate in the large areas with nature - society - economics differently. Meanwhile, rural areas are the place to supply foodstuff for living, to supply raw material, goods for industry and export, labor for industry and urban areas. It is also the large market for consumption of industrial goods and service. However, the difference between rural and urban areas in Vietnam is not only in type of job of rural residents but also in the difference of natural and socio-economic aspects.

Therefore, there was a conception of rural areas that confirmed by Vu et al., (2002) such as “Rural area is a large area with a community of residents in

which they work for agriculture (agriculture, forest, and fishery). It has a low population density, behind logging infrastructure, low educational, technological and scientific qualification, and the living standard of rural residents is lower than urban citizens". (Vu et al., 2002)

Characteristics of rural areas in Vietnam: Vu et al., (2002) interpreted hierarchy context about characteristics of rural areas in Vietnam. Rural areas have a vital role and position in development of country. A view of socio-economic-environmental condition in rural areas in Vietnam are that:

“- Rural areas is a region where produces foodstuff for basic needs, and supply cereals, raw materials for industry and export. In many years, the agricultural sector has produced 40% of national income and 40% of export value to create a cumulative source for industrialization and modernization of country.

- Rural areas is a region where supplies human resources for society, accounts 67.95% labor force (*GSO, 2018, Statistical Yearbook of Viet Nam 2017*). In the process of industrialization and modernization the rural labor has moved to work for industry and service, has moved into urban areas, industrial zones.

- Rural areas has accounted 67% in 2013 and reduced at 65% in 2016 of whole population of country (*GSO, 2018, Statistical Yearbook of Viet Nam 2017*). This is still a large market of domestic consumption of industrial and service products.

- Rural areas has over 50 ethnicities are living together, includes many different members, classes, beliefs and religions and this is a basement to secure a stable socio-economic conditions of country and to strength the unity of ethnic communities.

- Rural areas place in the large areas where they have different natural, economic and social conditions. That is a huge potential of land, mineral, fishery for sustainable development.” (Vu et al., 2002)

3.3.1.2 Concept and orientation about rural development in Vietnam

According to Nguyen et al., (2004), rural development must reach the effect of socio-economic and environmental dimensions as below:

“- Effective economics in rural development, first of all, it must produce more and more agriculture products and purchasing products, exporting products at low price, quality of products and productivity must be high, accumulation for reproduction should be opened and increased.

- Effective society: The life of rural population will be improved, do democratic, equal and society civilization, improve qualification, delete the social evils, and encourage the good tradition value of rural community.

- Effective environment: Protect rural biological environment, natural resources, embellish landscape, keep the traditional characters, and diversified biology for sustainable development.”

Therefore, in Vietnam, the point of views on rural economic development put in the process of industrialization and modernization with four major dimensions. “Firstly, the rural economic development needs to include a socio-economic environmental effect. The effective rural economic development has to contain three pillars of society, economics and environment.

Secondly, the rural development has to have a multidimensional rural economy under the market mechanism and the management of state.

Thirdly, development of rural areas is comprehensively together with regarding to comparative advantages of different regions. Rural development is not only economic development but also a development of society and security, and environmental protection. Rural development is not only a development in agricultural sector but also in industry and service.

Fourthly, rural development has goals in the industrialization and modernization. It includes eradicating lagging behind of rural areas, building rich, civilized rural areas to tackle rural areas toward the industrialization and modernization.” (Vu et al., 2002)

Rural development policy at present in Vietnam

In the Textbook “Analyse for Agricultural, Rural Policy”, a notion of rural and agricultural policy had stated as “Rural, agricultural policy is the overall economic methods and other methods of State (from Central to Local) affect to agriculture, rural areas.” (Pham, 2007)

As well as this textbook, agriculture and rural areas include not only the economic activities but also particular social activities. There are issues of job, poverty, population, rural traditional custom and living that have different aspects than urban areas. Therefore, having the intervention on economic activities and the influence on social activities are a very important direction of rural development policies. ... So, the harmonic coordinating of rural economic policies has appropriated for the rural sociology that can become a success factor of the intervention of state management ... State management on economics for agriculture, rural areas is the management at macroeconomics level and it was implemented through tools such as plan, strategy, program, projects and policies.

Meanwhile policies of agricultural development, rural development play a very important role and they had presented in some aspects as below:

Firstly, it is the establishment of legality and economic environment in order to promote agricultural, rural development regarding with the objectives of agriculture, rural areas along different periods.

Secondly, it is the conduct, prevention for inappropriate development, negative trends in agriculture sector, in rural areas for each period and under the limits of market economy.

Thirdly, it is the strengthening of democratic role in rural living, is a combination of agricultural development and rural economics, of culture, society and building new rural areas.” (Pham, 2007)

The National target programme in building new rural areas in Vietnam: In fact, the reality of practical framework of rural development policies are not

comprehensive for performance in rural areas in Vietnam at present. They should put in and operate by National target programmes and National development strategies under the conduction of Government.

Other national target programmes: According to the “Country report 15 Years achieving the Vietnam Millennium Development Goals”, the development goals (of Vietnam) had specified, institutionalized to the Government’s action plan period 2011-2016. In which, there were development strategies and 16 national target programs for period 2011-2015 in multiple sectors such as sustainable poverty reduction, clean water and rural sanitation, economical and effective energy use, response to climate change and combating HIV/AIDS.” (MPI of Vietnam, 2015)

On the other hand, there were only two National target programmes (of building new rural areas and sustainable eradicating poverty) which would implement continually after period of years 2010 - 2015, just for period 2016 - 2020. Two this National target programmes would adjust by Decision No. 1489/QĐ-TTg of Prime Minister dated 08/10/2012 about National target programme for sustainable eradicating poverty period 2012 - 2015 in Vietnam and Instructions No. 23/CT-TTg of Prime Minister dated 05/08/2014 on Planning of public investment in medium-term 5 years from 2016 to 2020. (Prime Minister of Vietnam, 2012; 2014)

How to see the orientation of sustainable development for urban and rural areas in Vietnam? The Vietnam Sustainable Development Strategy (Vietnam SD strategy) period 2011-2020 is a “planning orientation” at macroeconomic level of state management about sustainable development in Vietnam.

In this orientation, Vietnam SD Strategy period 2011-2020 approved by the Decision No. 432/QĐ-TTg in 2012 had the general objectives as the aims to achieve sustainable development such as: “Sustainable and effective growth must come along with social progress and equality, protection of natural resources and environment, socio-political stability, defensibility of

independence-sovereignty-unification and territorial integrity of the country.” Thus, this PhD dissertation chosen some emerged issues, which related with sustainable rural development of urban-rural areas in Vietnam as below:

“About economic aspect: It “must include four processes: industrialization and modernization; urbanization; population control; environmental protection. Focus investments on developing technical infrastructure and improving the quality of life of farmers in terms of economic, cultural, social, environmental and democratic aspects. The process of urbanization and modernization of rural areas must comply with the norms of building new rural areas, lessen development gap between urban and rural areas in terms of material and spiritual aspects.

About social aspect: - To develop urban areas, build new rural areas and properly allocate population and labor in each region sustainably.

About resources and environment:

Degradation prevention, effective and sustainable use of land resources, and water resources; - Protection of water environment, of marine, coastal, island environment and development of marine resources; Forest protection and development; - Reduction of impacts, climate change adaptation, prevention of natural disasters.” (Prime Minister of Vietnam, 2012)

I repeat here the statement of Meinzen-Dick et al., (2004) such as “Cooperation has always been fundamental for human society and plays a particularly prominent role in rural development programs” in order to have a reflection between Collective action theory and the promulgation of policies in Vietnam.

3.3.2 Rural development policy in Europe Union (EU) from the past to the future period 2014-2020

Borec et al., (2009) issued the study about sustainable rural development and EU agricultural perspective. The authors supposed that the aims of the policy have been simplified and clarified around three clearly defined economic,

environmental and territorial objectives. They included such as improving the competitiveness of agriculture and forestry; the environment and the countryside; and the quality of life in rural areas and encouraging diversification of economic activity. (Borec et al., 2009).

Rural development in the EU has closely linked to the evolution of Common Agricultural Policy (CAP) for over 50 years. It can supply learning lessons for the decision-making of rural development policy in Vietnam.

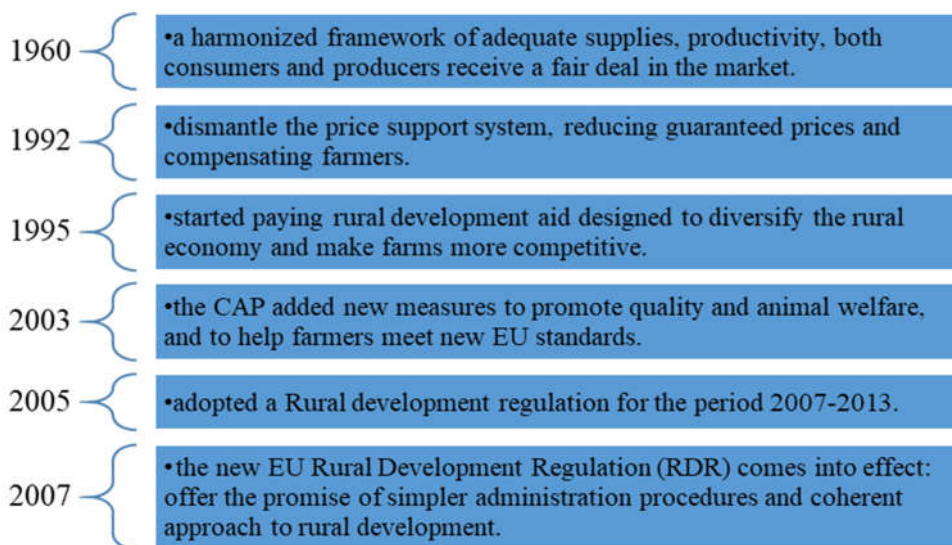


Figure 2. Evolution of rural development policy in the EU

(Borec et al., 2009, p: 41, 42 - Figure 2 by *Own adaptation*)

The rural development programme period 2007-2013 obtained successes and challenges and it was a platform for new rural development programme period 2014-2020 in the EU. The period 2007-2013 of rural development programme in the EU implemented through one fund, one management and control system and one type of programming. Therefore, it can distribute comparisons for the management and organizational institutes for the National target programme building new rural areas in Vietnam.

Historical evolution of rural development policy in Europe Union are integrated with the CAP, Cork Declaration (1996, 2016), and Leader initiative. The Cork declaration (1996) “Towards an integrated rural development policy” and the Cork 2.0 declaration (2016) “Toward an innovative, integrated and inclusive rural and agricultural policy” - which be guided by the following ten policy orientations. (*See Table 5*)

There is an inheritability conjunction from Declaration in 1996 to version in 2016. The inheritance is coherent, integrated implementation of rural development policy to getting well-being and wealth for rural resident and getting attention in effective green growth for rural areas of EU countries.

Table 5. Cork Declaration 1996 and Cork 2.0 Declaration 2016

Leaflet	The Cork declaration (1996) A Living Countryside	Cork 2.0 Declaration (2016) A Better Life in Rural Areas
	<i>Towards an integrated rural development policy</i>	<i>Policy Orientations</i>
Point 1	Rural Preference	Promoting Rural Prosperity
Point 2	Integrated Approach	Strengthening Rural Value Chains
Point 3	Diversification	Investing in Rural Viability and Vitality
Point 4	Sustainability	Preserving the Rural Environment
Point 5	Subsidiarity	Managing Natural Resources
Point 6	Simplification	Encouraging Climate Action
Point 7	Programming	Boosting Knowledge and Innovation
Point 8	Finance	Enhancing Rural Governance
Point 9	Management	Advancing Policy Delivery and Simplification
Point 10	Evaluation and Research	Improving Performance and Accountability

(Source: European Union. LEADER magazine, 1997, p: 1, 2; Leaflet, 2016, p: 2, 3, 4, 5)

As the AEIDL organization (*namely in English as the European Association for Information on Local Development*), Leader Community initiative is an important approach to promoting awareness of the specific features of the European rural model. LEADER is the European rural development laboratory. It has enabled new paths to undertake rural development. It has a

response to revitalising rural areas by favouring a “bottom-up” approach to development, using a multi-sectoral approach and seeking to exploit the specific assets of each territory; LEADER underlines the importance of local strategies for sustainable development.

(Source: <https://www.aeidl.eu/en/projects/territorial-development/leader.html>)

Therefore, Leader facilitated innovative solutions by opening up new development paths for rural areas go through difficulty and making a significant contribution to creating new employment and income opportunities for rural population.

The CAP, Cork Declaration (1996, 2016), and Leader initiative are the important factors in terms of both of the methodologies and the involved actions for rural development policy in the EU and they support straight for integrated and coherent goals of rural development programmes in the EU. All have marked the watershed moments in the evolution of rural development policy in the EU. (*Table 6*)

Because they reflects all aspects of rural development study (bottom-up approach, multi-sectoral approach, seeking the specific assets of each territory, local strategies for sustainable development). The fact that it can contribute comprehensive background for rural studies, especially for research about National target programme in building new rural areas in Vietnam.

Table 6. The Leader approach to rural development: what is it?

(LEADER: *Liaison Entre Actions de Développement de l'Economie Rurale* programme - Links between actions of rural development)

Definition	Rural development policy promotes sustainable development in Europe’s rural areas addressing economic, social and environmental concerns. ... Leader is an innovative approach within EU rural development policy.
Meaning	Leader stands for ‘Links between actions of rural development’.
Tools of shaping rural future	Leader approach is a tool that works well, in quite different situations and types of areas, thus adapting rural policy-making to the extreme diversity of rural areas’ needs.

	By encouraging local participation in the drawing up and implementation of sustainable development strategies, the Leader approach may prove to be a precious resource for future rural policy.
Methods	An area-based and bottom-up approach, involving local communities and adding value to local resources, gradually came to be seen as a new way of creating jobs and businesses in rural areas. Leader began in an experimental way bringing together, at local level, various projects and ideas, stakeholders and resources. It proved to be an ideal instrument for testing how to expand opportunities for rural areas.
Evolution	In policy terms, Leader had introduced as a 'Community initiative' financed under the EU Structural Funds. From 2007 onwards, the Leader will be included in national and regional general rural development programmes supported by the EU, alongside a range of other rural development axes.

(Source: European Commission, 2006, p: 5, 6)

3.3.3. Expert's argumentation

This PhD dissertation enlarges the reference on the experts' opinion about agricultural policies and rural development policies to have more multi-faceted views for PhD topic. They are Dax, (2006) and Thomson, (2006) in the Edition of Diakosavvas, (2006).

Firstly, it is explanation about the phrase "rural development policies" which had used - for convenience and/or rhetorical reasons - to cover a wide variety of state interventions. By this meaning, most of these had been grouped such as:

- aids to farm development (modernisation, restructuring);
- other farm interventions (animal welfare, or food safety and health);
- agri-environmental payments and regulation (direct, or "cross compliance")
- aids to non-agricultural development" (Dax, 2006)

Otherwise, there is an important distribution about a linkage between agricultural policy and rural development policy. "Nonetheless, all these "rural development policies" relate to "agricultural policies", with the latter taken to cover the traditional or mainstream measures taken by most governments to support and stabilise markets for farm products (and sometimes inputs), and thus, or directly, farm incomes." (Thomson, 2006)

Dax (2006) supplied lessons for rural development programmes (RDPs) such as its schemes, target, and the roles of actors.... Those supplied specificities for any RDP from planning to implementing and monitoring - evaluating.

- “- Rural development schemes are framed in a context of horizontal and vertical co-ordination.
- Many RDPs target agricultural activities in particular, by focusing on diversification approaches and linking agriculture to other sectors.
- Almost successful RDPs farmers are actors in a restructuring process that includes agriculture as one component of a comprehensive and place-based strategy for rural development.” (Dax, 2006)

There was a very relevant relation of agricultural policy priorities and the integration of the spatial dimension (of RDPs). Therefore, the successful factors in the RDPs by following aspects:

- “- understanding the causes of problems; careful planning and adjustment to place-specific needs; - finding widely shared commitment and “high-profile” actors in the collaborating institutions; - openness and transparency of the programme and the process; - communicating success experiences; links to social/political periphery; - spatial integration into regional and inter-regional networks and economy”. (Dax, 2006)

This PhD dissertation refer the argumentations (Dax and Thomson, 2006) for a significant analysis in chapter Results and Evaluation. As those opinions presented the experiences of integrated and coherent issues of rural policies, RDPs and they are so useful and credible to applying in RDPs for any country. Summary, the chapter Literature review of this PhD dissertation aims at synthesis of conceptions, definitions and approaches in rural studies and in rural development studying in order to describe an overarching understanding at the scope of PhD dissertation about rural areas and sustainable rural development.

4. Objectives of the PhD dissertation

Depend on the context of the Sustainable rural development strategy and the National target programme in building new rural areas period 2010-2015 in Vietnam, this PhD dissertation has some reasons to establish objectives that are listed in below:

- Footprint for choosing topic: rural areas and rural development progress always play important roles for whole economy and society in Vietnam. Vietnamese government wants to have a strong economy and sustainable development in order to create quality of life with high living standard for whole country, both in urban and rural areas.
- The rising of inequality and disparity of rich and poor would be the occurring fact, which Vietnam is looking for the method of solving. The subject of this study aims to present the impacts of socio-economic and environmental issues of building new rural areas in Vietnam and it studies about the linkage with rural development policies in order to synthesize conclusions and dynamic scheme for the sustainable rural development progress in Vietnam.

According Anriquez et al., (2007) the role of rural development put in a view such as “development of rural areas may contribute to the preservation of the rural landscape, the protection of indigenous cultures and traditions ...”. However, “public policies and investments in developing countries have historically favored industrial, urban and service sectors at the expense of agricultural and other rural sector development”. Therefore, objectives of global society on hunger and poverty reduction will be won or be lost in the rural areas of the developing countries by public policies and investments.

The goal of this PhD dissertation does not design new theories, but it improves an understanding to find solutions for real problems and opportunities to

develop rural areas in Vietnam. The reasons for setting objectives and hypotheses of this PhD dissertation are the descriptions of the facts and figures of the research topic “Building new rural areas and its impacts on sustainable rural development in Vietnam”.

4.1 Hypotheses of the study

Following an adequate preparation of the study in this PhD dissertation, I suggest three hypotheses are such as order to design a plan of data analyses in chapter Results and Evaluation.

Hypothesis 1: There are positive impacts of the National target programme in building new rural areas under sustainable rural development through three pillars of sustainability: economics, society, environment and they have confronted with the survey research in Hong Lac commune, Hai Duong province, Vietnam.

Hypothesis 2: There is a dynamic transition as the most important result of the National target programme in building new rural areas that is the self-awareness and empowerment of rural residents to increase quality of life and maintain sustainable rural development in rural areas in Vietnam.

Hypothesis 3: Sustainable development of rural areas in Vietnam has web linkages in National target programmes for eradicating hunger and reducing poverty, promoting sustainable rural livelihoods and building new rural areas.

4.2 Explanation for nomenclature used in Hypotheses

To test and analyse Hypotheses above, I firstly recommend to refer the theoretical and practical framework in chapter Literature review of this PhD dissertation.

To support for Hypotheses testing, this PhD dissertation looks back the Sector Policy Paper of World Bank (1975). Because it supplied recognition for objectives of rural development progress such as “Since rural development is intended to reduce poverty, it must be clearly designed to increase production and raise productivity. Rural development recognizes that improved food supplies and nutrition, together with basic services such as health and education, cannot only directly improve the physical well-being and quality of life of the rural poor... It is concerned with the modernization and monetization of rural society, and with its transition from traditional isolation to integration with the national economy.”

Therefore, parallels with objectives of rural development progress (World Bank, 1975), a description of challenges and opportunities of Vietnam economy in Country report in 15 years (2015) is a reason to understand furthermore why three Hypotheses testing established in this PhD dissertation.

First view on challenges for Vietnam's economic growth: Growth relies heavily on foreign invested enterprises, domestic enterprises remains largely small and uncompetitive. There is limited technology transfer for domestic enterprises. Vietnam is facing low value added and labor-intensive activities predominantly, major social and demographic changes (including migration, urbanization, ageing and a growing middle class). These alongside pressures towards greater inequality, will intensify as Vietnam develops further as a middle-income country.

Second view for opportunities of sustainable development: to benefit from the integration and the new population shift, to promote an economic rebound, Vietnam needs to upgrade its labor productivity through the skills of its workforce, macroeconomic and political stability, a more efficient and transparent system of governance, development of science and new technologies, build a world-class infrastructure.” (MPI of Vietnam, 2015)

In this scene of Vietnam economy, I want to express the significant opportunities and potentials parallels with difficulties for the country in “a progress of transition towards a high-productivity economy and it has driven by skills and innovation”. This is a background to support for the design of my Hypotheses in this PhD dissertation.

In next step, this PhD dissertation collects more academic terms such as sustainable livelihoods, quality of life ... in rural studies to having rational explanation of nomenclature for those Hypotheses. It is also a worth basement for the data analyses of rural development programme in the chapter Results and Evaluation and in the survey research of this PhD dissertation.

4.2.1 Some aspects of Sustainable rural livelihoods

Scoones, (1998) in the IDS team by drawing on Chambers and Conway (1992) and among others had a definition of sustainable rural livelihoods such as “A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base.” (Scoones, 1998)

It is clearly to recognize five key elements (Creation of working days, Poverty reduction, Well-being and capabilities, Livelihood adaptation, vulnerability and resilience, Natural resource base sustainability) of the definition when each composition relating to a wider literature with, in some cases, established ways of assessing outcomes. The first three elements focus on livelihoods, linking concerns over work and employment with poverty reduction with broader issues of adequacy, security, well-being and capability. The last two elements added the sustainability dimension, looking in turn, at the resilience of livelihoods and the natural resource base on, which in part, they depend. (Scoones, 1998)

Otherwise, Krantz (2001) had the definition of sustainable livelihood such as “The concept of Sustainable Livelihood (SL) is an attempt to go beyond the conventional definitions and approaches to poverty eradication. It is now recognized that more attention must be paid to the various factors and processes which either constrain or enhance poor people’s ability to make a living in an economically, ecologically, and socially sustainable manner. The SL concept offers a more coherent and integrated approach to poverty.”

