

Chapter 11

INFORMATIONAL BASIS OF POLICY JUDGMENTS: THE CASE OF THE ROYAL FOREST DEPARTMENT OF THAILAND

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1. INTRODUCTION

1.1 Objective

This report presents a preliminary analysis of policy formation in the area of forest management in Thailand. Despite its remarkable record of industrialization and economic growth, the country still has a large agricultural population that is in daily interaction with the natural environment. With the majority of people living in the countryside, policies on land use have a significant impact, not only on the conservation of biodiversity but also on the welfare of local people. Because of both an increasing scarcity of land and the emphasis on forest protection for the conservation of biodiversity, forest land has become a “politicized space” over which local people, government, and private industry strive for control (Sato 2000). Any initiative regarding land use must, therefore, be planned within this context; otherwise, the policies adopted will be neither socially nor ecologically sustainable.

It is often claimed that sound policies must rely on accurate information. In this context, many social scientists tend to think that more information is better than less. But this claim has to be examined carefully, since we often see reports that are never read, with papers piled up in corners of the library that are written just for the sake of writing them. We need to examine how information is connected to policy processes. In other words, some form of “strategy” needs to be built into the research framework to make it relevant, not only in connection with science and logic, but in its utilization and impact on policy.

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This study examines the role of information provision in such policy decisions. Work in the social sciences on policy formation in developing countries tends to rely on official documents and records, such as laws, cabinet resolutions, ministerial announcements, and so on. But these policy documents are in fact worded vaguely, leaving much room for differing interpretations. We know very little of the patterns, if any, of interpretation of ambiguous information and its translation into policy outcomes. The aim of this study is, therefore, to determine, by systematic analysis, the degree of freedom that exists in policy formulation at various levels of governmental authority (i.e., local, district, provincial, and regional levels), and to investigate the manner in which information is transferred from one level to another. In the process we may identify the informational bases of policy generation, and this may contribute to a more strategic utilization of natural sciences research.

This paper is primarily a case study of the Royal Forestry Department (RFD) of Thailand.¹ Although Thailand was known as the "Kingdom of Forests," it had, in fact, lost much of its natural forest assets by the late 1980s. Figure 1 illustrates the decreasing forest cover since the early 1960s and the increasing efforts of the government to expand protected areas.

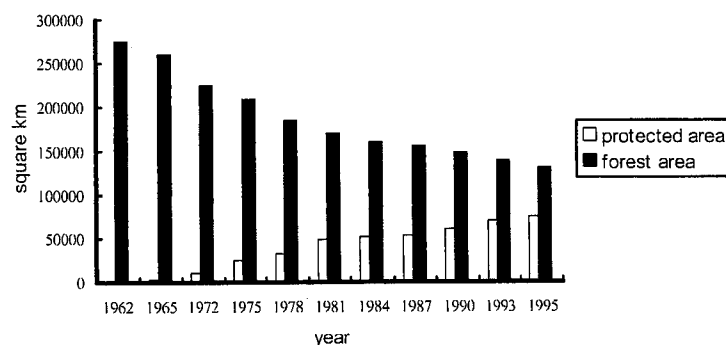


Figure 1: Decrease in forest cover and expansion of protected areas.

Source: Royal Forestry Department (1997).

One may wonder how the RFD has been able to financially sustain itself, or even strengthen itself, despite the dramatic loss of forests under their responsibility. The RFD

¹ Thailand went through a major restructuring of its government in October 2002, and the Royal Forest Department was split into two groups—one responsible for conservation and the other responsible for production. The former groups were absorbed into the newly established Ministry of Natural Resources and Environment. The answer to whether the new government structure has completely changed the decision-making processes described in this paper or not requires further investigation.

was able to more than double its budget and its staff during the "loss" period. One way to explain this mystery is to redefine the central mandate of the forestry department.

Despite the dramatic loss of forests, the RFD still has direct control over almost half the land area of Thailand, as "forest lands," and remains powerful, despite occasional challenges by non-government organizations (NGOs) and local people. This is because control of land itself is as important as the control of forests; and the loss of forests can also serve as a lever for increased funding. Of the territory under RFD control, forests with relatively rich biodiversity (i.e., national parks and wildlife sanctuaries), representing about 15 percent of total land area, are directly under the control of the RFD (RFD 1997). It is therefore clear that RFD operations have significant implications, not only for biodiversity but also for the welfare of farmers living in those forest areas.

