

State Liability in Administrative Lawsuits due to Flood Damage and Climate Change

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Abstract

Climate change has triggered disruptive impacts globally and exacerbated the magnitude and frequency of floods. Scientists around the world point to climate change as not only the major cause of elevated flood water levels on both state and private lands, but also intensity and frequency of flooding, subsequent sedimentation and erosion. States may aggravate flood damage by neglect the climate change and not taking adverse climate change impacts into account in their programs and policies. The UNEP Global Climate Litigation Report (2020) disclosed that rapid increase in climate litigation has occurred around the world, e.g., in 2017, 884 lawsuits in 24 countries and in July 2020, total cases have approximately doubled with about 1,550 climate change lawsuits in 38 countries. The dramatic increase in climate lawsuits is pressuring much-needed change. In Thailand, flood affected people have filed administrative cases of state liability through administrative disputes under Section 9 Paragraph one of the Act on Establishment of Administrative Courts and Administrative Court Procedure, B.E. 2542 (1999). The factual and legal problems of state liability in Thailand still need to be developed. The article disclosed not only the causes and problems of flooding including climate change impacts, but also international and Thai conceptual ideas of state liability due to flood damages exacerbated by climate change. Therefore, state liability disputes of Chao Phraya flood damage cases were analyzed in order to propose guidelines for solving administrative disputes in an efficient and fair manner to both plaintiff and defendant, without burdening to state budgets and minimizing social conflicts in the future.

Keywords: State Liability, Flood Damage, Climate Change, Thai Administrative Court

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1. Introduction

Scientific consensus has depicted the existence of climate since a century ago, as scientific researches have evidenced that human activities (exploitation of fossil fuels) have warmed up earth and ocean (Fig.1), which in turn adversely affect the climate change [1]. Global temperature has risen as a long-term trend and then grown with steep slope from year 1980 up to now.

Warmer climate exacerbates flood risk which may induce more severe rainfall events, more frequency and magnitude of flood [2,3,4]. Government agencies may exacerbate flood damage through neglect anticipating climate change and not taking adverse climate change impacts into account for their plans or policies. UNEP Global Climate Litigation [5] reported that high increase in climate litigation has occurred around the world, e.g., in 2017, 884 cases sued in 24 countries and July 2020, total cases have approximately doubled to about 1,550 climate change cases sued in 38 countries. But Administrative Court in Thailand has not yet held any government agencies liable for damages. There is a failure to respond to climate change in their plans

or policies resulting in escalation of flood damages. Nevertheless, Thai Administrative Court has normally held government agencies liable in dispute cases relating to traditional flooding. Furthermore, the factual and legal problems of state liability in Thailand still need to be developed in order to be more effective and fairer to both parties. Finally, some principles from foreign countries will be proposed for improving state liability concept for damage of flood and climate change in Thailand.

2. Causation of Flood and Climate Change in Chao Phraya River

The most important river of Thailand is Chao Phraya River, regarded as the main blood vein to feed the hub of Thai economy, i.e., Bangkok, its vicinities and prime paddy field areas of Thailand, while riparian people have often encountered the flood and some have sued government agencies for compensation. Therefore, the state liability of Chao Phraya flood damages was selected for analysis in this paper. However, the causation of flood and climate change in Chao Phraya River must first be explained. Chao Phraya River basin encompassed 160,000 km² or 30%

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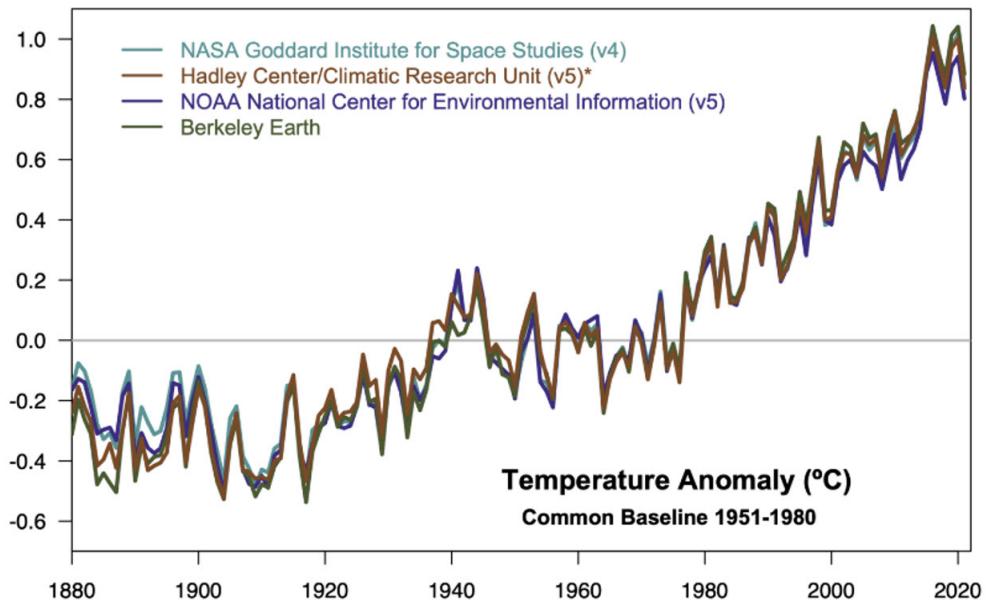


