

ACKNOWLEDGEMENT

1. Urgency of topics:

Ho Chi Minh City is the largest urban area of Vietnam in terms of size and economic power, with a central role of economic - society development in the South. For years, the city's economic growth, industrial productivity, revenue, foreign investment have been always significant which have contributed positively to the overall achievement of the country's economy. Therefore, Hochiminh city plays a leading role but at the same time, the city also faces fast urbanization, population concentration, the inadequately growth of urban infrastructure, housing issues, low living standards, etc. Those depict an unsustainable development.

According to the most complete definition of sustainable development, the sustainable development should "meet current requirements, but without harming needs of the future "[69]; then the big city of VN in general, and in particular developing HCM City will leads to great disasters for the future. Those are environmental pollution, traffic congestion, flooding, rampant development accidents, unplanned developments, threatening to reserve land for the development of the next generations.

During the last few decades, many new urban areas (NUA) in Ho Chi Minh City have been formed, changing appearance of the city. Those have contributed positively to housing developments, urban service improvement, pressure reduction for metropolitan area etc. However, in general NUA have only solved immediate needs for housing but "healthy living environment", even some setback standards in infrastructure and urban services' quality. In low-lying areas, NUA lack careful care for

natural environment, leading to floods in a large urban area. Overall, NUA are purely urban expansions without significant identities.

HCM city is predicted to experience a rapid growth and become a super-city with a population of about 10 million people [6]. This rapid development will strongly impact on urban pattern's development and unsustainable development. . Taking the above situation and requirements for sustainable urban development into consideration, "Sustainability-oriented Development for New Urban Areas in Ho Chi Minh City" is a chosen PhD dissertation specialized urban and regional planning.

2. Study's objectives: (i) Systematizing criteria for sustainable urban development, understanding HCM city urban development orientation based on criteria for sustainable urban development and proposing new urban development structure; (ii) Developing principles, new urban planning solutions for sustainable development; (iii) Proposing assessment framework for the sustainability of new urban areas.

Study's subjects: The new urban areas in HCMC; Theories an hypotheses of sustainably developing urban area; Theories an hypotheses of sustainably developing cities; Tools to assess sustainability of a city.

Scope of the study: *Considering geographical space:* focus on New urban areas in HCMC, *Considering time:* 2025 and Vision of 2050

CHAPTER I. OVERVIEW OF SUSTAINABLE URBAN DEVELOPMENT AND NEW URBAN DEVELOPMENT IN HCMC

1.1 The concept of sustainable development (SD)

1.1.1 The emergence of sustainable development paradigm

"Sustainable development" paradigm is a new approach of environmental activists, seeking to heal the ecological values, social and economic development, in both current and future. Many new models of sustainable development appear to promote social change opportunities to meet the needs of the target material and non-material demands of human, social justice and improve the operational efficiency of the organization, capacity building and technology towards sustainability. However, there are many different models of sustainable development but not all of them are related with each other.

1.1.2 Brundtland 's Sustainable Development Paradigm

The concept of sustainable development came from the Brundtland Commission, 1987, in the report "The Future of us." In which sustainable development was defined as "development meets the needs of the present without compromising the ability of the future generations to meet their own needs". After that, the concept of sustainable development appeared more and more frequently in specialized studies, national reports of the government, etc.

1.1.3 The concept of sustainable development of the world organizations

Currently, international organizations increasingly interest in sustainable development, such as the European Commission (European Union); Environment Program United Nations (UNEP); World Bank (World Bank); International Institute

Environment and Development (IIED); The national government; Organ governments at all levels; etc. Sustainable development is a concept with three poles: economy, society and ecology, therefore sustainable development is a state without static structure or fixed economy, society

and politic. Therefore, the promotion of sustainable development is an ongoing process, in which the goal will change over time, space and place and in the context of economic, political, different social and cultural. (Baker, 2006).

1.2 The concept of sustainable cities (SC) and sustainable development criteria for urban development (SUD)

1.2.1 The concept of SUD

So far, no one unified concept for the SUD as it is diverse and multi-dimensional nature of an object. Typically these views as: According to Wikipedia, a sustainable city is a city that designers have to consider the environmental impact, inhabited by people to minimize inputs, energy requirements, water and food, the amount of waste heat, air pollution and waste water; According to Richard - The first set out the terms "eco-city" in the book *Eco-city, Berkeley* (1987), his "city strongly built for a healthy future"; By Paul F Downton - Architects, urban theorists firmly recognized "A sustainable city can sustain themselves with the minimum dependence on the surrounding countryside, and the main power with renewable energy sources "...