Specifically, this study aims to (1) identify policy-relevant and policy-irrelevant information, with a focus on the work of frontline forestry officers who operate in the field; (2) identify "policy-relevant information" in relation to other factors that have an impact on policy formulation, such as politics and the bureaucratic culture, in various situations of decision-making; and (3) suggest an agenda for future research which will have immediate policy implications. Finally, I attempt to answer the apparently obvious, yet seldom investigated question: Where does policy come from?

1.2 Literature Review

There are broadly two strands of scholarly tradition from which this study can be seen to depart. First is the study of bureaucracy and administrative behavior in government (Simon 1958; Kaufman 1960; Allison 1971; Wilson 1989). This group of work focuses on decision-making structures in public administration and the conditions under which certain courses invite certain outcomes. This study relies particularly on two sources. One is the classic work by Kaufman (1960), *The Forest Ranger*. Kaufman examines how policy decisions, made at the top level of government, overcome centrifugal tendencies towards organizational fragmentation, and are translated into coherent action by forest rangers in the field. Kaufman's work is especially useful, because, although dealing with the Forestry Department of the United States of America, it employs an anthropological approach to the study of bureaucratic behavior. The other is a more recent work by Feldman (1989), *Order Without Design: Information Production and Policy Making*. In the context of the Energy Department of the U.S. government, Feldman asks why bureaucratic analysts persist in producing documents and information that are seldom used by policymakers. These studies indicate the complexity of organizational behavior, which defies easy analogy with the processes of individual rationality.

The second strand of scholarship on which this study relies is specialist work on Thailand. Siffin (1966) and Riggs (1966) published pioneering studies of the Thai bureaucracy, and some more recent contributions examined are by Yoshida (1985), Tamada (1992), and Hashimoto (1998). This work illuminates the historical development of the bureaucratic polity in Thailand and its structural problems, such as

corruption. However, the question "Where does policy come from?" is not really addressed.

In addition, there are documents and reports concerned with forest policies in Thailand that are not necessarily academic, yet contain some useful information. Despite the relatively abundant published material on forest law and administration, there are few systematic analyses. Very few Thai scholars are working on issues related to land and forests from the viewpoint of the social sciences.² Why few academics work on the issue of land tenure and forest policies is an interesting question in itself, and deserves explanation. One possible reason for the paucity of study may be that the nature of the subject falls between the cracks of traditional disciplines. The faculty of forestry has not concerned itself with the social aspects of forest management; policy-related subjects are not considered "science," and are therefore felt to be inappropriate contenders for university resources. Second, it is a politically hot subject, which makes it difficult to collect sufficient empirical data. This has left the NGOs as the principle agents of critique of forest and land policy.

1.3 Research Methods

The primary method of this investigation was a series of interviews with RFD officials in Bangkok and in selected regions. Former RFD officials and university academics were interviewed as well. Three provinces were selected for case study, Uthaihani, Nakorn Sawan, and Ubonrachatani, because of their comparatively rich forests and the many conservation projects that have taken place there.

The initial research was conducted in the Lansak and Hoi Kot districts of the province of Uthaihani, interviewing frontline forestry officials who work in the field in order to investigate the way in which these officers interpret policy. The interviews were conducted in the Thai language without the use of interpreters, with one research assistant who was able to help me record the interviews. Formats for making reports and the minutes of monthly meetings were obtained whenever possible.

² This does not mean that there are no studies on the subject. Sayamon (1995), for example, looked at the historical development of the RFD, the structure of power in land administration, and various master's theses that are relevant to the subject.

2. BACKGROUND OF FORESTRY POLICIES OF THAILAND

2.1 Introduction to the Royal Forestry Department

Before reporting the core matter of this study, it will be helpful to outline the basic features of forest policies in Thailand.³ In Thailand, forest policies are implemented under the direction of the Royal Forestry Department (RFD), established in 1896 by the British. The mission of the RFD at that time was to regulate and control the logging businesses, which had been dominated by feudal chiefs, in the northern region of Thailand. Centralized control by the RFD made it easy for the British and the Siamese governments to profit from valuable timber such as teak. The major task of the RFD in the early days, then, was to negotiate with the feudal chiefs in order to gain control of forest resources in the north.

