

# The Use Of 'Prince System' In Minimizing The Environmental Damages In Mining Activities

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## ABSTRACT

PRINCE System is a method which can be applied to solve any environmental problem. An issue on reclamation policy of the ex-mining lands is cited as an example in explaining the system which has been used by Machiavelli and other politicians. There are at least four groups involved in determining the reclamation policy of the ex-mining lands; the politicians, the Department of Environment (DOE), the Chamber of Mines (COM) and the non-government organization (NGO). The proponents and the opponents of the reclamation policy can be gauged by applying the PRINCE System. Once the roots of the problems are identified, the issue can be conveniently resolved.

## INTRODUCTION

Machiavelli [1980] suggested in *The Prince* that in order to accomplish political goals, one has to use various combinations of the carrot and the stick. Obviously, in any event, he was not prescribing how to act in particular situations, but rather providing a generalized view of the political world that leaders could use and apply to a wide variety of specific situations. Through the years, many political leaders have taken ideas from Machiavelli, from other writers, and from their own experiences to formulate and update a working model or political game plan [Coplin and O'Leary, 1976]. The purpose of this paper is to share some of the secrets of this game plan so they can serve as a guide for every man. No one's home is really a castle unless he knows how to act the way Machiavelli counseled his prince – that is, how to cope with the political problems of people, groups, and institutions encountered in daily life.

The paper is trying to present a mean for solving environmental problems with specific example on mineland reclamation issue. Naturally, the paper can not address the details of every possible specific way. But it can offer a tableau of guiding principles that can be applied to environmental problems as they come up.

To demonstrate the principle, we will assume that a leading potential policy alternative will be to internalize the costs of mine reclamation to the minerals industry by imposing mineland reclamation policy. In order to achieve the goal, we will identify the various interests which have a stake in Malaysia's mineland reclamation policy. After recognizing the problem and the interested groups, the PRINCE political accounting system (the Prince System) will be easily applied the game plan [Coplin and O'Leary, 1976].

## THE PRINCE SYSTEM

PRINCE stands for Probe, Interact, Calculate, and Execute. We must probe our surroundings the figure out who are the most important actors; interact with them to fine out their inclinations and influence on the topics important to us; calculate how to get them behave the way we want; and finally execute our plans.

In order to use the PRINCE system, certain steps must be followed. The first step is to recognize a problem. Basically, two things have to be sure about a problem before applying this game plan : 1) the problems have to be defined in terms of a relatively concrete outcome, and 2) the outcome can be brought about if some people who are effectively blocking it can be made to change their position. The first point refers to the fact that we have to know what we want and be able to tell when we have got it, i.e. be specific about it. for instance, the outcome related to the adoption of mineland reclamation policy by the Malaysian government should be stated explicitly.

The next step is to develop a list of the people groups, and institutions that impede the achievement of the respective goals. These groups of people can be referred to as political actors. All the people and groups who can most directly affect the disposition of the issues we are concerned with should be included and categorized. In our case study, there are at least four groups which can be identified to have a stake in mineland reclamation policy. They are politicians who represent the electorate, those government officials who are involved directly with policy formulation and implementation (the Department of Environment - DOE), the Chamber of Mines (COM) representing the mining operators, and the non-government organizations (NGO) who act as pressure groups representing the society.

All the four groups, directly or indirectly, have some influences on the process of policy formulation for mineland reclamation policy in Malaysia. As will be demonstrated later, certain groups oppose the policy and some will favour the policy. To get all these groups to agree on the issue of accepting the mineland reclamation policy which requires mineral industry to internalize the externalities, is essentially a political solving problem.

A political problem is one in which you must get some other people to act or stop acting in a certain way in order to achieve a goal important to you. In short, politics mean either getting people to do something they do want or stopping them from doing something they would like to do [Coplin and O'Leary, 1976].

Having defined the issues and the actors, we are then ready to use the Prince accounting system. By using our case study and given assumptions, the detail steps of the Prince system can be demonstrated by answering the following questions: 1) How would we rate the direction and the strength of each of those interests in their support for, or opposition to the policy of internalizing the costs? 2) How would we rate each of the interest groups as to their power to influence the formulation and enforcement of the policy? 3) What coalitions among the interest groups seem likely to develop in support of, and in opposition to the policy of internalizing the costs? Are there any of such potential coalition likely to be particularly effective in influencing the policy?

#### **POLITICAL ACTOR'S ISSUE POSITIONS**

As mentioned earlier, the issue is to internalize the costs of mine reclamation to minerals industry by imposing a reclamation policy. The task now is to rate the direction and the strength of the four main political actors on the issue. Before quantifying the actor's position rate, a general background of each group and their position on the issue will be discussed.