Accordingly, Krantz (2001) issued the components of a sustainable rural livelihood (based on definition of Chambers, Conway, 1992) which could apply commonly at the household level. “A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. A livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term.” (Krantz, 2001)

In another side, this PhD dissertation considers a significant framework for rural livelihoods that based on assumption of rural livelihoods of Sullivan et al., (2012). It contained characteristic of rural livelihood such as Agricultural Output, Health and water access, Direct natural resource dependency, Vulnerability to flood and drought risk, Knowledge and adaptive capacity for low and high income population. In this case, decision makers can have learning for each circumstance in each rural area.

Therefore, Sullivan et al., (2012) stated such as “The livelihoods of the poor must not be viewed only at a micro level, but also at the macroeconomic scale, to ensure that the benefits of their improvement act as a multiplier on the macro-economy as a whole.... The sustainable livelihoods framework (Scoones, 1998, Carney, 1998) has been widely adopted by governments and donor agencies to improve the way rural peoples’ lives are understood.”

Sullivan et al., (2012) also explained for how and what household livelihoods depend on by context such as “Economic outcomes depend on available inputs and the efficiency of their use. ...In the case of poor households, they predominantly only have labour as a factor of production, and usually their livelihoods are based around the sale of this labour.” (Sullivan et al., 2012). The Sustainable Livelihoods framework clearly describes how household livelihoods depend on access to basic resources (natural, human, financial, physical and social capital types).

Sustainable rural livelihoods are important increasingly in rural studies. It can contribute significant means for decision making of rural development programmes, especially creating worthy understanding for planning of sustainable rural development in Vietnam. Its concepts are recognizing the need to promote an even development of all livelihood capital types in rural areas.

4.2.2 Definition of Quality of Life

The definition of Quality of Life is the next finding for nomenclatures of Hypotheses in this PhD dissertation. The concept “Quality of Life in rural areas” is a good way that enhance well-being rather than economic growth. “The standard approaches to measure economic progress solely in terms of Gross Domestic Product (GDP) by many, ... which argues that conventional, market-based measures of income, wealth and consumption are insufficient to assess human well-being. They need to be complemented by non-monetary indicators of Quality of Life”. (European Communities, 2010)

The important finding for a Quality of Life is the statement such as “Altogether an improvement of Quality of Life in rural areas is anticipated through the various national/regional RDPs. In the context of RDPs, Quality of Life consists of several aspects, e.g. economic welfare through diversification activities, provision of basic living conditions, a social network of relationships

and associations as well as the cultural environment that makes life enjoyable and satisfying.” (European Communities, 2010).

Therefore, Thematic Working Group (EC, 2010) had found the definition such as: “Quality of Life is a function of people’s life circumstances, which of course have an economic dimension, but also includes their social networks, their health and their sense of worth, and the sustainability of the environment on which they depend. Quality of Life emanates from having the capability to flourish.” (European Communities, 2010)

There are different ways to exploring Quality of Life, which present as below:

Table 7. Term of approach for Quality of life

1. subjective well-being	Well-being is generally be viewed as a description of the state of people’s life situation (McGillivray et al 2006).
2. capability to flourish	based on people’s ability to pursue the goals they value. With some basic entitlements: from democratic rights; to physical and mental health; to education; to meaningful employment and to participation in society (Jackson 2009).
3. allocating the non-market goods and services	based on allocating the non-market goods and services fairly across different groups.
Quality of Life can only maintain if the resource set has used sustainably - there must be an environmental component. “There is no simple and easy way to measure Quality of Life”	

(Source: European Communities, 2010, p: 7)

Quality of Life is a multi-dimensional concept embracing social, environmental, economic aspects with meaning such as “It includes the twin ideas of ‘liveability’ - the services, environmental quality and social networks that make rural areas places in which people want to live and ‘livelihoods’ - how people gain livelihoods and diversify their land-based and other activities to sustain those livelihoods.” (European Communities, 2010)

Because all literatures in this chapter explained the essence of progress of socio-economic growth and development in rural areas but this (socio-economic growth) progress has to depend on the characteristics of each economics model in over the world.

5. Materials and Methods

5.1 Methodology in desk research

This PhD dissertation collects dataset on website of the General Statistics Office in Vietnam (hereinafter is GSO) as the secondary data, and it also uses statistic publications in scope of global and regional analysis about rural development, rural areas (of FAO, WB, UNs, OECD ...) in order to discuss the necessary issues of research topic.

5.2 Survey research in Hong Lac commune

A fieldwork was implemented in the home country - Vietnam as a survey research and used two questionnaire forms in small samples during the implementation time of the National target programme “Building new rural areas in Vietnam” period 2011-2015. A report of the survey research would base on the fieldwork in Hong Lac commune, Hai Duong province, Vietnam.

The materials and data collected by purposes as below:

- to create a basis information for the survey research by focusing on a phenomenon within its real-life context, service reports, organizational charts, budgets etc.
- to work for a pre-research and ex-post evaluation of a survey research about building new sustainable rural areas in one commune in the Red River delta (in Hai Duong province, Vietnam) under the National target programme “Building new rural areas in Vietnam” period 2011-2015.

The survey research planned by holistic design in which selective cases would reflect issues of the theoretical framework in the chapter Literature review of this PhD dissertation. This work improves a delivery and test for Hypotheses in this PhD dissertation in way it can provide a comprehensive approach to sustainable rural development in rural areas in Vietnam.

To evaluate and analyze the data of survey research I used s qualitative and quantitative statistical methods. The report of the survey research will include in the chapter Results and the Evaluation of this PhD dissertation.

5.3 Scientific methods in social sciences used for rural development study

McCullagh, (1980) stated in the article “Regression Models for Ordinal Data” such as “... the types of data as well as the class of problems that a statistician is likely to encounter vary greatly with the field of research. ... In the social sciences and to a lesser extent in the biological sciences, qualitative data are more common. These qualitative measurements, whether subjective or objective, usually take values in a limited set of categories which maybe on an ordinal or on a purely nominal scale” (McCullagh, 1980)

To have outcomes in data analysis, this PhD dissertation uses evaluative and comparative techniques to consider all aspects of the research topic or to highlight the role of institutions, policies, as well as to verify and encounter the effective indicators for rural development progress at a level of macro-economic management. On the other hand, this PhD dissertation focus on data analysis of the survey research at a small commune in Red River delta, Vietnam in both of qualitative data and quantitative data. Because the commune is an entity undertaken upon the National target programme in building new rural areas period 2010-2015 in Vietnam, which deals “the class of problems and phenomena” with the issues of research topic.

This PhD dissertation would consider some statistical methods for study about rural development programme and related issues such as the list below:

Descriptive methods

Sandelowski (2000) had considered that “The general view of descriptive research as a lower level form of inquiry has influenced some researchers conducting qualitative research to claim methods they are really not using and

not to claim the method they are using: namely, qualitative description”. Because of the fact that “Qualitative descriptive study is the method of choice when straight descriptions of phenomena are desired.” That is why Sandelowski (2000) had a statement by words: “Descriptive research is typically depicted in research texts as being on the lowest rung of the quantitative research design hierarchy. In this hierarchy, “true” experiments aimed at prediction, control are the gold standard, and any other design is non-experimental and weak (e.g., Talbot, 1995) ... Descriptions always depend on the perceptions, inclinations, sensitivities, and sensibilities of the describer (e.g., Emerson, Fretz, & Shaw, 1995; Giorgi, 1992; Wolcott, 1994)”; Therefore, qualitative descriptive studies offer a comprehensive summary of an event in the everyday terms of those events. (Sandelowski, 2000)

Time series analysis

March et al., (2005) had presented specify characteristics of timeseries analysis methods. “Recurrence plots provide a graphical representation of the recurrent patterns in a timeseries, the quantification of which is a relatively new field”. The opinion of authors reflected that pattern are common and where their presence may imply inherent predictability. “there is great interest in developing methods for detecting and quantifying patterns, leading to quantitative measures of structure, similarity, information content, and predictability.”; “recurrence plots, which offer a means to quantify the pattern within a timeseries, and also the pattern shared between two timeseries. Recurrence plots are a method for visualizing recurrent patterns within a timeseries or sequence”. (March et al., 2005)

Model analysis: SWOT analysis

Based on the objective of research topic, this PhD dissertation chose the method of SWOT analysis because it likes a decision-support system. Karppi

et al., (2001) described the source and characteristics of SWOT analysis method by words: “The SWOT analysis approach..., seeks to address the question of strategy formation from a two-fold perspective: from an *external* appraisal (of threats and opportunities in an environment) and from an *internal* appraisal (of strengths and weaknesses in an organization.” (Karppi et al., 2001)

Furthermore, Karppi et al., (2001) said “The basic model: SWOT as an intermediary between external and internal factors. The importance of the SWOT in the planning, programming and strategic management processes is that it is an intermediary in many senses of the word.”

On the other hand, Knierim et al., (2010) had a study about application of SWOT analysis as an instrument in EU rural policy making and rural development context. “Conceptually, a SWOT analysis aims at structuring and supporting the proactive management of an enterprise, an organization or a project. Depending on the specific objectives, the database used in a SWOT analysis will be tailor-made, integrating quantitative and/or qualitative data over short-, medium- or long-term periods of time.”

So “The basic assumptions linked to the SWOT analysis within the EU rural development policy programming are that:

- (1) a region can be described and understood as being analogous to an organization or an economic sector by a series of indicators and qualities, in contrast to external dynamics that frame a region's course of development; and
- (2) this description is a useful basis for the development of objectives and meaningful policy measures.” (Knierim et al., 2010)

Based on those reasons in above, this PhD dissertation has referred a literature review about a new tool - SWOT analysis in European rural development policies when the European Council agreed on Community strategic guidelines for rural development (EU, 2006: 2006/144/EC) in February 2006.

Those are means to encompass and integrate the whole European Union's rural policy design from 2007 to 2013: “These strategic guidelines formulate four priorities: competitiveness of the sector; environment and countryside improvement; quality of life improvement in rural areas and diversification of rural economies; and the enhancement of local capacities order to ascertain for job growth and diversification.” (Knierim et al., 2010)

As well as, based on the Strategic approach of the EU's rural development policies, Knierim et al., (2010) involved the step “National or regional programmes are elaborated on the basis of SWOT analysis” as a new tool for appraisal European rural development policies. Therefore, the SWOT analysis as an essential programming step of the basis RD strategic approach.


1. EU Strategic Guidelines describe the Community Priorities valid for 2007-2013
 2. National strategies mirror EU priorities relevant to member states' conditions.
 3. National or regional programmes are elaborated on the basis of SWOT analysis.
 4. Programme implementation goes along with monitoring and evaluation (“ongoing evaluation”) based on the Community framework.
- 

Figure 3. Strategic approach of the EU's rural development policies

(Source: Knierim et al., 2010, p: 66)

Quantitative methods used for data analysis

To using R for statistics in evaluation through the tools of data analysis and graphics in my PhD dissertation, firstly I referred the background of R such as: “R (Ihaka and Gentleman 1996; R Core Development Team 2004) is a free, open-source implementation of the S statistical computing language and programming environment.” (Fox, 2005). As the authors, “R Commander provides a graphical user interface (\GUI") to the open-source R statistical computing environment (R Core Team, 2019). R is a command-driven system... The R Commander accesses only a small fraction of the capabilities

of R and the literally thousands of R packages contributed by users to the Comprehensive R Archive Network (CRAN). (Fox, 2019)

In R commander, there are statistical models that can use to evaluate for data analysis and graphics. For example, “Cluster analysis is a form of unsupervised classification (Ripley, 1996).... There are two types of algorithms - algorithms based on hierarchical agglomeration, and algorithms based on iterative relocation.... The mva package has the cluster analysis routines. The function `dist()` calculates distances. The function `hclust()` does hierarchical agglomerative clustering, with a choice of methods available. The function `kmeans()` (k-means clustering) implements iterative relocation.” (Maindonald, 2008). Therefore, R is a functional language, for 32-bit versions of Microsoft Windows.

Besides, Fox, (2005) mentioned that “Several kinds of statistical models can be fit in the R Commander using menu items under Statistics -> Fit models: linear models (by both Linear regression and Linear model), generalized linear models, multinomial logit models, and proportional-odds models, the latter two from Venables and Ripley’s `nnet` and `MASS` packages, respectively (Venables and Ripley 2002)....” (Fox, 2005)

Models used in quantitative analyses

Secondary panel data of the six regions of Vietnam was used to investigate the success of implementation of National Target Programme in Building New Rural Areas period 2011-2015.

Explanatory variables (n=19) were used for modelling: Accredited percentage (% Communes achieved the National criteria) of Planning, Transportation, Irrigation, Electricity, Schools ,Cultural facilities, Rural markets, Post offices, Residential houses, Income, Poor households, Regular employees, Production form, Education, Health care, Culture, Environment, Political system, Social security.

Two clusters of the six regions were created by using the above 19 variables in the process of k-means cluster analysis and graphics of hierarchical cluster analysis. The clusters were also modelled (linear regression) by 19 variables. Linear regression models were used to estimate the effect of chosen results of each selected variable (of 19 National criteria) with Residual standard error as some Model examples as follows:

RegModelNo. 1

Environment~Electricity+Income+Poor.households+Production.form

RegModelNo. 2

Poor.households~ Cultural.facilities+Electricity+Health.care+Rural.markets

Adjusted R-square and P values were used to test the results. The time-period considered the time series data from 2010 to 2016 (of National Agri Census 2016).

In order to find out the major factors of sustainable rural development which impacted by the National target programme of building new rural areas in Vietnam although this process still has the unfulfilled empirical information sources, this PhD dissertation considers all methodologies above for the data analyses and the evaluation of PhD topic.

6. Results and the Evaluation

6.1 Statistics in agriculture and rural development in Vietnam

This section verifies some point of views of agricultural development in the global action plans that consist with priorities in agriculture and rural development of the socio-economic development plans in Vietnam period 2011-2020.

Firstly, at the strategy overview of global development program for agricultural development, Bill & Melinda Gates Foundation has a notation such as “Agricultural development is two to four times more effective at reducing hunger and poverty than any other sector. Helping farm families grow more is the smartest way to fight hunger and poverty. ... When farmers can grow more food and earn more income, they can achieve self-sufficiency and live better lives”. (Bill & Melinda Gates Foundation, 2011)

Bill & Melinda Gates Foundation has an ambition to exert their power in agricultural development (by funding for improvement in agricultural productivity) to solve the actual situations (create social and economic ripple effects) of rural areas worldwide. (Bill & Melinda Gates Foundation, 2011)

Secondly, the IFAD organization (2012) had a theme “Investing in rural people” to support for sustainable smallholder agriculture. It based on the awareness: “As the world belatedly turns its attention to the pressing issues of environmental degradation, resource scarcity and climate change, the concept of sustainability takes its rightful place at centre stage in discussions about agricultural and rural development”. (IFAD, 2012)

However, unsecured situations of the human and livelihoods nowadays are not easy to solve. Thus, Bill & Melinda Gates Foundation and IFAD organization want to promote for the progress of alleviating hunger and poverty in the

world; to make rural communities economically stronger and more stable. That is also the objectives of research topic of this PhD dissertation.

Thirdly, looking at the same overview in a study of FAO (2017) about the challenges of food security, poverty and the overall sustainability of agriculture and food systems. Those issues are facing now and will face into the 21st century by some aspects. For example, “The decline in the share of agriculture in total production and employment is taking place at different speeds and (*it*) poses different challenges across regions”; besides, “Hunger and extreme poverty have been reduced globally since the 1990s. Yet, around 700 million people, most of them living in rural areas, are still extremely poor today.... almost 800 million people are chronically hungry and 2 billion suffer micronutrient deficiencies.”

Obviously, at the different circumstances worldwide, agricultural development is becoming to improve sustainably the wealth of nations. As low developed countries and even developing countries, have large rural areas and contain a big proportion of rural residents with key activities in agriculture nowadays.

In fact, the decision No. 432/QĐ-TTg dated on April 12, 2012 of Prime Minister approved the Vietnam Sustainable Development Strategy period 2011-2020 for priorities of sustainable development. At the same times, the Politburo (Communist party’s congresses) had orientations and conceptions by Resolutions for socio-economic development plans of whole country. In this decision, priorities in agriculture and rural development nominated such as “Ensure food security, develop agriculture and rural areas in a sustainable manner accordance with the Politburo’s conclusions and Government’s resolutions.” (Prime Minister of Vietnam, 2012)

To interpret context of Sustainable Development Strategy 2011-2020 and socio-economic development plan 2011-2015 (SED plan) in Vietnam, this section presents an outlook of agriculture and rural development in Vietnam.

In this chapter, the statistic overview of agriculture and rural development by the series OECD Food and Agricultural Reviews, (2015) and dataset of General Statistics Office (GSO) in Vietnam is necessary in order to have a comprehensive background of agricultural policies and concern with rural development process in Vietnam.

In fact, the definition of agriculture in Vietnam includes not only crop and livestock production, but also forestry and fisheries. This national definition reproduced by most international databases, including by the World Bank's World Development Indicators. (OECD, 2015)

From GSO data, own calculation by US\$ in charts based on OER (Official exchange rate) in World Bank development indicators - Vietnam country dataset. All charts (Figures) presented in this section and in after continually that made by own calculation and own selection based on GSO data time series. The distribution of economic sectors in GDP in Vietnam has changed during 2010-2016 as the GSO data (2018) demonstrates (*Figure 4*). "The Vietnamese economy is moving from being heavily agricultural to a diverse mix of agriculture, services and industry. The agricultural share in GDP halved from 39% in 1990 to 20% in 2012. Services rose from 39% to 42%, and industrial production rose from 23% to 39% over the same period." (OECD, 2015)

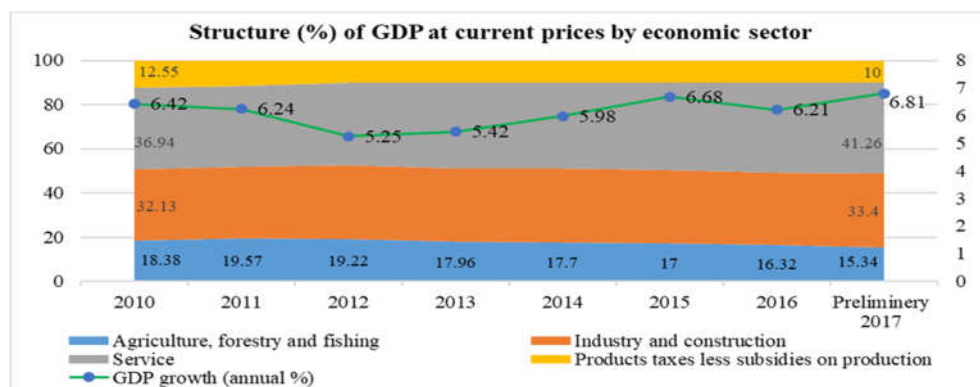


Figure 4. Structure of GDP at current price by economic sector
(GSO, 2018, Statistical yearbook of Vietnam 2017)

Not only the share in GDP of agriculture sector decreased but also the share of agricultural employment in labor force also reduced in Vietnam. “In turn, agriculture’s share in employment fell from 70% in 1996 (...) to 47% in 2012, paralleled by significant increases for industry from 11% to 21% and for services from 21% to 32%.” (OECD, 2015). The share of agricultural employment in 2016 reduced at 39.4% by GSO data (2018). (Figure 5)

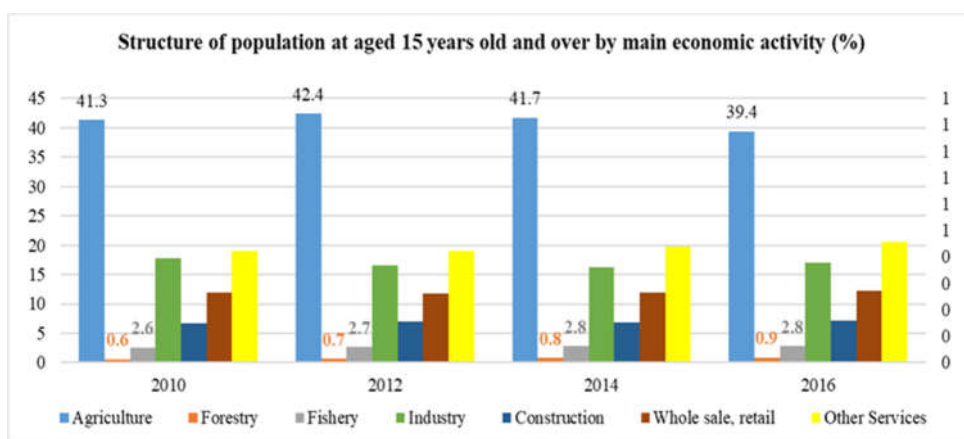


Figure 5. Structure of population by main economic activity
(GSO, 2018, VHLSS 2016)

In Vietnam, the direction and orientation of government support for the export-oriented economy. Therefore, country can create more employment, foster growth and development with advantages of intensive rural labor force, of natural conditions for agricultural production and of the transition of macroeconomics performance comprehensively since year 1986 for international integration and development.