Control over valuable timber soon made the RFD realize the importance of controlling land. Although the idea of demarcating "forest reserves" was present from the first years of the RFD's establishment, the actual policies did not materialize as the Forest Conservation and Protection Law until 1938. This law for the first time made clear the government's intention that certain "areas" were government property, which should not be invaded. This policy was further strengthened by the designation of "permanent forest" in 1961 and the National Forest Reserve Act of 1964. Both acts are still current. But conflict with local people who lived inside the boundaries of the designated areas became intense, and land disputes between people and government increased dramatically as the population grew.

A well-publicized conflict was the years-long street demonstration by the "Assembly of the Poor" (Baker 2000). In March 1996, more than 10,000 farmers from all over the country rallied on the street in front of the parliament. Among the demands the assembly made, the most vital was concerned with rights to forest and land use. There were numerous violent conflicts between the RFD and local people over the right to stay on public land, land on which people had often resided prior to its designation as permanent forest. Farmers seldom had official documentation to prove their residence, however, and therefore faced the threat of eviction from their homeland.

Although 42 percent of land in Thailand is at present designated as forest reserve, most of that area is already occupied by farmers. There is farming even in areas where protection activities are stricter, such as national parks and wildlife sanctuaries. How to deal with people inside RFD territory is one of the most pressing issues, not only for the RFD, but also for the government of Thailand.

³ One should also note that forest policy is one of the least studied areas, with no dedicated academic staff even in the forestry school at Kasetsart University, the only institution offering higher degrees in forestry.

2.2 Levels of "Policy"

"Policies" in this discussion are interpreted as "ways of exerting power, of getting people to do what they otherwise might not do" (Stone 1997). Therefore, policy, by definition, is not neutral; it makes a claim to rearrange power and authority over certain resources, and always results in an unequal distribution of costs and benefits. Official government policies often take the form of "documents" that must be interpreted and then translated into action. At the highest policy level, there is the Constitution, and below it there are several royal decrees and laws that define legal and illegal activities related to forests. The multiple layers of policies are not always consistent with one another, thus causing confusion.⁴

At present, six royal decrees (*prarachabanyat*) govern forest administration. Cabinet resolutions are numerous and can be revoked when a new cabinet takes over from the old one. Although the resolutions have no legally binding power, they often carry an authority that is equivalent to law. A well-known one concerning forestry was the Wang Nam Kiaw cabinet resolution of 1997, which permitted farmers to live inside protected areas, but only when they could prove prior residence. Because the method of proof was not clearly defined, the Chuan administration revoked this resolution in the following year.

The formation of cabinet resolutions normally follows decisions of the National Forestry Policy Committee (*Kanakamakaan Nayobaai Paamai Hengchaat*), held bi-monthly, and composed of representatives of forest-related departments in the government.⁵ This committee was formed in 1985 when the government issued the National Forestry Policy that continues to serve as the basis for forestry development and conservation. It states that 40 percent of the country's forests should be conserved and that 25 percent will be strict conservation forests, while the remaining 15 percent will serve as forests for economic production. The object of the bi-monthly meetings of the committee is, therefore, to discuss the detailed steps toward this goal and to overcome obstacles. The agenda of the committee is normally provided by the director general (DG) of the RFD, and the secretariat is provided by the RFD's planning division.⁶

The DG of the RFD is also the source of less formal, but often more influential, policies. The present DG, for example, published a booklet for officials in the department entitled *Policies 101 Points* immediately after his appointment as DG in 1998. The duration of the appointments of DGs has varied from a few months to three

⁴ Some experts critical of forest policies in Thailand claim that cabinet resolutions are intentionally framed to be broad and vague so that enough room remains for the power élites to exercise influence in their interests.

⁵ The committee is chaired by the deputy minister of agriculture and the secretariat is the RFD (Planning Division). The committee is composed of representatives of departments and academics. The departments include the Department of Land, the Department of Land Development, the Agricultural Land Reform Office, and the Department of Local Administration.

⁶ In addition, the annual National Forestry Meeting primarily focuses on research, rather than policy.

years. Upon completing his appointment, a DG often proceeds to the rank of permanent secretary-general of the Ministry of Agriculture, depending on age and political popularity with the government. Because the DG holds enormous power, especially with regard to promotions, informal policies originating with the DG play an influential role inside the RFD.⁷

Sub-legal policies such as these, geared to the operational level, together with their frequent ambiguity, can serve to resolve inherent contradictions among the higher-level policies. They provide the "working principles" for frontline officials. Before moving on to the analysis of information flow, let us step back a little to take in a wider picture of land administration in Thailand.

