

**MINISTRY OF EDUCATION AND
TRAINING
ACADEMY OF JOURNALISM AND COMMUNICATION**

**HO CHI MINH NATIONAL
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**HUMAN RESOURCE DEVELOPMENT FOR CLIMATE-RESILIENT
SUSTAINABLE DEVELOPMENT IN
CAN THO CITY TODAY**

**Major : Philosophy
Code : 9229001**

**SUMMARY OF THE DOCTORAL DISSERTATION IN
PHILOSOPHY**

Hanoi, 2026

**The dissertation was completed at the Academy of Journalism and
Communication**

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**The dissertation is available at the National Library of Viet Nam
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INTRODUCTION

1. Rationale for the Study

Sustainable development is a goal and a driving force, as well as a major requirement and task, in Viet Nam's current process of socialist-oriented national development. To achieve this goal successfully, the 14th National Congress of the Communist Party of Viet Nam affirmed the need to “remove bottlenecks and mobilize and use all resources effectively,” with human resource development being of foremost importance, thereby “creating a breakthrough in human resources, particularly high-quality human resources.” Human resources are a particularly important factor directly involved in realizing socioeconomic development goals. They determine how effectively the value and strength of other resources are harnessed and brought into play, and thus shape the effectiveness and quality of the country's rapid and sustainable development process.

Present-day Can Tho City (which now incorporates the former provinces of Hau Giang and Soc Trang) possesses a strong position and considerable potential for socioeconomic development. It has consistently been identified as a regional center and a major growth engine in the development of the Mekong Delta. In recent years, Can Tho has made substantial efforts to mobilize resources for economic development, recorded noteworthy achievements, and emerged as a bright spot in the region's socioeconomic development. Nevertheless, the City's socioeconomic development has not yet been sufficiently rapid or effective to match its potential, position, and leading regional role; in particular, this development remains insufficiently sustainable. One major reason is that the City has not effectively brought the role and strength of its human resources into full play. Moreover, under the impact of climate change, saltwater intrusion, drought, landslides, and erosion have become increasingly complex in recent years, adversely affecting the City's rate of socioeconomic development. Can Tho City must therefore urgently adopt measures to harness and maximize all resources,

especially by developing human resources and fully utilizing their role and strength. This is essential to promote and generate major breakthroughs in socioeconomic development while ensuring the sustainability of that process and responding effectively to the adverse impacts of climate change.

Recognizing this issue, the Party Committees and People's Committees in the area of present-day Can Tho City (including the former provinces of Hau Giang and Soc Trang) have, over many years, promulgated and directed the implementation of numerous important guidelines and policies on education, training, capacity building, and human resource development. These measures seek to meet the requirements for realizing socioeconomic development goals rapidly and sustainably while strengthening climate resilience. Despite the achievements recorded, human resource development in the City has continued to reveal limitations. Before the administrative merger, Soc Trang Province, Hau Giang Province, and Can Tho City had promulgated policies to support training and professional development and to attract, utilize, and remunerate human resources. However, limitations and inadequacies in implementation prevented these policies from delivering the expected results in developing human resources for the City's rapid and sustainable development. Conditions and opportunities that support and encourage workers to pursue further education and improve their qualifications remain limited. Salaries, income-support measures, rewards, and remuneration are not sufficiently satisfactory to motivate effort, creativity, dedication, or the full use of workers' capabilities, aptitudes, and strengths. Working conditions and remuneration are also not attractive enough to recruit and retain highly qualified, high-quality human resources. A considerable number of bachelor's, master's, and doctoral degree holders, as well as other well-qualified professionals, have sought transfers to other provinces after working in the City for some time.

This situation creates a practical imperative to devote greater attention to human resource development for climate-resilient sustainable development in Can Tho City today. It is for this reason that the author selected “Human Resource

Development for Climate-Resilient Sustainable Development in Can Tho City Today” as the topic of this doctoral dissertation in Philosophy.

