



# **Human resource management and development of government officer 4.0: A case study of the department of disaster prevention and mitigation**

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## **Abstract**

This research article is a part of the research project “the guidelines for organizational development and human resource development to become DDPM 4.0”. The objective of this article was to study and formulate the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan in alignment with the context of human resource management and development to drive the Department of Disaster Prevention and Mitigation towards Government 4.0 or DDPM 4.0. The qualitative research was employed by exploring, collecting, and analyzing related documents, official correspondence, related researches, etc. Data were also collected and analyzed from interviews, focus groups, seminars, workshops of government officials, and staff members in the operational sections of the Department of Disaster Prevention and Mitigation, as well as survey research by distributing questionnaires to the Provincial Disaster Prevention and Mitigation Offices to acknowledge opinions of agencies operating at the local level. The findings led to the preparation of the HR DDPM 4.0 Development Plan and the HR DDPM 4.0 Action Plan. The developed plan consists of 3 strategic issues, namely Strategic Issue 1: Recruitment and Selection of Government Officer 4.0; Strategic Issue 2: Human resource enhancement to the capability to drive DDPM 4.0; and Strategy Issue 3: Improvement of the quality of life in DDPM 4.0. It is a guideline for organizational development and human resource development to become DDPM 4.0 that is consistent with the context of the organization, the framework of the 20-year National Strategy, Thailand 4.0, and Government 4.0 and consistent with the principles of strategic human resource management which connects people to their organizations.

**Keywords:** Government officer 4.0, human resource management, human resource development

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## **1. Introduction**

The government push for the Thailand 4.0 policy by Prime Minister General Prayut Chan-o-cha requires all relevant sectors to understand and create a goal of becoming Thailand 4.0, Organization 4.0, including the Department of Disaster Prevention and Mitigation. The departmental agency under the Ministry of Interior has a mission to carry out the country’s disaster prevention and mitigation. Now that natural disasters are becoming more serious and frequent, coupled with changes and twists in the digital disruptive world, organizations need to adapt to changes and make full use of technology and create the effectiveness of the organization’s mission.

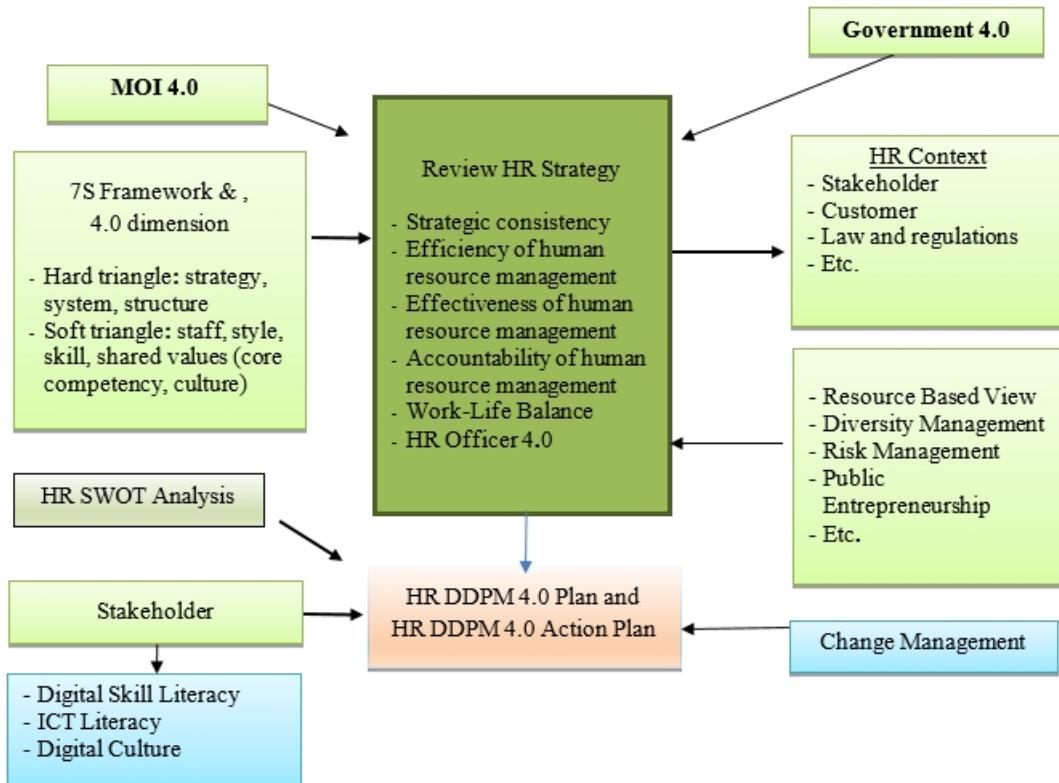
However, when the administrative contexts change over time, the organization can no longer be in a position to control the environment, as well as the adoption of the Thailand 4.0 policy. All agencies in the

