

# **The Development of Policy on the Access and Sharing of the Benefits from the National Knowledge of Thai Traditional Medicine**

*Nanthasak Chotichanadechawong*

Faculty of Social Sciences and Humanities, Mahidol University, Thailand

*Somboon Sirisunhirun*

Faculty of Social Sciences and Humanities, Mahidol University, Thailand

E-mail: shssr@mahidol.ac.th

## **Abstract**

This mixed-method study under the process model concept has its aims to 1) study the environment situation on the policy and the strategy, the related legal or the agreement problems both within Thailand and abroad, and 2) analyse the trend and direction of the related access and sharing of the benefits from the national knowledge of Thai traditional medicine mechanisms as well as related genetic resource which will lead to the setting-up of the policy recommendations on the access and sharing of the benefits from the national knowledge of Thai traditional medicine. It is revealed that the situation, the legal environment still heavily rely on the legal mechanism as well as the international agreements while the internal policy still lack of direction and clarity, the continual support, the concreteness, and the true enforcement of the existing internal laws due to the hidden obstacles in terms of the process which is not the nature of things and the difference of the legal mechanism and the variety of the offices cannot be still integrated managed in terms of the holistic policy. Due to the aforementioned, the setting-up of the forced measurement and the central practice of the country in accessing and sharing the benefits with the owners or the communities are urgently needed. The legitimation and improve of the specific laws concerning the access and sharing of the benefits should be done according with domestic context and their contents should cover all related dimensions. The central data base on the country's genetic resource and the traditional wisdoms of all fields should be urgently set up. Moreover, the measurements in terms of the policy should be strictly implemented in compliance with the international practice principles, the equality practice principles, and the fairness practice principles.

**Keywords:** Access and Sharing of Benefits, Policy Development, Thai Traditional Medicine Local Wisdom

## **Introduction**

Thailand is abundant and varied with genetic resources and local wisdoms especially national knowledge of Thai Traditional Medicine. This is regarded as the economic capital which is the strength and the opportunity of the country and is the basis of the development for the strength, the self-reliance of the local communities, and the capacity to compete on the world stage based on the present government. However, access to traditional medicine and knowledge is also problematic. Equality in access and use seem to be unfair in the reality. This study provide sustainable development is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs by study related factors complied with the constitution of Kingdom of Thailand (temporary version) of 2014.

## Literature Review

Those related literature and researches were reviewed and the conceptual frameworks as well as the related data to the study are shown as follow:

The provisions and the principles on the access and the sharing of the benefits are related to the institution (the government) as the central agent having the laws or the regulations as the tools used to manage in terms of the policy through the enforced mechanisms. The distribution of the natural resources and the country's treasure comply with the principles and the regulations as well as the human assets at the conscious level of the social doings (Giddens, 1998). Politically, the political thought in the three paths which reflect the social change from the previous familiarity to the new innovation in the globalized trend by setting the New Social Contract connecting "right" with "responsibility." Practically, most people mention "right more than responsibility." The researcher then raises the phrase "Civil right or functioning" which is related to "responsibility" and these should go together to reflect the learning outcomes from Thailand's reformation (Suttawet, 2013).

"The sustainable development is the development that meets the needs of the present without compromising the ability of the future generations to meet their own needs." This quotation is the definition of the "sustainable development" of the World Commission on Environment. It was originated from the Report on the Environment and Sustainable Development or the Brundtland Report or Our Common Future. This is taken into this study as the analytical tool for the analysis of the provision on the access and the sharing of the benefits which will lead to the equality and the justice based on the international principle.

According to the principle on the equality and the justice, the public benefit must be considered rather than that of the individual. Hence, the principle on the equality cannot be cited when using the regulation to protect the individual. Citing the public benefit in order not to respect the rule of the equality must not cause the unacceptable separation; nonetheless, such regulation cannot be used.

Therefore, for the transformation of the provision to the policy development of such resource management, the concept of Anthony Giddens (1998) was used via the look through the critical public administration model such as the causal decision-making model and the principle on the equality, the good governance principle, and the self-sufficiency principle under the sustainable use of the benefit with the state institution, the beneficiaries, and/or the owner or the individual having the wisdom.