2. Research Aim and Tasks

2.1. Research aim

On the basis of clarifying selected theoretical issues and assessing the current state of human resource development for climate-resilient sustainable development in Can Tho City, the dissertation proposes key solutions to improve the effectiveness of human resource development in meeting the City's climate-resilient sustainable development requirements in the years ahead.

2.2. Research tasks

- To review representative studies of scholarly value that are relevant to the dissertation, thereby identifying issues that require further investigation and clarification.

- To clarify selected theoretical issues concerning human resource development for climate-resilient sustainable development, with particular emphasis on explaining its role and the factors affecting human resource development for climate-resilient sustainable development in Can Tho City today.

- To analyze the current situation, its causes, and the issues arising in human resource development in response to the requirements of climate-resilient sustainable development in present-day Can Tho City (comprising the former Can Tho City and the former provinces of Hau Giang and Soc Trang).

- To propose guiding viewpoints and key solutions for developing human resources to meet the requirements of climate-resilient sustainable development in Can Tho City in the coming period, initially through 2030, with a vision to 2045.

3. Research Object and Scope

3.1. Research object

The dissertation examines human resource development for climate-resilient sustainable development.

3.2. Research scope

3.2.1. Scope of content

The dissertation comprehensively investigates human resource development for climate-resilient sustainable development in Can Tho City, encompassing the actors, content, and methods involved.

3.2.2. Geographical scope

The research and survey were conducted within the post-merger administrative boundaries of Can Tho City, which comprise the former Can Tho City, Hau Giang Province, and Soc Trang Province.

3.2.3. Temporal scope

The dissertation focuses on the state of human resource development for sustainable development during 2017–2025, when the localities now constituting Can Tho City were strongly affected by climate change. On that basis, it proposes solutions for human resource development in support of climate-resilient sustainable development in Can Tho City in the years ahead, initially through 2030, with a vision to 2045.

4. Theoretical Foundations and Research Methods

4.1. Theoretical foundations

The dissertation is grounded in Marxism-Leninism, Ho Chi Minh Thought, and the viewpoints and lines of the Communist Party of Viet Nam; the policies and laws of the State; and the policies of Can Tho City. It also draws on the scholarly value of research relevant to the topic.

4.2. Research methods

- The dissertation employs research methods associated with dialectical materialism and historical materialism, including:

+ *Historical and logical method*: This method is used to analyze and clarify theoretical issues concerning human resource development for climate-resilient sustainable development in Can Tho City.

+ *Methods of analysis and synthesis*: These methods are used to explain and clarify the concepts, actors, content, and methods of human resource development for climate-resilient sustainable development in Can Tho City; synthesize and interpret data relating to the current situation; and analyze solutions for improving the effectiveness of such human resource development.

+ *Methods of generalization and abstraction*: These methods are used to analyze and explain various aspects of the dissertation by selecting and generalizing fundamental and essential issues, excluding isolated, incidental, and non-essential matters, and thereby identifying the nature of the research problem.

- The dissertation also combines methods from other disciplines, including *statistical analysis, synthesis of questionnaire data, and secondary data analysis*. These methods are used primarily in Chapters 1 and 3 to review research relevant to the topic and assess the current state of human resource development for climate-resilient sustainable development in Can Tho City.

5. Scientific Contributions of the Dissertation

- The dissertation further clarifies selected theoretical issues concerning human resource development for climate-resilient sustainable development. In particular, it demonstrates the necessity of such development and identifies the factors affecting its effectiveness in Can Tho City.

- The dissertation identifies the current situation, its causes, and the issues arising in human resource development in response to the requirements of climate-resilient sustainable development in Can Tho City. On that basis, it proposes key solutions for improving the effectiveness of human resource development in the years ahead.

6. Theoretical and Practical Significance of the Dissertation

- *Theoretical significance*: The dissertation contributes to extending and clarifying selected theoretical issues concerning human resource development, the necessity of developing human resources for climate-resilient sustainable development in Can Tho City, and the factors affecting the effectiveness of such

development. It also suggests solutions for improving human resource development in response to the City's climate-resilient sustainable development requirements.