bureaucratic system, therefore, must make the proper adjustments to drive Thailand 4.0 successfully. The Department of Disaster Prevention and Mitigation is one agency that cannot escape adaptation in such environments, especially human resource management, which is the main mechanism for driving the organization to achieve its goals. It is consequently necessary to make adjustments by moving toward Organization 4.0 or Government 4.0.

This research article is a part of the research project “the guidelines for organizational development and human resource development to become DDPM 4.0”. One of the objectives of the research is to study and formulate the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan in alignment with the context of human resource management and development to drive the Department of Disaster Prevention and Mitigation towards Government 4.0 or DDPM 4.0.

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**Figure 1:** Conceptual Framework.

## 2. Research Objectives

To study and formulate the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan in alignment with the context of human resource management and development to drive the Department of Disaster Prevention and Mitigation towards Government 4.0 or DDPM 4.0.

## 3. Conceptual Framework

The conceptual framework is formed by studying, collecting, and analyzing based on strategy and policy at various levels, such as the 20-year National Strategy, Government Policy, MOI Strategy 4.0, Thailand 4.0, Government 4.0, related academic knowledge, etc. and the analysis of the DDPM Positioning until leading to the formulation of the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan, a guideline for the development to HR DDPM 4.0 as shown in figure 1.

## 4. Research Methods

**4.1 Scope of Research:** The qualitative research was employed by exploring information related to the establishment of the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan, and the scope of the research is as follows:

1. Scope of content: Various documents related to the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan based on strategic reviews at various levels, such as the 20-year National Strategy, Government Policy, MOI Strategy 4.0, Thailand 4.0, Government 4.0, and SWOT Analysis, were studied, collected, and analyzed. Then, the information was combined with the interview, workshop, and brainstorm data from all sectors prepared as the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan.

2. The scope of population: The population is divided into three groups: Group 1—personnel involved in the formulation of HR DDPM 4.0 plans and implementation of DDPM 4.0; Group 2—personnel working in area-level operations agencies and not participating in Group 1; and Group 3—groups of representatives from various organizations related to driving DDPM 4.0, both from the public sector, the private sector, civil society, etc.

3. The scope of areas and time: The operational areas consisted of Bangkok, the Chonburi Province and the Surat Thani Province. In terms of