Figure 1: Global Temperature Anomaly during years 1880 – 2020 adapted from [1].

of total size of Thailand (Fig.2). The basin is divided into 2 sub-basins, namely, Upper Chao Phraya River Basin – composed of Ping, Wang, Yom and Nan Rivers and 4 major reservoirs, namely, Bhumibol, Sirikit, Kew Lom and Kwa Noi reservoirs with total store volume of 25.7 billion m³. While the Lower Chao Phraya River Basin is demarcated by Nakhon Sawan Province. The Sakrae Krang tributary comes to join at the right bank of Chao Phraya River between Nakhon Sawan and Chao Phraya Dam. The lower basin is rather mild slope – its river bed slope is about 1/10000 to 1/15000 in which Chao Phraya River flow is managed by Chao Phraya Dam, Chainat province. Geographically, river flow continually increased along downstream side where river tributaries come to conjugate Chao Phraya River, but river drainage capacity at downstream is insufficient due to land-use change, structures blocking, intruding in water ways or others. Due to these reasons, continuously cumulative flood from upstream – steep slope and high altitudes flow down to elevate the flood water levels in downstream and then inundate and disperse over the flood plains downstream on both banks of the river. The problem was perhaps aggravated by mismanagement of the flood [7] or suspected politically motivated manipulation. In the past, Chao Phraya River was manageable, but climate change has played important role to exacerbate flood in Chao Phraya Basin. Typically, big floods were due to typhoons during the wet season between August to December, with a total of 19 recorded big floods in recent decades, e.g., 1994, 1995, 1996, 2011 and 2021. The extreme year-2011- Chao Phraya River basin flood was the worst and most damaging ever recorded in history [6,7,8,9], as this flood directly affected 13 million people, caused more than

800 deaths [8] inundated over 7 industrial estates and inflicted total economic losses of about 38.71 billion USD.

Previous studies disclosed that climate change has played vital roles in Chao Phraya Basin and will induce 4 - 5 % more rainfall in 2050, increase the flood flow about 6.8 – 41.9% of referenced period of 2003 to 2011 and rise the sea water level at maximum of 28.9 cm in 2049 [10,12,13,14]. These scientific evidences confirm that the climate change will affect to flood in Chao Phraya River more severely and frequently.

3. Causation of Flood and Climate Change in Chao Phraya River

State liability principle originated from the legal maxim that the King can do no wrong [15], as Thai state in the past was governed by absolute monarchy regime and thus to sue the king, government units or officers who deemed to act on behalf of the King have no liabilities to the person aggrieved from administrative proceeding [16]. Now, Thailand has developed the principle of state liability, i.e., the state or administrative officers have liability due to their act causing damages to people. This conceptual idea aimed to comply with the principle of ensuring rights and liberties of the people, control of administrative act by legality, legal state and state liability [17]. Later on, Act on Tortious Liability of Officials, B.E.2539 was enacted and enforced, then Thai state grounded the many principles of Tortious Liability of Officials, e.g., an administrative official is only liable, if an official perform duty according to the law and causes damage to others intentionally or with gross negligence, deducting state liability and not applying joint obligation principle.