1.2.2 The concept of the world SUD and Vietnam

The concept of SUD is also a subject of debate in many forum conference of international organizations, research centers of the capital market in the world, namely: Development Program of the United Nations (UNDP); Urban 21 Conference in Berlin, January 7/2000 (7 issues raised key to SUD "An economy for sustainable urban development; A society for sustainable urban development; Urban Housing for sustainable development; The environment for sustainable urban development; Access to sustainable urban development; The life for sustainable urban

development; Democracy urban sustainable development). Besides, there are also others views from other organizations: Workshop of Sustainable Cities in South Africa; Stockholm Environment Institute of Sweden, ... In VN, VIE projects (Institute of Urban-Rural-MOC), ...

1.2.3 SUD criteria

SUD criteria are derived from the theories and hypotheses of SUD and Sustainable cities. Many scientists, organizations, national governments built sets of SUD criteria , based on theoretical basis and practical context, the conditions of economic development - social and environmental impacts of each geographical areas, such as criteria group of the World Bank; City Group criteria for environmental sustainability of the ASEAN countries; Group criteria of network quality of life survey Mercer; A set of criteria Review livable cities (alivable city); Ministry of VN SUD criteria under the program "Millennium 21"; ... (Appendix 4).

1.2.4 Summary of the overall view of the system and SUD criteria

SUD though comes from many different angles, but all have the same views on human targets, is developed for quality of human life. Based on the review of the group SUD criteria with urban sustainability. The content of the thesis research of the total 4 groups of criteria, namely: (1) group of healthy urban properties, (2) group attributes on urban appeals, (3) group of urban properties for safety, (4) group attributes of urban efficiency and fairness.

1.3 Overview of the new urban development in the world in the direction sustainability

Overview of the new urban development in a sustainable way in countries such as Singapore with the development of new urban pulse

around the production area combined with the urban service area under the motto "Live - Work - have fun". The new urban encourage diversity, comprehensive development, natural blend into the urban space, ...; In Korea during the development of new urban area in the urban structure proposed manufacturing building standards for new urban planning; In Brazil, the policy of Curitiba City in the new urban development priorities attached to the network and public transportation combined with mix of land use; In China, the development of new urban focusing on diversity of housing in accordance with the economic conditions of households, creating favorable conditions to access the housing fund for the people; In Japan interests in the new urban development with mixed abilities, good living environment in a sustainable way and to create conditions for people to choose suitable housing.

1.4 Overview of the new urban development in VN towards sustainability

1.4.1 The concept of the new urban area and the relevant provisions

Concept: According to Planning Law (06/2009), according to the Decree of Government No. 42/2009 / ND-CP dated 05/10/2009: new urban area is new built urban areas; completed development projects, synchronous infrastructure, arranged in association with an existing urban condition or with a new urban form.

Size: According to Decree 02/2006 / ND-CP and Circular 10/2008 / TTBXD regulations, new urban projects are scaled up from 50 hectares of land occupied up to the event area for projects in the planning of Urban land but restricted by other projects or by existing urban areas, allowed in the project planning new urban scale but no less than 50 ha and more than 20 ha.

1.4.2 Practices of new urban developments in Vietnam

According to the Ministry of Construction, now all over the country, new urban development rapidly growth in the number and scale of tens, hundreds, thousands hectares (Linh Dam, An Phu An Khanh urban area north of the Red River (8,000 ha), South Saigon urban area (2,600 ha), ...

As integrated assessment, the largest contribution of those is to improve housing for people in urban development, remove "inferiority" in condominiums, step by step "moving" urban population out of the center; construction planning and construction management under the QH gradually into order; forming real estate market, ... Besides the effect of the the new urban development, then there exist such as ensuring favorable development location; land use structure or functional areas in urban planning; management planning - architecture and building survey do not have adequate consideration; administrative procedures in the investment management construction of many troubles, not stimulate investors; quality, visual environment is low; Most network marketers do not have infrastructure outside the boundary layer; The handover, maintenance and exploitation of infrastructure projects, public buildings and condominiums are no counter; the decentralization between the investor with the state management in place methods of public services is not clear; the organization and management of new urban areas have no uniform regulations.