- *Practical significance:* The dissertation may serve as a reference for teaching and research at the Can Tho City School of Politics and other educational institutions in Viet Nam. It may also provide competent authorities with additional theoretical and practical grounds for formulating, supplementing, and refining guidelines and policies on human resource development in response to the climate-resilient sustainable development requirements of Can Tho City and other localities across the country, thereby enhancing the appropriateness and effectiveness of these policies.

7. Structure of the Dissertation

In addition to the Introduction, Conclusion, and References, the dissertation comprises four chapters divided into thirteen sections.

Chapter 1

OVERVIEW OF RESEARCH RELATED TO THE DISSERTATION TOPIC

1.1. Overview of Research on Theoretical Issues in Human Resource Development for Climate-Resilient Sustainable Development

The dissertation reviews a range of domestic and international studies, including books, research projects, dissertations, and journal articles, that make scholarly contributions to theoretical issues in human resource development for climate-resilient sustainable development.

1.2. Overview of Research on the Current State of Human Resource Development for Climate-Resilient Sustainable Development

The dissertation reviews domestic and international studies, including books, journal articles, dissertations, research projects, and reports, that offer scholarly insights into the current state of human resource development for sustainable development in general and for climate change adaptation in particular, as well as the causes of that situation.

1.3. Overview of Research on Solutions for Human Resource Development for Climate-Resilient Sustainable Development

The dissertation reviews domestic and international studies, including books, journal articles, dissertations, research projects, and reports, that provide scholarly insights into viewpoints and solutions concerning human resource development for sustainable development and climate change adaptation in Viet Nam generally and in selected localities specifically.

1.4. Value of the Reviewed Studies and Issues Requiring Further Research

1.4.1. Value of the reviewed studies

First, domestic and international studies provide a relatively rich theoretical foundation concerning human resources, human resource development, high-

quality and green human resources, human capital, adaptive capacity, and the role of human resources in sustainable development and climate change adaptation.

Second, these studies analyze multiple dimensions of the human resource situation in Viet Nam and in selected countries and localities worldwide. They focus on workforce size, quality, structure, professional qualifications, vocational and digital skills, adaptive capacity, and limitations in the training, utilization, and distribution of human resources.

Third, the studies propose viewpoints, directions, and solutions of considerable reference value, particularly reforms in education and training, green-skills development, enhanced adaptive capacity, improved institutions and policies, science and technology development, social resource mobilization, and stronger international cooperation in human resource development.

Nevertheless, few in-depth studies have examined human resource development for climate-resilient sustainable development, particularly in Can Tho City. Previous studies have not fully clarified the distinctive features of human resources in a regional center of the Mekong Delta, nor have they examined in depth the relationship between human resource development and sustainable development, growth-model transformation, climate change adaptation, and regional linkage requirements. This constitutes the research gap that the dissertation addresses.

1.4.2. Issues requiring further research

The literature review shows that few in-depth studies have investigated human resource development in support of climate-resilient sustainable development. In particular, no study has specifically examined this issue in present-day Can Tho City. The dissertation therefore focuses on this subject, with particular attention to the following matters:

First, it explains theoretical issues concerning human resource development for climate-resilient sustainable development in Can Tho City. It clarifies the concepts of human resources, sustainable development, and climate change; the

role of human resource development in climate-resilient sustainable development; the relevant content; and the principal factors affecting the effectiveness of human resource development for this purpose in Can Tho City.

Second, it analyzes the current state and principal causes of human resource development in response to the requirements of climate-resilient sustainable development in Can Tho City, including the former provinces of Soc Trang and Hau Giang, in recent years.

Third, it proposes key solutions for improving the effectiveness of human resource development for climate-resilient sustainable development in Can Tho City today and in the years ahead.