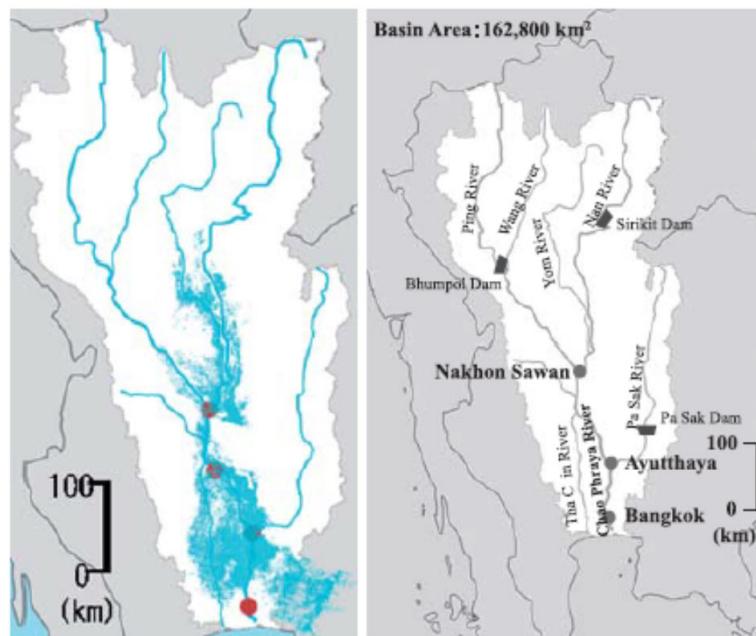


Figure 2: 2011 flood inundation area (Left) and flow diagram of Chao Phraya River basin adapted from [6]

According to the Supreme Administrative Court verdicts on disputes of flood inundation or flood management in Chao Phraya Basin, the state's liability for damage from those disputes in the Chao Phraya Basin was mostly sued for the administrative dispute under section 9 paragraph (1), (2) and (3) of Act of the Establishment Administrative Court and Administrative Court Procedure, B.E. 2542 and Act of Tortious Liability of Officials, B.E. 2539. The verdicts review of Administrative Court expressed that state liability of Thai legal system, Administrative Court trendily sentenced the state or administrative liability, if action by state or administrator cause damage to people by conforming to tort liability principle or unlawful act [16]. Foreign legal system has continually and long-lasting developed the concept of state- or administrative liability which in turn been divided into two categories, namely, (1) the tort liability and the (2) liability without fault. As mentioned above, Thai Administrative Court tended to apply the tort liability concept for state- or administrative liability rather than applying concept of liability without fault. This might be reasoned that tort liability principle in Thailand has been developed longer than principle of liability without fault and no criteria or law to consider in details which case of state or administrative officials to hold liability without fault. Furthermore, the Thai legal system relies strictly on written law. As a result, the court may not be familiar to raise such liability principles to use in the trial. Although, the section 9 paragraph one (3) of Act of the Establishment Administrative Court and Administrative Court Procedure, B.E. 2542 already legislated "liability without fault" and this legal provision thus is an opportunity for Administrative Court to develop the liability principle of state or administrative

without fault, but few administrative cases have, up-to-now, been applied the principle of liability without fault. In some cases, their factual disputes were nearly similar, but their verdicts were completely different, such cases may therefore cause unfairness to the people who have been burdened unreasonably or damaged by the proceeding of administrative [16]. This led to no comply with legal security principle (Le principe de sécurité juridique) of judgement[18].

4. State Liability Principle of Foreign Countries

4.1 State Liability of French Republic

As was addressed in Blanco, the French law on the state liability is not complied on the Civil Code, but depended on legal principles developed by the courts and on particular rules based on statute in relation to specific activities [19]. Theory of state liability of French Republic was grounded by Blanco in 1873 stated that "Whereas the liability which may be incurred by the state for the loss caused to individuals by the actions of persons whom its employees in the public service cannot be governed by the principles laid down in the Civil Code to regulate the legal relationships of individuals" [19]. Duguit proactively founded the basis of the state liability was 'the idea of social insurance provided by the central budget and compensating those who have suffered a loss arising from public services . . . thus if the intervention of the State creates a special loss for some people, the Government must compensate it, whether there is a fault of the public officials or not [20,21]. State liability of French legal system has three significances, namely (1) the state liability exists in both private and public law, (2) liability exists for both the private liability of

public officials when acting on their own and the state liability when providing public services. The liability, therefore, depends on whether the fault is a personal fault (Faute personnelle), a fault of public official performing his duty (Faute de service) liability mixing between a personal fault or a fault of public service or so called “combination of responsibilities” (Le cumul des responsabilités) and (3) the parallel existence of liability for fault and liability without fault, originally the liability of the state was the liability for the fault, but later on, French Administrative Court has developed the principle of liability without fault to supplement it to achieve more fairness [22].