**Table 1.** The details of HR DDPM 4.0 plan and the HR DDPM 4.0 action plan.

Strategic Issue	Strategic	Indicator	Project
<b>Strategic Issue 1: Recruitment and Selection of Government Officer 4.0</b> The goal is HR DDPM 4.0 develops human resources and network partners to be DDPM 4.0 to increase organizational efficiency, effectiveness and achievement.	<b>Strategic 1.1 Recruitment and Selection of Government Officer 4.0</b> Development guidelines 1) Review of the criteria for determining the manpower rate framework to be consistent with the mission to prevent / reduce / various disasters 2) Preparation of recruitment and selection guidelines to acquire personnel with knowledge, skills and attitudes in accordance with disaster management operations on the basis of the job competency	1. Number of newly accepted personnel who are qualified as required Government Officer 4.0 2. Number of new personnel trained	1. Young Smart DDPM 4.0 project 2. Join Team DDPM 4.0 project
<b>Strategic Issue 2: Human resource enhancement to the capability to drive DDPM 4.0</b> The goals are • There is a 4.0 human resource management system capable of recruiting, developing and maintaining personnel to have knowledge, skills, and ability to drive DDPM 4.0. • Personnel have high knowledge, skills, and expertise in being a leader in disaster management.	<b>Strategic 2.1 Raise the level of personnel to high capabilities, DDPM 4.0</b> Development Guidelines 1) Developing a system for enhancing knowledge, skills, and expertise of personnel to become DDPM 4.0 people, including job position competency system, knowledge management system, and learning organization 2) Review and development of training courses for personnel to have high capabilities and in line with the direction of driving towards DDPM 4.0	1. A review is carried out and able to design 7 groups of personnel training 4.0 courses within 1 year after the end of the research. 2. Project 2–Project 7 Indicators from the number of training sessions in each group and how much the indicators from the assessment after training have been converted to Digital Culture. 3. Able to complete the training according to the specified course within two years, at least one model per group 4. For vocational training, normal (original) does not offer indicators	1. Project to push the Institute for Personnel Development in Disaster Prevention and Mitigation to be a Human Resource Development Center 4.0 2. Project for review and development of the DDPM 4.0 curriculum 3. DDPM 4.0 executive project 4. Project Director 4.0 5. Policy and Academic Workers Project 4.0 6. Service Worker 4.0 Project 7. Worker Project 4.0 8. Technology 4.0 worker project 9. Network 4.0 development project 10. Project to develop the competency system of the position in accordance with the DDPM 4.0 11. 4.0 Performance Appraisal Guideline Development Project
	<b>Strategic 2.2 Developing innovators DDPM 4.0</b> Development Guidelines 1) Development of special training courses to create innovators, DDPM 4.0 2) Promoting, supporting and motivating people's innovative thinking, DDPM 4.0	1. Number of innovators, DDPM 4.0 2. Human resource development plan to raise the level to be an innovator, DDPM 4.0	1. Project for developing innovators DDPM 4.0 (Innovator 4.0)

the scope of time, the research had been conducted for eight months.

#### 4.2 Methods and Tools of Research

This research was collected, studied, and analyzed data, related documents, official correspondence, re-

lated researches and websites to be used as a framework for research studies to develop guidelines for organizational and human resource development towards becoming DDPM 4.0. Data were also collected and analyzed from interviews, focus groups, seminars, workshops of government officials, and staff mem-

**Table 1.** The details of HR DDPM 4.0 plan and the HR DDPM 4.0 action plan.

Strategic Issue	Strategic	Indicator	Project
<b>Strategy Issue 3: Improvement of the quality of life in DDPM 4.0</b> The goal are • DDPM personnel have a balance between the quality of work-life and the DDPM family • Fair compensation and incentives for performance for the DDPM personnel	<b>Strategic 3.1 Build DDPM team Thailand 4.0 to sustainable team</b> Development Guidelines 1) Strengthening fair compensation for DDPM personnel, especially those directly responsible for disaster management 2) Reducing gaps and fostering a good working atmosphere between supervisors and subordinates by meeting talk roaming to different regions and nationwide coverage 3) Balancing the quality of work-life and family DDPM	1. Percentage of the rate of resignation/ transfer to other agencies (outside the department) compared to the previous year 2. Availability of communication application where DDPM officers can share stories, talk, and communicate with each other. 3. Availability of meetings, exchanges, discussions, and storytelling spread across all 18 centers or spread to different provinces 4. Availability of projects that empower more horizontal groups (replaceable)	1. A review project for fair compensation for job positions 2. The project telling the story of the DDPM family 3. Roaming HR project to build a strong DDPM officer 4. Work-Life Balance DDPM officer project

bers in the operational sections of the Department of Disaster Prevention and Mitigation, as well as survey research by distributing questionnaires to the Provincial Disaster Prevention and Mitigation Offices to acknowledge opinions of agencies operating at the local level.