2.3 Classification of Forest Lands

One important dimension that makes the study of policy in Thailand so difficult is the complexity of land and forest classification. The roots of this complexity can be traced to the definition of "forests" in Thai law. According to the Forest Law of 1941, still in effect today: "Forests are pieces of land that are yet to be occupied by individuals according to land law." Since only about 20 percent of farmers have official property rights, this allowed the RFD to claim the majority of the land as under its control. Actual forest (tree) cover has nothing to do with the definition.

Following the logging ban in 1989, the RFD initiated a zoning project for all forests inside the forest reserves to identify potential areas for plantation, degraded forests that could be given to landless farmers (economic zone [E]), land suitable for agriculture (A), and land that should be strictly under state protection (conservation [C]).

Policies on zoning of forest therefore have significant implications for land use and the welfare of local people in rural areas, and this is the central reason why, when we look at forest policies, we must examine other land-use policies at the same time.

Among the categories of forest land, wildlife sanctuaries, national parks, and forest reserves each have their own legislation; other areas are protected by cabinet resolutions or ministerial and departmental regulations. This not only gives national parks and wildlife sanctuaries higher status, it also privileges the RFD who have *direct* control over these lands with little interference from provincial governments.

Figure 2 illustrates the anatomy of forest land classification in Thailand. In 1961, the area of permanent forest (the outer boundary, 50 percent of total land) was demarcated based on the policies established by the Land Classification Committee in 1957. To accelerate legalization of this area as forest, the National Forest Reserve Act was promulgated in 1964. Because of the time lag between the two, however, the area covered by this law had become much smaller than in the original plan. It should be noted also that some forest was left outside the permanent forest boundary. This forest category includes private forests and forest on public land under the control of the Land Department. There is also an area of dual authority (depicted by the gray arrows in the figure) where wildlife sanctuaries and national parks overlap with forest reserves.

⁷ The DG's policy is clearly stated in the annual report of the RFD.

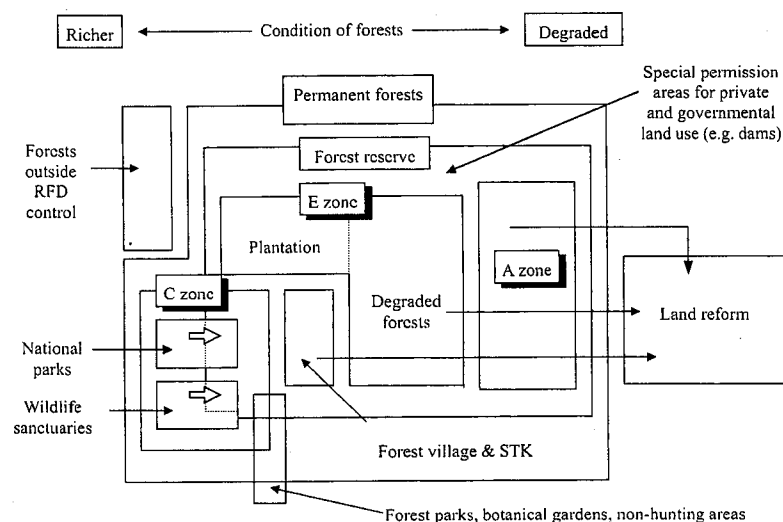


Figure 2: Anatomy of forest land classification in Thailand.

The basic strategy of the RFD is to secure the maximum area of land under the strictest regulations (the laws on wildlife sanctuaries and national parks); but if it finds a substantial number of villagers in such areas, it will downgrade the status of the land to forest reserve. The final lines of the RFD's defense of forest are the C-zones, which will eventually be protected by closure to human settlement. By contrast, parts of the E-zones are to be privatized and released for commercial tree planting.⁸ The rapid growth of C-zones since the late 1980s was intended to protect such territory ahead of demographic decentralization, which might give farmers stronger claims to encroach on reserved state lands.

3. INFORMATION

3.1 Types of Information: District Officer Level

Behind any policy decision, there must be an informational base. Information may alert policymakers to a problem to be solved, it may help to identify the right means of tackling the problem, and it may provide feedback as to the success of a policy. But not

⁸ Some NGOs claim that the government's hidden agenda in privatizing the E zone and expanding the land reform area is to allow already wealthy sections of society to legally grab "unused" land (IUCN 1996).

all the information available is utilized in policymaking. Some information is collected as a routine procedure without it having any potential for direct influence on policy formulation. The initial task of this study is, therefore, to classify available information as relevant and non-relevant to policymaking.