The non-government organizations, particularly the Friend of Earth, the Consumer Association of Penang, and the Environmental Protection Society of Malaysia (EPSM) are very active in the environmental movement since the 1970's. Certainly, the groups are opposed to any kind of developmental activity that is detrimental to the environment, but they welcome the imposition of mineland reclamation policy.

In the past these groups have protested in the forms of press releases, public petitions, public meetings and rallies, letters and appeals on many environmental issues such as concorde over flights over Malaysian airspace, Endau-Rompin deforestation, Klang river water pollution, Batu Caves quarry problems, Taman Negara hydro-electric project, nuclear waste dumping in Ipoh, and the like. Over the past years, the groups especially Sahabat Alam Malaysia and EPSM have been sending numerous statements and memoranda to the Mining Department calling for the investigations and actions on the issues related to mineslips and mining pool bund-burst which have claimed many lives and caused material losses (Sahabat Alam Malaysia, 1981).

The groups claimed that some of the controversial issues had been shelved off because of the strong opposition from the interest groups. The cessation of the Endau-Rompin from deforestation by the Pahang and Johor State governments, and the concorde overflights were typical examples given by the groups. However, it is very unlikely that the cessation was mainly due to the group's strong opposition. There are other important factors such as political one that contribute to the cessation of the projects. The groups, however, do have some roles if not the sole factors.

The other group that support the mineland reclamation policy is the government officials of the Department of the Environment. The Department was established in 1975 immediately after the Environmental Quality Act which was passed in 1974. The Department is responsible for implementing the

provisions of the Act and overseeing the general management of the environment [Third Malaysia Plan, 1980]. One of the main provisions of the Act is to allow for the appointments of a Director-General of the Environmental Quality whose duties and functions include the issuing of licenses for waste discharge and emissions, setting standards, coordination of activities related to pollution, and provision of information and educational materials for the general public.

The Act is at present the only federal law enforceable throughout Malaysia and may be applied in total or in part to any area at the discretion of the Minister responsible for environmental protection [Aiken et al., 1982]. Although the Department is given a wide range of powers to regulate environmental pollutions, due to certain circumstances beyond their expectations and control cause ineffectiveness in the policy implementation. The problems are varied and will be discussed later.

The main group that bitterly opposes the reclamation policy is a group of businessmen who have some interests in the mining industry. This group is represented by the Chamber of Mines. In the past, the Chamber had played quite important and effective roles in lobbying the Ministry of Finance to repeal the tin profit tax imposed in 1965. The adoption of the new cost-plus approach or net profit taxation in 1980 instead of gross profit taxation which has been traditionally imposed in Malaysia [Mansor, I 1986], was another clear evidence of how effective the group was in shaping the Ministry's decisions.

The political group can be divided into two – the ruling and the opposition. The opposition will stand for environmental conservation. Nevertheless, the opposition is outnumbered in the Parliament and thus is always on the losing side. This contention will be elaborated later. The stance of the ruling party's politicians on environmental policies are uncertain. However, by looking at the present trend in Malaysian politics, the group is likely to favor the business group.

Having discussed the position of each group, we can intuitively quantify the actors' position rate. Using Coplin and O'Leary scale as shown in Table 1, coupled with writer's judgement about the behaviors of the respective actor groups, the results can be depicted as shown in Table 2.

Table 1: Range Of variables used In The PRINCE Political Accounting System And Verbal Interpretations Of Each Variable

Issue Position	Power	Saliency	Friendship Neutrality Hostility
+3 Strong support	+3 Strong power	+3 High saliency	+ Tendency to agree with the actor in question
+2 Moderate support	+2 Moderate power	+2 Moderate saliency	0 Indifference toward the actor in question
+1 Weak support	+1 Weak power	+1 Low saliency	- Tendency to disagree with the actor in question
0 Neutrality	0 No power	0 No saliency	
-1 Weak opposition			
-2 Moderate opposition			
-3 Strong opposition			

Source : Coplin and O'Leary, 1976

Table 2: Political Actor Issue Positions

Political Actors	Rate
Non Government Organization	+3
Department of Environment	+3
Politician	-3
Chamber of Mines	-3
Total Score	0

Table 3: Power of Actors On Issue

Political Actors	Rate
Non Government Organization	1
Department of Environment	3
Politician	3
Chamber of Mines	3

Table 2 indicates that the total score is 0 which implies that the rate of opposers and those of favours are balanced. In order to assess the likelihood of acceptance or rejection of the issue, we have to consider the power of the actors on the issue, that is, the ability of each actor either to accomplish or prevent the occurrence of each outcome of the issue. This is discussed now.

### POWER OF ACTORS ON ISSUE

The role of a non-government organization (NGO) is to shape the public policy. However, in developing countries the pressure group is generally not so strong. In the developed worlds, the pressure group possesses both formal structure and real common interests in so far as they influence the decisions of public bodies (Allison, 1979). The group can use sanctional resources very effectively such as through vote-swinging, economic sanction, and policy-implementation.