## Research Methodology

This mixed-method study was conducted during 2016 - 2017 with the following methodologies: The qualitative study consists study of related documents on the policy, domestic and international law regulation agreement and the cooperation. In-depth interviews with 4 executives functioning offices which were Department of Thai Traditional and Alternative Medicine Development, Department of Agriculture, Department of Intellectual Property, and Office of Natural Resources and Environment Policy were conducted to question about plan on their experience and obstacle on implementation. In addition, Delphi Technique was reviewed for two times by 17 experts, the Focus Group with those alliance networks and those related beneficiaries and Participations to the study of international forum related to access and sharing of the benefits from GRs and TK. The quantitative study, it comprises questionnaire from 76 provinces and stakeholder on the framework, the trend and the direction of the policy development and opinion survey on the appropriateness and the feasibility of the proposal draft of the policy used to collect data from those 76 regional stakeholders

## Study Results

### Situation, Policy Environment, and Related Laws

1. The pact on Biological Diversity: CBD (Office of Natural Resources and Environment Policy and Plan, 2015) is the act and the principle at the international level and, at present, there are 193 members of the pact including Thailand who registered as the 188th member in 2004. The component and the content of the pact comprise 42 sections with the main 3 objectives which are 1) the promotion of the conservation of the resources and the world's biodiversity, 2) the sustainable use of the biodiversity, and 3) the equal and fair sharing of the benefits from the biodiversity respectively. Such pact is like the world constitution having the legal effect. For Thailand, they have the law on the protection and the promotion of the Thai traditional medicine wisdom and the law on the protection of the plant species and these are for such constitution in the form of the funds for the operating mechanism.

2. The Nagoya Protocol on the equal and fair access to the genetic resources (Secretariat of the Convention on Biological Diversity, 2011). This protocol comprises 1) the determination of the equal and fair access and sharing of the benefits, 2) the international cooperation to enforce the operation of the developing countries in terms of body of knowledge and financial needs, 3) the sustainable use of genetic resources, 4) the access to the genetic resources, 5) the mechanisms of the multilateral sharing of the benefits at the global level, 6) the mechanisms of the dissemination and the exchange of data, 7) the monitoring of the use of the genetic resources, 8) the actions to comply with the related laws or regulations, 9) the border cooperation, and 10) the local wisdom through the participation of the traditional communities in the providing process of information, opinions on the use of the wisdoms among the others including the participation of the women in conserving the biodiversity which is the significant point of such protocol.

3. The International Memorandum of Understanding on the intellectual property and the relationship with the World Intellectual Property Organization: WIPO.

Several countries who are the members mutually emphasize on the protection and the use of the traditional wisdoms as well as the natural resources. Thailand plays the leading role as the member which helps the management and the role creation of the Thai potential in order to be the centre of the traditional wisdoms as well as the genetic resources at the international level. From the aforementioned study on such MOU, the following three sides of the operation draft for the International Legal Instruments on the protection are derived: Traditional Knowledge, Genetic Resources, and Traditional Cultural Expressions comprising 1) the mandatory disclosure of the sources of the genetic resource or the local wisdom when asked to use or access such resource, 2) the prevention of the inappropriate peculation of the use of the resources, 3) the parallel operation within the country to amend the related laws or the impediments, 4) the creation of the database or the registration of the related genetic resources and the local wisdoms along with the mentioning of the sources to comply with the related laws or the international MOUs.

4. According to the Protection and Promotion of Thai Traditional Medicine Knowledge Act, 1999 (Department of Thai Traditional and Alternative Medicine, 2002) section 3, "Thai Traditional Medicine local wisdom" means the knowledge on the Thai traditional medicine, section 17, and the ministers have the authority to announce the determination of the medicine recipes or the useful or valuable Thai traditional medicine textbook in the medical field or the public health field as the Thai medicine recipes of the country. Its provision still determines the access and the sharing of the benefits from the Thai traditional medicine recipe or the Thai traditional medicine of the country for the commercial benefits and the permission must be asked for and the negotiation for the benefit sharing must be made at the rate not less than 3% of the production cost and the distribution price from the factories which must be based on the Section 19 of such law.

According to several international regulations, it is obviously difficult for Thailand because the regulations are not consistent with the social context and culture. The important factors directly effect to preparation and implementation on policy development on access and sharing of the benefits from national knowledge Thai Traditional Medicine accordance with domestic.