The primary agents of information collection at the frontline of the RFD are the district forestry officers (*Paamai Ampeu*). They are ground-level officers who work closely with villagers and forests that lie outside the protected areas. One or two officers are often responsible for 15 to 30 villages. A district normally consists of five to ten sub-districts (*thambon*). There are 769 districts in Thailand, but there are only 540 forestry offices (*paamia ampheu*), since not all districts have forest lands within their administrative boundaries (Hashimoto 1998).

By regulation, the official duties and responsibilities of the district forest officer are as follows:

1. Give permission to outsiders for the conduct of research on forestry products, in keeping with forest legislation.
2. Encourage and develop the conservation of forest resources and forest animals.
3. Collaborate with other government agencies on given assignments.

The frontline officers, in practice, occupy the most important position in regard to access to information, since they are located in the field close to people and the forest, thus exposed to the changes in the field. They often have informal contacts with local people and gather information about their forest activities. There are primarily four ways in which frontline officials collect village-level information: (1) informal information gathering from daily patrols; (2) villagers requesting dispute mediation at the district office; (3) informal reporting by village leaders (school teachers, monks, etc.); and (4) formal data collection as determined by orders from the top (often relating to forest land demarcation and property claims).

Personnel transfer policy is another element in the success of information accumulation. Since the time when communist insurgency was a major national concern, frequent transfer of personnel (normally every four to five years) became customary to avoid co-optation between local officers and farmers, but mobility prevents field officers from acquiring intimate knowledge of their areas. Because forest management work by its nature requires consistent observation of slow-growing forest over many years, personnel policy can be critical. A policy of frequent transfer means that frontline officers are hampered in both forest observation and, perhaps more importantly, in developing a sound rapport with the villagers who can provide them with local information.

3.2 Hierarchy of Reporting and Levels of Discretion

In the monthly reports to the provincial forest office, the district forest officer supplies information regarding the quantitative *achievement* of (1) public extension service activities (e.g., distribution of leaflets, organization of seminars and training workshop, etc.), (2) organization of study tour and visits, (3) distribution of information

other than the above, (4) distribution of seedlings, and (5) tree plantation. In addition to providing information in these pre-established categories, the report pro forma contains a section for listing difficulties and complaints that arise. This section is often used to notify upper-level offices of inadequate budget and equipment, but these complaints are seldom responded to.

In addition to the ordinary monthly report, district forest officers furnish occasional "special reports," which usually deal with farmers' encroachment on public land. These special reports are usually addressed to the district chief (*naai ampeu*), and thence to the provincial governor. They are mostly written *in response* to previous orders from the top, and are seldom drafted on the initiative of the officials themselves.

Although the district officers are positioned at the lowest level in the hierarchy, they are the initial contact point for the public in matters relating to policy, and may exert considerable practical influence through granting "permission" to use forest reserves. They are able to grant "permission" for such important matters as factory establishment, mining projects, and plantation projects.

But despite their intimate knowledge of villagers and forest conditions, the rich information that frontline officers have is seldom utilized to inform policy. There is no format for conveying their ideas, and not all incidents they handle are recorded in reports. District officers are there to implement policies initiated at the top; they should not come up with new ideas.

Use of the speed-of-response requirement, measured by the classification of "Urgent" stamped on the tops of letters requesting information, is an indication of their position. There are four categories of urgency: most urgent (*duan thiisut*), very urgent (*duan maak*), urgent (*duan*), and normal letters, which are not stamped. The urgency level does not necessarily correspond to the importance of the matter, but nevertheless is a measure of RFD prioritization of information. In general, the information classified as "most urgent" relates to land encroachment, forest fires, illegal logging and hunting, and tenurial disputes.⁹ It is significant that the urgency ranking of letters is determined by the top officials of departments and is directed "downstream," and that frontline officers do not have the authority to classify letters directed "upstream." As a result, matters arising locally rarely climb the ladder through the official channels of reporting.