Although structure (of agriculture, forestry and fishing employees) of annual employed population at 15+ years of age has a linear of reducing by years of 2010s. However, percentage of agricultural employees is always highest than another ratios of forestry and fishery employees. (Figure 6)

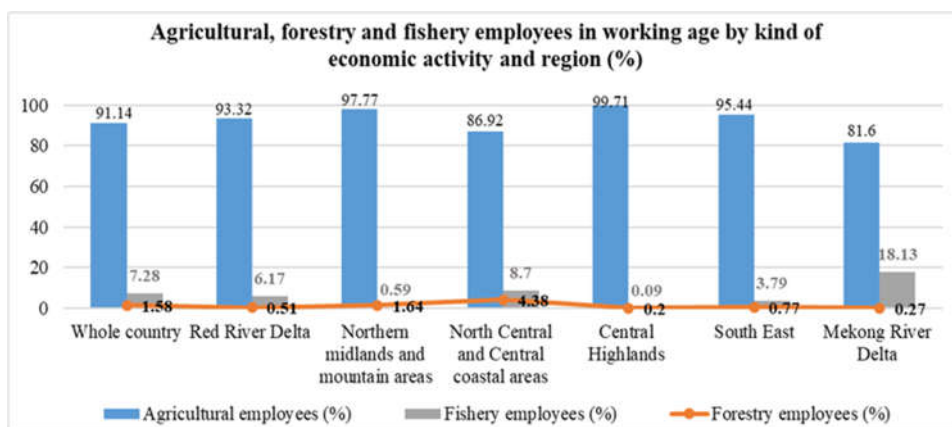


Figure 6. Agricultural, forestry and fishery employees in working age by kind of economic activity and region

(GSO, 2018, National Agri census 2016)

The fact that the achievements of agricultural development in Vietnam had reflected comprehensively through the successful opening of its economy to international trade. “Vietnam has been strikingly successful in opening its economy to international trade. When measured by the ratio of traded goods (imports plus exports) to GDP, Vietnam’s trade openness increased from 30% in 1990 to 79% in 2000 and then to 161% in 2012.” (OECD, 2015)

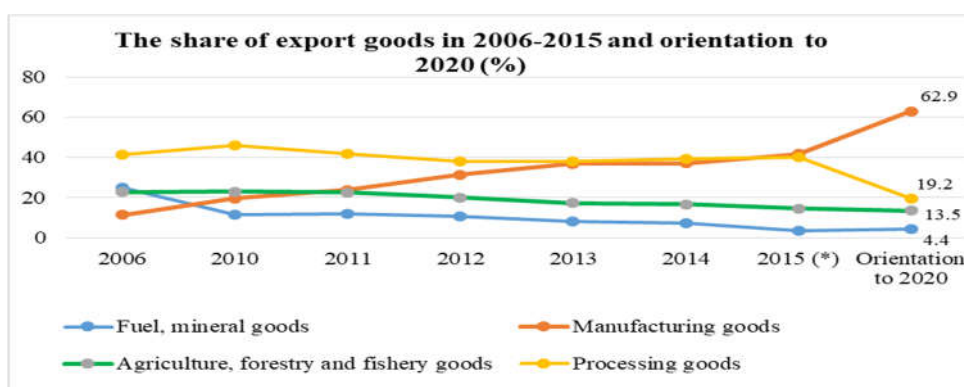


Figure 7. The share of export goods in 2006-2015 and orientation to 2020

(*) 2015: Preliminary data

(GSO, 2017, Vietnam's Exports and Imports of Goods 2005-2015)

The data of agricultural commodities export in Vietnam presents a trend of reducing its proportion (in percentage) gradually but it is still keeping a remarkable outcome in total export revenue of country. This fact contributes much to growth and development in Vietnam economy since the Renewal progress from 1986 to nowadays. (*Figure 7*)

The dataset of GSO is valuable to illustrate the trade openness in period of years 2005-2010-2015 in Vietnam while agricultural commodities group is a significant component of the economic growth. In this PhD dissertation, applying of SWOT analysis is an easily methods to access general situation of agricultural production in Vietnam. (*Table 8*)

Table 8. SWOT analysis for Factors of agricultural production in Vietnam

<p>Strengths</p> <ul style="list-style-type: none"> - Agriculture, fisheries and forestry is a key source of income for almost half of the population. - The sector's openness to international trade is strong on the export side, but weaker on the import side. This might indicate Vietnam's comparative advantage in agricultural production. - By 2011-13, Vietnam had become the world's largest exporter of cashews and black pepper, the second largest exporter of coffee and cassava, the third largest exporter of rice and fisheries and the fifth largest exporter of rubber. 	<p>Opportunities</p> <ul style="list-style-type: none"> - The share of agricultural income in total rural income is falling in most years. By contrast, salary and wage income rises steadily from 24% in 2002 to almost 40% in 2012. This reflects changes in the structure of rural employment. - The percentage of the population working on farms (self-employed or as hired labour) has decreased systematically from 2002 to 2012, in favour of wage employment in the nonfarm sector, which almost doubled its share over the same period. This indicates a positive trend of economic diversification in rural areas.
<p>OECD, 2015, p: 48, 84</p>	<p>OECD, 2015, p: 58, 54</p>
<p>Weakness</p> <ul style="list-style-type: none"> - The improvements agriculture's enabling environment in Vietnam still performs relatively poorly... Those are such as weak governance, underdeveloped infrastructure, inefficient food safety institutions, poor functioning of financial markets, and low level of financing of agricultural research and development. - The agricultural sector's share in total employment fell from 70% in 1996 to 47% in 2013, but it remained 2.5 times higher than the 	<p>Threatens</p> <ul style="list-style-type: none"> - Capital inputs remain relatively small with the low wage rates, high labour intensity relative to capital... - Urbanisation has been progressing as people migrate away from the agricultural sector to better-paid jobs. ...By 2013, the ratios had become 68% rural and 32% urban. It means that the urban population share increased by half in only 20 years (since 1990s), which reflects the rapid rate of economic growth and creates a major

sector's share in GDP. This indicates low labour productivity, which is one of the reasons of the low incomes of households' dependent on farming. - A considerable proportion of Vietnam's economic growth in the past two decades is the result of exploiting natural resources, especially the intensified use of both land and water ...	challenge for a more integrated development of rural and urban areas. - Rapid economic growth, combined with rising population and expanding agricultural production, is exerting massive pressures on the environment...In the long term, climate change is likely to have strong negative impact on the Vietnamese agriculture.
OECD, 2015, p: 46, 48, 42	OECD, 2015, p: 51, 42, 85

Table 8 presented the real situation of agricultural and rural development in Vietnam and it is resulted from the orientation of Government policies and or State resolutions during Doi Moi progress since year 1986 till nowadays.

So, agricultural and rural development is an interaction process to address difficulties in rural areas of developing countries, i.e., eradicating hunger and reducing poverty but also is a responsibility to achieve SDGs (of UNs Agenda 2030) effectively in almost countries in the world where the large proportions of population are living in rural areas.

6.2 Building new rural areas in Vietnam and learning lessons from the rural development programme in the EU

6.2.1 Discussion about National target programme in building new rural areas period 2011-2015 in Vietnam

6.2.1.1 Distinction of socio-economic development in rural areas

The socio-economic development plan (SED plan) period 2011-2015 had approved by the Resolution 10/2011/QH13 in the 13th National Assembly on November 8, 2011 of Vietnam. SED plan summarized the socio-economic development of Doi Moi progress (from year 1986) to present. It declared that the five-year 2011-2015 socio-economic development plan has such elemental advantages of achievements of the past 25 years since Doi Moi 1986. "Though coping with the same difficulties and unpredictable, complicated movements in the world as other countries did, socio-political stability has enabled the

country to bring into full play potentials and advantages of its agriculture and farm product export during the course of industrialization and make it easier to attract foreign investment and develop domestic market in a fast manner”. (Vietnam National Assembly, 2011)

From year 2010, Vietnam is officially become a low-middle income country as the rank of World Bank. (Last updated 5th Oct 2020, with GNI (or GNP) per capita is between 1,036USD and 4,045USD), this rank of Vietnam has kept until fiscal year 2019. As the special notes of World Development Indicators 2014 (Last updated 4th Sep 2014), the size of Vietnam economy is the Lower middle income. The new base year is 2010 based on data from the Vietnam Statistics Office, national accounts data have been revised from 2000 onward. (Source: <https://www.worldbank.org/en/country/mic/overview>; World Bank, World Development Indicators, 2014)

First, this section finds the outcomes of the socio-economic development plan period 2011-2015 in Vietnam through the chart of National accounts. (*Figure 8*). The achievements of national accounts are important for Vietnam economy in case population is still raising gradually in period of year 2010s.

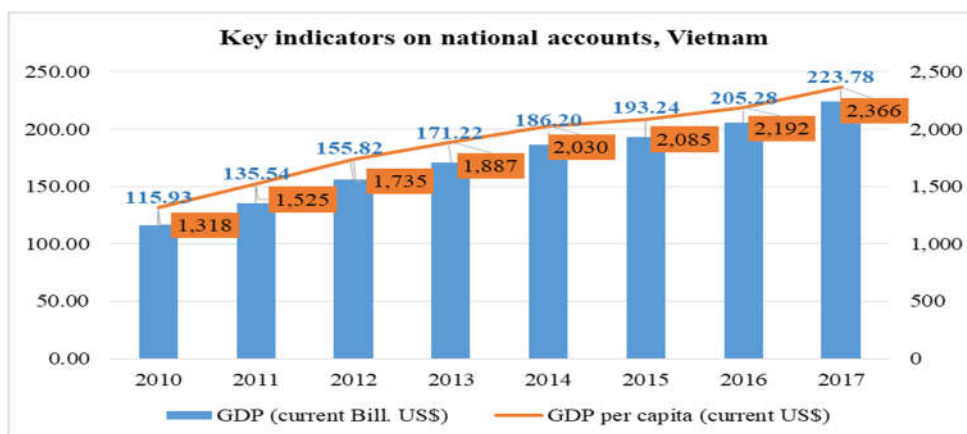


Figure 8. Key indicators on national accounts, Vietnam

(Source: World Bank, World Development Indicators database - Country (Updated 2019); GSO, 2018, Statistical yearbook of Vietnam 2017)

For example, as the data on website GSO in 2018, population in Vietnam in 2017 is 93.6 million people and is in a top rank (at 15th position) of overpopulation countries in the world. This population source supports a gold-rate of labor force for economy and is an abundant supply for the rural employments of the agricultural-based country, Vietnam. Moreover, this characteristic distributes a significance and challenge for structure of labor market in rural areas during stage of 2010s.

Besides that, OECD Report (2015) had stated about social situation, such as “The robust economic growth over the last two decades has been accompanied by an impressive fall in the incidence of poverty”. (OECD, 2015)

The chart of poverty rate as below shown the declination of linear line from high to low level that it detects the perspective of alleviating poverty in Vietnam by reducing percentage point gradually. As the reviews on sustainable rural livelihood, it “is an attempt to go beyond the conventional definitions and approaches to poverty eradication”.

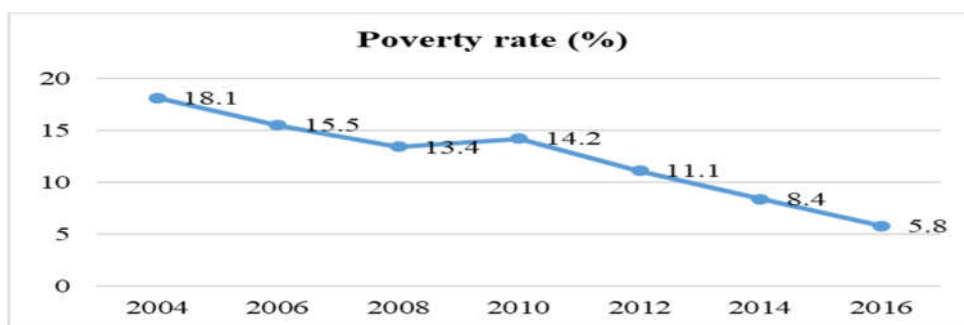


Figure 9. Poverty rate in Vietnam

(GSO, 2018, VHLSS 2016)

OECD Report (2015) continued by deeply evaluation such as “Poverty is far more prevalent in rural areas, as is the case in most countries, but even there it is falling quickly. In fact, by 2002 Vietnam had already met its Millennium

Development Goal of reducing poverty defined as USD1/day by half. ... Gini coefficient is in a range of 35.5 to 39.3 from 2010 to 2012.” (OECD, 2015)

However, dataset of general poverty rate based on the Vietnam Household Living Standards Survey (VHLSS) in each two years from 2010 to 2016 marked a distinction between urban - rural and among regions of country. The higher poverty rate in rural areas than in urban areas is still a heavy burden to implement National target programme in building new rural areas in Vietnam.

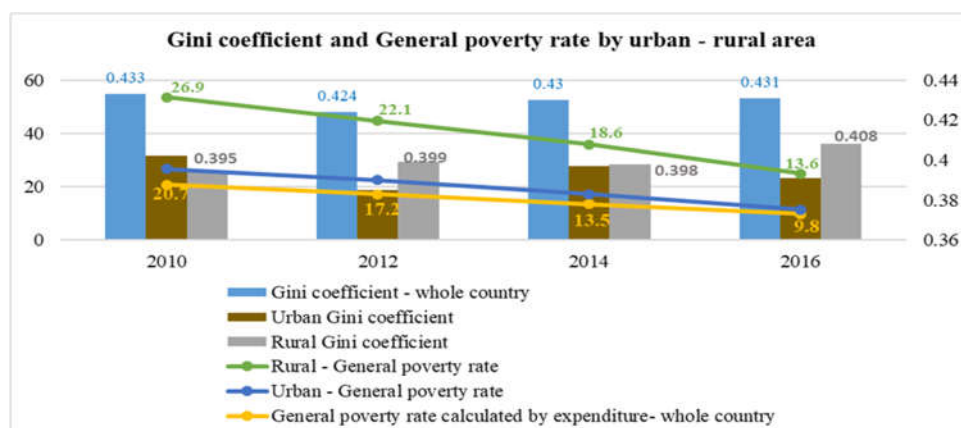


Figure 10. Gini coefficient and General poverty rate by urban-rural areas (GSO, 2018, VHLSS 2016)

Furthermore, “This coefficient remains higher in rural than urban areas, reflecting lower incomes in rural areas, despite lower food costs than in the cities, and less food security for rural residents.” The chart of GINI coefficient in Vietnam supplied the fact that “Real rural incomes have been increasing, but are just half of those of urban residents.” (OECD, 2015)

Table 9. Cluster Solution for Monthly income per capita (US\$)

Summary Hclust.5/ Monthly.income.per.capita..USD	Year.2010	Year.2012	Year.2014	Year.2016
INDICES: 1 hclus.label "1" (Red River Delta, South East)	104.3540	132.5950	174.7160	194.7795

INDICES: 2 hclus.label "2" (Northern midlands and mountain areas, North Central and Central coastal areas, Central Highlands, Mekong River Delta)	57.18650	74.46175	93.75525	107.86025
One Sample t-test - Mean of X - p value	72.909 0.001386	93.8395 0.001019	120.7422 0.001227	136.8333 0.0009039

(GSO, 2018, VHLSS 2016, own calculation by R commander)

The challenges of income gap between rural and urban areas either occurred among regions in Vietnam and reflected upon the reality of wealth by income generation and affect to consumption expenditure of rural residents. Those are the real difficulties in order to obtain the feasible livelihoods for rural residents. Besides that, consumption expenditure for living are some visible aspects to reflect the different living standards between rural and urban areas in Vietnam. The p-value of Cluster analysis for Income (**Summary Hclust.5**) and Expenditure (**Summary Hclust.6**) period 2010-2016 indicated the statistic meaning of time series and supplied the development of six regions: income and consumption expenditure per capita increased during the implementation of National target programme in building new rural areas in Vietnam period 2011-2015.

Table 10. Cluster Solution for Monthly total consumption expenditure per capita (US\$)

Summary Hclust.6/ Monthly.total.consumption.ex penditure.per.capita..USD.	Year.2010	Year.2012	Year.2014	Year.2016
INDICES: 1 hclus.label "1" (Red River Delta, South East)	84.9400	97.0325	109.9625	126.4185
INDICES: 2 hclus.label "2" (Northern midlands and mountain areas, North Central and Central coastal areas, Central Highlands, Mekong River Delta)	52.51625	65.38025	76.20050	80.94325

One Sample t-test				
- Mean of X	63.32417	75.931	87.4545	96.10167
- p value	0.0003267	0.0001232	0.0000686	0.0002166

(GSO, 2018, VHLSS 2016, own calculation by R commander)

Second, this section continues considering the agricultural policy in Vietnam during next ten years. “Vietnam’s position on selected world markets will increase: The evolution of production in Vietnam in the coming decade is largely above the rates projected for world production of such commodities as protein meals, pigmeat, sugar, vegetable oils, poultry meat and coffee. In particularly production growth rates of coffee, pigmeat and sugar are expected to be more than twice stronger in Vietnam than in the world.” (OECD, 2015) Accordingly, trade in merchandise of major agricultural export and import of Vietnam in years from 2010-2015 consolidated for those projections of country: export-based economy. (Figure 11)

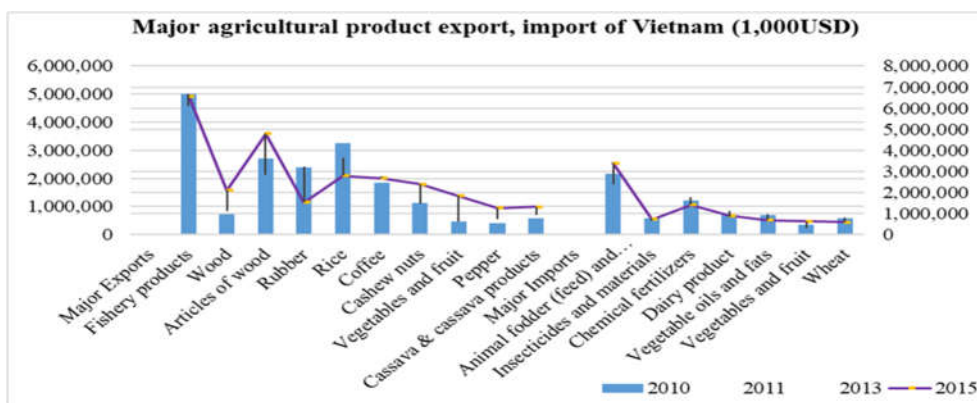


Figure 11. Major agricultural product export and import, Vietnam
(GSO, 2017, Vietnam's Exports and Imports of Goods 2005-2015)

The OECD report (2015) presented potential and advantages of agricultural production (this issues had an orientation in the SED plan period 2011-2015) in Vietnam. This issues stand for an able background of Hypotheses testing about sustainable rural development of PhD topic.

Clearly, strengthening agricultural production can distribute strongly for sustainable rural development and get better quality of life for rural residents in Vietnam. The structure of outcomes of agricultural production in Vietnam is also appropriate with its value composition in the Table 11 as below.

Table 11. The value composition of agricultural production in Vietnam

	1991	2000	2010	2012
Crops, including: (%)	77.3	79.6	74.4	73.0
Rice paddy	39.7	45.7	39.7	34.9
Coffee green	1.2	4.5	4.7	7.0
Rubber natural	1.2	2.5	4.7	5.4
Maize	1.4	2.9	4.2	4.1
Cassava	2.9	1.1	3.5	3.2
Cashew nuts	2.6	2.1	3.3	3.2
Sugar cane	4.7	5.4	2.1	2.6
Pepper	0.9	1.8	1.3	2.5
Other	22.0	13.6	10.9	10.1
Livestock, including: (%)	22.7	20.4	25.6	27.0
Meat pig	13.4	12.5	16.3	17.6
Meat chicken	5.3	5.7	6.3	6.5
Meat cattle	1.8	1.0	1.8	1.7
Eggs	0.3	0.2	0.3	0.3
Total (%)	100	100	100	100

(Source: OECD, 2015, p: 50)

Those projections of Vietnam have enough capacity to do because of the priorities of policies system for agricultural development. “The current priorities of agricultural policy are to achieve high quality output and competitiveness, raise rural incomes and maintain food self-sufficiency.” In Vietnam, “The Ministry of Agriculture and Rural Development (MARD) has the primary role in developing and implementing policies to achieve these objectives. Other central government ministries and agencies along with local government also have significant roles.” (OECD, 2015)

This current fact inherited from the evolution of agricultural policies in Vietnam as the Figure 12 as below.

Stage 1. Reunification (1976-1986)	•Agriculture supported heavy industry by goods at low prices and achieved food self-sufficiency in rice, and other staples foods.
Stage 2. Renovation (1986-1993)	•Renovated (Doi Moi) economic management institutions and policies in 1986. Resolution No. 10 (1998) on renovation of agricultural management: focused on agriculture and rural development from co-operatives to farm households.
Stage 3. Expansion (1993-2000)	•Ensure food supplies at the national level, expanded food production for export.
Stage 4. Consolidation (2000-2008)	•Strengthen market price transmission and mobilise essential resources to step up agricultural and rural modernization and industrialization in 2001-2010.
Stage 5. Reorientation (2008 onwards)	•Resolution No. 26 (2008) on agriculture, farmers and rural areas oriented for agriculture, rural development and farmer livelihoods.

Figure 12. Phases of agricultural policy development in Vietnam

(Source: OECD, 2015, p: 113, 114, 117 - Figure 12 by *Own adaptation*)

On the other hand, the goals of restructuring for agricultural sector in Vietnam since stage of reorientation in 2008 and onward integrated and consolidated with the following principal goals such as:

- “- to build up a comprehensively developed agriculture sector in a modern and stable manner, to ensure food security.
- to build up new rural areas with modern socio-economic infrastructure; rational economic structure and production organisations...
- to improve spiritual and physical life of rural residents; farmers are trained and act as the leaders in the rural community” (OECD, 2015)

So, I recognize that the decentralization of state management in agricultural policy, the goals of restructuring of agricultural sector from 2008 onwards matched closely with building new modern rural areas in Vietnam. Therefore, agriculture and rural development are two sides of one issue to building new rural areas.

6.2.1.2 National target programme in building new rural areas period 2011-2015 in Vietnam

Due to literature review and practical analyses about sustainable agricultural and rural development in this PhD dissertation, it is necessary to verify the key objectives of agricultural policy as set out in the MARD plan for the five years 2011-15 in Vietnam. Those objectives had highlighted in the OECD report (2015) such as sustainable growth of production, improvement of rural living standards, developing of rural infrastructure, strengthening of competitive capacity, of government's management in local manner, protecting of natural resources and environment. (OECD, 2015)

As well as the OECD report (2015) also stated that: "The latest ten-year Socio-Economic Development Strategy (SEDS) for the period 2011-20 approved in January 2011 reinforces the overall objective of making Vietnam a modern industrialised country by 2020". Therefore, a framework for implementation of agricultural development in Vietnam are necessary to achieve the SEDS goals. It includes some special actions such as increase investment in agricultural production and rural economy; improve policies to renovate the collective economy, farm-based economy, and handicraft villages towards sustainable development; attach importance to vocational training for one million rural laborers a year... (OECD, 2015)

So, the conduction of agricultural policy in Vietnam based on the top-down approach (by orientations of government) and National target programme in building new rural areas is one of National action plans to ongoing objectives from decision making to practical implementation.

Therefore, the results of National target programme in building new rural areas in Vietnam period 2011-2015 illustrated by GSO dataset on the "Rural, agricultural and fishery census 2016" (hereafter namely National Agri Census 2016) to be the outcomes of fact-finding of this PhD dissertation.

(1) Content of National target program in building new rural areas in Vietnam period 2011-2015

The National target programme in building new rural areas period 2010-2020 and vision into 2030 has worked out by government in order to build new rural areas in Vietnam. It would have modern rural socio-economic infrastructure, reasonable economic structure and organization production models that combine agriculture with developed industry and service; combine rural development and urban development as programming. By this programme, rural society is be democratic, sustainable, rich of ethnic rural culture; its ecosystem is prevented; its security is safe; its entertainment and spirit life is improved. All characteristics will be improving by socialism orientation.