1.5 Practices of new urban development in HCMC

Since the phrase "urbanization" appeared in VN (around 1992), the expression new urban concept gradually been identified and associated with the formation of New urban area like South Saigon (1995), An Phu An Khanh (1996), ... Since 1995. So far, many investment projects new

urban residential areas have been established and approved scale, nature and form of investment varies with the participation of many investors.

1.5.1 Evaluation of the development of new urban area

- **Scale:** Based on the review of development projects and residential areas new urban areas have been and will be built in the city. HCM to date (Appendix 2) and according to the Decree 02/2006 on the scale: 20-50 ha new urban scale accounting for 54%; New urban scale from 50-100 ha accounted for 22%; large new urban scale from 100-300 ha accounted for 13%; Large-scale new urban area from 300-500 hectares, accounting for 6%; Huge new urban scale on 500 hectares, accounting for 5%.

- **Function:** most new urban function is in some combined with new urban functions: Park in the functional urban areas: (Universities, hospitals, financial centers, offices), such as new urban area Phu My Hung Urban Area tech District 9, ...

- **The use of land in the new urban area:** land use planning in the New urban area longer rigid functional land use, mainly land, the most of the land area is framed in a single function, the lack of flexible range and combines the functions used.

- **Organization of urban space:** The works are mainly in the form of urban subdivision and subdivision invested separately created, which lack of space fragmentation linked, high-density construction, lack of open space, space for community activities, ...

- **Quality of service in the new urban area:** the new urban services, most of them have not been met; green spaces and parks in New urban area that has been neglected

- **Housing:** relatively abundant and diverse: the city, adjoining villas,

apartment, ... Response to the selection of objects used. However, the issue of social housing, housing for low-income rental housing less interested in investment.

- **Infrastructure:** the projects merely meet needs for basic urban services but quality and aesthetics.

1.5.2 Status of the investment and construction of the new urban area projects

The survey indicated that despite the fact that many new urban infrastructure systems were great, but the level of cover construction is very low. Especially for the project sale glass away from the city center and main traffic areas are not connected.

1.5.3 Management and planning of new urban areas

+ The process of elaboration and approval of the new urban area is too slow. Urban planning projects themselves are too rigid, which limit the characteristics of the planned areas.

+ The implementation management: the investment is concerned, however, because administrative procedures in the management of construction investment was more troublesome, yet stimulate investors. The difficulty of managing handover between investors and Local Government.

1.5.4 Evaluation of the position of the new urban development in the overall structure of Ho Chi Minh City Urban area.

- The EIA development areas in the existing urban area: The urban areas are small, in fact develop housing to meet urban housing stock.

- The area EIA investment and development in the area of the urban

and suburban development: The diversity of this new urban scale is distributed mainly in the area: The area of Southern City (District 7, Nha Be District, Binh Chanh part); East, East North City (District 2, Thu Duc District 9); The western region, Northwest (District 12, Tan Phu, Tan Binh, Binh Chanh, Hoc Mon, Cu).

- In terms of the relationship of the new urban city urban structure: (1) New urban area "depend" on a small scale (20 - 50 ha); (2) the relative Urban Area independent functions including functions combined in trade in services, tech parks, play areas - entertainment, or close to the production concentrate on; (3) Are there new urban high independence, build cohesion with particular functions.

1.5.5 Comments on the new urban development in HCMC.

- The term "Urban Area" is used very limited in the project urban development of the city, most of the development projects neighborhoods ... this shows new urban concept also contains many components of land use or use in new urban functions. As the formation of Phu My Hung Urban Area is a typical example of concern.

- The limitations of the new urban

+ Many new urban births meet the demands for housing, but with the housing fund many people do not have access to, especially the poor, low-income people, public servants; The lack of urban utilities, the education, health, commerce, recreation parks; Many new urban asynchronous connectivity infrastructure in the urban infrastructure; Network traffic is not the main frame of the urban to speed up development of new urban form; Many urban area shows lack, even without the solution of urban design; The management is not taken into consideration after urban planning, construction management is limited, many new urban spatial

asynchronous architecture, chaotic, lacking even without the management public green space, not open space, high levels of street, sidewalk; Besides, a number of planned new urban scale too large will not only rely on the ability enforcement resources provided plan.