The formal data provided by district officers is collected at the provincial level, where the provincial forestry officer summarizes it for reporting to the Bangkok central office. Reports on the use of budget are made on a seasonal basis. The level of discretion exercised at the provincial level is quite low compared to that at the district officer level. This is because the heads of provincial forestry offices must accommodate the policies of both the provincial governor and the DG of the RFD in Bangkok, and sometimes must deal with conflicts between the two.¹⁰

⁹ There are also categories of letters, based on their "secrecy." "Classified" letters are often those related to sensitive international issues around the border, personal penalties, and promotion related matters (Virawat, 20 December 2001, personal interview).

¹⁰ The policies of the governor of the province often tend to show concern for the welfare needs of the people in the province, whereas the policies of the DG of the RFD more often prioritize conservation above public welfare. Tourism is often supported by governors, yet rejected by the RFD. There are examples of the governor rejecting development projects within the forest land,

Bureaucratic decisions follow the command line, as depicted in Figure 3. Normally, the monthly report follows the arrows in the figure. Note that two arrows extend from the district forest officer. Information related to land and property must be addressed to the district chief in the Ministry of the Interior command line, as well as to the RFD.

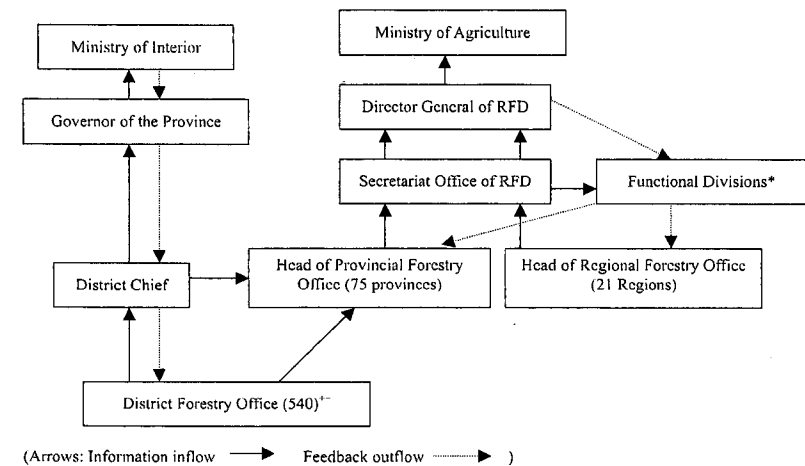


Figure 3: Command line: Ministry of the Interior and the RFD.

* "Functional divisions" are offices and divisions within the RFD.

** Monthly salary of district forestry officers is paid by the RFD.

Despite the impression given by this diagram, most information collected in the field by the frontline forestry officers is *not* utilized in policymaking. Forestry officers implement policies formulated at the top, but the information they supply seldom goes to *formulate* policies.

3.3 Feedback Mechanisms

If policies are *not* based on this flow of information from the field, what then is the basis of policy formulation? The answer is that policies *are* based on information from the field, but on information collected via different channels and for different reasons. The ordinary data collected by the frontline officers are not used directly in policymaking. Their reports are merely records of activities, bureaucratically designed to prove that officers are fulfilling their daily obligations.

however, such as the KEMO project in Kanchanaburi province. This was a mining project which the RFD had already approved, and which the governor rejected in response to the increasing pressure of public protest against it.

Feedback derived from routine reporting is limited. The case study in the province of Uthaitani showed that only problems relating to protected areas (i.e., national parks and wildlife sanctuaries), such as large-scale forest fires and legal matters, received policy feedback from Bangkok. In other cases, the reporting is one-way and there is no response or evaluation. Matters which require the signature of the DG provide an indication of information prioritization within the RFD. Only matters concerning changes in law, general policies, and promotions or transfers must be signed personally by the DG, whereas other issues can be authorized by the deputy DGs. The specifics of this division of labor change with the preferences of the DG in place.

Information used in policymaking is primarily collected by special order from provincial forestry offices and from Bangkok, triggered by a media report of an incident related to forest lands and resources. Information from the media reaches the top decision-makers much faster than via the ordinary channels, and orders to verify such information at the field level proceed faster than usual.

This is especially so when scandalous events, involving high-ranking people (e.g., politicians), are disclosed by the media. It is very difficult for the RFD to take no action if there is public pressure to do so. Of course, the RFD can pretend it is dealing with a problem according to public expectations, when in fact it is not. When the media reported the construction of a resort inside the Taplan National Park in Prachin Buri province, the RFD reportedly reacted by implementing a new demarcation to separate the resort from the national park, so as to clear the legal hurdles (*Bangkok Post* 2000).