**The Related Foreign Laws or Regulations in the case of the application for the patent with the mentioning and the disclosure of the sources.**

From the study on the related documents from 20 countries namely China, Denmark, Egypt, Ethiopia, European Union, Germany, India, Italy, Kazakhstan, Norway, Peru, the Philippines, Romania, Samoa, South Africa, Sweden, Switzerland, Vanuatu, and Vietnam, it is obviously found that the disclosure of the sources of the wisdoms are made and it is used as the proposal for the amendment of the laws on the patents both within the country and abroad with different density. (Department of Intellectual Property, 2016, cited in the document WIPO Secretariat compiled from WIPO LEX (WIPO, s collection of laws) such as 1) the sources of the inventions must be disclosed and must be the substantive requirement. 2) the sources of the inventions must be disclosed and must be the formality requirement. IN a way, the principle to ask for such right, if used in order to access and share the benefits from the Thai traditional medicine wisdom, should be set as the mandatory regulation in the form of the substantive requirement.

**Facts and Lessons from the Offices**

1. Department of the Thai Traditional and Alternative Medicine: It is found that there are 170,602 items of the Thai traditional medicine recipes, 162,545 are the Thai traditional medicines while 8,057 items are the Thai traditional medical textbooks. (Department of the Thai Traditional and Alternative Medicine, 2016) According to such law, whoever needs to register the Thai traditional medicine and asks for the permission to produce the medicines as of the law on the medicine or needs to study such medicines in order to commercially improve or develop to be the new medical recipes, he must apply for the permission to make use of and must pay for the service fee including the compensation fee for the making use of such medicines to the person who permits. The limitation of the right and the compensation fee are based on the regulation, means, and condition determined by the Ministry and the regulations for the consideration for the compensation are 1) the money for 3 % of the selling at the factory, 2) the compensation is not the money such as the technology transfer and the dissemination of the study results, 3) the training / the technical visit, 4) the exchange of the data / the demonstrated knowledge, 5) the exchange of the staff / students, 6) the creation of the alliance network, 7) the co-invest in business, 8) the life insurance for the staff, and 9) other forms as mutually agreed. The compensation payment form is generally set and must be mutually agreed between the beneficiaries, the person who permits, and the person who is permitted through the operation means. (Department of the Thai Traditional and Alternative Medicine, 2015) The details are that 1) appoint the operation committee to consider the contract or the agreement of the benefit sharing case by case of the medical recipes as they are differently valuable. The operation team comprises the related executives as the people in charge and the experts in each dimension and 2) announce the name list of those experts as the database for the proposal to be the operation committee including the making of the contract for the benefit sharing on the case by case basis.

2. Office of the Natural Resources and Environment Policy and Plan This is the main office to manage the genetic resources based on the objectives of the pact on the biodiversity mentioning the sharing of the benefits from the equal and fair use of the genetic resources in order that the members have the right to determine the conditions in accessing and making use of the genetic resources as including mainly taking charge of the coordination with those related offices. In 2010, the members of the pact agreed with the contents of the Nagoya

protocol and, at present, there are 34 members and it will be effective after the acceptance of the 50th member for 90 days. For Thailand, it is being in the preparation process for the commitment for the Nagoya protocol and then it has to prepare its beneficiaries, its knowledge and understanding of the access and the sharing of the benefits as well as those related regulations to reduce the gaps and the problems that might be taken place in the future. Besides, this office is still responsible for conserving and making use of the biodiversity resources based on the Section 8(j) under the pact on the Convention on Biological Diversity: CBD mentioning that the law in the country that will accept the sustainable protection and the maintenance of the wisdoms, the innovations, and the practices of the local communities and the biodiversity integrated with the related ways of life and the conservation and the use of the biodiversity and to promote the application to access the knowledge, the innovations, and several practices for such sharing of the benefits.

3. Department of Intellectual Property The government really observes the significance of the registration of the patent and Department of Intellectual Property has announced about the notification of the data and the asking for the data services of the Thai local wisdoms by setting the definition that “Thai local wisdom” means the body of knowledge of the local community including the locally artistic cultures existing in Thailand. “The body of knowledge of the local community” means knowledge and expertise and means or technology transferred from the past up to the present time including any technology and means using the biological system or the living things in the modified forms for the benefits of the products or services. “Locally artistic and cultural works” means the created works of the group of the people in the community based on the cultures and created for the benefits of the group reflecting the thoughts and the expectations of that community. That shows the social and cultural uniqueness, the community standard and value with or without the language or integrated with or without the language as the medium with the attached list of the local wisdoms and this can be notified as 1) the body of knowledge of the local community in various fields as well as the local arts and cultures. (Department of Intellectual Property, 1979)