Chapter 2

HUMAN RESOURCE DEVELOPMENT FOR CLIMATE-RESILIENT SUSTAINABLE DEVELOPMENT IN CAN THO CITY – SELECTED THEORETICAL ISSUES

2.1. Selected Basic Concepts

2.1.1. *Human resources*

2.1.1.1. *Conceptions of human resources*

In recent years, the concept of human resources has been approached and defined from various perspectives and disciplinary fields. Drawing on existing scholarship, *human resources* may be understood as *human potential: the entire workforce of an organization, locality, or country, encompassing the physical, intellectual, and psychological capacities of individuals who participate in material production and create wealth for society, thereby exerting a strong influence on the operation, transformation, and development of organizations, localities, and nations.*

2.1.1.2. *Components of human resources*

Human resources encompass the size, quality, and structure of the workforce participating in social production. Of these components, human resource quality is the most important because it decisively shapes the socioeconomic development of a country or locality.

Human resource quantity refers to the total number of workers capable of participating in the labor process of an organization, locality, or country.

Human resource quality comprises the physical, intellectual, and psychological capacities of workers mobilized in the process of material production.

Human resource structure refers to the distribution of human resources across occupations, sectors, divisions, and geographical areas according to such criteria as qualifications, sex, age, and professional specialization.

2.1.2. Climate-resilient sustainable development

2.1.2.1. Conceptions of sustainable development

Sustainable development is a broad concept that concerns many spheres of social life. Its conceptual scope has continued to expand across different historical periods. On the basis of domestic and international scholarship, *sustainable development may be understood as a process of comprehensive, balanced, and harmonious development across all spheres of social life. It closely integrates high and stable economic growth with the effective resolution of social issues and the protection of the ecological environment, increasingly satisfies the material and spiritual needs of the present generation, and does not compromise the growth and social development of future generations.*

Sustainable development encompasses such major dimensions as *economic sustainability, social sustainability, environmental sustainability, and cultural sustainability.*

2.1.2.2. Conceptions of climate-resilient sustainable development

Climate-resilient sustainable development is a process in which social actors proactively adapt and respond flexibly, strengthen resilience, minimize losses and damage caused by the adverse impacts of climate change, and harness opportunities arising from climate change throughout the socioeconomic development process. It sustains high economic growth while effectively addressing social issues; protecting the ecological environment and natural resources; progressively meeting the material and spiritual needs of the present generation; and safeguarding the interests of future generations.

2.1.3. The concept of human resources for climate-resilient sustainable development

The concept of *human resources for climate-resilient sustainable development* may be understood as *the entire workforce of an organization, locality, or country and the combined physical, intellectual, and psychological capacities that enable it to meet the requirements of social production. Such human resources*

promote sustainable socioeconomic development characterized by sustained high economic growth, effective resolution of social issues, protection of the ecological environment, and conservation of natural resources. They also proactively adapt and respond flexibly and effectively to climate change, minimize losses and damage arising from its adverse impacts, and make effective use of the opportunities it creates throughout the socioeconomic development process without imposing adverse consequences on future generations.

2.2. Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City: Concept, Actors, Content, and Methods

2.2.1. The concept of human resource development for climate-resilient sustainable development in Can Tho City today

On the basis of the Party's guidelines, particularly Government Resolution No. 120/NQ-CP (2017) on the climate-resilient sustainable development of the Mekong Delta, the dissertation defines *human resource development for climate-resilient sustainable development in Can Tho City as a process in which relevant actors provide orientation and organize the training, planning, placement, allocation, and utilization of adequately qualified and competent human resources participating in social production. This process seeks to ensure stable, long-term economic growth that combines economic advancement with social equity and ecological protection, while strengthening the capacity to adapt and respond proactively and flexibly to all impacts of climate change.*

2.2.2. Actors in human resource development for climate-resilient sustainable development in Can Tho City

2.2.2.1. Leadership and management actors

The leadership and management actors involved in human resource development for climate-resilient sustainable development in Can Tho City include the Communist Party of Viet Nam and the State, particularly the ministries, commissions, and sectors that directly lead and direct human resource development; the Can Tho City Party Committee and municipal government,

which directly manage, direct, and supervise implementation; and the Viet Nam Fatherland Front and socio-political organizations.