4.2 State Liability of Republic of Germany

Staatshaftung is state liability in German. In German legal system, state liability is commonly the liability of the state and other public agencies for damages in the course of performing official duties [23]. German state liability needed to demarcate two important distinctions, i.e., (1) a first distinction must be depicted between the personal liability of the official and the liability of the relevant administrative agencies or the State for its public services and (2) the second and even more significant distinction is between lawful and unlawful acts of officials or administrative agencies. The state is liable for two categories of acts though under different conditions. As a rule, liability occurs with unlawful act, but in some cases even lawful act is liable [24]. Liability due to unlawful State acts can originate from four disputes. First, personal liability of officials (Beamtenhaftung) governed by statute (§839 Bürgerliches Gesetzbuch, Civil Code – BGB). The provision used regardless of persons acted in the public domain or private interest of that official (Acta iure gestionis and acta iure imperii). Second, liability for acts of state employees that result in private damage (provisions of §§31, 278, 831 BGB). Third, state liability for unlawful acts of its officials in the public service: this is governed by art 34 Grundgesetz (Basic Law, GG). By this provision, which is the heart of administrative agencies liability, personal liability of the official for Acta iure imperii is replaced by state liability; the victim has no claim against individual official. However, State may claim redress against the official if the latter acted with intent or grave negligence. Fourth, if the state unlawfully impaired property rights of people, the courts have developed a right to compensation (Haftung ausenteignungs gleichem Eingriff – liability for an expropriation-like intervention).

5. State Liability due to Flood Damage and Climate Change

Human activity has had a dramatic impact on the climate change. Carbon dioxide (CO₂) concentrations have escalated rapidly to more than double pre-

industrial levels. Those atmospheric changes have induced global warming that, in turn, has led to a range of other adverse impacts including melting glaciers, vanishing snow cover, decreasing sea ice, rising sea-water levels, acidifying oceans, mass migration and displacement, higher frequency and heavy precipitation, severe flood, forest fires, and record-breaking temperatures [5]. Due to these scientific facts and adverse impacts, plaintiffs and petitioners pursuing to compel more climate change mitigation and adaptation on the governments and private parties have brought a wide range of climate change cases before tribunals throughout the world. These cases have applied to compel governments to speed their attempts to implement emissions reduction targets; illustrate that national Green House Gas (GHG) emissions goals are insufficiently or not being proceeded at all; link harms suffered by vulnerable communities to emitters liable for a share of global temperature increases; take global climate change concerns to proceed on local action; and either force adaptation action or recover losses that result from others' failures to adapt. These cases are important for defendants, i.e., suing governments on climate cases result in binding judicial orders that desire new climate goals, broader climate regulations, reforms to environmental impact assessments, important investments in social and physical infrastructure and other procedures. Recently, states sued for environmental consequences of failing to adapt their facilities or operations may be at risk of significant liability, e.g., the case of Administrative Court of Paris in 2021 judged and ordered the PM and competent ministers to take all useful measures to remediate the worsen impacts of climate change and pay compensation for plaintiffs [25].

Litigation relating to flood damage and climate change for the whole world, of that more than half are lawsuits in USA [5], hence state liability due flood and climate change in US common law system are more advanced than other countries. The relevant litigation theories described here can be adapted towards Thai Administrative legal system. Noted that Civil law system is adopted in Thailand, but US system can have relevancy to Thai situation esp. in these aspects: Public and Private Nuisances, Negligence, Trespass, Violation of Riparian Rights, the Law of Surface Waters, Strict Liability, Denial of Lateral Support, Statutory Liability and Inverse Condemnation [26].

5.1 Public and Private Nuisances

Sometimes, administrative agencies may be sued through common law nuisance, if their acts lead to increasing flood hazards or land erosion by state activities on private lands. In common law system, nuisance may be either “public” or “private”, i.e., no landholder has a right to utilize his or her land in a way that tangibly interferes, in a physical sense, with the exploitation and enjoyment of other lands, e.g., Sandifer Mo-

tor, Inc. v. City of Roeland Park [27], flooding caused by city dumping wastes into ravine that clog the sewer system. This lawsuit was a nuisance. Public or private nuisance pertains to interference with right to use of land and is hence more serious than “negligence”. In climate change lawsuits, administrative agency activities may aggravate natural hazards damage and may subject to public or private nuisance suits but not restricted to the inadequate design, construction, operation, and maintenance of channelization works, dikes, dams, levees, culverts, bridges, highways, groins, and sea walls, e.g., in 2003, the California Court of Appeals upheld a damage compensation against the State of California for flood damages [28]. The total settlement in this suit was \$464 million dollars.

