

Thailand's Cannabis Systems Management Model in Transition

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Abstract

Thailand does not have a management system in place for medical cannabis; other usages are also illegal. Existing laws and regulations are century-old product of government, labeling the total life cycle of this potentially lucrative and medicinal plant as illegal in all aspects. Present political will of the coalition government, consisting of 15 parties, is facing mountains of hurdle to legalize cannabis. The infantry stage of Thailand sees no instant short-cut, but there are valuable lessons from other countries that have relaxed their cannabis use policies. This research paper aims to find out probable future scenarios that fit Thailand's socio-economic and political context over the next 3-5 years, and a possible cannabis management model in transition. Using a qualitative approach, this research collected data using the Delphi Technique. Key informants were to choose one from three future scenarios and possible optional models of management that deem most appropriate and effective. Based upon Knight's Social Organization concept, this paper proposes three prototype models of management which are also Pareto optimal. The management operation is to segment 'markets' and apply a cross subsidy to enhance research over the 3-year span so that scientific information could be generated for improved decision. Meanwhile, however, it is most imperative to establish a semi-independent task force, called New Social Organization, composed of, a widest range possible, stakeholders to implement near-term and immediate plans. Meanwhile, a legal reform is necessitated to facilitate various usages, primarily that of medical application. It is also imperative to enable a systematic support for applied research and development on cannabisbeing the corner stone of management.

Keywords: Cannabis, New Social Organization, Economic rents, Pareto improvement, Delphi Technique.

1. Introduction

Hemp family plants are traditional crops in most of countries, including Thailand. Its traditional use was diverse including, ceremony, food and fibre, leisure and medicinal purposes. Among the family, cannabis or ganja tops the current public debate worldwide. Such usages date back to centuries until most modern governments illegalize the production and use of ganja or cannabis for all purposes-except a few governments that see the claimed medicinal values and commercial opportunities brought about by cannabis. The Netherlands, Israel and the U.S. in 24 states, for instance, pioneered their public policies to a managed system that liberalizes medicinal and leisure use of marijuana. A telephone interview with an informant reveals that New Zealand privatizes a managed system that imposes a very stringent control for accessing cannabis as a medical and leisure option. One would have to wait and see how new changes bring about success to New Zealand in fulfilling its policy goals. Thailand however has a different stage of development, as cannabis remains on its illegal narcotic list.

One political party in Thailand flagged cannabis liberalization (murkily understood being primarily for medical use) to gain hefty popular votes in the last election, and became the second largest party in the current coalition government. In part, this reflects a new paradigm shift and it consequently calls for a management system to replace the old regime that relies heavily on command and control system that if not proven in effectual, is grossly inadequate to deal with the century-old social problems. It is too common that most of the crimes are related to narcotic use, and alcohol. Lives are wasted as young as elementary school level, as it has been reported off and on.

Existing gentle policy to grant "no penalty" or exemption has allowed addicts to seek free treatment, voluntarily. Yet, free voluntary treatment has not solved the serious social problems Thailand is

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facing. For instance, ONCB revealed the number of declining patients to receive treatment, from 15,244 persons in 2016 to 14,872 and 12,468 persons in 2017 and 2018 respectively. This may not automatically indicate overall improvement in the social conditions associated with cannabis, though. Nevertheless, the fact that cannabis is ranked low on the scale of harm score-shown in Figure 1 seems to suggest a reconsideration, or needs for change of social paradigm. Cannabis rarely kills. Others are more harmful, yet legalized. This may indeed support a new movement to reconsider cannabis being a sole narcotic, and to put in place a system to effectively deal with and manage it at the national level.

The key research question is: what is the best management model for Thailand? Brushing aside the benefits and health and mental risks, this paper aims to propose a most sensible management model as Thailand transits to a new era of managing cannabis.

The results presented here come from a qualitative research approach which uses the Delphi Technique to collect data. Due to time limitation, this paper reports only feedbacks available in the first round of the survey. This paper is an initial report of the on-going research project. It is inevitable to deal systematically with the unknown future when one tries to conceive a system management that fit for the future. In this study, three scenarios form a basis for formulating contesting management models that are proposed to key informants, over the period of 3-5 years from the present time. Gathered information and feedbacks are initial inputs into the subsequent content analysis which results in this early draft.