2.2.2.2. Enterprises

Enterprises operating in Can Tho City directly benefit from human resource development for climate-resilient sustainable development. At the same time, they are stakeholders willing to cooperate and coordinate in implementing human resource development policies.

2.2.2.3. Residential communities, families, and workers themselves

Residential communities and families play an important role in education and awareness-raising and in encouraging individuals to pursue further education and improve their qualifications and capacities in support of climate-resilient sustainable development in Can Tho City.

2.2.3. Content of human resource development for climate-resilient sustainable development in Can Tho City

First, ensuring a sufficient quantity of human resources for climate-resilient sustainable development.

Second, ensuring the quality of human resources for climate-resilient sustainable development.

Third, ensuring a rational and balanced structure of human resources for climate-resilient sustainable development.

2.2.4. Methods of human resource development for climate-resilient sustainable development in Can Tho City

Through the Party's leadership and orientation and the management and administration of the State and local government in human resource development.

Through proactive, active, voluntary coordination among local departments, sectors, agencies, and units in human resource development.

Through the role of organizations, education and training institutions, enterprises, and the wider community.

2.3. Importance of Human Resource Development in Meeting the Requirements of Climate-Resilient Sustainable Development in Can Tho City Today

Human resources directly implement the content, requirements, tasks, and goals of the locality's climate-resilient sustainable development.

Human resources determine the effectiveness with which other resources are harnessed, utilized, and brought into play in pursuit of the locality's climate-resilient sustainable development goals.

Human resources are a distinctive, long-term resource that determines the capacity to sustain development and respond effectively to climate change.

2.4. Factors Affecting the Effectiveness of Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City

The orientation and direction of the Party and the State, together with consensus, coordinated action, and determination on the part of local government in human resource development.

Local natural conditions, the level of socioeconomic development, and local cultural characteristics and traditions.

The effectiveness of education, training, professional development, utilization, and remuneration of human resources.

Workers' initiative, active participation, and self-discipline.

The effectiveness of international integration and interregional cooperation and the level of scientific and technological development.

Chapter 3

HUMAN RESOURCE DEVELOPMENT FOR CLIMATE-RESILIENT SUSTAINABLE DEVELOPMENT IN CAN THO CITY TODAY: CURRENT SITUATION AND CAUSES

3.1. Overview of the Natural, Socioeconomic, and Cultural Conditions Affecting the Current Situation and Requirements of Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City Today

The dissertation outlines the City's natural and socioeconomic conditions, population, workforce, training system, institutions, and other relevant features. On that basis, it assesses the opportunities and challenges associated with human resource development for climate-resilient sustainable development in Can Tho City today.

3.2. Current State and Causes of Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City Today

3.2.1. Current state of human resource development for climate-resilient sustainable development in Can Tho City today

3.2.1.1. Current state of the actors involved in human resource development

First: Actors' awareness of the decisive role of human resources in climate-resilient sustainable development in Can Tho City

Awareness of the role of human resources is an important prerequisite for policy formulation and the implementation of climate-resilient sustainable development measures. Survey findings show that the relevant actors in Can Tho City generally have a relatively clear understanding of the decisive role of human resources in the new development context. Nevertheless, certain disparities and differences in awareness remain among these actors.

Second: Actors' awareness of the need to develop human resources capable of adapting to climate change in Can Tho City

The survey findings support the following conclusions. *First*, the actors broadly agree on the decisive role of human resources and the need to develop them for climate-resilient sustainable development. *Second*, the political system, particularly local government, has shown a degree of commitment to orienting and coordinating the development of climate-adaptive human resources. Despite these positive aspects, the level of attention and proactive participation among workers and communities remains lower and less consistent than among actors within the political system. Of particular concern is the substantial gap between actors' awareness and their practical implementation of human resource development policies for climate-resilient sustainable development across the localities now constituting Can Tho City.