5.2 Negligence

State, both public and private landowners have long had an obligation to exercise “reasonable care” in their actions in order to avoid injury to others. As stated in The US Law of Torts, 5thed. (1984) at p. 169, unlike nuisance and trespass which involve damages to land, negligence is wider consideration and uses to many types of activities including but not restricted to damages to land. Negligence provides a principle for flood-related lawsuits including climate change-related suits. It is the prime legal theory related state liability for traditional flood hazards originated from inadequate construction and maintenance of hazard reduction measures, e.g., flood control structures, improperly prepared declaration of warnings, unlawful processing of permits, and insufficient inspections. Abundant scientific facts of climate change effects [1,2,3,4] indicate that flood magnitude and frequency will escalate more than mean situation and damage to private assets. As these consequences come about, states will be liable for damages for failing to consider climate change in their flood measures in the near future.

5.3 Trespass

At common law, landowners may also conduct trespass actions for certain types of public and private encroachments of private property such as flooding or drainage. Principal activities which may be sued for trespass in climate-related contexts are similar to nuisance suits.

5.4 Violation of Riparian Rights

Riparian rights or “privileges” of landowners include fishing, swimming, and construction on river bank but must “reasonably” be exercised in relation to other riparian landowners. With this principle, courts have held that construction of levees, dams, etc. by government or private riparian landowner which increases flood losses on other riparian lands constitute

a violation of riparian rights. Similarly, failure to reasonably exercise consideration that led to flood exacerbating due to climate change may also constitute a violation of riparian rights.

5.5 The Law of Surface Waters

Under the rule of “reasonable use” for “surface” water used by common law courts in most US states, landowners may not block the flow of widespread surface waters, enormously exacerbate that flow, or increase flow channel to a point other than its natural discharge. Courts have usually adopted the rule of “reasonable use” applicable to public as well as private land. But there are some differences. For example, a Minnesota court held that a community could not claim “reasonable use” as a defense to a “taking claim”.

5.6 Strict Liability

Courts, in most states, have held that landowners and administrative agencies are “strictly liable” for the break of dams or levees if they cause flash flood or movement of enormous water mass. Following an early English ruling, private and public landholders are liable for losses from ultra-hazardous effects even if no negligence is related. Losses to landholders by climate change-related flooding and erosion from the break of a dam or levee could claim strict liability by the state to such damages or, at a minimum, that State’s failure to adequately anticipate such flooding is deemed as negligence.

5.7 Denial of Lateral Support

The right of lateral support [29] is a common law principle that landholder has a right in having their soil in its natural condition remain in its natural position without any change by excavations, improvements made or other activities on adjacent land. Erosion originated by climate change in the construction or maintenance of roads, bridges, buildings, and other public works may deny lateral support to adjacent lands causing land failures, e.g., landslides, mudslides, erosion, and building collapse.

5.8 Statutory Liability

Some states have utilized statutes which separate statutory grounds for flood and erosion-related lawsuits. In Texas, Texas Water Code, article 7589a (Act of 1927) makes it unlawful to divert the natural flow or to store surface waters in ways that harm property of others. These statutes could, at least in part, ground the basis for lawsuits suing that administrative units have exacerbated or failed to forecast climate-related flood damages.

5.9 *Inverse Condemnation ("Taking" Without Payment of Just Compensation) Due to Flooding of Private Lands*

Inverse Condemnation is a legal term adopted in the law to explain a situation in which the administrative agencies take private property, but fails to pay the appropriate compensation required by the 5th Amendment of the Constitution - stated that the government shall not take private property for public use without paying just compensation. So the property owner must sue to receive the required fair compensation. *Ingram v. City of Redondo Beach* [26] is an example, in which the court made the verdict that brake of an earthen retaining wall maintained by the city with causing flooding was principle for an inverse condemnation suit. Inverse condemnation actions for destruction of private property owing to increased natural hazards resulted by government activities have been admitted in many states

6. Analysis of Problems of State Liability in Administrative Cases of Flood Damage in Chao Phraya River

6.1 *Problem to consider whether the occurring flood is a disaster or not.*

At the time of writing (B.E. 2566), no act or law exists that specify definition of flood term. This may lead to problems in court when deciding whether a flood is classified as traditional flood or disaster flood.