2. Objectives

Hence, the objectives of this research are to examine:

1) the most likely future scenario that forms the context for designing a management structure and a management system for cannabis; and

2) the most sensible form of the management system, given the agreed scenario, and investment and benefit sharing systems.

3. Materials and Methods

The Delphi Technique is used to collect primary data, using a 6-question survey form that is consistent with the objectives. Over 30 key informants were chose to respond to survey forms sent to them, but only seven returned with complete forms on March 10, 2020. Content analysis was employed to analyze the data received.

4. Results and Discussion

This section reports three parts of the findings, accompanied by discussions: (1) proposed scenarios and chosen future scenarios, and responses to six questions that follow consistently with research objectives, (2) proposed organization structure and management and (3) stages of cannabis liberalization required to pave ways for a new management system to function.

Cannabis or marijuana remains illegal and is heavily policed in Thailand. Results, however, may not be satisfactory. Shown in part in Table 1 below are statistics of confiscated dried cannabis which is a popular products smuggled from neighboring countries. The rising trend of amount, depicted in Table 1, contrasts with the declining trend of cases, indicates not only that demand is high, but command and control measures are not effective. A new paradigm is certainly called for to manage this less harmful 'drug' than others, especially other legalized products—shown in Figure 1.

4.1 Probable scenarios and results

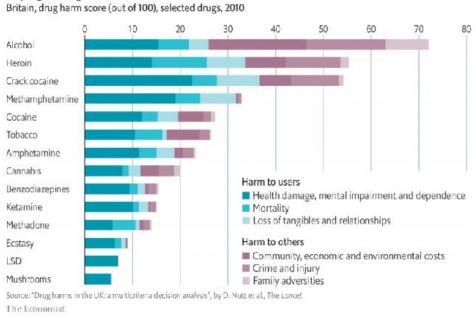
Now that the future is unknown, but it is necessary to project probable futures, from which ones could agree upon and accept to be future context within which a sound management system could be proposed. Three scenarios are thus proposed:

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| Fable 1 Confiscated illegal dried cannabis in Thailand (Office of the Narcotics Control Board (ONCB). | | | | | | | |
|--------------------------------------------------------------------------------------------------------------|---------------------|----------|--------|----------|--|--|--|
| Year | Amount (1,000 kg.)* | % Change | Cases | % Change | | | |
| 2011 | 12.92 | na | 13,087 | na | | | |
| 2012 | 24.44 | 88.91 | 11,723 | -17.22 | | | |
| 2013 | 26.67 | 9.12 | 14,639 | 24.87 | | | |
| 2014 | 32.21 | 19.93 | 13,958 | -17.96 | | | |
| 2015 | 24.52 | 23.85 | 9,441 | -36.38 | | | |
| 2016 | 31.88 | na | 11,313 | na | | | |
| 2017 | 31.70 | -23.72 | 8,629 | -0.55 | | | |
| 2018 | 44,144 | 39.25 | 8,584 | -0.52 | | | |

*Numbers are rounded. Some discrepancies are observed for year-to-year reported numbers.



Paying through the nose

Figure 1 Harm scores of selected drugs in Britain (The Economist, online).

(1) BAU Scenario:

This is business-as-usual future: marginal change continues as it has been in the past into the near future. *Thus it requires no new management regime*. The "usual" mechanism and management structure would continue to operate, within the traditional structure and commands of laws and regulations. If any, however, changes would be so marginal that the bureaucracy would continue to dominate the management, and cannabis would remain on the illegal list of all the laws and regulations. The bureaucratic system grips the management systems within the same expected conduct and performance. Command and control rules.

The private sector has little passive shadowed role; only to the extent that the government wishes to have a collaboration from the private sector it wishes its passive partner to have. That means no legitimate role. At best, 'donation' maybe called for to support government-initiated projects.