+ Structure of Urban Area in the overall urban HCMC: As assigned discussed above for the location of new urban development showed a growth irrational, namely: Many residential areas and parks are set and approved the planning of new urban area which concentrate in the South, this is a region valley of the canals, the urban expansion leveling canals, lift the ground level in the project boundary was widespread flooding in the surrounding areas, particularly in the context of climate change Global; The area to the west and north, the urbanization rate is fast, so impacted by the development of industrial parks to attract migrant workers. But in the long period of planning and lack of orientation to the weaknesses in management leads to urban development slick, social infrastructure systems are not interested in investment, infrastructure with lack of connection..., affecting the quality of people's living environment. Overall structure HCMC urban development in recent years shows that the development of urban space under the influence oil slick from the existing regional centers. Lack of direction and control of the area to be developed, the restricted area ... leading to spread of urban development, concreting very large natural areas, affecting reserve land and development of the city in the future.

1.6 The relevant research has published:

The doctoral thesis, master thesis and the research of the Partnership, the development of urban space, urban design, ... but not to discuss new urban development and new urban development trend towards

sustainability, therefore this thesis research is not duplicated.

1.7 The research on problem in Ho Chi Minh City

The challenge for the development of socio-economic forecasting population size and housing demand, housing prices and problem solving housing for officers, employees, people with low incomes in society. Weaknesses in the infrastructure, environmental pollution, traffic congestion, flooding, the context of integration and globalization, the impact of climate change, the problem is difficult ... constraints in the development of cities towards sustainability. Given these difficulties, challenges, and goals of the City focus towards sustainable development. The new urban development is to improve and enhance the environmental quality of life now and in the future.

Findings of the study will contribute to the development of new sustainable urban area, contributing to the SD of the city.

CHAPTER II. METHODOLOGY AND SCIENTIFIC BASIS STUDY FOR BUILDING NEW URBAN DEVELOPMENT TOWARDS SUSTAINABLE

2.1 Methods used in the study:

System of research issues on the basis of the scientific method after method to collect, analyze and synthesize; Observation methods - the actual survey; Methods of sociological investigation; Comparative method, inductive; Method of multi-criteria evaluation.

2.2 Construction contents and methods for research steps

The content and research methodology (RM) in the thesis is to follow

the following steps: (B1) Develop criteria for sustainable urban development(SUD); (B2) Develop theoretical basis of formation and development of new urban area in HCMC urban structure; (B3) propose principles, new urban planning solutions towards sustainable development; (B4) Proposed assessment of new urban sustainability.

2.2.1 Scientific Basis and RM done for step 1: Gather information - data content and VN SUD. Conduct statistical classification of related fields and determine the content and focus of SUD of urban sustainability. System SUD criteria focus on four groups of attributes: Group attributes of healthy urban; Group attributes of urban attractiveness; Group attributes of urban security; Group attributes of urban efficiency and fairness.

2.2.2 Scientific Basis and RM made to step 2: Develop a theoretical basis for the new urban development in the overall structure of urban cities. Based on the assessment of new urban development in HCMC, the current challenges of urban development, the demand for housing, the development of residential areas, the orientation of the city plan, resources, soil conditions, growth potential, Vietnam's legal framework for new urban development planning ... analysis, evaluation aims to identify the needs of the new urban development, new urban relationships in the development of HCM.

2.2.3 Scientific Basis and RM made to step 3: Proposed guidelines, new urban planning solutions towards sustainable development. These are important issues to contribute to building a sustainable new urban area in the future, contributing to the development orientation towards sustainable urban HCMC. Analysis of the legal framework of the National Assembly in Vietnam, a collection of trends and Training, the principles of sustainable solutions for new urban QH.

2.2.4 Scientific Basis and RM made to step 4: Develop framework for assessing the level of new urban sustainability must be able to quantify high, the quantification of indicators must be objective in the evaluation process.

To do this, the problem assessment should be specified as the target, specific indicators on the basis of a clear analysis of the nature, structure, function and scope of the new urban area.

CHAPTER III. FINDINGS

3.1 Systems of systems SUD criteria and orientation of new urban development in the urban structure of HCMC

3.1.1 The key contents of SUD

Sustainable urban development is the inevitable trend in the evolution of society, is a strategic choice and is targeted towards which all countries in the world to pay attention. To sum up the views, arguments about SUD towards joint efforts for the quality of urban life. The general conclusion about a sustainable city when it is oriented to achieve these goals: Provide a complete living environment, safety and health; Providing qualified human development and improve quality of life; Reduce the ecological impact on the territory; There relationship is intimately linked with the region and the region; Protection, conservation and restoration of cultural heritage, nature and history; Promoting fair; Planning and management of unity, promote the participation of all social institutions participating in the management of the territory.