There are many reasons to show that the pressure groups in the developed countries can act effectively in the political process. Troeller (1982) mentioned that the pressure groups are not only a long tradition of voluntary associations but constitute as an integral part of the political process in many Western European countries. They perform a legitimate role in the governmental process.

Schnaiberg (1980) categorized the stage of movement of the group at phase four – the movement that has gradually changed from a participatory to a power strategy in dealing with conflicts around environmental issues. While public-education campaigns have by no means disappeared, the core of the active environmental movement today is focussed on litigation, political lobbying, and technical evaluation rather than on mass mobilization for protest marches, petition-signing, and the like. The movement is not only widely accepted among the citizen but have shifted towards transnational or across the country. Friend of the Earth London Limited (FOE) for instance, has about 170 groups throughout the world. FOE International has successfully lobbied the United Nation for a convention on whales and accredited to the International Maritime Consultative Organization (IMCO).

In Malaysia, environmental movement is a recent phenomenon. It confines to a certain group of people in the society and has limited memberships. The major social group supporting the movement is the middle to upper middle class segment of the population. Its strongest supporters are the educated and in the white-collar stratum. Their activities are confined to press releases, exhibitions, talks, forums, memoranda, and petition letters. Coupled with other problems like poor public awareness and civic consciousness on the environmental issues, limited response from the government machinery, private sector hostility or fear, and

lack of public participation in the planning process, the role of non-governmental organization in shaping public policy is less effective.

The Department of the Environment (DOE), as cited earlier, may have the power to formulate the environmental policy as provided by the Act, however in practice they have limitations in implementing it. There are several reasons for this; internal or structural and external or institutional problems. The internal problems are such as lack of manpower expertise, and budget constraints, which are typical problems in the developing countries. The fact that DOE is a peripheral department in the administrative and political set up of the Malaysian government add further to the problems. Public sector allocation for DOE in the Fourth Malaysia Plan (1981-1985) was only 4.5 percent of the total public expenditure for the sector of administration [FMP, 1981].

The power of the Chamber of Mine is likely to be strong in shaping the public policy as compared to the non-government organizations. Although, it does not have direct influence, it can lobby the politicians for backing. We have so far given two examples of how this group had succeeded in its demand. It is quite common in open economies where business group is powerful in influencing the government. In Malaysia, perhaps similar to other developing countries, most of the successful businessmen have some forms of connection with the politicians and government servants.

In order to evaluate the power of political groups, it is quite important to know the political structure in Malaysia. Malaysia is a parliamentary system of government. The Parliament which is primarily based upon the British Parliamentary system consists of the Yang DiPertuan Agong and the two Houses of Parliament i.e. the House of Representative and the Senate. The Parliament has the power to legislate on certain subjects as provided by the Federal Constitution. All the members of the House of Representative are elected in general election held once in every four years. These are the politicians who make up the ruling party and the opposition. Any Federal bill will be tabled, debated, and passed by the Parliament. The politicians who hold cabinet post as minister, parliamentary secretary or member of government agencies' boards, involve in the initial stage of policy formulation i.e. before it goes to the Parliament. In this sense, they have the power to shape the policy.

The Alliance (Barisan Nasional), as a political party and a government since independence, is ideologically motivated [Milne and Mauzy, 1980]. It believes in political pragmatism, protecting the bargain, and preserving communal harmony. It supports the free enterprise system and foreign investment, but often emphasises its welfare and development goals and achievements [Milne and Mauzy, 1980]. The political system of the Alliance depends largely on the autonomy of the elites and their ability to convince the rank and file to abide by decisions made by the top [Ratnam and Milne, 1967]. Secrecy is a key rule of the alliance style. Therefore, any proposed bill will not be strongly opposed by the group of politician.

The opposition parties, as noted, is not only outnumbered but their contribution in Parliament are rather limited. There is not a great deal of consultation by the government, and not many oppositions in proposed amendments were accepted [Milne and Mauzy, 1980]. They also can not make real contributions particularly in economic policy because they are frequently limited by lack of and access to information. Therefore, when the group is likely to support the reclamation policy, the oppositions virtually are powerless in the political system.

Having discussed the power to influence the formulation and enforcement of the reclamation policy, we will assign the PRINCE's scoring system as follows: A 3 to actors who have the resources for exercising complete control, and smaller numbers to actors who have less complete control on the issue.

To get a letter prediction of what is likely to happen for each actor on the issue, we have to multiply the appropriate numbers in Table 2 and 3. Table 4 summarizes the result. It seems now the likeliness of the issue to be accepted is negative.