Media reporting plays an important role in alerting high-ranking officials and politicians, who are normally insensitive to information from the field, as to issues of policy. It was reported to us that farmers, aware of the insensitivity of the bureaucracy, strategically use the media to inform and pressure top officials, and to place them in a position in which they had to act. The exact nature of farmers' use of the media, however, requires further investigation.

4. DECISION SITUATIONS

4.1 Three Types of Situations

In relation to policymaking, Fukui (1974) classified decision situations into three categories: normal, urgent, and critical. The distinctions between the categories are based on the criteria of "predictability" and "time available to decide." If there is sufficient predictability and time for decision, the situation is classified as "normal." If either predictability or time available is constrained, the situation is classified as "urgent." If both factors are constrained, then the decision situation is "critical."

From the bureaucratic decision-making point of view, as the situation moves from the normal to the critical, it will be more difficult to apply the procedures detailed in the operational manual or the standard operating procedure, which normally work well. The significance of Fukui's classification of decision situations is that government

operations are often structured to follow a standard operating procedure, which directs the manner in which decisions should be made. It is when the manual is not applicable that bureaucratic failures tend to manifest themselves.

This typology can be applied to the present study, but for forestry policy there are extra complexities. Influential decisions, affecting large areas and many people, must be made in Bangkok, which is located far from the forests and from local people. Furthermore, in the RFD a manual for decision-making does not, in fact, exist. The set of forestry-related laws provides the only guidance, but the laws are not coherent and contain many contradictions. It therefore falls to the frontline officers to interpret them in a coherent way at the ground level. For this reason, the organizational *culture* within which these officers work is a crucial guide in their interpretation of policy and policy judgments.

4.2 Examples of Decision Situations

Several events in the recent history of forest policy in Thailand can illustrate the nature of "critical" and "urgent" decisions. The most recent incident I wish to take as an example is the unusually speedy decision of the government to ban commercial logging in January 1989, which represented a "critical" decision situation. The ban was triggered by the tragic loss of 300 lives in a flooding disaster in the southern part of Thailand (Project for Ecological Recovery 1992). The flooding was reportedly caused by excessive logging in the area.¹¹ Decision-making was "critical" because the tragic incident was unpredictable and the accumulated pressure of public opinion against the logging business allowed little time for consideration. The unusually high speed of decision, by cabinet resolution, makes manifest the seriousness of the issue. The speed of decision can be explained by several factors. First, frustration and protest had accumulated against the growth of destructive logging operations in various parts of Thailand by the year 1988. Second, an especially high rate of deforestation in the 1970s and 1980s had almost exhausted the timber supply potential, so that a change of governmental attitude toward logging was imminent. Third, the already mentioned flooding in Nakorn Sithamraat province occurred at the "right time" to conjoin all three forces, thus determining a swift decision. It is also worth mentioning that the increasing cost of replantation at the logging site was becoming a serious burden for the logging companies. The ban took away their resources, yet it also freed them from paying the recovery cost.

An example of an urgent decision-making situation was the series of street demonstrations by the "Assembly of the Poor," mentioned earlier. Because it attracted nation-wide public attention, it could not be ignored by politicians. Nevertheless, the government had some time to negotiate. Several months were spent in negotiation over the demands, with new cabinets often reneging on agreements made by the previous administration. During the period of negotiation and tentative resolution, investigations were ordered to obtain facts from the field, especially with regard to property rights and the critical issue of proof of residence prior to nationalization. During negotiation,

¹¹ There was, in fact, a debate as to whether or not the flooding was caused by excessive logging.

information from the field became relevant to the formation of policy. Finally in September 2001, the Assembly won a series of compromises from the Taksin government and dissolved after four years of struggle. This does not mean final resolution. Cabinet resolutions have, historically, been dishonored by new cabinets. A legal act, such as a community forestry bill, is necessary to guarantee the long-term rights of farmers living in forest areas.

Finally, the ten-year debate over the community forestry bill can be taken as an example of "normal" procedure in bureaucratic decision-making. The community forestry bill will legalize the customary uses of state forests practiced over a long period, if registered properly. The main debate had been over whether to allow local people to register community forests *inside* protected areas, and the inclusion of the possibility of logging naturally regenerated forests (Makarabhirom 2000). The chief factor delaying enactment has been the RFD's resistance to allowing villagers access to forests inside the protected areas. The environmentalist NGOs joined forces with the RFD to support the conservative version of the draft bill, which restricted villagers' rights to establish community forests inside protected areas.