The target of National target programme for new rural development in Vietnam is that farmers and rural residents will play the core position. They will be the managers, inspectors to implement projects, and they participate in the process of building new rural areas order to avoid the overlap implementation in many spheres or the damage of current rural property. The Ministry of Agriculture and Rural development is the hosts and co-ordinates with offices, agencies and People's committees and province's authorities to build up, promulgate legal documents, and create training staff for building new rural areas.

National target programme in building new rural areas during period 2010 - 2020 had approved by Prime Minister according to Decision No. 800/QĐ-TTg dated 04 June 2010. The programme implemented in rural areas nationwide from 2010 to 2020 (*See the scheme of National target programme at the Figure 13*). In details, until 2020: there is 50% of communes will reach the standard of new rural areas (according to National criteria set). The National target programme in building new rural areas (or the new rural development programme) consists of 11 contents as below:

1. Until 2011, in general, make programming/planning for building new rural areas in the whole country. It includes:

- Programming for land use and necessary rural infrastructure to producing agricultural goods, rural industry, handicraft and service; Programming for

socio - economic - environmental infrastructure to have new rural communities and rebuilding rural communities in total communes.

2. *Develop socio-economic infrastructure:* Complete the infrastructure for transportation system, electric supply system, irrigation, cultural and sport system, health and education system in all communes.

3. *Implement structural transition, economic development, and increase income with the orientation of the goods production:*

Promote agricultural extension; apply research and technology for agricultural - forestry - fishery production; implement mechanization; reduce the loss after harvest; preserve and develop traditional craft village as guideline of “each village has each product” or (one commune one product); Strengthen training for rural labor; promote rural industry in order to solve labor structural change for rural labor.

4. *Reduce poverty and ensure well-being:* for rural areas in 63 cities and provinces of country as national target criterion.

5. *Renew and develop the production organizational formation, which has high effectively in rural areas:* Enhance households, farms, co-operatives economics. Develop small and medium sized enterprises in rural areas. Build regime, institutions for joining and collaborating among economic components in rural areas.

6. *Develop education and training in rural areas* to meet requirements of new rural national criterion.

7. *Develop medical, healthcare for rural population* to meet requirements of new rural national criterion.

8. *Build culture, information and communication life:* to meet requirements of new rural national criterion.

9. *Supply clean water and hygiene rural environment* as programming.

10. *Improve quality of social union and organization, administration in rural areas:* involvement training for staffs, workers in communes’ offices

especially remote areas, difficult areas to foster standardize for the staffs in rural areas.

11. Keep security and exclude social exclusion in rural areas: Issue regulations to eliminate social exclusion, protect custom as requirement of building new rural areas.

Due to the content of National target programme in building new rural areas, the National Agri-census 2016 remarked the regulations such as:

“On implementing the Resolution No. 26-NĐ/TW dated August 5th, 2008 of the Central Committee of the Communist Party of Vietnam, Term 10 on agriculture, farmers, and rural areas so the Prime Minister issued the Decision No. 491/QĐ-TTg on April 16th, 2009 to promulgate the National criteria for New Rural Development”. (GSO 2018, National Agri census 2016)

(2) National criteria about new rural areas

As the Decision No. 491/QĐ-TTg on April 16th 2009 of Prime Minister promulgated the National criteria for building new rural areas, the National criteria consist of 19 criteria for building new dynamic rural areas in Vietnam from 2010 to 2020, vision 2030. National criteria for building new rural areas divided into five specific categorizes of criteria including programming, socio - economic infrastructure, economics and production, culture - society - environment and political system. To accredit a new rural area, there must be 75% of communes reach the standards of new rural commune. If province will be accredited a new rural area it must have 80% of communes obtain the targets of new rural areas at province level. (Prime Minister of Vietnam, 2009).

(3) The main methods to implement the National target programme in building new rural areas

Government diversified the capital mobilization for the National target programme for new rural development in Vietnam by action plan, such as:

- Do mobilize, propagandize, popularize from central to local, and implement the social communication in width and deep side for building new rural areas.
- The content of building new rural areas must be the leading important mission of local and relevant agencies.
- In addition, the program also mobilizes other official financial resources such as the non-refund aid from enterprises, organization, individual in domestic and overseas for investment projects, have the loan from international financial institutions, international development partners to increase capacity for building new rural areas. Mobilize, co-operate with international organizations to have assistance and consultancy about technical skills for National target programme in building new rural areas.
- Establish a capital mobilization scheme for programme as the model on Figure 13. This scheme implicated that all sources of society and economy would participate in collective actions to build new rural areas.

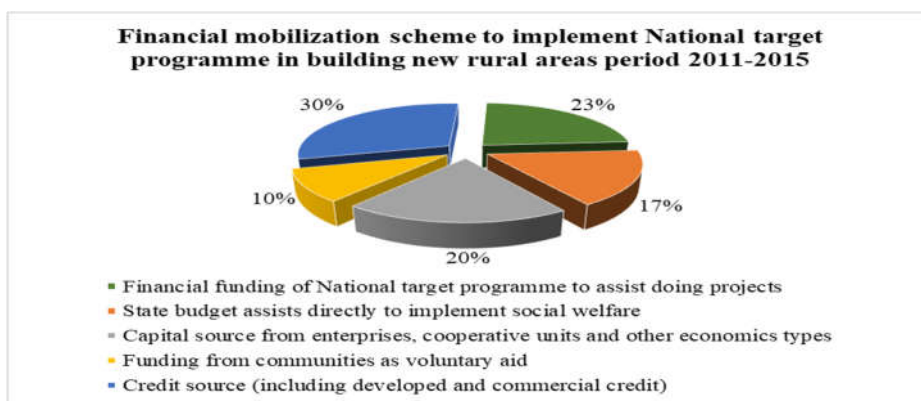


Figure 13. Financial mobilization scheme to implement National target programme in building new rural areas period 2011-2015 in Vietnam
(Source: Decision No. 800/QĐ-TTg of Prime Minister dated 04 June 2010)

- The scheme of implementation of National target programmes in building new rural areas in Vietnam as below: The Ministry of Agriculture and Rural development is the hosts and co-ordinates with Ministries and agencies and People's committees and authorities in central cities or provinces to build up and promulgate content of programme; training guidance and staffs for building new rural areas.

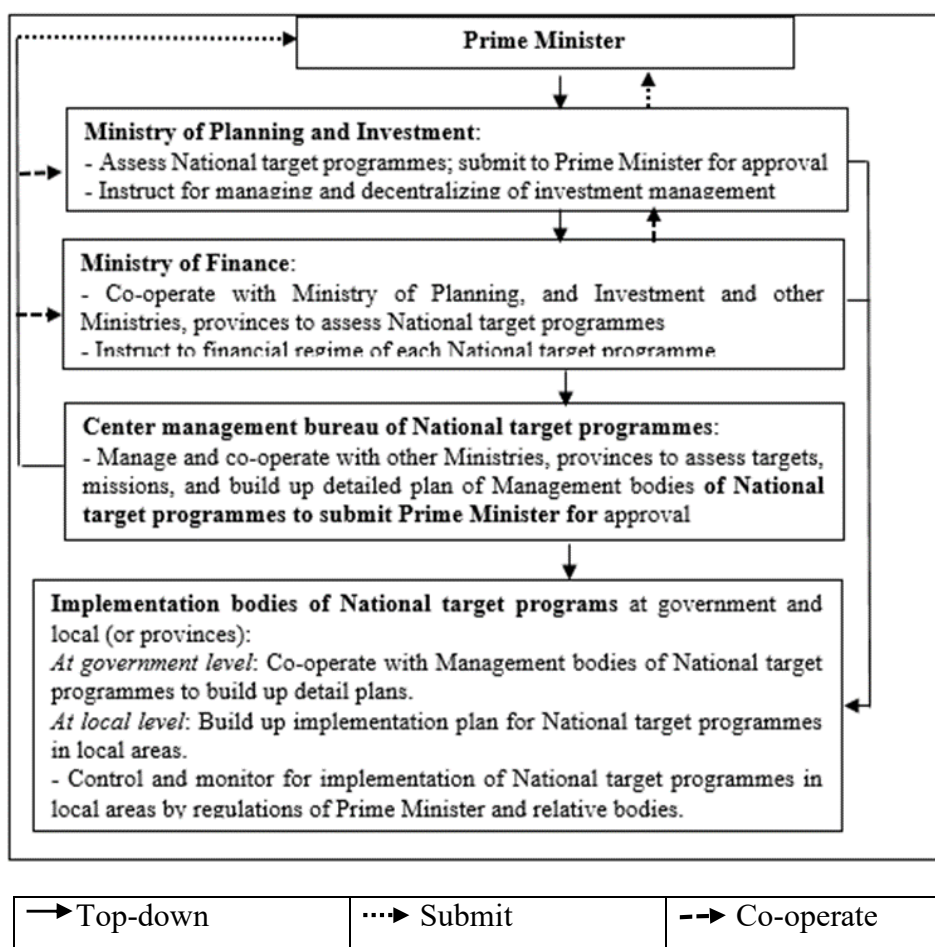


Figure 14. Decentralization administration of implementation of National target programmes in Vietnam

(Source: Decision No. 2406/QĐ-TTg dated on 18th December 2011)

6.2.1.3 Results of the Rural, Agricultural and Fishery Census 2016

In general, there is a platform to operate the National census on Rural, Agricultural and Fishery in Vietnam. “The first Rural, Agricultural and Fishery Census was conducted by the General Statistics Office in 1994. ... The Rural, agricultural and fishery census 2016 was the fifth Census round, implemented throughout the country as on July 1st, 2016”.

According to the plan of the National census on Rural, Agricultural and Fishery, there were 8,911 communes in the list among 8,978 rural communes as on July 1st, 2016, to implement the Program (*Figure 15*). Within five years (2011-2016), all sectors and levels (from the central to the local) did effectively many rural socio-economic development measures and policies. There had been profound changes in the rural image, particularly the investment in infrastructure construction. (GSO, 2018, National Agri census 2016)

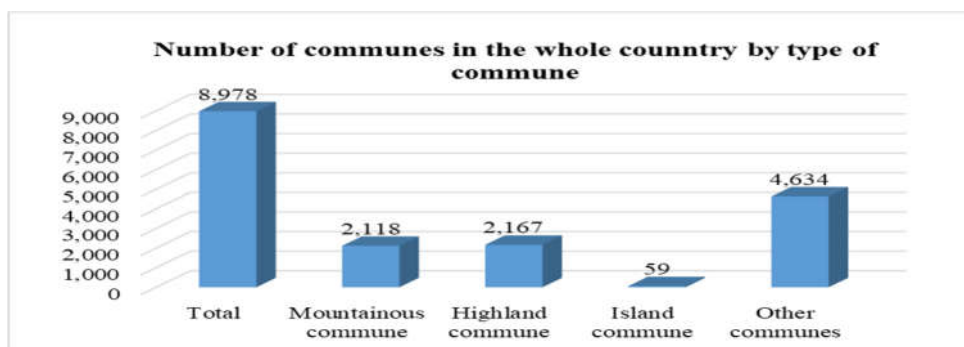


Figure 15. Number of communes in Vietnam

(GSO 2018, National Agri census 2016)

Box 1. Some achievements as on July 1st, 2016 Census of National target programme in building new rural areas period 2011-2015

Number of communes	Number of villages	Households (1000 households)	Rural population (1000 people)
8,978	79,898	15,987.5	57,668.9
- 5.06 million rural households used water from the centralized water supply works; Only 1.9% rural households were still using water in rivers, lakes or ponds.			

- The average number of doctors in commune health stations (CHS) per 10,000 people increased from 1.12 in 2011 to more than 1.37 doctors in 2016; The coverage of health insurance in 2016 was 76.4% of the total rural population, nearly equal to 1.4 times in 2011.
- 53.6% households participated in activities in the community halls of villages or communes; and 49.9% households maintained regular participation.
- In 2016, 66.6% of rural households using industrial gas, biogas, and electricity for cooking. The proportion of households using coal and firewood was 33.1% in 2016.
- 75.6% rural households were using built bathroom; the proportion of rural households using flush toilets and semi-flush toilets was 64.5%.

(Source: GSO, 2018, National Agri census 2016, p: 57, 84, 85, 86, 87)

At National Agri census 2016, rural infrastructures had improved in both quantity and quality (Figure 16). “As of July 1st, 2016, the electricity supply had reached out to all the communes and most of the villages. Within 2011-2016, all the six regions had 100% communes with access.” (GSO 2018, National Agri census 2016). Recognizing the importance of communication, education, information dissemination to raise awareness for rural population to comply with laws and regulations so the situation of school facilities and improvement for its infrastructure improved.

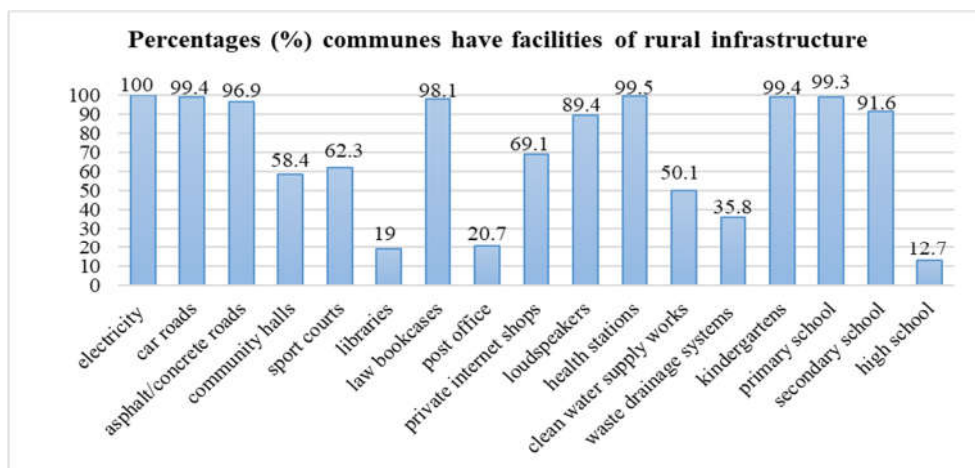


Figure 16. Communes in Vietnam having access to rural infrastructure

(Source: GSO 2018, National Agri census 2016, p: 57, 59, 60, 61, 62, 63, 64, 66, 67)

Applying statistic methods by R commander, this section presents the results of implementation of total communes who are stakeholders of National target programme in building new rural areas period 2011-2015.

As we can see on Figure 17, the results of implementation to complete each criterion (as variable of statistics) for each region are different. In general, Red River Delta had a highest outcome and Northern midlands and mountain areas had a lowest outcome of implementation of all criteria of National target programme than other regions.

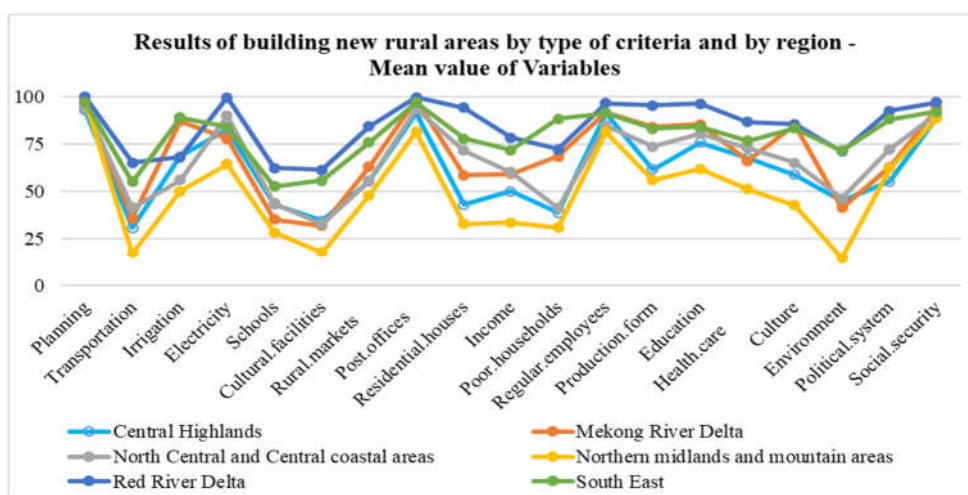


Figure 17. Results of building new rural areas by type of criteria and by region - mean value of variables

(GSO, 2018, National Agri census 2016, own calculation by R commander)

Those results supplied that percentage of total communes in the National target programme had accredited each type of criterion of National criteria. However, the outcomes of each region still depended on their current natural - social - economic conditions.

These results also reflect that National target programme in building new rural areas could promote a better changing of socio-economic development for each region than their past by applying National criteria.

Table 12. Scatter Plot matrix and Cluster Analysis of National criteria

<pre>>scatterplotMatrix(~Cultural.facilities+Electricity+Income+Irrigation+Post.offices+Production.form+Residential.houses+Rural.markets+Transportation)</pre>	<pre>HClust.1 (model.matrix(~1 + Cultural.facilities + Culture + Education + Electricity + Environment + Health.care + Income + Irrigation + Planning + Political.system + Poor.households + Post.offices + Production.form + Regular.employees + Residential.houses + Rural.markets + Schools + Social.security + Transportation, Dataset))</pre>
<pre>HClust.6 (model.matrix(~1 + Cultural.facilities + Electricity + Environment + Irrigation + Post.offices + Residential.houses + Rural.markets + Schools + Transportation, Dataset))</pre>	<pre>HClust.7 (model.matrix(~1 + Electricity + Income + Irrigation + Production.form + Regular.employees + Rural.markets + Transportation, Dataset))</pre>

(GSO, 2018, National Agri census 2016, own calculation by R commander)

The Scatterplot and Cluster Dendrogram in Table 12 presents the statistical significance of variables (National criteria) and the linear regression of six regions in each solution of statistics. Clearly that there are two Clusters which total six regions of country were divided into two clusters because of different socio-economic conditions of each region during implementation of National target programme in building new rural areas period 2011-2015.

Table 13. The number of communes achieved the standards of new rural areas as on July 1st, 2016

	Number of communes	Proportion in total communes (%)
Whole country	2,060	23.1
The Red River Delta	754	39.9
The Northern Midlands and Mountainous Areas	217	9.5
The North Central and Central Coastal Areas	528	21.9
The Central Highlands	91	15.2
The South East	213	47.0
The Mekong River delta	257	20.1

(GSO 2018, National Agri census 2016, p: 79)

All the striving communes are reaching the new-style rural areas standards with each commune had reached 10.9 criteria. In 2016, 1,304 communes had achieved 15-19 criteria, accounting for 19.0% of the total communes which were striving to obtain the style of new rural areas; 3,101 communes had achieved 10-14 criteria, accounting for 45.3%. Accordingly, 2,134 communes had achieved 5-9 criteria, accounting for 31.1%; and 312 communes had achieved under 5 criteria, accounting for 4.1%. Therefore, total 6,851 communes failed to meet the new rural areas accreditation at 01 July, National Agri census 2016. (GSO, 2018, National Agri census 2016)

Table 14. Cluster Analysis and Linear Regression by type of criteria of National target programme building new rural areas in regions

> .cluster\$centers # Cluster Centroids	Cluster Analysis		Linear Regression	
	Cluster 1	Cluster 2	Adjusted R-squared	p-value
Planning	95.275	98.350	0.9966	0.03927
Transportation	31.2	60.0	0.9984	0.02688
Irrigation	65.35	78.50	0.9998	0.009951
Electricity	78.75	91.85	1	0.004003
Schools	37.525	57.400	0.9324	0.1736
Cultural.facilities	29.125	58.450	0.9874	0.07525
Rural.markets	55.35	57.400	0.9357	0.1694
Post.offices	91.225	98.200	0.9993	0.01816
Residential.houses	51.4	86.0	0.976	0.1037
Income	50.725	75.050	0.9902	0.06625
Poor.households	44.8	80.3	0.9999	0.005025
Regular.employees	87.225	93.950	0.9637	0.1276
Production.form	68.8	89.2	0.9314	0.1749
Education	75.875	90.050	0.9735	0.1089
Health.care	64.45	81.60	0.9515	0.1473
Culture	62.925	84.400	0.9338	0.1719
Environment	36.75	71.20	0.9949	0.04766
Political.system	63.05	90.35	1	0.003918
Social.security	90.5	94.5	0.9766	0.1023
Region				Cluster label
Red River Delta				Cluster 2
Northern midlands and mountain areas				Cluster 1
North Central and Central coastal areas				Cluster 1
Central Highlands				Cluster 1
South East				Cluster 2
Mekong River Delta				Cluster 1

(GSO 2018, National Agri census 2016, own calculation by R commander)

By Cluster Analysis and Linear Regression statistics (*See Table 12, Table 14*), the value of variables as criteria of National target programme in building new rural areas period 2011 - 2015 supplies results that eight variables of Cluster 1 and 2 are significant and have statistical meaning through values of adjusted R-square and p-value coefficients (<0.05). There were statistical difference between Cluster 2 and Cluster 1 for each criterion of this group (including Planning, Transportation, Irrigation, Electricity, Post offices, Poor households, Environment and Political system). It explains that regions in Cluster 2 had

significantly higher percentages of communes, which accredited those criteria during implementation time of National target programme than the results of Cluster 1. Besides, variables Cultural facilities and Income also have better p-values to compare with rest nine variables. These results made a proof that there was a change in rural communes forward a better Quality of Life through the values of variables (of first and second group) of basic conditions of living.

(1) The positive impacts of National target programme in building new rural areas period 2011-2015

(1.1) First impact is restructuring of production by diversification.