3.1.2 System SUD criteria

System SUD criteria are aggregated into four main groups of attributes:

(1) Group criteria for healthy urban: a combination of indicators related to the quality of the urban environment, urban architecture, infrastructure Urban floor, and the ability to self-sufficiency of the region; (2) Group attractive urban criteria: focused attention to the environment and the quality of urban space through indicators such as access to local services, the quality of public space , the vitality of the city and urban landscape; (3) Group criteria for urban safety: safety analysis before the risks of urban and urban safety indicators such as unemployment rate and poverty in urban areas, traffic safety ... (4) Group criteria of efficiency (policy, management, implementation ...): analysis of institutional capacity and effectiveness of policy tools, ... to manage.

3.1.3 Orientation for new urban development in the overall structure of HCMC

- Development of new urban development on the basis of the "corridor development strategy "associated with the development of infrastructure (development corridor to the north, west - north; Corridor Development of North-East; new development corridor west, west - south; Corridor development new development south of Saigon); Development of new urban area along the corridor strategy by focusing investment on infrastructure development and housing. In particular, the rail project as UMRT (High-speed rail inner-city) will be the most effective tool to help promote the new urban development along this corridor. Applying the model of urban development along the axis of transit oriented development (TOD) in the new urban structure.

- Development of new urban area on the basis of the formation of new urban centers polycentric urban structure - a megacity with a full range of functions including the new downtown core and the new urban center on

the basis of considering expansion of urbanization and urban activities.

- Development of new urban area on the basis of economic restructuring and formation of decentralized metropolitan area: With the policy development industries with advanced science and technology content high. Based on the development of industrial parks, shaping the new urban development adjacent to or in conjunction to meet employment needs, provide housing for workers, professionals, formation of urban services, ...

- Development of new urban areas near the city center: it is important to control urbanization and encourage rational development with adequate infrastructure to minimize the negative impact on the environment. For these areas, the need for regulation of the limits as the coefficient of land use, building density and high-rise construction.

3.2 Develop guidelines and the new urban solutions according to sustainable urban planning

3.2.1 The focus on the new urban area

- **On the nature and function:** the new urban areas multifunctional meet work, rest, ensuring comfort for new urban activities.

- **Size:** The size of the new urban population should determine the minimum equivalent to the size of a unit in 7,000 or more; To truly become a new urban residential areas multifunctional, a minimum area of 50 ha. The size of the new urban area is expected to split into 3 categories: huge new urban area (> 500 ha); EIA large (200-500 ha); New urban average (50-200 ha).

3.2.2 Development of sustainable new urban area

- **Views on the new urban sustainability:** new urban sustainability:

"Construction Zones develop new aggregate functions, achieve and maintain a balance between economic factors, cultural, social, environmental and structural framework of its relations, in the present as well as in the future. "

- **The elements of the new urban SD:** new urban scale and location to ensure proper development of the mixture; Structure Development of multifunctional composite density appropriate to encourage and promote walking activity; System infrastructure development synchronous development of public transport, bicycle use vehicles, pedestrians, energy saving, priority use of renewable energy, environmental hygiene ... ; Diversity of housing types and forms of ownership; Improving the quality of new urban services, enhance communication space, open space; Increased attractiveness, creating unique features of the new urban area, maintain and integrate into natural ecosystems; Ensuring security in the new urban area; The management and operation; and its role in the development of new urban communities in a sustainable way.

3.2.3 New urban planning principles of sustainability

- The principle of sustainable new urban planning: (1) Being aware of the location and the people; (2) Recognizing the natural and environmental protection; (3) Create high quality of life for human beings; (4) Construction of new urban vision towards sustainability; (5) Cooperate closely, synchronization and consolidation of all stakeholders in the development process.

3.2.4 Proposed solutions for the new urban QH consistent with the overall structure of Ho Chi Minh City

Urban Planning Solution for the new urban area on the overall structure of urban HCMC regardless of the interaction of location of the new urban,

transportation networks of urban framework, the new urban linkages with other functional areas in urban and soil conditions, geology of the city.