While use for all purposes remains illegal in this scenario, funding for cannabis research and development is not seen visibly; at best it would be increased, predictably, at the "normal" rates. Compared

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to other scenarios, this is a modest progress, perhaps much lower than what is needed to support the transition to free cannabis usages, especially for medical purposes.

(2) Progressive Scenario

The future is proactively managed, using progressive management both in the government and the private sector. A new agency may be required to manage the new system. Data and information systems are used at all levels of government, from local to the central levels—allowed by new laws and regulations that are revised and reformed accordingly. Reporting lines are short-cut, using devolution processes where decision making is made and addressed according to the Subsidiary Principle.

Medical purposes are set as highest priority to liberalize cannabis use and its production, under state control. Access is regulated systematically under a new management regime. Prescriptive use is tightly regulated to ensure safety and precision in curing. New Zealand sets an example for this scenario. In response to increasing interests and realization of therapeutic property of cannabis, the government on 18 December 2019 was committed to pass Order in Council and establishes a Medicinal Cannabis Agency to administer the medicinal scheme to be established under the Order. Thus a supply chain of cannabis for medicinal use will be regulated to ensure high standards and be commercially viable. A referendum is required to ensure public inputs into the legislation process—while the government intention itself is already a progressive idea away from the traditional control under the BAU scenario above.

It is also worth noticing that progressive liberalization in this particular example prevents illegal use; allows broad participation of citizen through referendum, workshops, advisory group and licensing for "cultural use". Amendment of related laws and regulations is the first step to allow usages of licensing to ensure effective regulations and encourage investment throughout the supply chain. Applied research which imparts relevant knowledge, including management systems, will be supported by generated revenue and public funding.

(3) Disruptive Scenario

This is a very challenging scenario, within which production, all forms of use, trade and promotion are all "liberalized" within a pre-designed "supportive" framework. Other than medical use, non-medical purposes are also allowed. Registration, however, maybe required to prevent misuse and illegal use. It is foreseen that a regulated private organization and management system are required to ensure management efficiency and accountability. Forms of benefit sharing will be developed to ensure equity.

With other answers, Table 2 summarizes all the feedbacks from the Delphi Survey, the first round. Only one out of seven respondents is female. They have diverse professions and age; all are still working.

Firstly, respondents were asked to read and provide their most-likely choice of the future scenario. They were asked to choose a most agreeable one from the set of three scenarios, also to freely amend their choice, with justifications and examples they know. To this end, all but one respondents chose the progressive scenario. Only one whose background is a business owner chose Scenario 3, which is a disruptive pathway for cannabis in Thailand. Another business man, however, believe that it will be a BAU scenario. Moving an agenda in the House of Representative and the Senate has proven very lengthy and difficult. One possible implication from respondents choosing Scenario 2, a Progressive Future, is their optimistic outlook that sees a positive change in the public paradigm towards cannabis and needs to have a system urgently being put in place. These respondents are mature male, except one working researcher female.

The second question is on priority area of cannabis use if it is indeed 'liberalized'. All but one respondents wished to focus on medical use as top priority. This is worth noting research from Italy found significantly higher recreational use of cannabis, especially at lower age range, once cannabis is liberalized for all uses. The one male who chose Scenario 2 wished to see a total liberalization of use, of course together with a strict regulation on recreational use.

The third question: Who or which party should be the leader to implement a new regime? Not surprisingly, answers are diverse, with half of the respondents wished the government will take lead. The

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major reason is legal responsibility which holds the government or its designated agency accountable. One person wished to have a private sector entity lead that initiative; one wished to have a network that is led by the designated government body. Lastly, one respondent believed that a network, fully participated by all stakeholders, was a better choice to lead. The differences deem it necessary to examine further, reasons behind and feasibility. This could be pursued in the second round of the survey.