## 5. Research Results

From the study of documents and data collection according to the research methodology, the researcher discovered the SWOT Analysis of the Department of Disaster Prevention and Mitigation affecting the human resource management of the Department of Disaster Prevention and Mitigation as preliminary information on the preparation of the HR DDPM 4.0 plan. However, strengths, weaknesses, opportunities, and threats can be summarized as follows:

### Strengths

- The department's management system is based on the Public Disaster Prevention and Mitigation Act, B.E. 2550, the main law in disaster management, and the Civil Service Act B.E. 2551 and the Additional Amendment in human resource management.
- There is a human resource development institute to provide knowledge and training on disaster prevention and mitigation including creating a body of knowledge on disaster prevention and mitigation.
- There are tools and equipment that are ready to use in disaster management and prevention.
- There is a systematic collection of information about disasters.
- There are distributed agencies covering all regions.
- There are strategies and action plans in the organization's human resource management.

- There are staffs distributed in all regions ready for operation.

- There are staffs who are capable and have potential to perform their duties.

- There is a clear chain of command and there is teamwork that is ready to work in every situation, and clear shared values are established

### Weaknesses

- There is a lot of patronage.
- The organizational structure lacks connection at the local level (district level), affecting the mission of cooperation/coordination between network agencies in the operation, as well as in the integration of information from related agencies, networks, and the public sector.
- The career path is unclear, and the implementation of the department's human resource development plan is not as planned.
- Staff are insufficient for disaster management operations.
- There is an inappropriate relocation of manpower.
- Staff lack reinforcement of motivation, persuasion, and encouragement, and lack of building engagement in the organization and in operation.
- Staff also have inconsistent competency and skills to DDPM 4.0. In other words, they have relatively little knowledge, understanding, and skills as follows: mutual policy acceptance, disaster management knowledge, analytical technology skills, inadequate communication and coordination skills, attitude towards technology, sacrificing dedication to aggregation, teamwork, and integration together.
- Organizational culture and work systems are too attached to the traditional bureaucratic model, not flexible to emergency operations.

## Opportunities

- The government's Thailand 4.0 policy supports the drive towards becoming the DDPM 4.0, and the government's policy focuses on disaster management.
- There are foreign cooperation frameworks such as the Sendai framework, various laws conducive to operation including international cooperation, as well as USAR, and international joint training.
- There are network partners and those integrated working with agencies involved in disaster prevention and mitigation, such as Mr.Warning, Civil Defence Volunteer, and local government organizations.
- They create disaster prevention and mitigation work with strong support from partners.
- Awareness, alertness and participation of the people in the face of various disasters, as well as being able to prevent and mitigate disasters with the government and networks, affecting the department's work has been successful in operating in the area.
- Reduce the risk of disaster more.

## Threats

- Global and regional climate change affects disaster management which is diverse, increasingly violent and proliferating. Increased public expectations for disaster prevention and mitigation.
- As well as various compensations that have not sufficiently mitigated losses in the lives and property of the people.
- Disruptive Technology has occurred, affecting the adaptation and development of the Department's organization and human resources.

Based on the data on the environmental analysis of the Department of Disaster Prevention and Mitigation (SWOT Analysis) that affects the operations of the Department of Disaster Prevention and Mitigation in stepping into the DDPM 4.0, the researcher has led to the synthesis and presentation of the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan. The important things are as follows:

**Vision of HR DDPM 4.0 Plan :** Department of Disaster Prevention and Mitigation personnel aim to upgrade the department to DDPM 4.0

**Objectives of HR DDPM 4.0 Plan:** Develop human resources and partnerships to be DDPM 4.0 to increase organizational efficiency, effectiveness, and achievement.