The number of agricultural, forestry and fishery households continued to reduce in the period 2011-2016, like the previous five years 2006-2010, but the speed was faster. (Figure 18). (GSO 2018, National Agri census 2016)

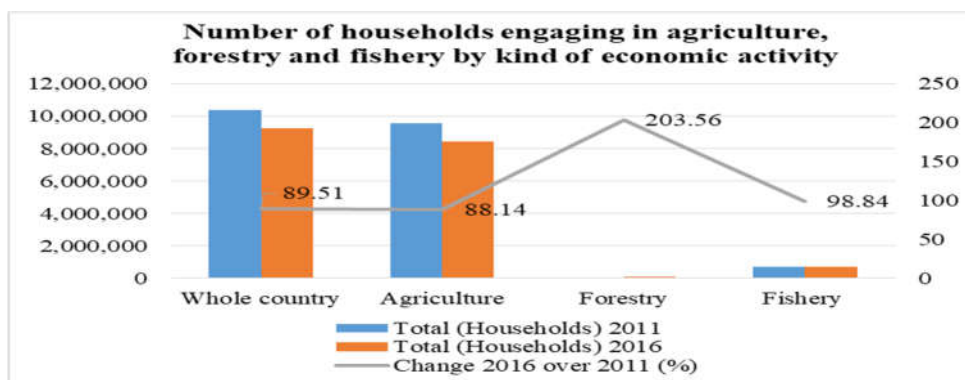


Figure 18. Number of households in agriculture, forestry, fishery activities (GSO 2018, National Agri census 2016)

“As of July 1st, 2016 Vietnam had approximately 33.5 thousand farms, an increase of 13.5 thousand farms and equal to 167.2% of that in 2011, in which, the increase of crop farms was 611, the increase of livestock farms was 14.7 thousand, the increase of mixed farms was 183, and the increase of forestry farm was 63. ... Between 2011-2016, farm economy developed rapidly with

high efficiency.” (GSO 2018, National Agri census 2016). “In 2016, the total number of regular workers for farms was 135.5 thousand people, an increase of 43.2% compared to year 2011; the average annual increase was 7.4%. In terms of efficiency, by creating jobs for tens thousands of workers, farms also produced a large volume of goods and services. And this change distributes for the larger scale in agricultural production in rural areas in Vietnam.” (GSO 2018, National Agri census 2016)

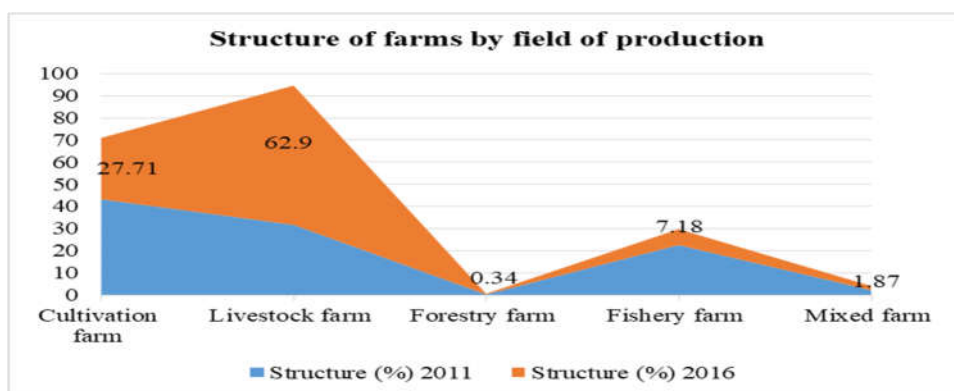


Figure 19. Structure of farm by field of production in Vietnam

(GSO 2018, National Agri census 2016)

The positive impacts of results of National target programme in building new rural areas had affected to rural economy. The change obtained the restructuring of different types of production units. (Table 15).

Table 15. Agricultural, forestry and fishery units by type of production

	Quantity (Unit)		Change in 2016 compared to 2011 (%)
	2011	2016	
Total	10,376,981	9,291,825	89.54
Enterprises	2,536	3,846	151.66
Cooperatives	6,302	6,946	110.22
Households	10,368,143	9,281,033	89.51

(GSO 2018, National Agri census 2016, p: 92, 93, 94)

(1.2) Second impact is focus on application of science and technology.

Units granted with Vietnamese Good Agricultural Practices (VietGAP) accreditation and equivalent had linked almost 25.3 thousand households in agricultural, forestry and fishery production. Farmers take part in the process of agricultural production by VietGAP standard and these make a proof that farmers and rural residents are involving in dynamic transition of science and technology.

Table 16. The application of VietGAP in rural areas on July 1st 2016

	Number of units with VietGAP accreditation	Proportion (%)
Whole country	1,495	100
Individuals (Households)	540	36.1
Cooperation groups	551	36.9
Cooperative units	199	13.3
Enterprises	200	13.4
Other types	5	0.3

(GSO 2018, National Agri census 2016, p: 100)

(1.3) Third impact is the strengthening for mechanization of agricultural production.

“In year 2016, on average, the number of machines in 100 agricultural - forestry - aquaculture units had such as:

29.95 water pumps, 16.55 motorized pesticide sprayers, 7.73 tractors, 6.43 electric engines, 5.85 petrol or diesel engines, 2.69 motorized rice threshing machines, 2.63 motorized boats, 2.04 food processing machines, 0.78 stoves or dryers (for agricultural, forestry and fishery products), 0.30 seed sowing machines, 0.24 combine harvesters, 0.15 poultry incubators, 0.10 milking machine...” (GSO 2018, National Agri census 2016)

(2) Shortcomings of National target programme in building new rural areas period 2011-2015 as of Census 2016

“The shortcomings of the National target program on building New rural areas were not only reflected in the number of communes which had not accomplished all the criteria, but also in the number of communes striving for the standards, but the accomplishment of the criteria was still unsatisfactory.” The results of building new rural development were still limited in some dimensions as below.

(2.1) Infrastructure was still weak in some rural areas

- Transportation in remote areas, high mountains and islands was still challenging. The rural transportation was limited in terms of both quantity and quality. For example, 51 communes do not have car roads from Commune People’s Committee (CPC) headquarters to District People’s Committee headquarters; 57 communes did not have kindergartens and 63 communes did not have primary schools; 3,737 communes did not have community halls; 2,253 communes have health stations but those are not solidly buildings.

(2.2) Rural economic structure was transiting slowly, mainly dominated by agricultural, forestry and fishery economic activities

- 53.7% of rural households are agricultural, forestry and fishery households.
 - On the other hand, low labor quality and laborer aging affected to outcomes of rural economy. “The average age of laborers in working age increased from 38.54 years old in 2011 to 40.16 years old in 2016 in all the six regions in the country.” (GSO 2018, National Agri census 2016)

Table 17. Low labor quality in rural areas at National Census 2016

	Total (million people)	Not receive any vocational training	Receive short-term training without certificates	Receive training with certificates at primary or higher level	In which: people graduated university or higher
People in working age	31.02	20.43	5.67	4.92	1.23
Proportion (%)	100	65.9	18.3	15.8	4.0

(GSO 2018, National Agri census 2016, p: 91)

- Within 5 years (2011-2016), the proportion of households having key income resource from agriculture, forestry and fishery only reduced by 1.8% per year; from non-agricultural sectors only increased at 1.5% each year.

Table 18. Key activities of people in working age in rural areas over the five years (2011-2016)

	Ratio of change over 5 years (2011-2016)	Average ratio of change per year	Proportion (%) in total rural labor force
Agriculture, forestry and fishery sectors	-8.2%	-1.6%	51.4%
Industry, construction and services	+6.9%	+1.4%	45.7%

(GSO 2018, National Agri census 2016, p: 88, 89)

(2.3) Accomplishment of the criteria was still unsatisfying

- There are only 16.9% communes achieved the criterion of new cultural facilities, 21.1% communes achieved the criterion of transportation, and 27.0% communes achieved the criterion of environment.

- 23.6% of the total rural population had not covered by health insurance; 8.4% households did not have bathrooms; 5.1% households did not have toilets; 19.0% households did not have wastewater drainage system; and 3.0% households were littering waste anywhere.

- 32.1% households using plant protection chemicals and discarding the containers to the fields, canals, rivers or streams.

- 57.3% craft villages were discharging industrial wastewater directly to the places for domestic wastewater collection.”

Rural areas had been great improvement in waste treatment, mainly in forms of landfill, incineration, or transported to another place for centralized treatment. (GSO 2018, National Agri census 2016) However, the overall situation of waste disposal is still problems for sustainable hygiene environment in rural areas in Vietnam. (*Table 19*)

Table 19. The treatment form of waste disposal in rural areas, 2016

	% Communes having	% Villages having
Domestic wastewater drainage systems	35.8	24.4
Domestic waste collection	63.5	47.3
Collection of bottles, containers of plant protection chemicals	91.2	98.6
Incinerators for domestic waste	4.0	n/a

(GSO 2018, National Agri census 2016, p: 67, 68)

The Rural, Agricultural and Fishery Census 2016 had collected, processed and aggregated a great volume of data in five years (2011-2016) ... This census contained the results of implementing of the National target program in building new rural areas period 2011-2015. ...As Census 2016, beside the achievements, the rural socio-economic development and agricultural production had many limitations and weakness. Economic structure was transiting slowly, and small-scale production was still common. Investment for rural areas and agriculture was limited. The labor force was big but qualifications and skills were low. A part of rural population in the mountains, high lands and remote areas were facing many difficulties and inadequacy. (GSO 2018, National Agri census 2016)

6.2.2 Finding measurement of RDPs in the EU period 2007-2013 to collect learning lessons for RDPs in Vietnam

In this section, finding measurement of rural development programmes (RDPs) in EU period 2007-2013 to consider the implementation progress of National target programme in building new rural areas period 2011-2015 in Vietnam. Besides, the commitment of the EU for sustainable development in rural areas has a link with the EU Common Agricultural Policy. “The sustainable development of rural areas has been a key objective of the European Union's Common Agricultural Policy since it formally had established as second pillar

of the policy in 2000, with increasingly important budget allocations...” (European Union, 2014)

Rural development plays an important role in the EU. “With over half of the EU population living outside of towns and with rural areas accounting for 90% of the territory of the 27 Member States - rural development is a vitally important policy area. Farming and forestry remain crucial for the management of natural resources in the EU’s rural areas as well as a platform for economic diversification in rural communities.”

(European Commission, Last update 26 Mar 2014, (a))

The responses of RD policy 2007-2013 in the EU are the policy’s contribution to enhancing resource efficiency for rural economies and that is sustainability’s orientation for rural areas. “In the face of the multiple challenges for agriculture and rural areas, rural development aims at enhancing agricultural competitiveness, improving the sustainable management of natural resources and promoting a balanced territorial development across the EU” (European Union, 2011)

Based on the Regulation (EC) No.1698/2005 on 20 September 2005, rural development policy for 2007 to 2013 structured along three thematic axes and one horizontal axis, as scheme as below.

Axis 1 - Improving the competitiveness of the agricultural and forestry sector.

Axis 2 - Improving the environment and the countryside.

Axis 3 - The quality of life in rural areas and diversification of the rural economy; and Axis 4 - Leader

The main finding in this section is the Rural Development indicators of RDPs in the EU derived from the Common Monitoring and Evaluation Framework (CMEF). By this policy making, “The CMEF establishes five types of indicators following the logic of the intervention process, namely baseline, input, output, result, and impact indicators”. (European Union, 2014)

These provide a single framework for monitoring and evaluation of all rural development interventions for the programming period 2007-2013. They are according to the following broad thematic groups: Importance of rural areas; Socio-economic situation of rural areas; Sectoral economic indicators; Environment; Diversification and quality of life; and LEADER... However, those thematic groups discontinued in 2014 and replaced by the annual CAP context indicator update (by new RDPs programme period 2014-2020).

(European Commission, Last update 26 Jun 2014)

In this section, SWOT model would use as an effective analysis tool for RD policy 2007-2013 in the EU to find learning lessons for decision making from planning and programming of developing countries, who are ongoing the rural development progress. Especially, it supplies concerns with Vietnam case: building new rural areas and sustainable rural development.

Table 20. SWOP analysis for RD policy 2007-2013 in the EU

<p>Strengths Rural development policy has enabled many farmers to learn new techniques, upgrade facilities and carry out essential restructuring, thus sharpening their competitive edge. It embraced the need to support different types of job creation and the provision of basic services in countryside. These help to promote quality of life, which acknowledged as an important factor for sustaining thriving rural communities. That is a consolidation and integration in goals of RD policy in EU period 2007-2013. (a)</p>	<p>Opportunities Support for rural development period 2007-13 evolved from supporting structural adjustment in agriculture to better reflecting the multiple roles of farming in the wider rural context. Policy put a greater emphasis on implementing a coherent strategy for rural development across the EU as a whole, with a focus on themes: - improving the competitiveness of the agricultural and forestry sector - improving the environment and the countryside - improving the quality of life in rural areas and encouraging diversification of the rural economy. (b)</p>
<p>Weakness The situation of lack of data collection as well as covering of the interaction among evaluation activities, the compilation and refinement of indicators for “ongoing evaluation” during the entire programming period were be the weakness and challenges to ensuring adequate capacity building by</p>	<p>Threats It is primarily the responsibility of the Member State Managing Authorities to implement the Rural Development Programmes (RDPs). It is flexible to establish RDPs by condition level of each Member State in line with the common framework built around four axes. It also can create threatening for implementing</p>

Member State needs of their rural areas best. (c)	and ensuring consistency in their programming. (d)
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(Source: European Commission. (Last update 26 Mar 2014, a).

European Commission. (Last update 26 Mar 2014, b, d)

European Commission. (Last update 26 Jun 2014, c); European Union. (2014, c))

Using SWOT model to analysis the RD policy period 2007-2013 in the EU in order to recognize that a balanced territorial development can benefit through key characteristics of EU countries as context as below:

- “- Urban areas are important markets and service centres for rural businesses.
- Europe’s countryside is popular among urban populations.
- Rural areas around towns and cities can experience environmental pressures from urban development, ‘honey-pot’ recreation and commuting”. (European Commission, Last update 17 Jan 2014)

These characteristics can be a reference for National target programme in building new rural areas in Vietnam order to establish a “balanced territorial development” of each commune. Because “Vietnam has proven its resilience and resourcefulness by successfully weathering the economic hardship in the global context and maintaining positive progress in socio-economic development, poverty reduction and environmental protection.” (MPI of Vietnam, 2015). This projection is strengthening by implementing the progress of sustainable rural development in rural areas in Vietnam.

6.3 Mathematical calculations for a survey research in Hong Lac commune

As the orientation of RDPs or RD policy in the EU period 2007-2013 had a statement as the important guideline for the EU countries: “Setting priorities is one thing, and then comes actually delivering on them. This is particularly important for a policy that operates on many levels, from defining a strategic

framework at EU level, to drawing national programmes to implementation by local administrations, and seeking to promote bottom-up approaches (such as initiatives taken by local groups)” (European Union, 2011)

Through the chapter Literature Reviews and going to this chapter Results and Evaluation of PhD dissertation, I recognize that referring the policy orientations and implementations of rural development programmes period 2007-2013 in the EU is a technique action to absorbing learning lessons for the programming (or decision-making) of new rural development in Vietnam.

6.3.1 Introduction of a survey research in Hong Lac commune

Adapting the theoretical and practical framework of my PhD dissertation, I had designed and implemented the survey research in Hong Lac commune in Vietnam in two times as an ex-ante and ex-post phases of a programme in two years 2014 and 2017.

I implemented a survey research with topic “Finding some factors of endogenous capacity to building a new sustainable rural areas period 2011-2015 in Hong Lac commune, Thanh Ha district, Hai Duong province, Vietnam”. The main finding is a role of participation of farmers and rural residents in building new rural areas sustainably since the National target programme in building new rural areas in Vietnam have started a beginning until to a finish stage of implementation.

Based on the model analysis (SWOT analysis), a survey research collects cases to describe a top-down and bottom-up scheme in building new rural areas in Hong Lac commune during the time of the National target programme “Building new rural areas in Vietnam” period 2011-2015. A description of the general characteristics and relations of the phenomenon in the questionnaires is the goals of the survey research.

Therefore, the questions and responses in two versions of questionnaires (for ex-ante (programme preparation), and ex-post (evaluation and monitoring of

programme) would adapt the goals of survey research. These are a description about participation role of farmers and rural residents in building new rural areas as well as a recognition about factors of endogenous capacity during implementation of the National target programme in building new rural areas period 2011-2015 in Hong Lac commune, Hai Duong province, Vietnam.

6.3.2 Results of the survey research in Hong Lac commune

At the fieldwork in the home country, Vietnam, I collected primary data of overall socio-economic development of the case in building new rural areas in Hong Lac commune in period of real time of years 2011-2015 and added data of two years 2010 and/or 2016, 2017. Because National target programme planned for period 2010-2015 but there were some pilot experiments in some places in Vietnam and then common implementation for rural areas in Vietnam started in year 2011 and the closed time was year 2015. After this stage, at present, Vietnam continues implement a second stage of this National target programme in years 2016-2020. I completed the survey research by making two questionnaires at small sizes for the pre-research and the post-evaluation with approximate 30 households for each phase of the survey research in Hong Lac commune.

I complete a report of the survey research in Hong Lac commune to consider learning lessons for the implementation of the ongoing progress of National target programme in building new rural areas in Vietnam period 2011-2015. The report submits results of promoting for a better quality of life and sustainable rural livelihoods for rural residents but it also finds out challenges of this programme in Hong Lac commune.

This report creates a frame that based on phenomena by data collection of survey research in Hong Lac commune to make an analysis as a practical experiment proof for research topic of this PhD dissertation. Questionnaires of the survey researches can see in Appendix 1 and 2 of this PhD dissertation.

Scene 1. Preparing a planning to adapt the National target programme in building new rural areas period 2011-2015 in Hong Lac commune.

Hong Lac commune places in Thanh Ha district, Hai Duong province in the socio-economic region Red River delta in Vietnam. The chart of square areas, population and population density by regions in Vietnam in 2017 supplies an image of Vietnam country and regions, especial, as a look for Red River delta where I carried out the survey research in Hong Lac commune for topic of my PhD dissertation. From the data of Figure 20, I can state that Red River delta is a small area but has a highest population density because it is the biggest population's region to compare with all other regions of country.

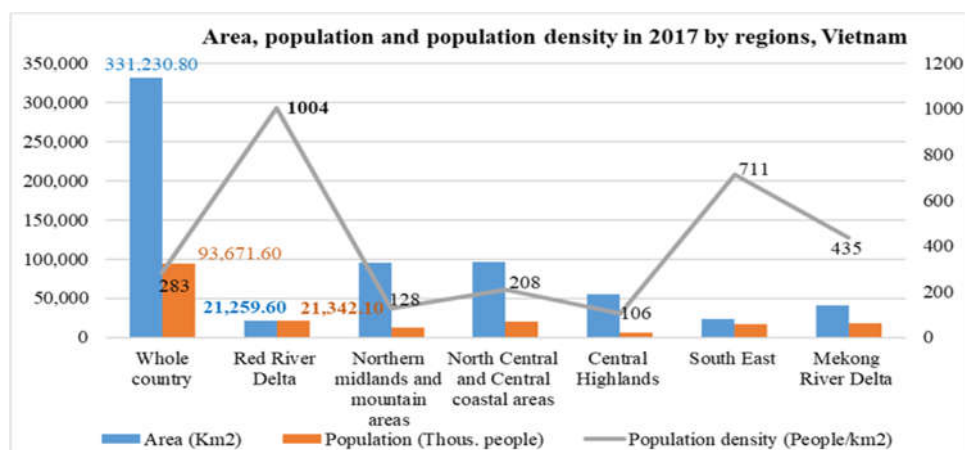


Figure 20. Area, population and population density in Vietnam by region, 2017

(GSO, 2018, Statistical Yearbook of Vietnam 2017)

Hong Lac commune has total square of 852.9 ha (includes 543.4ha for agricultural area and 309.5ha for non-agricultural area). Rural population in commune has increased from 9.1 thousand people (counts at 2,474 households) in 2010 to 10.3 thousand people (counts at 3,213 households) in 2017. During period 2010 - 2017, population in commune increase gradually but the ratio of people in labor age reduced from 62.9% to 60.26% and people in aging (upper

60 years old) increased from 8.18% to 13.15% (counted in year 2010 and 2017). Besides that, population density in Hong Lac commune is very high (compare with national density in year 2017 at 283 people/km²) at 1,067 people/km² (2010) to 1,208 people/km² (2017) but this is equivalent with data of Red River delta. Those characteristics create heavy pressure for socio-economic development in scope of a pure-agricultural commune. At these circumstances, commune needs to prepare a comprehensive planning for implementation of National target programme in building new rural areas period 2011-2015.

Hong Lac commune is a rural area with traditional history of cultural heritage and key agricultural production of paddy cultivation. This fact derived from characteristics and cultural preservation of commune in the topology of Red River delta in the North area of Vietnam.

The survey research was established in Hong Lac commune in two times of year 2014 and year 2017 in order to make an experiment for the research goals of PhD dissertation with topic “Building new rural areas and its impacts on sustainable rural development in Vietnam”. In this PhD dissertation, I have a goal to analyze the successes and shortages of rural development programme in a commune based on the National target programme of building new rural areas in Vietnam. So, the survey researches in Hong Lac commune had established by a footprint and benchmark of the National target programme in building new rural areas in Vietnam period 2011-2015.

Declaring for the real time of National target programme in building new rural areas in Vietnam was from year 2011 to 2015. This period had reported in the National census in year 2016 about Agriculture and Rural areas in Vietnam. By this fact, I can have secondary data of whole country to describe for and compare with the implementation of this National target programme in Hong Lac commune, which is one unit among total 8,911 communes in whole country. From this survey research, I find the strengths and weakness of the

National target programme in Hong Lac commune to appraise the Hypotheses about sustainability of rural areas in Vietnam.

Scene 2. Fact-finding of implementing the National target programme in building new rural areas period 2011-2015 in Hong Lac commune to meet the National standards for new rural areas.

There are some statistics of socio-economic development by charts in below during the implementation of National target programme in building new rural areas in Hong Lac commune. Although the difficulties of limited natural resources with small area of land use and overpopulation and agricultural-based production but commune has done almost indicators under regulations of National criteria.