| Profile of respondents (Gender/age/ profession) | Chosen scenario | Priority regime | Lead party | Form of investment | Type of research | Management regime | Benefit sharing |
|----------------------------------------------------------|--------------------|--------------------|---------------|-----------------------|-----------------------|---------------------------|--------------------|
| M/54/For hire | 2 | Medical | G | G & Network | Applied Medical | Regulated, Liberalized | Intangible |
| M/24/Business owner | 3 | Medical | G- Network | G & P | Value-added | Participatory | Intangible |
| M/66/For hire | 2 | Medical | Network | G | Value-added | Public | Intangible |
| M/66/For hire | 2 | All | Р | G & P | Value-added | Public | Lower price |
| M/54/For hire | 2 | Medical | G | G | Basic&Value- added | Public | Lower price |
| F/42/Researcher | 2 | Medical | G | G | Applied medical | Participatory | Share |
| M/45/Business owner | 1 | Medical | G | G & Network | Applied research | Public organization | Normal channel |

Table 2 Results from first-round Delphi Survey (Round 1 Survey using Delphi Technique, as of March 10, 2020)

Source: Survey

G = Government, P = Private Sector, Network = Network of Stakeholders,

The fourth question posed to respondents is: What form of investment is most feasible to secure sustainable and adequate funding for the new management regime. Almost all of the answers surprisingly weight heavy burden on the government, which is seen most able to support this high-risk investment regime. However, the government may not necessarily be the sole investor. It could partner with the private sector, or with a network of stakeholders-who could probably raise fund to shoulder operation costs. Perhaps in reality this is a very high risk partnership. The last respondent, interestingly, proposed government-Royal Project Foundation collaboration. That network of investment could partner with other learning institutions and the private sector. No other is specific about that private sector entity. They all seem to have forgotten the big influence of the local dominant, and international players for some reasons.

The fifth question further dwelt on the most important role of research and development that would nurture and sustain future investments. Only one person wished to see new investment on basic research, which actually too late to conduct as Thailand comes so late in the game. It is perhaps better to seek knowledge transfer, and add value to cannabis products, through applied research. These two types of R&D are different. The former adapts what is known to produce a new commercial product; the latter devised basic research knowledge to generate more knowledge.

Sixth, when asked: what type of preferable management regime that fits chosen future scenario? This should follow from the types of investment spelled out above. Half of the respondents wished it to be exclusively a pure public system. Perhaps they continue to believe that the public sector is more accountable; and perhaps that the private sector management regime is too 'dangerous' and 'greedy'. There has been a general perception that could be called a conspiracy theory that a political party has a hidden agenda to liberalize cannabis. It is interesting to note that two respondents proposed a participatory regime, though with different details. One wished to have full participation of people, others wished to have

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In addition, respondents were asked to give their views on systems of benefit sharing. Most of them did not provide a clear answer, except saying that benefit could already be transmitted to patients through greater access, greater affordability (i.e., lower prices) and ensured quality. Besides, some domestic or for-market production of plants would allow patients and small-scale producers to earn some modest income. These benefits are classified as "intangible" in this report. Two respondents openly said lower prices to consumers. One person proposed having a system to distribute corporate shares to people. More specific details are needed for this topic.

4.2 Proposed Structure/ Organization

Frank H. Knight (1972) had laid down the conceptual foundation with a very visionary view of the future, that is the future would be complex and orchestrating multi-stakeholders' role would be as complex, if a society is to 'manage' that future. Viewing role of the economic system as a purposeful one, he consequently defined Social Organization being multi-task delegation working towards a common goal. "The practical objective of economics is the social organization and increasing economic efficiency...". (Knight, 1972).

This old concept remains relevant, and it could be applied to formulate a management structure to manage cannabis liberalization. In addition, reviewing organizational management theories, Yang, Liu and Wang (2013) found that the present organizational management practices are already outdated, and they will not be suitable for the future complex society. Subsequently this calls for a new management structure that is entirely different from the ones we are used to. That brings to the question of needed capacity for the new era. Modern organizations need to ensure that capacity development being part of the organization management. Jesdapipat and Karanond (2017), using United Nations Development Programme (UNDP , 2008) capacity development framework as a prototype model in assessing organizational capacity,

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proposed an 8-dimension aspects necessary for organization to adapt its management in the new complex social environment: (1) the capacity to conceive policies and plans; (2) the capacity to implement policies and plans; (3) the capacity to coordinate with other stakeholders; (4) the capacity to gather and use data and information; (5) the capacity to monitor, evaluate and report; (6) the capacity to manage knowledge; (7) the capacity to invest, manage and use new technologies; and last but not least (8) the capacity to raise and manage finance. These capacities could be considered in designing and executing the proposed management regime for cannabis during this transitional period. That is, capacity development should be considered to be a crucial part of the new agency.