6.2 *Problem of Standing.*

Or locus standi, as stated on section 42 of Act of the Establishment Administrative Court and Administrative Court Procedure, B.E. 2542 and the order of the supreme Administrative Court no. 247/2552 states about standing to Administrative Court, i.e., a natural person, juristic person or a community as a right holder may file under administrative lawsuit. However, for the community or group to sue under administrative lawsuit, they must clarify the aim or duty of community or group and how these are linked in the lawsuit dispute.

6.3 *Problem of finding qualified person to exercise discretion, to read and to consider evidence.*

Currently, Administrative Court face problems of lacking qualified persons to offer their expert opinions and consideration. Since Administrative Court, up-to-now, does not disclose the list of relevant experts as in the Court of Justice. Furthermore, the compensation rate for expert in Administrative Court seems to be inappropriate. Flooding or climate change dispute is difficult to understand in terms of adequate scientific explanation. Therefore, the dispute becomes too complex to understand for plaintiff's when defendant clarifies using technical documents. This is a drawback

for consideration in any dispute of flood and climate change. So, most listening to evidence in Administrative Court were solely considered from the documents of the parties. If the court considers the plaintiff aggrieved by infringement or liability without fault from the exercise of legal power of the officers as the defendant, the court may make a verdict the defendant must be liable to pay compensation according to the plaintiff's complaint. On the other hand, if the plaintiff or defendant cannot offer evidence to refuse the court to agree otherwise. Mostly the plaintiff is drawback against the defendant - administrative official who hold most scientific evidence in their hand. The Administrative Court may issue a judgment defining the decree upon the available evidences of the parties. Therefore, the verdicts or damages determined by the court may be a problem to consider whether it is really correct or fair to the parties and the society. This problem not only appeared in Thai Administrative Court, but also happened in foreign Administrative Courts in the past [31, 32]. But foreign Administrative Courts have developed legal principles that sustain the fairness to parties and guarantee the adverse effects from administrative proceedings to people as shown in topic no. 4, 5 and some countries proposed a novel component of court's panel, so called "expert judge" [31] in order to secure adequate finding of fact and scientific understanding of disputes, especially environmental aspects, e.g., flood or climate change. These solutions bring indisputable benefits to the legal consideration of Administrative Court.

6.4 *Problem of principles to consider the tortious liability.*

Which is a part of state liability. In Thai Administrative Court, the court customarily considers the legal components based on section 420 of Civil and Commercial Code whether the violation should be classed as administrative tort. When a dispute of flood management or relevant issue is brought to Administrative Court, Administrative Court firstly consider whether an agency or an official has the legal duty to manage flood. And their legal duty is specified, i.e., their legal duty must aim to protect the rights of people to claim liability from the state. Next, the Administrative Court then consider whether proceedings of the administrative agency or official completely conformed to the legal components of section 420 of Civil and Commercial Code. This leads to a drawback against the petitioner, because defendant - administrative agency or official holds most flood management evidences in their hand as technocrat, but the petitioner lacks deep knowledge or information to defend his/her dispute. Furthermore, Thai administrative court was founded to use the Inquisitorial System, but not Accusatorial System in order to sustain the fairness for unbalanced power between plaintiff – suffered people vs defendant – administrative agency or official. As aforementioned

reasons, most plaintiffs could not clarify to Administrative Court how proceedings of administrative agencies or official action led to flood exacerbation and affected people. Then the verdict to the plaintiffs did not get or get less reparation from the defendants. These principles to consider the tortious liability is not complied to the foreign state liability concepts due to flood or climate change as earlier described in section 4 and 5. These problems can be relieved, e.g., advanced Administrative Court in some countries, they propose the new consideration system to allow permanent expert judge – technocrat in field of water or environmental sciences being a member in the court's panel in order to avoid the aforementioned problems, secure the scientific understanding and sustain the fairness in consideration [31].