3.2.1.2. Current state of the content of human resource development for climate-resilient sustainable development in Can Tho City today

First, the current state of human resource development in quantitative terms

The relatively large population and workforce provide an important foundation for human resource development. The high proportion of employed workers reflects the economy's relatively strong capacity to absorb labor, while the post-pandemic recovery of the workforce has helped stabilize the labor market. Nevertheless, the quantity of human resources does not yet fully meet the requirements of climate-resilient sustainable development. The distribution of labor between the urban center and outlying localities remains unbalanced; demographic and workforce changes vary across localities; and labor migration, particularly among young workers, adversely affects the stability and quality of human resources.

Second, the current state of human resource development in qualitative terms

The workforce's physical condition is maintained at a fairly good level, and its basic intellectual foundation is relatively sound. The professional qualifications, scientific and technological competence, and capacity to acquire new knowledge of

part of the workforce have gradually improved. Young workers are increasingly able to access new technologies, innovate, and adapt rapidly to new development requirements. The workforce also exhibits emerging strengths in psychological and attitudinal qualities, and workers have accumulated some experience in adapting to extreme climate impacts.

Despite these achievements, human resource quality continues to display several limitations. The proportion of workers with formal qualifications or certificates remains low. Human resource quality does not adequately meet the requirements of green growth, the circular economy, and digital transformation. Technical and professional qualifications remain below the level required for development, while knowledge and skills relating to the environment and climate change are insufficient. The potential of young workers has not been fully realized on a broad scale. Professionalism, labor discipline, and the capacity to participate in modern value chains remain limited. Overall adaptive capacity is only moderately good, rather than strong, and is uneven. Workers' direct capacity to adapt to climate change is also limited and relies primarily on experience rather than systematic skills and scientific knowledge.

Third, the current state of human resource structure and distribution

The human resource structure has begun to shift away from agriculture toward industry and services, consistent with Can Tho City's role as a regional center. Geographical differentiation in human resource structure reflects the comparative advantages of each area and may facilitate workforce supplementation, allocation, and coordination when required to adapt to development demands in the context of climate change. Diversity in the workforce by sex and employment category also enables a wide range of groups to participate in development and in responding to the impacts of climate change.

Despite these achievements, the City's human resource structure and distribution continue to exhibit several limitations. The proportion of agricultural labor remains high and is not aligned with the requirements of a knowledge

economy and climate-resilient sustainable development. Labor distribution between urban and rural areas remains unbalanced, while pronounced disparities in human resource structure persist among localities.

3.2.1.3. Current state of the methods of human resource development for climate-resilient sustainable development in Can Tho City today

(1) Current state of policies, training, and coordination mechanisms in human resource development for climate-resilient sustainable development in Can Tho City today

First, a relatively comprehensive policy system has been established, covering many aspects of human resource development; however, implementation effectiveness varies across target groups and sectors. *Second*, coordination mechanisms among actors have been established but remain insufficiently robust and systemically integrated, and have not generated the necessary combined strength. *Third*, a clear gap persists between training content and practical needs, particularly in fields directly related to climate change adaptation.

(2) Current state of efforts to promote the role of the Viet Nam Fatherland Front and socio-political organizations in human resource development

The participation of the Viet Nam Fatherland Front and socio-political organizations in human resource development for climate-resilient sustainable development in Can Tho City has shown initial progress, particularly in communication, public mobilization, training, and community networking. However, their role remains largely supportive; they have yet to participate substantively in policymaking, social critique, oversight, and policy co-creation. Coordination mechanisms remain unstable, and awareness among socio-political organizations is lower than among certain other groups of actors.

(3) Current state of coordinated action among actors in human resource development

Coordinated action among actors in human resource development for climate-resilient sustainable development in Can Tho City has shown initial

progress, as reflected in the increasingly visible coordinating role of government. Nevertheless, such coordination lacks depth and has not been institutionalized as a stable, long-term mechanism. It remains issue-specific, lacks a focal actor for intersectoral coordination, and does not effectively harness the role of enterprises and communities. Coordination gaps also persist among the post-merger localities.

3.2.2. Causes of the Current State of Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City Today

3.2.2.1. Causes of the achievements

First, heightened political awareness and awareness of development imperatives have provided an important foundation and orientation.