Succinctly, there are three points to this proposed structure, though: what is the common goal? Can there be one common goal? Or should there be sub-goals and one supreme goal? Who and how to delegate the multi-task? And, lastly, what is the structure, conduct and performance of the Social Organization thus established?

Realistically, at least during this transition, the structure of the organization is a semigovernmental organization. Its clear mandate is to function as a social organization, with one ultimate goal: to provide another option to patients. A recent study (Buason and Jesdapipat, 2020) described successful stories of combined medication between modern and traditional medicine. This could be a model for the new social organization to offer cannabis alternative.

Being a public-led entity, and functioning in close collaboration with other relevant bodies and entities in the form of a national network, the new organization receives partial budget from the government, and shares receipt from sale, service and licensing. To follow the New Zealand model, the new organization could also grant permits to others. Interested private entities could submit online bidding to be strategic partners, so that such economic tools as licensing, permits could be used to grant specific services. The new entity will be run by a policy board, and an executive board—openly recruited from experienced professionals. Their terms are fixed, and may be renewable. It will also help set, through a research board in close collaboration with other research institutions, research agendas capitalizing partly on international experience and knowledge relevant to cannabis. Priorities of research areas and forms could be set by the policy and research boards. This could include forms of benefit sharing arising from research, sale of products, licensing and services.

A lateral monitoring and evaluation scheme (i.e., members are composed of multiple and diverse professions from outside the organization) will be implemented to allow impartial and full participation of stakeholders. This form of M&E was proposed by the World Bank to overcome weaknesses posed by the vertical scheme, or internal auditing.

4.3 Proposed stages of liberalization

As it is apparent that any cannabis policy improvement is Pareto improvement—that is, no one is made worse off as someone is made better off—Thailand could benefit from having a more liberal policy. Liberalization is best conducted in various step, according to the public *needs*, not the public *wants*. That implies medical needs, being the top priority similar to examples of other countries. It is sensible to gradually liberalize the illegal cannabis thereby starting out with the medicinal use. It is almost obvious why this should be the first step; and it is indisputable to have this sector freed before others. It does not mean, however, that it is fully liberalized with no control. It is rather a form of strict regulated liberalization—which could be done step-by-step progressive fashion. The possible stages of liberalization are:

- *Stage 1:* Revision of related laws and regulations, perhaps with possibility of issuing an Executive Order to fast track the first step of allowing certain activities, to certain entity.
- *Stage 2:* Establishing a special committee to design and establish, using the Cabinet Order, a Social Organization for Cannabis Liberalization (SOC in short), spelling out functions, management structure and governance.
- Stage 3: Liberalization of cannabis for medical purposes, based on a new regulation.

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Stage 4: Formulation of benefit sharing regimes.

5. Conclusion

Amidst chaotic transition of cannabis being classified as illegal, and prohibited by existing laws for any kind of use, the present coalition government in Thailand seems to lose its steam on pushing for cannabis liberalization of some forms, at the least, as one coalition party pledged before the election. And, that pledge became a public commitment. Little progress is seen, due to a large number of obstacles and mounting agendas for the government to struggle to stay in control. This research asks one question: what could be the regime of management, if Thailand needs one after cannabis is legalized, perhaps with some specific conditions and use? This paper is an early draft of a qualitative research project that uses the Delphi Technique to collect data. The 6-question survey form asks respondents to share a vision of the future, which Thailand would set into over the next 3-5 years. Most of the respondents forecast a progressive scenario; one sees a business-as-usual future, the other projects a disruptive future.