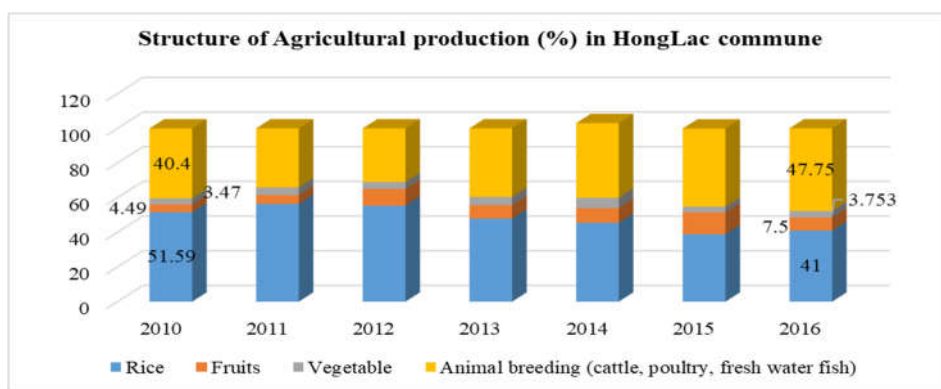


Figure 21. Structure of agricultural production in Hong Lac commune
(Dataset of Own Survey researches in 2014 and 2017)

On Figure 21, we can see that commune foster mainly for its rural economy by rice and husbandry (livestock) production. Because commune has specificity of the natural conditions in the Res river delta (tropical climate, topography of delta). On the other hand, the square area of commune is small (appx. 8.53km²) and cannot expand around. Therefore, commune mainly benefits in advantage of socio-economic conditions (human, skills in farming) in order to improve

income generation by raising agricultural productivity and restructuring rural economics during period 2011-2015. (See charts below)

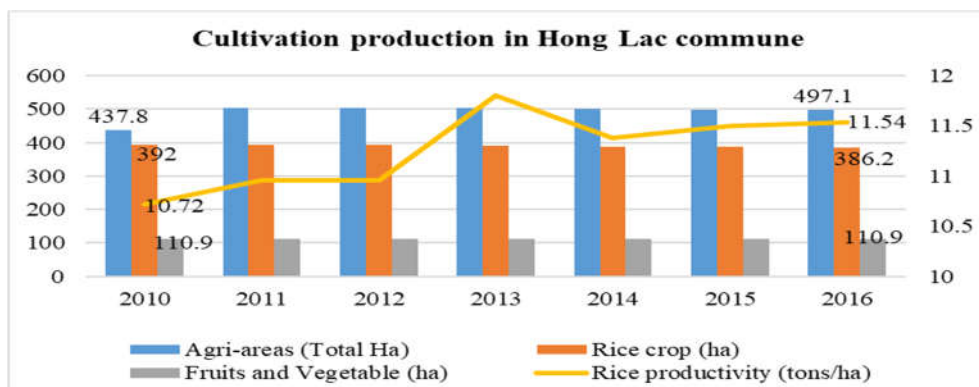


Figure 22. Cultivation production in Hong Lac commune

(Dataset of Own Survey researches in 2014 and 2017)

Figure 22 of cultivation production in Hong Lac commune supplied that agricultural lands and areas for rice crop did not change much in period 2010-2016. However, rice productivity increased annually and even the unchanged areas used for fruits and vegetable either by regulations of land use in country. Although commune depends strictly on natural - economic conditions of a small area but it has promoted dynamically for structure of agricultural outcomes under institutes of market economy to increasing its revenue (Figure 23). It not only depends on the limit of natural conditions but also depends on the scheme of market demand for agricultural production.

The economic outcomes of agricultural production in Hong Lac commune promoted for increasing living standards, for transition of rural labor structure from agriculture to non-agriculture (higher degree of rural service), and for food security. That are the positive impacts on sustainable rural development in Hong Lac commune during implementation of programme (2011-2015) and still keep in targets to December 2017 and afterward.

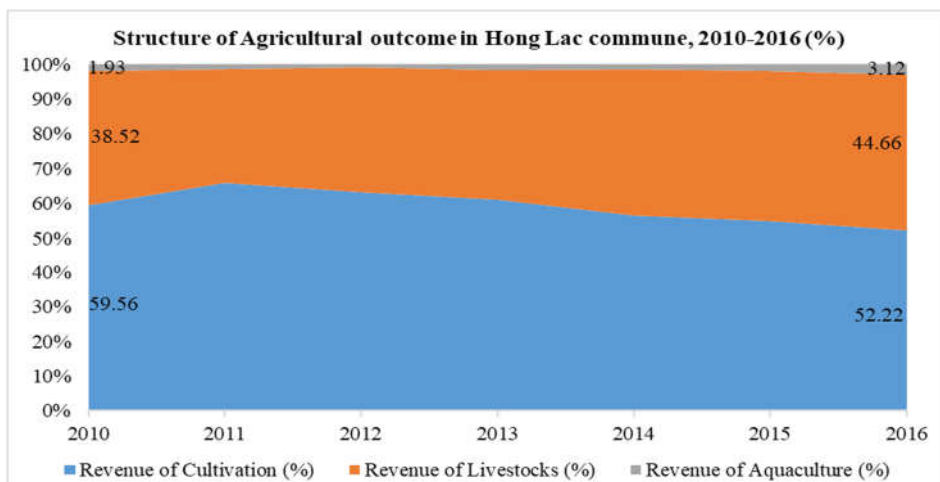


Figure 23. Structure of Agricultural outcome in Hong Lac commune
(Dataset of Own Survey researches in 2014 and 2017)

Economic structure of Hong Lac commune (Figure 24) had changed harmoniously and reasonable during period 2010-2016. Before the implementing of National target programme in building new rural areas, commune had a strong agricultural-base production (account at 55.82%), and nearly a half of economic structure of rural industry and service.

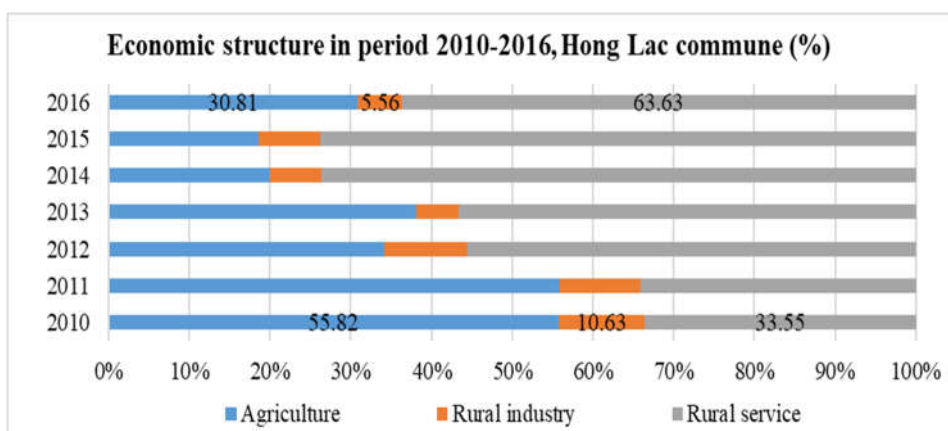


Figure 24. Economic structure period 2010-2016 in Hong Lac commune
(Dataset of Own Survey researches in 2014 and 2017)

After implementing in 5 years of National target programme in building new rural areas, commune had changed strongly with one-third of economic structure for agriculture and rural industry while nearly two-thirds for rural service. This transition is an effective experiment of National target programme in building new rural areas when it created positive impacts for livelihoods and higher living standard of rural residents in commune.

The chart of annual income per capita by quintiles (%) (Figure 25) supplies a strong evidence that Hong Lac communes had obtained the positive change for criteria Income with much more ratio of highest quintile and middle high quintile, less ratio of lowest quintile and middle low quintile.

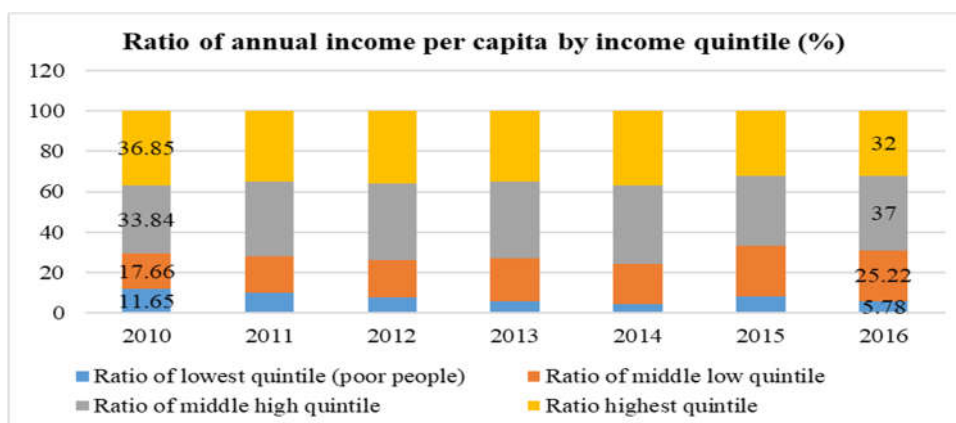


Figure 25. Ratio of annual income per capita by income quintile
(Dataset of Own Survey researches in 2014 and 2017)

From the starting time (8/2011) to closing time (12/2017), Hong Lac commune had completed all 19 criteria of National criteria and achieved the accredited certificate of National target programme in building new rural areas. By own and primarily survey research in two times of year 2014 and 2017, I gathered the general results of National target programme in building new rural areas period 2011-2015 in Hong Lac commune as below. (See Table 21 and Figure 29).

Table 21. Results of National target programme in building new rural areas by types of National criteria in Hong Lac commune, 8/2011 - 12/2017

Headline indicators	Results	Regulations
Planning and planning implementation	Achieved	in total indicators
Transportation	Achieved	in total indicators
Irrigation	Achieved	in total indicators
Electricity	Achieved	in total indicators (at 100%)
Schools base infrastructure	Achieved	in total indicators
Cultural facilities	Achieved	in total indicators
Rural markets	Achieved	in one of two indicators
Post offices	Achieved	in total indicators
Residential houses	Achieved	in total indicators
Income	Achieved	in total indicators
Poor households	Achieved	In period of 2011-2015, National poverty line for monthly income per capita as a poor people is 400,000VND/month (approx. 19USD/month)
The percentage of regular employed workers	Achieved	in total indicators
Forms of production organization	Achieved	in total indicators
Education	Achieved	in total indicators
Health care	Achieved	in total indicators
Culture	Achieved	in total indicators (at 100%)
Environment	Achieved	Achieve at least 5 in total 7 indicators
System of strongly social and political organizations	Achieved	in total indicators
Social security	Achieved	in total indicators

(Source: Dataset of Own Survey researches in 2014 and 2017)

The results of National target programme in building new rural areas in Hong Lac commune has illustrated for the overall goals of agricultural and rural development policies in Vietnam. That are an efficiency of the top-down approach by delivering the policies from center to local manners and an applying of the bottom-up approach by feedback of rural residents while commune leaders and rural residents are both of stake-holders to operating objectives of National target programme for a better quality of life and for sustainable rural development at local areas.

To broaden for the image of implementation of National target programme in building new rural areas in whole country and at narrow scope in Hai Duong province, on Figure 26, we can see an overall comparison (based on data of National Agri census 2016).

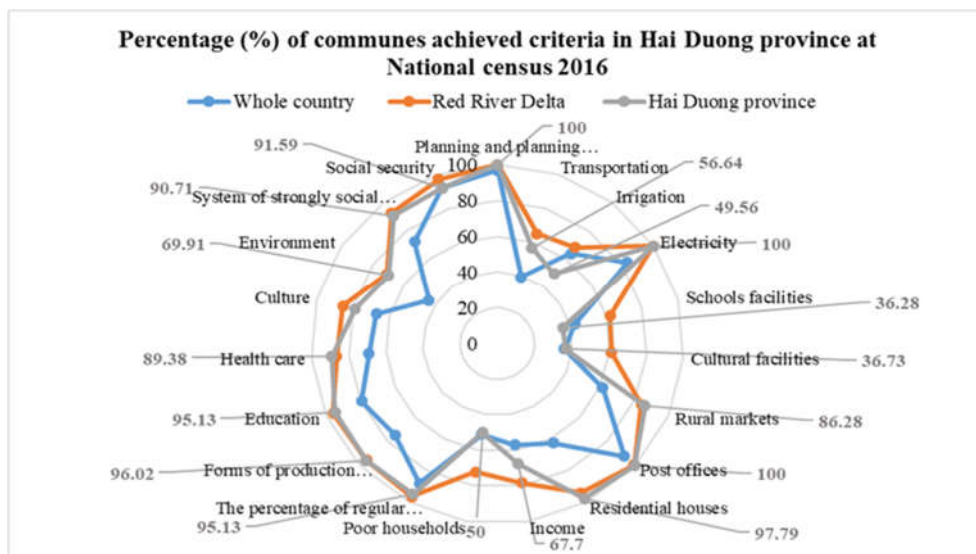


Figure 26. Percentage of communes achieved criteria in Hai Duong province at National Agri census 2016

(Source: GSO, 2018, National Agri Census 2016)

The fact that Hai Duong (had number of communes) achieved more National criteria than average of country but still fewer than level of Red River delta. The percentages supplied that all communes were striving to achieve the National criteria set to obtain the certificate of new-style rural area for themselves. This fact reflected that there were a cooperation in each commune to work for the success of National target programme and there were the promotion for all communes in one province and in a region to accredit the completion of National target programme in building new rural areas.

Figure 26 supplied the overall image of progress of building new rural areas in Hai Duong province (Hong Lac commune is an administrative unit of Hai Hungarian University of Agriculture & Life Science, Kaposvar Campus

Duong), and in Red River delta (Hai Duong is one province in Red River delta and among of total 63 cities and province in Vietnam). The results at time of National Agri census 2016 in chart presented that Hong Lac commune had strongly agreement for the success implementation of National target programme in building new rural areas at commune level.

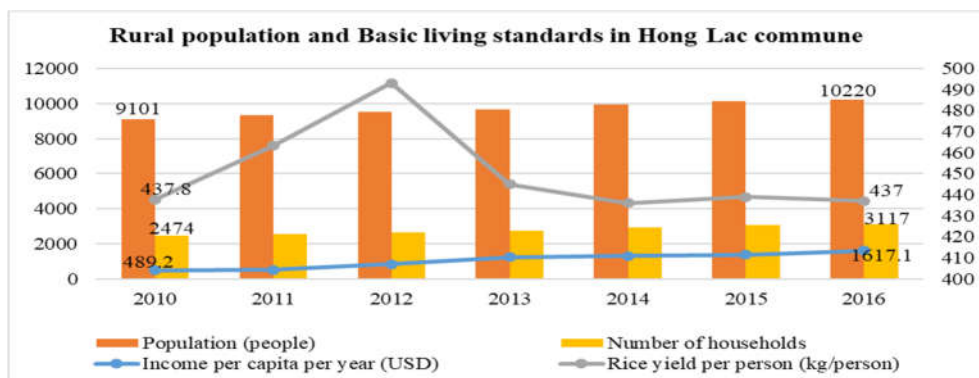


Figure 27. Rural population and basic living standards in Hong Lac commune

(Dataset of Own Survey researches in 2014 and 2017)

From this view, it implied that Hong Lac commune has an agricultural-based economy but commune changed its capital types of socio-economic-environmental dimensions toward sustainable development and better quality of life. This fact had illustrated by charts of Basic living standard and Education when rural population of commune had increased annually but Hong Lac commune still manages capacity of agricultural production in limitation of natural conditions. The data supplied that income per capita per year had changed in period 2010-2016 (even was still lower than an average of country).

As on Figure 28, percentages of pupils enroll into school were high. This fact proves the accredited national criteria about education, school facilities and Income of Hong Lac commune.

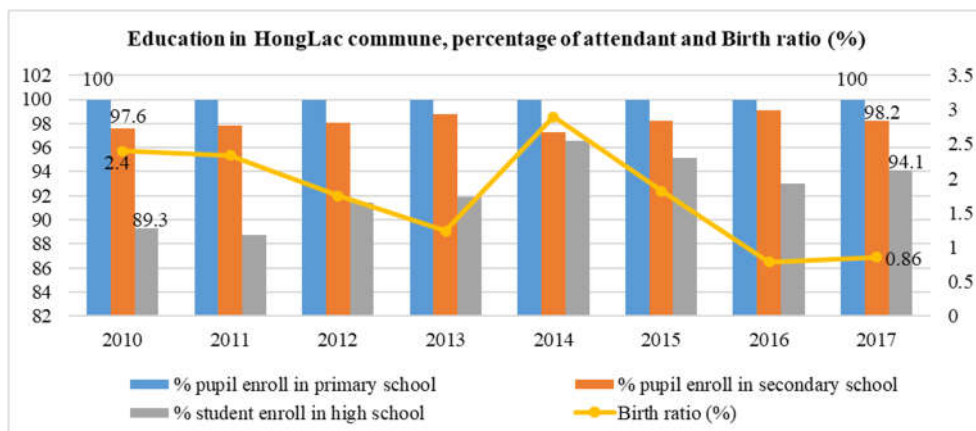


Figure 28. Education in Hong Lac commune

(Dataset of Own Survey researches in 2014 and 2017)

Hong Lac commune continues to take part in the second stage 2016-2020 of National target programme in building new rural areas accordingly the Decision No. 800/QĐ-TTg dated 04 June 2010 approved by Prime Minister for the National target programme in building new rural areas during period 2010 - 2020. This is a responsibility of participation of commune when it has a positive changes for sustainability (in three pillars of socio-economic-environmental dimensions) to achieve sustainable development and to promote a better quality of life for all rural residents in period 2011 - 2015.

Scene 3. Compare the outcomes of progress in building new rural areas in Hong Lac commune with measures at National Agricultural census 2016.

About economics, society and environment - three pillars of sustainable development.

The results of Living conditions in Hong Lac commune (Figure 29) supply a proof that the application of feasible strategy for sustainable rural development (by implementing National target programme in building new rural areas) is effective together with participation of rural residents. All living conditions

changed toward a better quality of life in Hong Lac commune because they received the agreement of all rural residents - for awareness, for participation.

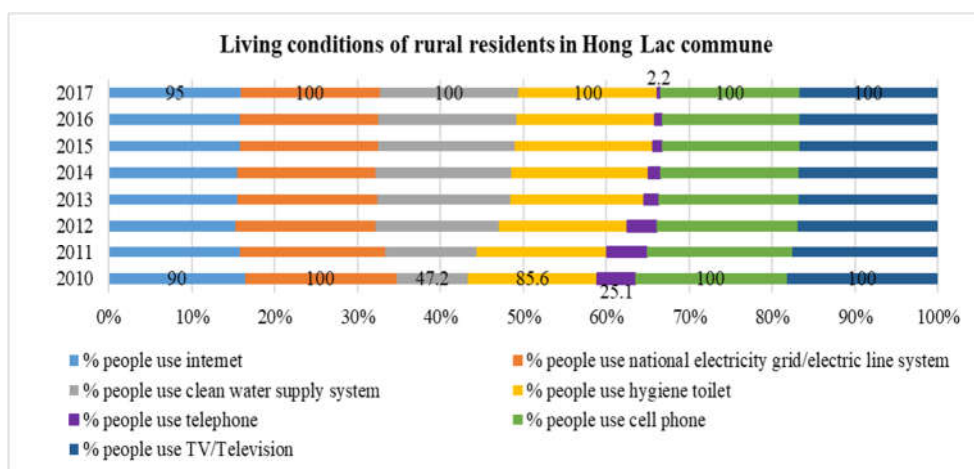


Figure 29. Living conditions of rural residents in Hong Lac commune
(Dataset of Own Survey researches in 2014 and 2017)

Thus, it is necessary to repeat a statement of a relation between agriculture and rural development, such as “Not all poor rural households will involve agriculturists ... Therefore, agriculture is only one avenue for reducing income poverty. ... The observation evidence is that agriculture is only one aspect of rural development and other elements need to be addressed”. (McLeod Rivera et al., 2003)

Furthermore, look at the change of living conditions of rural households as on data of National Agri census 2016, for example, the comparisons for criteria of electricity, of gas and biogas for cooking (*Table 22*) are equivalent between Hong Lac commune and data of whole country but it has higher rate in using clean water for drinking and cooking. Commune accredited a criterion of clean drinking water and hygiene environment for rural living (i.e., 100% households use hygiene toilet, paying fee to collect all domestic waste, reconstructing for waste drainage system in all hamlets and villages of commune....). This is a

highlighted point in process of improving for a better quality of life in commune order to compare with level of country.

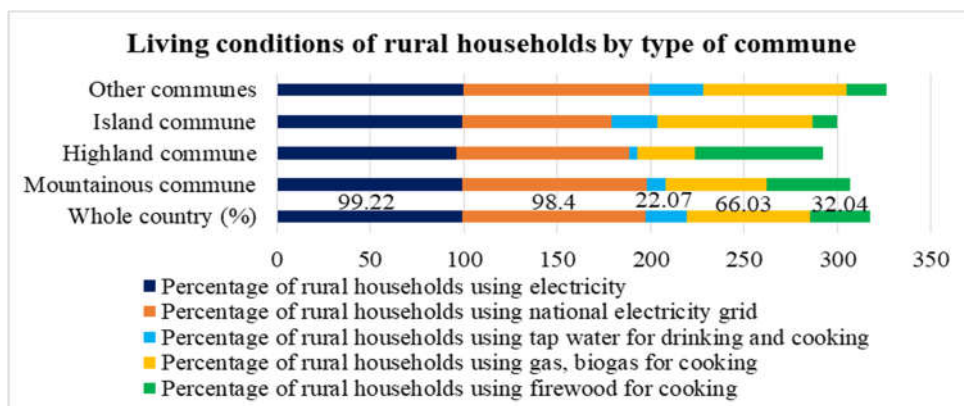


Figure 30. Living conditions of rural households by type of commune
(GSO 2018, National Agri census 2016)

As on Table 22, the critical analysis and the statistic description based on the categorize of content of National criteria are clearly for the accredited results of National target programme in building new rural areas in Hong Lac commune and made by PhD student of this PhD dissertation.