By multiplying the two tables, we get a different and more realistic picture of what is likely to happen. However, the PRINCE accounting system requires another factor before we can have sufficient confidence. The factor is called science - the importance of each political actor attaches to the particular issue. Salience is a little bit like issue position because it is based on what someone feels about an issue. A 3 is assigned to whom is most highly interested in the issue, and an 0 to anyone who is not interested in it. The score for our analysis is listed in Table 5.

We assign a 3 to the non-government organization, Department of Environment, and Chamber of Mines because they are highly interested in the issue. A 2 for the politicians because they can be less

concerned on the issue. In other words, under a neutral condition the group can vote for either side or just ignore it at all. In or case, the group is likely to support the issue because they are subjected to some pressures from outside, therefore, we assign a 2 point to them.

Table 6 represents the result of multiplying all the factors which can be used to determine the likely outcomes of the political process. The score is back to 0 or neutrality. Here, we do not really know the real direction of what is likely to happen because the scheme is static. For it to be a useful guide to politics, we must make it dynamic. The following section will discuss this.

Table 4: Multiplying Issue Position and Power

Political Actors	Rate
Non Government Organization	+ 3 (1) = + 3
Department of Environment	+ 3 (3) = + 9
Politician	- 3 (3) = - 9
Chamber of Mines	- 3 (2) = - 6
Total Score	- 3

Table 5: Saliency of Actors on Issue

Political Actors	Rate
Non Government Organization	3
Department of Environment	3
Politician	3
Chamber of Mines	3

### ALLIANCES OR COALITION, NEUTRALITY AND HOSTILITY

From the result of the previous PRINCE accounting system's score we conclude that we do not really know the issue position. In the real situation, the result seems to conform that there are some efforts from the government to try to impose the reclamation policy, but it does not work. For instance, the government has proposed a National Mining Code in 1980, but until now the Code is still in the cold storage. It seems that there are some forms of coalition between the Chamber of Mines and the politician to try to delay the implementation of the policy. The Code has never been discussed in the Parliament. Author's personal involvement in the National Mining Land Rehabilitation Committee for two years gave a clear notion that the government did not take a serious look at the problem. Our committee was never fully utilized by the Ministry. We were not given sufficient fund to execute our duty though the committee was headed by the Secretary General of the Ministry.

To demonstrate the actors behavior, we assign the points as follows : a + is used to denote political friendship; a 0 to show political neutrality; and a - to represent political hostility. The three signs (+ , 0 , -) can be interpreted as a prediction of whether or not the actor in the row will attempt to agree with, remain neutral toward, or disagree with the actor designated by the column on any given issue the two are likely to become concerned with.

The result for our case study is shown in Table 7. To take one example from it, it can be read that the non-government organization (with a + in the DOE column) is likely to agree with DOE's issue position but the Chamber of Mines (with a - in the NGO column) is not likely to agree with the NGO's issue position but the Chamber of Mines (with a - in the NGO column) is not likely to agree with the NGO's issue position, and the politician (with an 0 in NGO column) is likely to stay neutral with the NGO's issue position.

From the PRINCE accounting system, we can easily strategize ourselves in order to get support for the issue. In our case, it seems that NGO and DOE can work together. To be more effective, the group should be able to win the politicians to side with them. The Chamber of Mines of course, will try very hard to use politicians to protect their interest because they can not expect to get support from the other two groups.

Table 6: Multiplying Issue Position, Power and Salience

Political Actors	Rate
Non Government Organization	+3 (1)(3) = +9
Department of Environment	+3 (3)(3) = +27
Politician	-3 (3)(2) = -18
Chamber of Mines	-3 (2)(3) = -15
	0

Table 7: Friendship, Neutrality, Hostility

	Non Government Organization	Department of Environment	Politician	Chamber of Mines
Non Government organization	×	+	0	-
Department of Environment	+	×	0	-
Politician	0	0	×	+
Chamber of Mines	-	-	+	×

## CONCLUSION

The PRINCE accounting system can help us to understand how the political dynamics work. The system is just a plain common sense, it does not help us however, how to but what it is. From there we have to choose our strategy in order to achieve our political objectives. The result is not rigid, it depends on how we assign the score; most of the time arbitrary. In our case, even though the Chamber of Mines seems to be very hostile to the DOE and NGO, we still can negotiate with them. In other words, there are ways to convince the miners that the reclamation objectives can be achieved without much detracting their interests.

Tax incentives and subsidies are some of possible carrots to attract the miners, while regulations and penalties are some of the sticks to alarm the evaders [Mansor, 1986]. These forms of carrots and sticks are principally and technically acceptable to the miners and the society as a whole. It should not always be similar to the one suggested by Machiavelli – like flattery and bribery (the carrot) and assassination and forced retirement (the stick) in order to accomplish one's political goals. These kind of means are morally unacceptable [Ng, 1990], especially for the expense of human virtues, individual and collective; politics also must conform to the goals of universal moral values if not so restricted to any particular religious faith.

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