- Solutions for the new urban planning on the basis of interest to particular soil conditions of the city, namely: Contains adverse conditions, need strict control sanctuary zone of trees and urbanization control. Urban development solutions QH "focused clusters" should be concerned; The area has good soil conditions: Solution QH modeled "ecological belt" model combined with TOD should be interested in the structure of urban development along this corridor development.

3.3 Development of framework for assessing the sustainability of new urban area

Assessment Method: The thesis proposed assessment framework for new urban sustainability, specifically the 15 basic criteria: (1) location; (2) use of land; (3) Transportation; (4) Energy; (5) water supply infrastructure; (6) Sanitation; (7) Housing; (8) Urban Services meet the requirements of the community; (9) new urban attractiveness; (10) Vulnerability of the area; (11) Urban Security; (12) Construction Management Planning; (13) operational management and exploitation; (14) The satisfaction of the community and the community development activities copper; (15) The competitiveness of the new urban area.

Scale evaluation and analysis of results: (1) Determine the maximum score for each criterion (in scale: 0; 1; 2 points) from that evaluation score of each target group. (2) Allocation of points for the criteria specified for each criterion, a maximum of 10 points; (3) The framework of indicators to assess the sustainability of the new urban area through the criteria with a total score of 150; (4) Determine the scale corresponding to the attainment of the set of criteria and are divided into three levels as follows: <75

points: Not achieved sustainability levels; 75-100 points: Sustainable Urban reach stability; > 100: Urban achieve sustainable levels.

CHAPTER IV. DISCUSSION

4.1 Discuss SUD interest in the Partnership on the basis of criteria applicable system SUD

4.1.1 Application of criteria SUD system in Partnership

The criteria applied sustainable cities system in the planning process allows for continuous sustainability during urban planning. The combination of indicators in sustainable urban context should be considered as a supplement to the planning tool to predict the impact of urban development in the future.

4.1.2 Application of criteria SUD system analysis and evaluation of corridor of HCMC urban development, land use planning to propose adjustments.

- Regional development corridors in the South, Southeast carried out the sea. Specifically: Can Gio area, existing land use for housing and new development-oriented rural residential areas; Ensuring the welfare services to the community; Green buffer zone along the coast of Nha Be and Long Tau River, should be extended to avoid exploitation of new developments along the waterfront; Protecting water balance close to the area's natural building yet. Nha Be district area (urban area Hiep Phuoc): considering of reducing the scale for the development of industrial parks, new residential areas and increase open space, water, green space to maintain the winding corridors and increasing the area necessary for effective storm water management. Development of new urban solutions under "focused cluster" and the new development will require flood prevention measures clearly.

- Development west, southwest Corridor (part of the district Binh Chanh and Hoc Mon). Contains urbanization speed is very fast. Land-use planning development of industrial zones, new urban solutions proposed to the urban planning to increase open space area, surface water, lake water regulation, ... forming the winding corridors towards the southwest and conserve enough area for storm water management. Encourage and fund management mechanism agricultural land, orchards and forests are suitable for special use assessment of the regional situation.

- Development Corridor to the north, northwest associated with Cu Chi, Hoc Mon, northern region plays an important role in the management of storm water and urban climate. Land use planning in tune Urban Construction Planning 2020 is suitable for assessing the situation, should be implemented and strictly controlled, combined with ecological tourist corridor along the river, exploiting the value of landscapes and ecosystems naturally in the area. Northwest Area, 2020 land use zoning currently undeveloped land into industrial land and land with high building density. The recommended way to reduce the area of new development and increased open space is to maintain the winding corridors and increase the area available for effective storm water management. Development of new urban solutions modeled QH "ecological belt".

- To develop the Northeast including the District 2, 9 and Thu Duc, namely: Thu Duc District Area: The development of many urban residential areas spread, low density in low-lying areas to prevent Back to avoid new development in areas of high flood risk. Solutions should focus QH new urban development along the main transport corridors in the model with high density TOD, avoid spreading, dedicated open space, greenery and space fluid accumulation. The existing open areas should be protected from new development to save the country from the neighboring

residential area in Thu Duc district should be maintained. Area and part of District 2 District 9, land use zoning in 2020 to more than 80% of existing agricultural land into residential, industrial and infrastructure development. The new development in the low-lying areas should be limited to avoid the new development in flood plains of the Dong Nai River. Moreover, this open area is now playing an important role in water management and climate control for urban residential areas mixed with high density in District 1, 2 and Thu Duc. The new development strategy must be clear and comprehensive for all areas of water management and flooding.