6.5 Problem of principles to consider the state liability without fault.

Severe flood in B.E. 2549 and ultra-flood in B.E. 2554, Administrative Courts have consistently aligned the verdicts that the flood management of Royal Irrigation Department in B.E. 2549 and 2554 were proceeded based on the Royal Irrigation Act, B.E.2485. The Act authorizes officials, but the proceedings of officials in flood management resulted in losses to plaintiffs. Thus, these acts by officials did not violate as tort specified in section 420 of Civil and Commercial Code (Supreme Administrative Court Judgment No. 1895/2559). These cases were the state liability without fault; therefore, Royal Irrigation Department has the legal obligation to pay reparations to the suffered plaintiffs due to lawful act of officials (Supreme Administrative Court Judgment No. 1498/2559). These verdicts were conformed partially to the concept of state liability in France, German and USA.

Another dispute stemmed from sandbag use during major Bangkok flood, the governor has built a line of giant sandbags (BIG BAG) as a flood protection dyke to protect flood water entering the inner areas of Bangkok during the flood event in B.E. 2554. Even in the judicial process, it was found that the governor's actions were in compliance with Section 89 (1), (3) and (6) of Bangkok Metropolitan Administration Act, B.E. 2528 which stated that . . . providing drainage channels for disaster relief and public order. Therefore, governor's proceeding was then considered a lawful act. But Act of the Bangkok Metropolitan Administration does not specify the rights of affected people to claim the state to be liable for compensation that arose from the lawful act. This may lead to problem whether affected petitioners have the rights to claim the state to be liable or not? When considering the verdicts of judge-commissioner of justice in Red Case No. 128/2557 and the opposing opinion of the minority judge of court's panel in the Red Case No. 658/2559 stated that the proceedings of Bangkok, although is not an act that violated the tort princi-

ple, but it appeared to be state liability without fault. Hence Bangkok must be obliged to pay reparation to the plaintiff. These verdicts of cases were complied with the principle of French State Liability, i.e., 'the idea of social insurance provided by the central budget and compensating those who have suffered a loss arising from public services . . . thus if the intervention of the State creates a special loss for some people, the Government must compensate it, whether there is a fault of the public officials or not. Furthermore, this still conformed to a principle of German state liability, i.e., Haftung ausenteignungs gleichen Eingriff – liability for an expropriation-like intervention. This was to develop state liability without fault by the Administrative Judge which in turn complied with the principle of Judge-made law.

7. Conclusion

As aforementioned, the article explained how climate change exacerbates and causes severe flood and originates the need for state liability, Causation of Flood and Climate Change in Chao Phraya River, Thai state liability, French state liability, German state liability, state liability due to Flood Damage and Climate Change and problems of state liability in Administrative Cases of Flood Damage in Chao Phraya River, respectively. It unveiled that (1) globally accepted scientific evidences have shown human activities (exploiting of fossil fuels) have warmed up the earth and its ocean, which in turn have adversely impacted the climate change, then exacerbated even more severe floods around the world and finally led to rapidly increasing numbers of state liability around the world, (2) causation of big floods in Chao Phraya River have clearly been due to natural topography, land-use change, floodwater mismanagement and climate change, (3) Thai state liability is not yet conformed completely to the principles of foreign state liability as mentioned above and may need to be proactively developed in the near future, (4) French state liability has been not developed based on the Civil code, but developed by Judge Made Law which in turn guarantee the fairness to the suffered people due to the administrative proceedings whether acts were lawful or not, (5) German state liability has been well aligned the structure of causes of state liability and laid the principle of state liability without fault, so called "Haftung ausenteignungs gleichen Eingriff", (6) U.S. Legal system has been advanced to lay the good legal principles of state liability reasoned from flood damage and climate change. Thus, Thai legal liability system should adapt these principles to be developed for Thai State Liability in the future and (7) Since problems of state liability in administrative cases of flood damage in Chao Phraya River were analyzed above, in short term, discretion problem of complex flood lawsuit is a case involving the judge, which may

require additional knowledge of the judge, as for the problem of lack of experts to give opinions it should be isolated and listed as experts witness issue, while, long term, principles of Thai state liability is needed to be ameliorated by enacting or revising state liability concepts and state liability without fault relied on the state liability concepts of France, Germany and USA by virtue of the Act on Establishment of Administrative Courts and Administrative Court Procedure, B.E.2542, and the Rules of the General Assembly of Judges in Supreme Administrative Court on Administrative Court Procedure, B.E. 2543 and proposing the novel system of the expert judge in Thai Administrative Court's panel as shown in details by [31].

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