4. Department of Agriculture The access and the sharing of the benefits from the genetic resources in Section 3 of the Plant Species Protection Act, 1999 provides the definition of “Wild Plant Species” that the naturally existing plant species or used to exist in the country and not yet to be planted widely and “general local plant species” means the plant species that originates in the country or exists in the country which is widely used including the plant species which is not the new species, the local plant species or the wild plant species. By the Section 52, the protection of the general plant species and the wild plant species means that whoever picks up or finds or collects the general plant species, the wild plant species or one part of such plant species for the improvement of the species or the research for commercial purpose, he must be permitted from the official or staff and the agreement on the sharing of the benefits must be made from which the income must be submitted to the plant species protection fund and this must be complied the regulations set by the Ministry and Department of Agriculture. At present, there are 22 people making the contracts for the benefit sharing with the Department of Agriculture and they have already shared the benefits for around 300,000 Thai baht since it is so convenient in managing as well as monitoring afterwards. The whole income has been submitted to the plant species protection fund.

### **Lessons and Operation Mechanisms Abroad**

1. In case of India, the lessons and operation mechanisms learned are that the tribal people called “Ghani” are treated with the income returned back to them as the benefit sharing for the traditional herbs they own and this model is called Global Model on Access and Benefit Sharing that is internationally accepted with the following important contents: 1) In 1444, the scientist of the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI)

surveyed the wild around the Western Ghat with the Ghani as the leaders and they accidentally found the wisdom used in powering the health by taking in the seeds of the local herb called Arogyapacha or its scientific name is *Trichopuszeylanicus*ssp.*travancoricus* helping the tiredness and empower during the travelling in the wild. Later, the scientists of JNTBGRI took such herb to be tested in the lab to confirm its usefulness by researching together with the Ghani people and then applied for the registration for the product patent under the name Jeevani that is the product deriving from the Arogyapacha along with the extracts from the other 3 kinds of plant. After that, the agreement was made to promote the planting and the buying of such plant and then cooperated with the medical company for the agreement to distribute such product to the market under the name “Jeevani.”, 2) The benefit sharing is equal and fair between the private sector and the owner of the wisdom and the herbs at the 50/50 ratio. This is the concept of the sharing derived prior to the pact on the CBD with the establishment of the fund to manage the income derived from the permission and the percentage will increase when the product is increasingly popular.

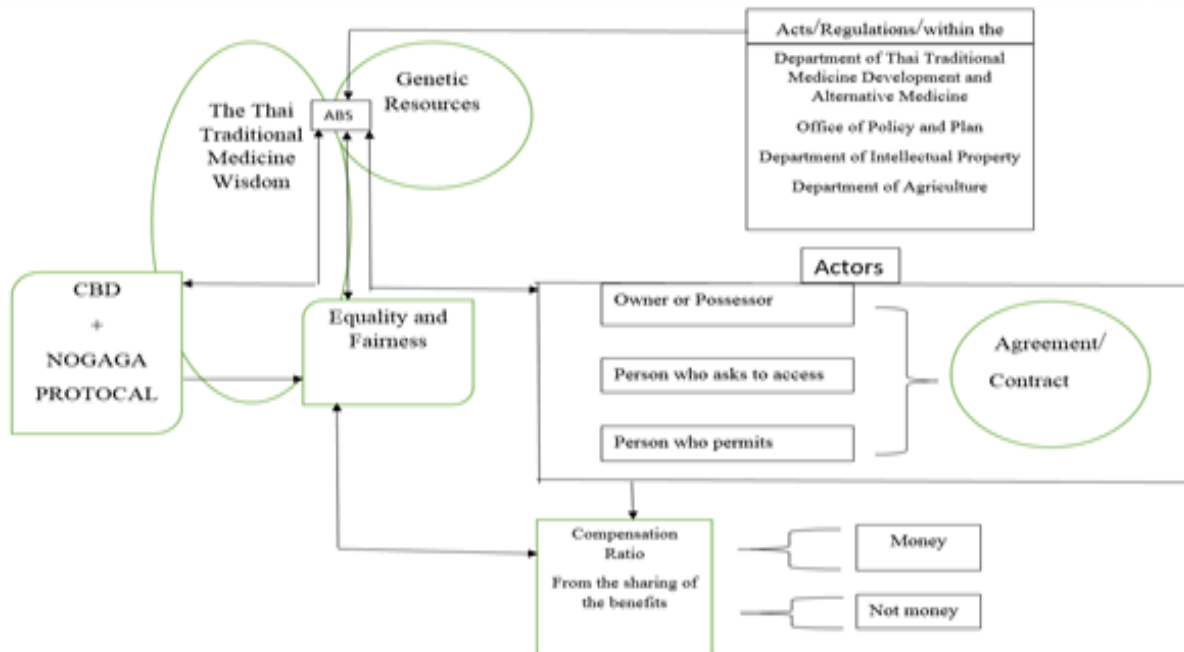
2. From the content and the mechanisms from the 30th WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources Traditional Knowledge and Folklore: WIPO IGC conference at the Office of World Intellectual Property, Geneva, Switzerland, most members from 188 country members accepted the primary principle with the arguments of the negotiation under WIPO IGC in creating the internationally legal tool comprising the protection of the local wisdom of each country and that can be divided into 3 essential sides: (1) the genetic resources, (2) the traditional culture reflections of the community, (3) the protection of the local wisdom respectively. The members including Thailand focused on the consideration of the following topics: 1) the force for the mandatory disclosure of origin, 2) the making of the GR database such as the herbs and the related knowledge, 3) the protection of traditional knowledge, and 4) the determination of the conditions for the access to genetic resources in order to be the measurement for the law or such agreement.