4.2 Discuss the basic solutions to promote the sustainable development of new urban areas, aims to build the "Standards for new sustainable urban planning "

Basically, the standard build new urban planning, to comply with building codes, building codes Vietnam and encourage the adoption of high standards, advanced to improve the quality of the urban area projects. QH new urban standards towards sustainability must balance: Standard plan to ensure economic sustainability; Standard plan to ensure the sustainability of society; Planning standards to ensure environmental sustainability.

4.3. Assessing sustainability of An Phu An Khanh new urban area

- About the project: new urban An Phu - An Khanh of District 2, Ho Chi Minh City. Project Detail Planning 1/2000 approved by Decision No. 13764 / 11.15.1999 KTS.T.QH, with the scale of 131 ha.

- Assessing sustainability: Based on analysis of data from projects Detail Planning 1/2000, realistic assessment survey, gathering information from the survey of people living in the area, ... Applying the framework for assessing sustainability in the region.

- Evaluation results: Total score 69 points.
- Conclusion: APAK new urban area close to sustainable levels stable.

To towards sustainable development in the future, ensuring quality living environment for the community, this new urban area itself must overcome the limitations and the need for appropriate policy development, construction complete central area, found promote advocacy work involved in community building and urban development towards a more sustainable future.

CONCLUSIONS AND RECOMMENDATIONS

Conclude

1. Develop criteria SUD system and the new urban development in the overall structure of urban development in HCMC.

- SUD has become a target for global strategy, each country, each region and each municipality. SUD represents a way of thinking and solutions of urbanization in which urban building will be interpreted on the basis of maintaining an understanding of the economic, cultural and environmental protection, towards a common position on human targets, because of the quality of human life.

- SUD criteria are summarized and recommendations based on common attributes groups: Group attributes of healthy urban; Group attributes of urban attractiveness; Group attributes of urban security; Attribute group policy management. The system applied criteria for sustainable urban development in the planning process allows for continuous sustainability during urban planning.

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2. The formation of the new urban area to determine the orientation of the general urban structure, associated with the nature and function as well as the expected size for the new urban area. The scale should be driven by the new urban scale, limiting the new urban small-scale to ensure the development of urban areas with many features to meet the diverse needs of the urban population, towards the possibility of building SUD is a "closed", according to the motto "live - work - play". The minimum size of the new urban area is 50 ha.

Planning the development of new urban sustainable way to determine the basis of the formation and development and the specific directions for the development of urban areas. Develop guidelines and new urban planning solutions in a sustainable way.

3. Develop framework for assessing the level of a new urban sustainability research necessary and important as a basis for assessing the sustainability of new urban achieved. The results of the thesis framework criteria for assessing the sustainability of the new urban area based on 15 key criteria and recommendations apply to the assessment of new urban area in HCMC.

Recommendations

1. Based on the findings of the thesis, there should be further research to develop the specific normative standards for new urban development in general and in particular in HCMC. Gradually improved evaluation framework for new urban sustainability. Invest in the construction of the

legal basis, the criteria as a basis for the design planning, investment management and exploitation of new urban development.

2. Need to improve the quality of planning, system integration criteria during SUD Partnership.

3. Strengthen urban decentralization; Improve accountability and authority for investors in managing construction works in the network marketing as well as the proposed framework specific sanctions for investors do not comply with planning approval.

4. To promote the role and responsibilities of community ownership, the new urban people. To promote the dissemination; mobilizing community participation in sustainable social, community awareness to the roles and responsibilities involved in the development and urban management is reflected from the daily life of every individual, every community urban.

5. The city government should have appropriate mechanisms to attract investment for the construction of public services such as schools, health care, culture, community, parks, sport centers, special ... policy development in the audience interested in low-income housing construction in the new urban society. Specifically, it would improve the accountability and the role of investors in the construction of new urban items on.

6. The government should accelerate the improvement of investment transport network framework and the associated infrastructure in urban master, facilitating the formation of new urban as well as promoting the new urban development has formed soon. Contribute to reduce overcrowding in existing urban and gradually improve the quality of the urban environment in the urban area.