Because dramatic events like the flooding incident were not involved, nor were there high stakes involved from a political viewpoint, there was no social or political pressure to "speed up" the process, and this allowed the bureaucratic culture of the RFD to play a central role in shaping the community forestry policy (Table 1). Despite the evidence accumulated by NGOs and academics of sound forest management by villagers, mainstream RFD officials were immovable. Information from the field, therefore, played a minimal role in this policy formulation.

Table 1: Relative speed and influence of factors involved in decisions.

Decision Situation	Politics	Bureaucratic Culture	Information from Field
Critical	●	○	□
Urgent	○	□	○
Normal	□	●	□

Key: ● influential and determines the direction, ○ influential but not directional, □ not influential.

Although the empirical support provided for the above analysis is not yet comprehensive, it is fairly safe to conclude that "information from the field" has a marginal impact on the development of policies, except in emergency cases, where specific data from the field is demanded from the top, on an ad hoc basis. Information from the field is not "formative" of policies but only "supportive" of the policies that are already being formed. Data collected by local officers is such as to have the potential to inform policy in many ways, especially in regard to the forest and villager interrelationship, but is unlikely to be made use of with the present design of information flow. It should be noted again, however, that frontline officers are the gatekeepers when people apply to make use of state land. Thus, although district

officers may not be able to influence national policy, they can shape local policy, important areas of which lie within their discretion.

So where does policy come from? It comes from a combination of factors determined by the nature of the problem, the political environment, the bureaucratic culture, pressure from the mass media, and information from the field. It would be a mistake to suggest that one factor or actor is exclusively responsible for the ultimate character of policy decisions.

5. CONCLUSION AND IMPLICATIONS

This discussion has argued that (1) district forest officers (*paamai ampeu*), though placed lowest in the organizational hierarchy, possess extensive discretion in policy applications at the field level, (2) information from field officers, however, has a marginal impact on policy formulation, and (3) the utilization of field information in policy development is a function of political context, which is strongly influenced by the mass media. Although this discussion has primarily focused on frontline officers, policy discretion at the provincial level is another area to be examined. Since not all information will be reported to Bangkok, there is likely to be some opportunity for autonomy in the interpretation of policy at this level as well. The key to this exercise of autonomy is, again, an ambiguous relationship with the command line of the Ministry of the Interior and the provincial governor.

If non-stipulated discretion plays a large role both at the field level and the level of the DG in policy decisions, then policy analysis should shift its focus from published documents to the organizational culture within which decision-makers work. The organizational culture of RFD bureaucrats is firmly rooted in the Forestry Faculty at Kasetsart University, which supplies the large majority of officials at the RFD (90 percent of executives are graduates). This concentration of influence is quite unusual even in Thailand, where competition between universities (such as that between Chulalongkorn and Thammasart Universities) is common. The culture of a "pure-blooded" department is extremely difficult to change, as was demonstrated when the present DG, who is a graduate of the Faculty of Fishery, was resisted by many high-ranking officials. With the increasing speed of environmental change, this intractable element of the organizational culture is becoming a problem, i.e., the problem of organizational inability to inform policies based on field data and the inability to adapt policies to situational variations.

Explanation of the causes of biodiversity loss under the administration of the RFD will necessarily have two perspectives: as a physical system and as a product of socio-economic forces. Although both these perspectives are required for an understanding of conservation of biodiversity, only the first has usually been considered seriously. I have tried to demonstrate that entirely non-local factors, often categorized as "socio-economic," are important determinants of the local physical interaction between people and forests. This view is supported by evidence that field-based, bottom-up information seldom influences policy directions. Although this is difficult to prove empirically, our

observational experience is that prescriptions based *exclusively* on physical local factors will not satisfactorily solve any problem.

To reiterate a point made at the beginning of this chapter, the interaction of forestry and land policies is so far a surprisingly under-studied subject, despite its societal importance. There are therefore numerous promising areas for future research. The most important agenda, which I wish to initiate in the near future, is the identification of the triggering mechanisms of bureaucratic learning in the context of natural resource management. Simply put, how do bureaucrats learn and change? This type of research should inform those, in turn, who are striving to find out the most effective way for local people to participate in the decision-making process of how natural resources should be used.

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