Second, an institutional and policy foundation has gradually been established, providing an operational framework for human resource development.

Third, the development of education and training, healthcare, and social security systems has provided a foundation for improving human resource quality.

Fourth, the advantages associated with the City's regional-center status and its network of education and research institutions have stimulated the development of high-quality human resources.

Fifth, positive interaction among awareness, institutions, and human resource quality has generated synergistic effects.

3.2.2.2. Causes of the limitations and inadequacies

First, institutions and policies are not fully coherent and have yet to exercise their guiding role effectively.

Second, human resource training and development are not closely aligned with practical needs and the specific requirements of climate adaptation.

Third, coordination mechanisms among relevant actors remain weak and insufficiently systematic.

Fourth, shortages and the uneven distribution of high-quality human resources remain a fundamental bottleneck.

Fifth, labor migration diminishes internal resources and undermines the sustainability of the local human resource system.

Sixth, resources invested in human resource development remain limited and do not meet the requirements of development-model transformation.

Seventh, healthcare services and the conditions necessary to ensure the workforce's physical well-being remain unevenly distributed.

3.3. Issues Arising in Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City Today

- First, a contradiction exists between the need to strengthen leadership and management capacity, improve institutions, and mobilize the combined strength of relevant actors and resources, on the one hand, and the lack of coherence and effectiveness in implementation, coordination, linkage, and resource allocation, on the other.

- Second, a contradiction exists between the need to strengthen actors' awareness, responsibility, and initiative and the unevenness of awareness and persistent gap between awareness and practical action.

- Third, a contradiction exists between the need to rapidly develop a high-quality green workforce with an appropriate structure and proactive climate-adaptation capacity and the continuing limitations and unevenness in human resource quality, structure, distribution, and adaptive capacity.

- Fourth, a contradiction exists between the need to accelerate the application of science and technology, innovation, and digital transformation and the workforce's still-inadequate capacity to access, absorb, master, and apply technology.

Chapter 4

VIEWPOINTS AND KEY SOLUTIONS FOR HUMAN RESOURCE DEVELOPMENT TO MEET THE REQUIREMENTS OF CLIMATE-RESILIENT SUSTAINABLE DEVELOPMENT IN CAN THO CITY THROUGH 2030, WITH A VISION TO 2045

4.1. Viewpoints on Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City

First, human resource development for climate-resilient sustainable development must be aligned with the Party's guidelines and lines and with local development orientations.

Second, human resource development must consistently place people at the center and regard them as both the agents and the ultimate goal of sustainable development.

Third, human resource development must be grounded in systemic, interdisciplinary, and interregional thinking.

Fourth, the development of climate-adaptive human resources must be linked to growth-model transformation and green economic development.

Fifth, human resource development must reflect Can Tho City's distinctive ecological, economic, and sociocultural characteristics.

4.2. Key Solutions for Improving the Effectiveness of Human Resource Development for Climate-Resilient Sustainable Development in Can Tho City

4.2.1. Improving mechanisms, policies, and the enabling environment for human resource development for climate-resilient sustainable development in Can Tho City

Refine the human resource development policy system in alignment with the City's sustainable development orientation.

Establish mechanisms to attract, utilize, and develop high-quality human resources.

Create a favorable social environment for the development and effective utilization of human resources.

4.2.2. Strengthening local-government leadership and management and improving the implementation of human resource development policies for climate-resilient sustainable development in Can Tho City

Strengthen the leadership role of Party committees and improve the effectiveness of local-government management in human resource development.

Improve the implementation and oversight of human resource development policies.

4.2.3. Raising awareness and renewing the thinking of actors involved in human resource development for climate-resilient sustainable development in Can Tho City

Raise awareness among leaders and managers of the role of human resources in climate-resilient sustainable development.

Raise society-wide awareness of the role of human resources in climate-resilient sustainable development.

Renew thinking and approaches in the development of climate-adaptive human resources.