Table 22. The accredited results of National target programme in building new rural areas period 2011-2015 in Hong Lac commune

Achievements and Potentials: Commune achieved total 19 National criteria in December 2017 after a process from August 2011 under five specific categorizes of National criteria.	
programming	- completed a planning of programme in August 2011
socio-economic infrastructure	- a permanent work office and equips 66% computers - 100% rural household use electricity, 98.6% use tap water for living, 96.2% use gas, biogas for cooking, and only 3.8% use coal, firewood for cooking. - new school facilities of 1 kindergarten, 1 primary school and 1 secondary school - new centralized water supply work with full capacity a day and night of 1000m3 water transferred to private owner. - 83.5% households using solid bathrooms and septic toilets, only 16.5% households using semi-solid bathrooms and septic toilets. - Commune has one center cultural houses and 8 cultural houses at hamlets.

economics and production	<ul style="list-style-type: none"> - non-agricultural employment with 71.8% employees and only 20.8% in agriculture and 7.4% employee in fishery. - 95.08% of regular employment and only 4.92% of unemployment in commune. - 27.3% households who are participating in agricultural production by VietGap standards. - 22.25% households who have largest income generation from agriculture, 5.08% households have from non-agriculture and 52.67% households have income from industry and construction, 15.36% households have income from service and 4.64% from other activities.
culture society environment	<ul style="list-style-type: none"> - 8 sanitation teams under management of commune committee to collect all domestic waste. - 100% internet access in commune work office and 95% at households. - a certificate of no air pollution, no polluted source of water and no polluted source of garbage. - 98.2% rural residents who take part in the health insurance system - almost rural households have permanent stuffs for living conditions such as TV, refrigerators, motorbikes, cell-phones, water-heaters, air conditioners, washing machines
political system	<ul style="list-style-type: none"> - 80% commune leaders who have qualification at university level that can work and manage almost responsibilities of commune effectively. - 90% commune leaders who have evaluation for the better living standards, 0% for worse and 10% for unchanged living standards.
Limitations and Challenges:	
programming	<ul style="list-style-type: none"> - at time of Census, 1st July 2016, there was 1 criterion “poor households” would need to achieve. - No planning of concentrated dump area for waste disposal and used to bury underground only
socio economic infrastructure	<ul style="list-style-type: none"> - one commune health station as National standard. - 2 rural markets but those are semi-solid buildings. - only 1 cultural post-office, 1 loudspeaker station. - reconstructed for 44.2km concrete road but only 2.3km asphalt road for truck; and 3.3km concrete channels for irrigation and no km of new road or new irrigated channel.
economics and production	<ul style="list-style-type: none"> - Commune does not have any farm. - only 1 rural extension staff, 1 veterinarian to serve for all agricultural production of commune. - 1 brand of People’s credit fund and 2 small branch offices of state social bank and agricultural bank. - 1 private company for agricultural processing, 1 outlet of cooperative unit and 5 private outlets to supply input for agricultural production. - No arable land in big size for irrigated rice fields and others cultivation. These are still small scales in agricultural production. - total 63.4% square of land use for agriculture, and fishery and lots of households depend on main job of rice cultivation. - few agricultural machines (15 units in 2011 and 32 units in 2016) belong to private and collective teams’ owners that could not have enough conditions of agricultural production of large fields in commune.
culture society environment	<ul style="list-style-type: none"> - only 1 doctor and 9 physicians/nurses for healthcare. - 32% rural residents attend frequently (68% not often) in cultural house.

political system	<ul style="list-style-type: none"> - Only 20% commune leaders who are women in total 20 people of commune officers. - 10% commune leaders who have no training and 10% of them have vocational training by qualification; 60% commune leaders who are at age 60 and over that can make difficulties in reaching modern technology.
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(Source: Quick research for general outcomes of National target programme in building new rural areas in Hong Lac commune, Aug 2019, *Own research*)

The chart of general education of commune leaders of country supplies another comparison for qualification of leaders in Hong Lac commune. This fact is that even percentage of higher qualification of commune leaders (80%) is lower than an average of Red River delta but it has higher ratio of female in total leaders than national scale. It means that Hong Lac commune supports and improves for the human resources development of women in local area.

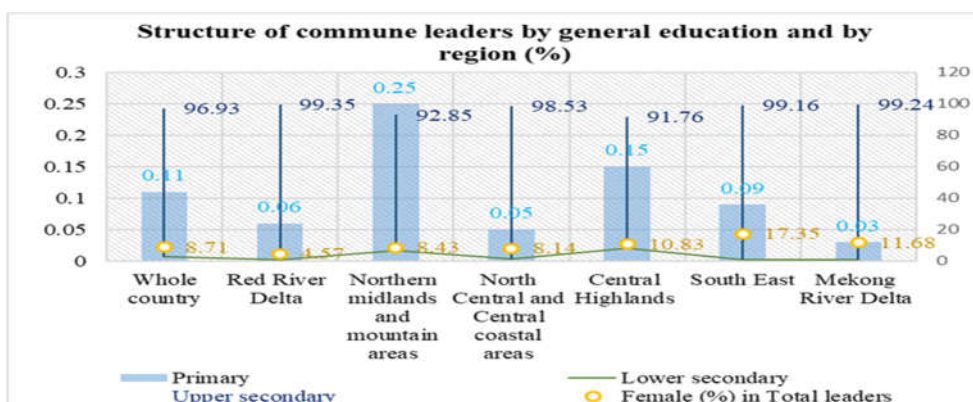


Figure 31. Structure of commune leaders by general education and region (GSO, 2018, National Agri census 2016)

Through five specific categorizes of criteria (including programming, socio - economic infrastructure, economics and production, culture - society - environment and political system), I make a brief summary by SWOT approach of model analysis to achieve Strengths, Weaknesses, Opportunities and Threats for implementation of National target programme in building new rural areas in Hong Lac commune as *Table 23* as below.

Table 23. SWOT analysis about implementation of National target programme in building new rural areas period 2011-2015 in Hong Lac commune

<p>Strengths</p> <ul style="list-style-type: none"> - Commune achieved almost criteria belong to socio-economic development (rural infrastructure, income, living conditions, education, culture, health care, environment, social security). The hygien sanitation and no pollution certify a sustainable environment for living of rural households in commune. 	<p>Opportunities</p> <ul style="list-style-type: none"> - Commune has a planning for VietGap production of litchi “Vải thiều Thanh Hà” and registered geographical indication for this special and famous fruit. Commune has traditional craft with woodwork and mechanic-repairing work. It creates jobs and income for rural residents and can establish sustainable rural livelihoods in commune.
<p>Weakness</p> <ul style="list-style-type: none"> - no farm is no attractive investment and no advantageous conditions for farmhouses in commune. - commune needs to have more qualification workers and more training courses for farming and farmers. - no large scale of agricultural business and modern trading, of goods production in commune and around local area. - those are limitations to hiring local labors or creating jobs and to solve underemployments of the season condition. - even achieved criterion “poor households” but is an issue of sustainable rural development: eliminate poverty that commune needs to solve for better quality of life for rural residents. 	<p>Threats</p> <ul style="list-style-type: none"> - difficulties for promoting of rural communication, of rural extension when 68% rural residents not often attend in cultural house’s activities. - used to bury waste underground only (from 7/2011 to 12/2017) is a challenge to protect environment of commune. - challenge for rural transportation forward modern and effective agricultural production and rural business. - in condition of fixed land use, small scales in agricultural production commune needs to change toward non-agricultural activities to raise income generation for farmers. - a challenge for mechanization and industrialization of agricultural production in commune.

(Source: Quick research for general outcomes of National target programme in building new rural areas in Hong Lac commune, Aug 2019, *Own research*)

Both of *Table 22*, *Table 23* applied SWOT analysis tool to have descriptive statistics of external and internal factors of new rural development progress in Hong Lac commune. Hong Lac commune had achieved 19 National criteria for building new rural area and it illustrated that there is a comprehensive rural transition or inclusive rural transformation in commune and it accredited all promulgated content of National target programme in building new rural areas period 2011 -2015 and even this process still has shortcomings during its implementation.

The fact that there are a lot of advantages but National target programme in building new rural areas in Vietnam also faces many difficulties. For example, the certificates of VietGAP accreditation (at National Agri census 2016) granted for individuals are still a small number in whole country. This fact needs Government and all stakeholders promote more investment in capital, in technology, in knowhow and in training for farmers, rural residents that they can manage this modern regulation for overall activities of sustainable rural livelihoods to increase income generation and improve sustainable development. Hong Lac commune has a planning for VietGap production of famous and special litchi “Vải thiều Thanh Hà” (one kind of fruit for King in the past) but it needs the same supported networks as the analysis in above. Because Hong Lac commune places together other communes in a large area for cultivation of litchi “Vải thiều Thanh Hà” in Thanh Ha district, Hai Duong province, Vietnam.

The evidences of difficulties also occurred in Hong Lac commune during the implementation of National target program. That is the matters of restructuring of agricultural production to improve income and living standard (relates with eliminating rural poverty), the lack of funding of investment capital and the transition of labor structure to gain benefits for farmers and rural residents. Those factors are the needs to foster sustainable rural livelihoods in the progress of building new rural areas in Hong Lac commune.

If so, in my opinion, it must create the clusters of main staffs at central and local areas (as commune leaders and workers) to help rural residents recognize the importance of building new rural areas through rural communication system (rural media), rural extension. It also must establish the dynamic organizational formation of rural production (or rural farming) such as cooperative units and collective units to capture local specificities and to explore the endogenous capability under the conditions of decentralization and globalization nowadays.

Scene 4. Report of the survey research in Hong Lac communes.

Descriptive analysis of awareness and evaluation of rural residents about National target programme in building new rural areas period 2011-2015 in Hong Lac commune had done by responses of two questionnaires of survey research in year 2014 and 2017.

- For questionnaire of first survey research in August 2014. There were 31 interviewees at age from 15 to 60 and over with proportion of 41.9% male and 58.1% female.
- For questionnaire of second survey research in November 2017. There were 33 interviewees at age from 15 to 60 and over with proportion of 57.6% male and 42.4% female.
- The dataset selected and gathered by questionnaires of named PhD student of this PhD dissertation. I designed the questionnaire forms of two times of survey research for this PhD dissertation.

Table 24. Description analysis of awareness and evaluation for National target programme in building new rural areas in Hong Lac commune

Results of First survey research, August 2014
<p>Having knowledge of Programme: - 64.52, 32.26 and 3.23% from year 2010, 2011 and 2012 - 83.87% people known about phrase of “building new rural areas” by all media facilities.</p>
<p>Interested in Programme: - 100% interested in the process of Programme in commune. - 96.77% interested in all major issues of Programme (infrastructure, rural media, healthcare, income, security, environment...); 100% for rural infrastructure.</p>
<p>The most interests in issues: - 80.65% had media on issues of Agricultural, rural modernization, biotechnology, VietGap standard, job opportunity, climate change, pollution, sustainable development ... - 93.5% and 80.6% for agricultural and rural modernization; and sustainable development.</p>
<p>Acceptance of applying sustainable development in rural areas: - 93.55% agreed and 6.45% people had No or uncertain response. - 93.55% accepted that Programme has more positive impacts than negative impacts with 100% agreed for environmental sanitation.</p>
<p>Evaluation for main contents of Programme: - 93.55% had evaluated at positive impacts for rural infrastructure, healthcare, and education, working condition, job opportunities, environmental sanitation and social security.</p>

<ul style="list-style-type: none"> - 0% had opinion about negative impacts of Programme but 6.45% had opinion of No impact and 4.84% had uncertain opinion. - 83.87% agreed that job opportunities in agriculture, rural development are attractive, 3.23% did not agree and 12.9% did not have any response.
<p>Commitment for participation in Programme:</p> <ul style="list-style-type: none"> - 93.55% agreed that both of government and rural residents who need to focus on investing in building new rural areas. - 90.32% committed that they continue to take part in progress of Programme. - 80.65% known that commune completed 14 criteria of Programme (at the time of first survey research) but 19.35% do not have response for this issue.
<p>Results of Second survey research, November 2017</p>
<p>Participation in the Programme:</p> <ul style="list-style-type: none"> - 93.94% took part in the Programme from 2011. Only 3.03% in 2012 and 3.03% in 2013. - 100% known that commune completed all 19 criteria at finish stage of Programme.
<p>Evaluation for implementation of National criteria in commune:</p> <ul style="list-style-type: none"> - 42.42% and 27.27% evaluated for the best criteria that are culture and transportation. - 0% for any worse criterion. - 81.81% evaluated for accredited criteria (rural roads, school facilities, cultural facilities, electricity grid system, and rural health station) had done by the requirement of Programme. In which 100% agreed for rural roads and school facilities. - 72.72% agreed that living standards and living conditions are better (27.27% do not have response). In which 100% agreed that income per capita and cultural activities are better. - 92.42% evaluated better for agri and non-agricultural activities; 4.54% evaluated good and 3.03% do not have response. In which 69.7% know the new job of commune - agricultural processing (but 30.3% do not have response for this issue). - 84.85% know about the contribution of rural residents in the Programme (about individual property, working time, and volunteer awareness). - 51.52% had opinion to doing better for daily waste treatment; 27.27% had other opinions but almost interested in collecting daily waste, agricultural waste, and burring waste; 21.21% do not have any opinion for this issue.
<p>Proposal to the Programme:</p> <ul style="list-style-type: none"> - 93.94% satisfied with the Programme and its promulgated criteria. Only 6.06% less satisfied with the Programme. - 51.52% had opinion of raising State budget for the process of Programme; 75.76% need to have better guidance for the operation of Programme in commune. - 63.64% need to have more funding for the working of commune leaders; 33.33% do not have any opinion; and 3.03% require achieving effective results for Programme.

(Source: Dataset of questionnaires of Own survey researches in August 2014 and November 2017, *Own calculation.*)

All responses in first survey research are significant outcomes of awareness of rural residents in Hong Lac commune to National target programme. It illustrated that rural population interested much in Programme, which made the change for their living and promote for sustainable development of commune.

All responses of rural residents in second survey research had positive evaluation and realistic recommendation for the process of Programme in commune. The results give the experimental proof that all rural residents played a role of core stakeholders in the Programme (there was not only by awareness about policies but also by contribution of themselves). They all agreed with the positive changes of commune because all dimensions of society, economics and environment (three pillar of sustainable development) are improved toward having a better quality of life for them and even they need to find and seek more sustainable livelihoods (mainly in job opportunities) in limited conditions of socio-economic dimensions in commune.

I conceive a learning lesson that RDPs must define the difficulties of each rural area at the process of making decision and classify difficulties frequently during implementation. This reflected in the implementation of National target programmes in Vietnam from development planning to the decentralizations administration of management from central offices to local authorities to deal priorities with each rural area in ways of “mutual reinforce to each other”.

Scene 5. Summarization for sustainable rural development based on the survey research in Hong Lac communes.

To have a summarization of survey researches in Hong Lac commune, I consider the argumentation of McLeod Rivera et al., (2003) about *investing* for development of agriculture and rural areas. According to author, agricultural development and rural development are the sustainable solutions to alleviating poverty and promoting living standard for rural residents. “Investing in agricultural development is good business. ... Investing in rural development is also good business (de Janvry, Sadoulet, 2001). While agricultural development and rural development very much interact with each other, they nevertheless need to be distinguished, especially with respect to the extension

function and also with regard to discussions of poverty and poverty alleviation.” (McLeod Rivera et al., 2003)

From this review, it is clearly to say that improving income generation is not only a task for poor rural families but also for almost rural households nowadays. It is a dimension of sustainable rural livelihoods by improving agricultural production and creating job opportunities in rural areas. That is an investing in agricultural development. Besides, improving food security has the same interest with improving income generation even poor rural families suffered the situation of food insecurity more serious than others rural households. Therefore, this task is an investing in rural development.

Because of verifying reviews in rural studies (aims at sustainable rural development) with practical experiment of survey research under National target programme, I issue some executive summaries of implementation of National target programme in building new rural areas in Hong Lac commune at the completion time in December 2017. The interpretation as below, in my opinion, is a significant testing for Hypotheses of this PhD dissertation.

(1) The pathway out of poverty, out of lagging behind, out of food insecurity: Commune has tried to find the pathway out of poverty and it needs to be accredited more after year 2017 by having more rural livelihoods to improve income generation for all rural residents including poor households. This need cannot depend on only agricultural production of commune but also depend on job opportunities in rural industry and rural service. Commune has moved out the lagging behind of rural living conditions by new or reconstruction of basic infrastructures for electricity, school, culture houses, roads, health station. The results illustrated that environmental sanitation is better; culture and entertainment are active for life spirit, while public media and internet are popularly. Rural residents in commune had eliminated food insecurity with stable rice productivity per capita and higher living standards (higher income and benefit from Government projects) and better awareness of food safety.

In fact, this National target programme had many difficulties and challenges for sustainable development in rural areas. Example, Hong Lac commune needs to receive more investing for farming and rural infrastructure such as: establishing farmhouses, engaging of households in VietGap production, constructing new car roads, planning for non-farm activities (i.e., handicraft villages), mechanization for agricultural machines, eliminating poor households. (*Table 24*). The most important outcome is a rural infrastructure has built by National criteria to renovate socio-economic and environmental dimensions. This is a positive impact to distribute for sustainable rural development in rural areas in Vietnam and Hong Lac commune is a good experimental proof for the scientific research of this PhD dissertation.

This summary (1) proves for Hypotheses 1 of PhD dissertation.

(2) The division in different groups of stakeholders of survey researches recognized the scope of implementation, the effective impacts of programme by the feedback of those groups. Two survey researches had done in year 2014 and 2017 under the implementation of National target programme in Hong Lac commune. Two survey rounds had received important responses of interviewees by questionnaires and those are good results to conclude for the role of stakeholders in this programme.

Two surveys had divided into 5 groups of age containing a) 15-20, b) 21-35, c) 36-55, d) 56-60, and e) 60 and over for participants (*See Questionnaires and Table 24*). This classification based on the labor capacity of each group, different awareness and interest levels in the National target programme. Those responses are so different by each age group but focus on target questions. For example, the youngest and oldest group almost have a less interest in role or importance of programme when they are not the main labor force in families. Contrary, people in other three groups who are the main labors of families that have much interest in implementation of programme and they contribute working time as well as opinions to promote for programme effectively.

Those conclusions support that RD policies are important for rural transition or renovation in commune in socio, economic and environmental aspects but rural residents are always the stakeholders who decide success or failure of this programme. The objectives of National target programme are positive and beneficial but only rural residents can create the change for their commune. Moreover, local authorities or commune leaders are also the actors of this progress. It is an empowerment process for rural residents at their communes.

This summary (2) proves for Hypotheses 2 of PhD dissertation.

(3) The dimensions of change of roads, houses and school facilities... are the one side of progress of building new rural areas (i.e, in Hong Lac commune), but it is not the basic themes to building new rural areas. A fundamental and crucial principle is the change of thinking, of effective working ways for farmers under scope of sustainable development. *How rural communities can conceive that they are the core of sustainable rural development and they self-confront with problems and complex issues of building new rural areas?* The response is a progressive model in which it must base on a relevant course of exogenous factors and endogenous capability of farmers and rural residents. So, stakeholders must have skills such as VIETGAP standards, edaphology, seed plant, biotechnology, chemical fertilizer, insecticide, epidemic diseases and clean water resource, preservation after harvest, agricultural production formation.... to increase income generation and to eliminate poverty by modern farming production organization. Those farming productions may operate by rural communication or rural media. Thus, the criteria of Cultural facilities and Cultural are main tools to promote for this dimension.

This summary (3) proves for Hypotheses 2 and Hypotheses 3 of PhD dissertation.

7. Conclusions and Recommendations

7.1 Conclusions

A significant assertion “New vision of rural development” stated by McLeod Rivera et al., (2003) is the most important proof for scientific analysis’ orientation in this PhD dissertation. “A new vision of rural development must extend beyond agriculture, recognizing the income potential and economic importance of diversified interests such as on-farm non-agricultural activities, ecotourism, cottage industries and off-farm activities. Physical infrastructure and also social infrastructure such as recreational activities are needed.” (McLeod Rivera et al., 2003)

Because sustainable agriculture and sustainable rural development are the best solutions for almost countries which are ongoing a progress of achieving SDGs (of United Nations Agenda 2030 and of inheriting the possible learning of UNs Agenda 21) for rural areas. Those are also the encouragements of Vietnamese government and people in the National target programme in building new rural areas to making Vietnam as a modern industrialised country by 2020.

So I conceive that building new rural areas does not only build roads, drainage (sewage works), irrigated canals, schools, residential houses, community halls ...but also is the way for farmers and rural residents to access the goals of programme and to promote themselves to be confident, self-decisive, creative in a new dynamic and sustainable rural areas. This is not an investment project of state; it is the work, which farmers and rural residents should participate in as “stakeholder involvements” to have a better quality of life. State/Government will support for the progress as a join-partner (or facilitator). Therefore, the biggest difficulty is not only the expense of the programme, but it is the awareness of rural residents when they participate directly into process.

Finding the visible outcomes of sustainable rural development is the objective of this PhD dissertation. So this section has reviewed the rethinking about sustainability in the 21st century of Adams (2006) with argumentation such as: “The conventional understanding of sustainable development, based on the ‘three pillars’ model is flawed because it implies that trade-offs can always be made between environmental, social and economic dimensions of ‘sustainability’; “The three ‘pillars’ cannot be treated as if equivalent.” Because “the economy is an institution that emerges from society. The environment is different since it is not created by society ... the environment underpins both society and economy.” Therefore, author stated such as “Sustainability and sustainable development are effectively ethical concepts, expressing desirable outcomes from economic and social decisions...”

In my opinion, “The problems of ‘sustainability rethinking’” are new critical view to consider the recommendations of this PhD dissertation. I recognize that sustainable rural development is the needs for rural areas even the progress of achieving overall goals can be conflicted with natural well-being of rural residents under three socio-economic and environmental pillars.

Sum up, the sustainable rural development is a significant solution for any rural areas if it takes account three pillars of economic - social - environmental aspects into an effective synergy and interactive scheme under the nation’s efforts such as sustainable development strategies and RDPs.

7.2 Recommendation on policymaking

7.2.1 Learning lessons derived from the RDPs period 2007-2013 in the EU

At the holistic point, Chapter 6 of this PhD dissertation verified RDPs in the EU period 2007-2013 to support learning lessons for analysis about rural development progress in Vietnam. Therefore, this section considers more EU view on agricultural development for developing countries to achieving sustainable development goals comprehensively in rural areas.

The EU is strongly committed to achieving Sustainable Development Goal 2 (Zero Hunger of the 2030 Agenda for Sustainable Development) with a reaffirmation in the EU Consensus on Development such as “agricultural and rural development are key to reducing poverty, boosting food and nutrition security, stimulating economic growth and protecting the environment within the context of climate change. They can play a role in promoting gender equality and empowering women and girls.” In the fact that the EU has supported for efforts to enhance the resilience of households and rural communities. “Unleashing the potential of the rural economy is not only a national imperative for individual countries, but also an international one, as it will facilitate more sustainable resource use, contribute to reduced poverty and global stability, and reduce migratory pressures.” The EU is supporting countries and institutions to address numerous challenges and seize opportunities to further their development. “The EU is convinced that accelerated levels of responsible investments - domestic and international, public and private - in agriculture and agri-businesses need to be achieved to create the required dynamics for sustainable growth and resilience across the rural areas of developing countries” (European Union, 2019)

From this view, I recommend for the effectively implementation of National target programme in building new rural areas that policy making can apply the guideline of EU Consensus on Development to gain effective outcomes for rural living in Vietnam.