With the perceived future scenarios, respondents were subsequently asked to respond to priority area/ use of cannabis—to which all of them proposed medical application. Subsequently, most of them still see the key leading role of the government in managing this transition. Partnership with all stakeholders, especially the private sector, civil society networks and research institutions was seen as crucial. Interestingly, no one mention international players, private or government. This may indicate the level of being informed and awareness. Or information on cannabis is simply limited.

Not surprisingly, however, most respondents saw the value of research that formed the basis of cannabis use; they wished to see value-added research activities—one which could lower costs to consumer, broaden access and ensure quality. Medical cannabis tops the research agenda. Only one person still felt the need to support basic research. All the funding should come from annual government budget. This, to some extent, reconfirms public trust in government management, despite fear of over-extraction of economic rents should a private sector is licensed to manage the transition. Benefits arising from liberalized medical cannabis will be automatically dissipated throughout the new system: better access, better quality and affordable prices. One respondent interestingly proposed a scheme of commercial share to all.

These are first-round feedbacks from Delphi survey. One could argue that the next move is Pareto improvement: any progressive policy on medical cannabis leads to better improvement for all. Over the past year, news and information on medical cannabis has spurred wider illegal grower, domestic and substandard process, inflated prices, and uncertain quality to consumers. There must be an agency to manage all this illegal activities, and to take medical cannabis into a clearer and manageable spotlight.

A quick analysis of the data and information leads to a proposed semi-government form of entity that sees the greater good and has the legitimate authority, under reformed laws and regulations that legalize cannabis medication. It is called Social Organization for Cannabis Liberalization or SOC. It is argued that liberalization needs to be a gradual, progressive and step-by-step manner. A policy board, and a research board form the core operation of this new entity. It has full power, by law, to direct research and authorize use of medicinal cannabis, under a regulated liberalized system. The paper further defends that capacity development is crucial for the organization.

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https://rsucon.rsu.ac.th/proceedings

- 7. References
 Knight, F. H. (1972). Prophet of Freedom, page 131, Retrieved March 10, 2020, from. https://books.google.co.th/books?id=HIpPDAAAQBAJ&pg=PA130&lpg=PA130&dq=frank+h.+k night+social+organization&source=bl&ots=_wDFVJwMBd&sig=ACfU3U2ag0G4WkWCbCdTy XIHOBt96CeoAQ&hl=th&sa=X&ved=2ahUKEwjv1pDuipHoAhVqxDgGHZdtAWcQ6AEwAXo ECAkQAQ#v=onepage&q=frank%20h.%20knight%20social%20organization&f=false.
 Ministry Of Health. *Medicinal Cannabis Scheme*, Retrieved February 9, 2020, from. https://www.health.
 - govt.nz/our-work/regulation-health-and-disability-system/medicinal-cannabis-scheme.
- Office of the Narcotics Control Board (ONCB). Several years. Annual Reports. Bangkok: ONCB.

Jesdapipat, S. & Karanond, A. (2017). Assessing Organizational Capacity in Supporting Climate Change Adaptation. *Thailand Research Fund*. (In Thai).

Buason, T. & Jesdapipat, S. (2020). *Results from combined modern and traditional medicine in Sungnern Hospital.* A master degree thesis, College of Social Innovation, Rangsit University.

The Economist . (online). *What is the most dangerous drug?*, Retrieved February 9, 2020, from. https://www.economist.com/graphic-detail/2019/06/25/what-is-the-most-dangerousdrug?fsrc=scn%2Ffb%2Fte%2Fbl%2Fed%2Fwhatisthemostdangerousdrugdailychart&fbclid=IwA R2z8lnmg7415-H9G0eYvf8T9bHgBfXL0khJkVRQo-oUXql59zZuZJ_SOHE.

United Nations Development Programme (UNDP). (2008). *Capacity Assessment Methodology: User's Guide*, November. New York: UNDP.

Yang, C. X., Liu, H. M., & Wang, X. X. (2013). Organization theories: from classical to modern. *Journal of Applied Sciences*, 13(21), 4470-4476.

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