4.2.4. Fundamentally and comprehensively reforming education and training and developing climate-adaptation skills to improve human resource quality for climate-resilient sustainable development in Can Tho City

Reform the objectives and content of education and training in line with the requirements of sustainable development and climate change adaptation.

Develop vocational training, retraining, and continuing professional development systems to strengthen the workforce's adaptive skills.

Strengthen collaboration among educational institutions, enterprises, and local government in human resource development.

4.2.5. Restructuring and developing human resources in association with economic restructuring toward climate-resilient sustainable development in Can Tho City

Adjust the human resource structure in line with Can Tho City's economic development orientation.

Develop high-quality human resources in key economic sectors and industries that play an important role in climate change adaptation.

4.2.6. Accelerating the application of science and technology, innovation, and digital transformation in human resource development for climate-resilient sustainable development in Can Tho City

Develop scientific and technological capabilities, digital skills, and innovative thinking across the workforce.

Expand the application of science and technology and digital transformation in education, training, professional development, and human resource development.

Build an innovation and digital transformation ecosystem for the management and utilization of human resources.

4.2.7. Strengthening cooperation, linkages, and the mobilization of social resources for human resource development for climate-resilient sustainable development in Can Tho City

Strengthen linkages between education and training institutions and enterprises in human resource development.

Expand cooperation in training, scientific research, and knowledge transfer with domestic and international partners.

Mobilize and use social resources effectively for human resource development.

CONCLUSION

Climate change has become a major challenge to the sustainable development of Viet Nam generally and the Mekong Delta specifically, as reflected in sea-level rise, saltwater intrusion, erosion, and increasingly unpredictable changes in the natural environment. Against this background, developing high-quality human resources with the capacity to adapt to climate change is essential to ensuring sustainable socioeconomic development. This task is particularly important for Can Tho City, the Mekong Delta's economic, cultural, scientific and technological, and education and training center.

The dissertation investigates the theoretical and practical dimensions of human resource development for climate-resilient sustainable development in Can Tho City. Theoretically, it systematizes and clarifies the basic concepts associated with human resource development for climate-resilient sustainable development. It also identifies the actors, content, methods, and importance of developing human resources for climate change adaptation in Can Tho City. This theoretical framework provides a foundation for assessing the current situation and proposing solutions.

In practical terms, the dissertation analyzes Can Tho City's human resources and the City's human resource development process in recent years. The findings show that human resources have improved to a certain extent in both size and quality and that relevant actors have contributed positively to socioeconomic development. However, given the requirements of sustainable development and climate change adaptation, human resources continue to exhibit limitations: uneven quality; a labor structure that is not aligned with economic restructuring; limited scientific and technological capacity and adaptive skills among part of the workforce; inadequate overall adaptive capacity; and insufficient coordination among relevant actors. The dissertation also identifies the principal causes of these limitations, providing a basis for appropriate solutions. It then proposes an integrated set of solutions for developing human resources for climate-resilient sustainable development in Can Tho City.

In terms of its contributions, the dissertation helps clarify the meaning of human resource development under the conditions of climate-resilient sustainable development and extends the study of human resources to the context of climate change. Its findings may serve as a reference for research, teaching, and policymaking. In practical terms, the proposed solutions may support Can Tho City and comparable localities in improving human resource quality, advancing sustainable development, and strengthening climate resilience. Despite limitations in the scope of the survey, the dissertation affirms that developing climate-adaptive human resources is a strategic task for Can Tho City's long-term development.

**LIST OF THE AUTHOR'S SCIENTIFIC PUBLICATIONS
RELATED TO THE DISSERTATION TOPIC**

1. Nguyen Thanh Tam (2026), “Selected Solutions for Developing Human Resources in Agricultural Cooperatives in Can Tho City,” *State Management Review Online*, February 12, 2026.
2. Nguyen Thanh Tam (2026), “Human Resources for the Sustainable Development of Can Tho City,” *State Management Review Online*, April 14, 2026.
3. Nguyen Thanh Tam (2026), “Human Resource Quality in Can Tho City after the Administrative Merger,” *State Management Review Online*, May 18, 2026.