7.2.2 Finding effective impacts for policy making of building new rural areas in Vietnam

The decision-making is so important for management and organization of governments (or local authorities) in both of promulgation and critical evaluation for policies.

(1) This PhD dissertation verifies the orientation of Vietnamese government for agricultural and rural development (ARD) through the priorities in the Vietnam SD Strategy period 2011-2020. Those priorities are important to shift the restructuring for agriculture and rural areas in Vietnam towards modernization and industrialization. They are listed in the Decision No. 432/QĐ-TTg of Prime Minister dated on April 12, 2012 such as: “promoting regional advantages; lifting quality of agricultural products; matching production with local and international markets and using efficient natural resources; raising income per hectare; improving rural living standard, developing sustainable craft villages”. Those priorities are correspondent with the objectives of PhD topic: finding specificities of building new rural areas and its impacts on sustainable rural development in Vietnam.

At the scale of decision-making, it is necessary to consider the long-term objectives for the plan of restructuring the agricultural sector in Vietnam towards improving value-added in value chain and sustainable development. “The restructuring plan is viewed as a major turning point in agricultural policy. It signals an important change in emphasis: from extensive development based on quantity to one focused on quality and efficiency improvement. It also identifies a changing role for the government: from service provider to facilitator.” (OECD, 2015)

I have recommended for the objectives of restructuring of agriculture’s sector in Vietnam which should be based on the methods of building new rural areas. This restructuring should do a shift from conduction of top-down approach of Government policies to being an interaction projection by considering bottom-up approach of rural residents’ feedback during transition to the new rural areas. All objectives (of ARD plan) should contain connotation of sustainable rural development in which ARD have the coherent relation.

(2) This PhD dissertation considers some arguments of McLeod Rivera et al., (2003) because they can supply references for decision making of

agriculture and rural development's priorities in the Vietnam SD Strategy period 2011-2020 and for the long-term objectives in the ARP plan (since 2013) as well as the objectives of research topic of this PhD dissertation.

The first proposal was that "An interesting approach to local development is the World Bank's promotion of projects that empower rural people via community driven development, encouraging communities toward self-determination. ...In which Governments have forged partnerships with other sectors of society." (McLeod Rivera et al., 2003)

The second proposal was that "Strategies for agricultural and rural development require situational analyses and needs assessments.... Finding out about the livelihood systems of poor people is an essential first step in identifying the options they have for improving their lot, and that profiling of vulnerable groups is a useful way of doing this." (McLeod Rivera et al., 2003)

The third proposal was that "Strategies that include communication for rural development as a significant aspect of agricultural and rural development are sorely needed." (McLeod Rivera et al., 2003)

Based on those proposals I recommend that Governments need to verify organizational scheme of agricultural and rural development policies. In which the organizational tasks should divide into two dimensions of "the coordination of multi-sectoral entities (public, private and third partner) and the implementation of programmes to assist diverse rural communities, farmers' groups and households toward improved farm systems and livelihoods. (McLeod Rivera et al., 2003)" These tasks need dialogue and cooperation to call for new attitudes and skills (of farmers, of rural population and concerns).

(3) Finally, to conclude for all recommendations on PhD topic I want to proposal for establishing an upgraded secondary data source of rural areas in Vietnam (with digital statistical data source, digital maps, and annual social-economic-environmental atlas) to serve for research and decision-making, monitoring and evaluating of rural development programmes.

8. New scientific results

New contributions for scientific results: From methodology to realistic application.

This PhD dissertation has studied in building new rural areas under spheres of sustainable rural development in theoretical and practical frameworks. By the synthesis on rural development and sustainable development in the Literature review and the data analysis of experiment examples (especially with own primary survey research) in the Results and Evaluation, this PhD dissertation contributes new scientific results in this section.

I propose that sustainability and equity for a balanced territorial development in rural areas of each country to build new rural areas sustainably are not a perfect cycle of three socio-economic-environmental aspects at the same time. This conclusion has a proof of implementation of National target programme in building new rural areas in Vietnam period 2011-2015. Therefore, I have found new scientific results for sustainable rural development as follows:

(1) An achieved sustainable rural development is a rural livable capacity and it depends on the sustainable livelihoods, and quality of life in rural areas.

Because creating opportunities for sustainable development (with quality of life) in rural areas is the rational rural livelihoods for rural residents. As the theoretical framework, sustainable livelihoods based on the opportunities of economic growth. In this literature there are two ways for economic change with one as the concentrated economic development and broaden to environmental protection, quality of life and social issues; and other one as the related rural development (focus on economic growth but carrying in population growth (size and quality), resources management, and social viability).

(2) *Actions of approving and enhancing reasonable policies and reforms for creating a new rural area need the projections by emphasizing on growth and prosperity.* Those actions must work through government's and local financing plans for public expenditure, and international integration under optimal choices of decentralisation and globalization to foster sustainable rural development in rural economy, rural environment and rural living for each rural area. This tackling can put forward a transition of social and economic activities in rural areas.

The new founded initiatives (1 and 2) had verified by the adaptation of implementation of National criteria in the National target programme in building new rural areas in Vietnam period 2011-2015. So new scientific contributions of this PhD dissertation either have compared with the results of monitoring and evaluation visibly of the own survey research in Hong Lac commune (It is the experimental proof of this PhD dissertation).

(3) *Building new rural areas under sustainable development is the initiative of involvements of the people groups where and when they contribute the activities voluntarily as the positive collective participators in their rural areas.* The people groups as all partners from central to local, between government and rural residents, among units and individuals; and the activities voluntarily as fostering for rural livelihood security, reducing inequality and vulnerability, rising awareness of future resilience, cognizing about biodiversity conservation, natural and cultural heritage preservation while adapting with the social-economic-environmental transformation.

(4) *Building new rural areas corresponds with the standard criteria of the new-style rural areas through the National criteria is a rational cooperation of the methods and approaches* (top-down, bottom-up and stakeholder involvement) to delivery all thematic issues of National target programme

building new rural areas. Therefore, the National target programme in building new rural areas period 2010-2020 with first stage in years 2011-2015 is an innovative contribution strongly for the triangle model of agriculture, farmers and rural areas under the reorientation for sustainable agricultural development and sustainable rural development in Vietnam.

Is it advisable to focus on human? Yes. National target programme in building new rural areas in Vietnam is not only a supply of new socio-economic infrastructure to improve living conditions but it is also a programme of empowerment for rural residents by their endogenous capability. This interactive scheme based on the top-down guidance of Government policies and the bottom-up feedback of local authorities and of stakeholder's involvements during the dynamic operation of each commune.

(5) *I have contributed a new definition for conception of building new rural areas* such as “Building new rural areas as a sustainable rural development programme is an initiative of voluntary or obligatory cooperation and participations through collective action scheme/institution. It creates outcomes and improving common benefits which are derived from tangible advantages and endogenous capacities of local users (farmers and rural residents) and of formal communities (as a commune) in a rational circle of three pillars of sustainability.”

(6) *New methodological results*: I had done the survey research in a small scale in Hong Lac commune and designed two questionnaires and this survey and questionnaires are new scientific results because those are the new and primary science research in scale of a commune under scope of National target programme in building new rural areas in Vietnam period 2011-2015. This survey was been implemented in a first time in Hong Lac commune, Hai

Duong province, Vietnam, before the time of National Agri census in year 2016 to serve for the research topic of this PhD dissertation.

From my own survey research in Hong Lac commune, I conceive that a feasible strategy to modernize and industrialize agriculture and rural areas in Vietnam is also a restructuring of agricultural sector in *connotation*. The fact that the evolution of agricultural policies in Vietnam from the past in 1976 to the stage 2010-2020 gathered the actions of increasing competitiveness of agricultural products (with more value added), ensuring food security, and building new rural areas (by improving old/new rural infrastructure, rural economic structure and strengthening rural communities) under the market economy with socialist orientation.

Sum up, the National target programme in building new rural areas continues its unitive innovation in the second stage 2016 - 2020 and vision to year 2030 in rural areas in Vietnam. Clearly, the National target program in building new rural areas does not destroy the old and previous one (or heritage) to build new one, it is a work of building a rural commune as new style parallels with reconstruction, preservation from old one. The characteristics of Vietnamese villages needs to be preserved. Correspondingly, the farmers must be the core actors of new rural development progress. Rural development will not be significant if it does not focus on improving the better quality of life for rural residents. Moreover, I supposed that rural residents participate in rural development process, as they need to be assigned power and empowerment themselves.

9. Summary

Sustainable agriculture and sustainable rural development are the best solutions for almost countries which are ongoing a progress of achieving SDGs (of UNs Agenda 2030) for rural areas. Those are the encouragements of Vietnamese government and people in the National target programme building new rural areas to making Vietnam as a modern industrialised country by 2020. Therefore, this section has reviewed the restructuring for agriculture and rural areas in Vietnam towards industrialization such as: “promoting regional advantages; lifting quality of agricultural products; matching production with local and international markets and using efficient natural resources; raising income per hectare; improving rural living standard, developing sustainable craft villages”. The priorities are correspondent with the objectives of PhD topic: finding specificities of building new rural areas and its impacts on sustainable rural development in Vietnam.

The National target programme in building new rural areas period 2010-2020 carried out by government and rural residents in order to build new rural areas in Vietnam. The National criteria for building new rural areas consists of 19 criteria for building new dynamic rural areas in Vietnam from 2010 to 2020, vision 2030. The Ministry of Agriculture and Rural development is the hosts and co-ordinates with Ministries and agencies, People’s committees and authorities in central cities or provinces to build up and promulgate content of programme; training guidance and staffs for building new rural areas.

As the results of “Rural, Agricultural and Fishery Census 2016” as the plan of Census, among 8,978 rural communes as on July 1st, 2016, there were 8,911 communes in the list to implement the Program; 67 communes were not included in the list because they were under urban planning.” (GSO, 2018, National Agri census 2016)

Within five years (2011-2016), all sectors (from the central to the local) implemented effectively many rural socio-economic development measures. There had been overall changes in the rural image, particularly the investment in infrastructure construction. (GSO, 2018, National Agri census 2016). However, the rural socio-economic situation and agricultural, forestry, and fishery production had many limitations and weakness such as *infrastructure was still weak in some rural areas; the rural economic structure was transiting slowly; the accomplishment of the criteria was still unsatisfying*. (GSO, 2018, National Agri census 2016). Therefore, all visible outcomes of the National Agri census 2016 about National target programme in building new rural areas in Vietnam were the background to testing of Hypothesis 2 in this PhD dissertation.

The most important outcome of this National target programme is a rural physical infrastructure has built by National criteria to renovate socio-economic and environmental dimensions in rural areas of country. This is a positive impact to distribute for sustainable rural development in rural areas in Vietnam. In which Hong Lac commune is a good experimental proof for the testing of Hypothesis 1 of this PhD dissertation.

The survey research had established in the Hong Lac commune in two times of year 2014 and 2017 to make an experiment for the research goals of PhD dissertation with topic “Building new rural areas and its impacts on sustainable rural development in Vietnam”. The data collection had done by questionnaire forms of PhD student of this PhD dissertation.

- First survey research, (2014): The results were such as 83.87% people known about phrase of “building new rural areas” by all media facilities and 100% interested in the process of programme. In which 96.77% people interested in all major issues of programme (infrastructure, rural media, healthcare, income, security, environment...). There was 93.55% people agreed to apply sustainable development in rural areas in Vietnam. 93.55% people accepted

that programme has more positive impacts than negative impacts with main criteria of programme: rural infrastructure, healthcare, education, working condition, job opportunities, environmental sanitation and social security; 0% had opinion about negative impacts of programme; 90.32% committed that they continue to take part in the progress of programme...

- Second survey research, (2017): The results were such as 93.94% people who took part in the programme from 2011. There was 100% people who known that commune had completed all 19 criteria at finish stage of programme. There was 72.72% people agreed that all criteria of living standards and living conditions are better after the end of programme; 93.94% people satisfied with the programme and its criteria; 92.42% evaluated better for agri and non-agricultural activities in commune; 51.52% had opinion of raising state budget for the process of programme ...

I conceive that rural development programmes must define the difficulties for each rural area at the making decision from planning; must classify difficulties frequently during implementation by the decentralizations administration of National target programmes in Vietnam for management from central offices to local authorities to deal priorities with each rural area.

The dimensions of changing roads, houses and school facilities... are the one side of progress of building new rural areas. Fundamental and crucial principle is the change of thinking, methods of working for farmers under scope of sustainable development. The sustainable rural development is a significant solution for any rural areas if it takes account three pillars of economic - social - environmental aspects into an effective synergy and in interactive scheme under the nation's efforts such as sustainable development strategies and rural development programmes. Those are a good explanation for testing Hypothesis 3 of this PhD dissertation.

All conclusions are the testing results of three Hypotheses under the process of literature review and data analysis of this PhD dissertation.

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12. Appendix

Questionnaires in Vietnamese language of survey researches in years 2014 and 2017 in Hong Lac commune, Thanh Ha district, Hai Duong province, Vietnam. Apply for persons who are in the labor age (Up to 15 years old and over) having participation in or not take part directly in the programme of building new rural areas period 2011 - 2015.

Appendix 1. Questionnaire about the role of rural residents who take part in the building new rural areas - At Hong Lac commune, Thanh Ha district, Hai Duong province, Vietnam

A. Personal information

Full name of interviewee (*Capital letter*)

Sex: Male:

Female:

Age	15-20:	21-35:	36-55:	56-60:	Upper 60:
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Address.....

B. Survey on the measure of participation level of rural residents about building new rural areas in a commune

1. Please identify a phrase “building new rural areas” that you had known:

- Reading newspaper:	
- Watching TV:	
- Listening to radio:	
- Media of commune:	
- Others:	

2. Measure of your interest level to process of building new rural areas in commune:

No interest:	Less interest:
Interest:	Much interest:

3. When do you know about “building new rural areas” of commune, from year?

Year 2010	Year 2011	Year 2012	Year 2013	Year 2014

4. Which issues are in the programme of building new rural areas in commune that you are interested in the most?

Content (A)	Interest level		Which content was not done (B) - List from the column A
	Interest	No interest	
a - Constructing infrastructure such as: road, health station, school, electric grid system, clean water supply system, cultural - post office, waste and sewage disposal system			
b. Reconstructing for old works: residential houses, hygiene sanitation of households, protecting environment in commune, local heritages.			
c. Healthcare in commune			
d. New concrete and reconstructing for irrigation canals			
e. Establish a management committee of commune leaders for programme of building new rural areas in commune			
f. Media on rural extension in commune			
g. Strengthen a qualitative of media/radio of commune			
h. Promulgate a rule of security, social exclusion, establishing a civilized lifestyle			
k - Other issues: <i>(Please list)</i>			

5. Since the “building new rural areas”, have you (Mr./Mrs./Ms.) ever heard about these issues in below in any time?

Items	Yes	No
Agricultural, rural modernization		
Application of biotechnology		
VIETGAP standard		
Create jobs for farmers		
Climate change		
Priority of credit loan for agricultural production		
Air pollution		
Heritage conservation		
Clean water and Sanitation		
Sustainable development		

6. If yes, in your opinion, do you think about implementing “sustainable development” in rural areas in Vietnam or not?

1. Yes 2. No 3. Uncertain

7. There is an opinion of saying “Building new rural areas” that it has more positive impacts than negative impacts. Please give the opinion of you about that judgment.

1. Accepted 2. Unaccepted 3. Uncertain

8. Do you can have your evaluation about impacts of “Building new rural areas” to those issues are in below.

	Positive impacts	Negative impacts	None impacts	Uncertain
a. Infrastructure (Electricity grid, rural road, school, health station...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Health care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Education, training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Working condition in commune	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Finding job opportunities in local areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Environmental sanitation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Social security of commune, of villages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Do you think that job opportunities are in the sector of agriculture, rural development attractively?

1. Yes 2. No 3. Uncertain

10. Do you agree that Government and rural population need to concentrate investing for “Building new rural areas”?

1. Yes 2. No 3. Uncertain

11. Do you have a plan to taking part in or continuing of participating in progress “Building new rural areas”?

1. Yes 2. No 3. Uncertain

12. You are participating in progress of “Building new rural areas” in commune, do you know how many criteria that the commune had completed in among 19 criteria of building new rural areas.

The number of completed criteria:

Interviewer:, date.....month 8 year 2014

Full name: Nguyen Thi Thu Thuy Answerer

Thank you very much for your help! *(Sign, full name)*

Appendix 2. Questionnaire about evaluation for the implementation of the building new rural areas, period 2011-2015 at Hong Lac commune, Thanh Ha district, Hai Duong province, Vietnam

A. Personal information

Full name of interviewee (*Capital letter*)

Sex: Male: Female:

Age	15-20:	21-35:	36-55:	56-60:	Upper 60:
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Address:

B. Survey for the evaluation about participation of rural residents in building new rural areas in Hong Lac commune

1. Do you have been took part in the programme of building new rural areas in commune? (*If Yes: sign X in a box of the annual years*)

2011:	2012:	2013:	2014:	2015:
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2. Do you know how many criteria of programme of building new rural areas in commune accredited when the programme finished the operation period?

3. How do you evaluate about the programme of building new rural areas in commune: Has it done or not done?

- Which is the best if the programme has done? - Which is the worst if the programme has not done?

4. How do you evaluate about the repair or new construction for rural infrastructure: electricity grid system, rural road, school, health station and cultural house? (*Please identify*)

- It has done about; - It has not done about....

5. Do you agree that the living standard in commune is improved better after the end of the programme of building new rural areas in commune for the issues in below? (*Please answer for better/worse/or no answer*)

- About income per capita; job opportunity in local area; electricity supply and electricity consumption; clean water supply and clean water consumption at commune; hygiene and environment; rural security; cultural activity.

6. Do you have any comment for the programme of building new rural areas following the criteria have been promulgated?

Is it adapted with the socio-economic condition of commune?

7. Do you know about the contribution of rural residents during the participation in the programme of building new rural areas in period 2011-2015? *(Please answer Yes/No/or No answer)*

- contributed property for the programme (land, other assets/property):

- contributed working time: - contributed the volunteer awareness for participation of rural resident:

8. Do you agree that agricultural activities (cultivation, husbandry, and aquaculture) and non-agricultural activities (service, handicraft ...) in a local area are better to compare with the previous period before the implementation of programme?

- Agricultural activities; - Non-agricultural activities

9. Do you know any new job have been established after the end of the programme of building new rural areas in period 2011-2015 at commune?

10. Do you have any recommendation for the daily waste disposal of rural resident in commune to obtain the green and clean environmental standards?

11. Do you have any recommendation about the participation of rural residents in the programme of building new rural areas in commune?

- About the operation planning at commune for the programme: - About the raise or reduction of state budget: - About the guidance for policies' applying:

12. Do you have any recommendation about the role, conduction and dissemination of commune leaders for the implementation of policies of the programme of building new rural areas at the commune committee?

Interviewer:, date..... month 11 year 2017

Full name: Nguyen Thi Thu Thuy Answerer

(Sign, full name)

Thank you for your collaboration!

13. Publications in the topic of PhD dissertation

- Scientific publications in English connected to the PhD dissertation

1. Nguyen Thi Thu Thuy; László Vasa (2018): **Description of agricultural development in Vietnam and ASEAN countries (South East Asian Countries)**. Intermediate Europe: Journal of Social Sciences, Volume 10:1, No. 23 (2018), pp. 105-118, ISSN: 2064-437X Szeged (Electronic edition)
2. Nguyen Thi Thu Thuy (2021). **Reviews of Sustainable Rural Development in the scope of Building new rural areas in Vietnam**. SZIE University, Kaposvár Campus: Regional and Business studies Journal, Volume 12, No.2 (2020), pp. 77-91, doi: 10.33568/rbs.2521, ISSN 2732-2726 (Online).
3. Nguyen Thi Thu Thuy; László Vasa (2020): **A new approach in rural development in Vietnam: Evaluation of the National target programme for building new rural areas, 2011-2015**. Polgari Szemle - Civic Review: Economic and Social Journal, Vol. 16, No. 4-6 (2020), pp. 366-378, DOI: 10.24307/psz.2020.1029 (Electronic edition and Printed edition)

- Conference/Workshop papers in English connected to the PhD dissertation

1. Nguyen Thi Thu Thuy; Bernadett Horváthné Kovács and László Vasa (2015): **Rural development in Vietnam - specific scope to environmental sustainability**. ISBN: 978-963-9821-965 (Printed edition); ISBN: 978-963-9821-97-2 (Electronic edition), pp.157-170.
2. Nguyen Thi Thu Thuy (2015): **Hunger eradication and poverty reduction - Finding an opportunity for sustainability in Vietnam**. ISBN: 978-963-9821-86-6 (Proceeding on-line).
3. Nguyen Thi Thu Thuy; Bernadett Kovacs (2017): **The goals of agricultural and rural development strategy in EU and Vietnam**. ISBN: 978-80-89691-42-5; DOI: 10.18427/iri-2017-0061, pp. 29-34 (Printed edition)
4. Nguyen Thi Thu Thuy (2018): **Regional development in Hungary and a view for the policy-making in Vietnam**. ISBN: 978-615-5754-41-8 (Proceeding on-line), ISBN: 978-615-5754-40-1, pp.199-213 (Printed edition).

14. Short professional CV

PhD candidate Nguyen Thi Thu Thuy was born on 10th July 1976 in Thai Nguyen, Vietnam.

Address and Nationality: Hanoi, Vietnam.

Working experiences: Worked for some State offices in Hanoi, Vietnam; gathered knowledge from the study process and projects' participation.

Education profile:

- BSc. course "Commercial Business", academic years 1994-1998, in National Economics University, Hanoi, Vietnam and graduated in 1998.

- MSc. course "Political Economics" in academic years 2003-2006 in Vietnam National University, Hanoi, Vietnam and graduated in 2007.

- MSc. course in English "Rural development and Agribusiness" under the FAO (UNs) scholarship programme 2010-2012 in Szent Istvan University, Hungary and graduated in 2012.

- PhD. course in English "Management and Organizational Sciences" under Stipendium Hungaricum Scholarship Programme in academic years 2014-2018 in Kaposvar University, Hungary. Prolongation of two years 2018-2020 in Hungary as a PhD candidate to complete PhD dissertation and research duties of PhD programme. Accomplishment of the PhD. course in Hungarian University of Agriculture and Life Sciences, Kaposvar Campus, Hungary in academic year 2020/2021.