## **Conclusion, Discussion, and Recommendations**

### **Conclusion**

“Thai traditional medicine wisdom” is one branch of the intellectual property that can respond to the economic policy of the present government, the creation of the value as well as the economic value, the education, the commercial research and development as well as the drive to have the central office with the high authority in monitoring the offices with related works to the drive the policy and the integrated mission which comprises the world constitution which playing the important role on the access and sharing of the benefits as CBD and the Nagoya protocol and the related laws or the agreements. This acts as the sample of taking the policy into practice of the members. Nonetheless, for Thailand context, it is necessary to consider the main actor that impact to determine the measurement for the access and the sharing of the benefits from the Thai traditional medicine wisdom through the related legal mechanisms as: the state offices, the owner of the wisdom, and the individual or the group of the people interested in accessing and sharing the benefits from the Thai traditional medicine wisdom by being permitted and having made the contract for the sharing on the case by case basis with only focusing on the Thai traditional medicine wisdom. However, such policy tool must comply with the principles or the regulations. It is hoped that the proposal to access and share the benefits from the Thai traditional medicine wisdom will be the mandatory tool that Thailand must set and have it made in the form of the operation approach for those related beneficiaries and they will take this as the approach in further implementing the policy. However, to equally and fairly access and share the benefits from the Thai traditional medicine wisdom of the country, the relationship of the actors, the

contents, and the model of accessing and sharing the benefits from the Thai traditional medicine wisdom can be shown as the below diagram.



From the aforementioned diagram, it can be seen that the mechanisms to access and share the benefits from the Thai traditional medicine wisdom is the sample of the operation model of Thailand under the specific legal context or the *Sui generis* in developing the knowledge on the Thai wisdom and the genetic in order to lead to the appropriate sharing of the benefits which corresponds with the work of Pawarit Lertdhamtewe (2015) is the clearly determine the access and the sharing of the benefits from the commercial use of the local wisdoms, the design and the determination of the policy principle used in negotiating for the sharing of the benefits or the ABS (Access and Benefit Sharing) and the responsible offices since this is the outcome of innovation derived from the development and the transformation from the Thai act which will lead to being as the leader in ASEAN as well as the winner in the world competition in the future.

### Discussion

To make the policy on the conservation and the use of the biodiversity related to the Thai traditional medicine wisdom, there are several offices having the similar missions. For the conservation and the protection, the ratio is increased but the ratio of the implementation is higher. Hence, creating the policy measurement in accessing and sharing in the balance state is then very necessary and important in the present situation. The methodologies to access and share the benefits from the Thai traditional medicine wisdom as well as the related genetic resources are 1) the application form for the permission to make use of, 2) the permission document to make use of, and 3) the agreement contract to share the benefits as the policy tool in driving the mechanisms in accessing and sharing the benefits respectively. Thailand has its own strength and situations at the forefront when compared with several countries especially at the ASEAN level. It can be seen from the interview report that Thailand always shows its concentration on the access and the sharing of the benefits from the genetic resources as well as the local wisdoms. All countries emphasize on that and see that as the important task of the countries to be driven and appropriately managed under the policy and law contexts of each country in order to lead to the management of the equal and appropriate access to the traditional wisdoms of each country based on the CBD and WIPO IGC frames

which focus on the TK GR and TCEs that comply with the international principle and like the Thai traditional medicine wisdom of Thailand.

The access and the sharing of the benefits from the Thai traditional medicine wisdom and the genetic resources are all important in terms of economy, society, culture, and environment. They are then related to each other in terms of the content and mission of various offices. It is the management mechanism of the natural resources. It also corresponds with the Rational Comprehensive Decision -Making Model put by Anthony Giddens (1998) on the “right” and “responsibility.”