HR DDPM 4.0 Plan consists of 3 strategic issues, namely

- Strategic Issue 1: Recruitment and Selection of Government Officer 4.0
- Strategic Issue 2: Human resource enhancement to the capability to drive DDPM 4.0
- Strategy Issue 3: Improvement of the quality of life in DDPM 4.0

The details of HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan are shown in Table 1.

## 6. Research Discussion

The government's push for the Thailand 4.0 policy by Prime Minister General Prayut Chan-o-cha requires all relevant sectors to understand and create a goal of becoming Thailand 4.0. The Thailand 4.0 policy is an economic model to lead Thailand out of three traps, namely, middle-income traps. The wealth inequality trap and the development imbalance trap will turn Thailand into a developed country that is Stability, Prosperity and Sustainability according to the 20-year National Strategy 2018–2038 [1]. However, the modification of effective government mechanisms is considered to be of paramount importance in driving Thailand 4.0. Mechanism modifications include the creation of a credible state, a source of public policy, transforming roles, missions, authority, and mode of action, building partnerships between governments and various sectors, enhancing capacity to respond to change, managing finances and resources. and the creation of seamless bureaucracy [2], [3].

In which human resources are the key factor in driving the transformation of the organization's operations including the Department of Disaster Prevention and Mitigation. The formulation of the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan is consistent with the vision of the DDPM 4.0 development plan and the DDPM 4.0 action plans in alignment with the context of the organization, the framework of the 20-year National Strategy, Thailand 4.0 and Government 4.0 which mentioned that the DDPM is the main organization in disaster management using technology and innovation towards the safety of Thailand. The principles of strategic human resource management Schuler (1992) [4] proposed that strategic human resource management is a system that connects people to organizations. HRM strategies are integrated with corporate strategies. SHRM requires plans and projects that define and resolve strategic issues related to human resource management in the organization. Therefore, the HR DDPM 4.0 Plan and the HR DDPM 4.0 Action Plan start from human resource planning suitable for the mission of the job, recruitment, and selection process for potential personnel suitable in disaster management tasks. There are three strategic issued formulated Strategic Issue 1 focuses on developing human resources to have knowledge and skills that are proficient in their duties including the attitude of devotion to the public in disaster management and attitudes towards accepting new innovative technologies to pushing to invent technologies and innovations. Strategic Issue 2 includes the development of employee retention system and enhancing the morale in the performance. Strategic Issue 3 focuses on changing the compensation management system in accordance with the risk-taking group, enhancing morale in terms of welfare and rewards, as well as creating new effective human resource systems such as strengthening work commitments. These strategies are in line

with the revision guidelines and recommendations for the adjustment of Thai civil servants to push for the Thailand 4.0 policy, as proposed by Khwanta Benchakan [5].

## 7. Research Suggestions

### 7.1 Suggestions for applying the research results

The researcher would like to present recommendations on 2 issues:

**Firstly, policy recommendation:** the research results should be communicated to the public either via digital telecommunication or online. It is necessary to let everyone in the organization and network know where the Department of Disaster Prevention and Mitigation is currently located and where it will move forward, to create a common goal and participation of personnel and network partners.

**Secondly, practical recommendation:** implementation of the study results of the DDPM 4.0 Development Plan and Action Plan depends on building awareness, understanding, and training in the necessary skills. Digital culture is not instantaneous but it is a continuous process that needs to be reviewed and designed in order to apply an Action Plan appropriately for the job, area, and relevant departments as well.

### 7.2 Suggestions for the further research

This research study is a study that has drawn up a development plan and an action plan for DDPM 4.0; therefore, the researcher proposes a recommendation for the next research to study more in detail, for example, a research study on the construction of Thailand's only disaster database system, study and research on legal improvements, rules and regulations of Public Disasters.

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