For the participation and the potential enforcement of the civil sector, the people have the right and the responsibility to manage the Thai wisdoms as well as the genetic resources. They should feel as the owners as they are the members of the society or the community from where the Thai wisdoms originate. The body of knowledge development process must be continually established for the people in order to promote learning, public consciousness, and responsibility with the state mechanism as the supporter or the sponsor to truly attract the people to participate.

For the comparative study on the Thai Acts and principles with the foreign laws, it can be used as the approach used in amending the law through the Incremental Model. It is still found that the Thai Acts and principles at present have different borders and this make the management inefficient. The office to directly take care of is also not found. Therefore, Thailand should enact the Act on the access and the sharing of the benefits from the local wisdoms and the biodiversity in the more completed form in order to be stereotypical law or regulation used in managing on the equal and fair access and the sharing of the benefits.

### **Recommendations**

In terms of the policy,

1. for the Thai traditional medicine wisdom and the related genetic resources, the law amendment on the protection of the Thai traditional medicine wisdom, the herbs and their origins with the mentioning of their sources should be hurriedly enforced in order to maintain their being as the Prior Art of the traditional wisdoms to comply with the policy in being the member of the TPP (Trans-Pacific Partnership) and this results in the protection of the right on the Thai traditional medicine and other intellectual properties. The related databases should be developed as the international online in the internationalization form that can relate to the international offices of the patent especially the WIPO/US-PTO/JPO among the others. The country should make use of the checking for the application for the patent registration in order to adjust the roles of the offices as the check points used to prevent the violation of the Thai traditional medicine and herb wisdoms. Moreover, it shall be the creation of knowledge and understanding for the alliance network and those beneficiaries both in the central and regional offices. Last, the community should realize and love the genetic resources as well as the local wisdoms of their own.
2. For the biodiversity, the related offices to the conservation and the making use of should determine the policy measurement or the laws to comply with the aforementioned international rules.
3. For the intellectual property, the amendment of the patent law should comply with the international rules abroad by improving in that the person applying for the patent must report or disclose the sources of the genetic resources or the local wisdoms that are developed to be the innovations and the support should be made for the convenient patent registration but with the fair monitoring.
4. For the plant species resources, 1) the experts on the laws should be taken in to monitor the sharing of the benefits or the trainings on the laws should be provided to the staff of the Department of Agriculture in order that they are more knowledgeable and understandable on the related laws, and 2) the central office should be established to take care of this specific



issue and this can be the office higher than the Ministry that has the authority to command and look at the holistic view of each law.

In terms of the future researches,

1. The evaluation of such performance should be carried out.
2. The deep study of the case studies of the access and share of the benefits from the Thai traditional medicine local wisdom involving the management mechanism and the proportion of the compensation from the use both in the monetary and non-monetary forms should be conducted.
3. The study on the views and effects toward the community which is the origin or the owner of the Thai traditional medicine and the genetic resource wisdoms should be conducted.
4. The study on the criteria or the approaches used in consideration of the Thai traditional medicine wisdom should be carried out.
5. The study on the expectation of the civil sector towards the model or the approach of the use of the Thai traditional medicine wisdom should be conducted.

## References

**Act on the Patent of 1979.**

**Act on the Protection of the Plant Species of 1999.**

**Constitution of the Thai Kingdom (temporary version) of 2014.**

Department of Thai Traditional and Alternative Medicine. 2002. **Act on the Protection of the Thai Traditional and Alternative Medicine of 1999 and Related Laws.** 3<sup>rd</sup> ed. Bangkok: The Agricultural Cooperative Club of Thailand Publishing House.

Giddens, A. 1998. **The third way.** Cambridge: Polity Press.

Lertdhamtewe, P. 2015. **Improvement of the Law on the Bio-resources for ASEAN.** Bangkok: Office of Economic Development from the Biobase.

Secretariat of the Convention on Biological Diversity. 2011. **Year in Review 2011 The Convention on Biological Diversity.** Quebec: United Nations Environment Programme.

Suttawet, C. 2000. "The Schools of Thought in Thailand: The basic critical evaluation and the School of Eco-Political Thought in the dimension of Cultural Community." In P. Phongphaijit (ed.). **60 years of Chatthip Narksupha.** Bangkok: The Eco-Political Center, Faculty of Economics, Chulalongkorn University, pp. 13-109.