

## **Applying Landscape Theory to Terrorist Organizations and States**

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### **Abstract**

Applying concepts taken from landscape theory can assist in the creation and evaluation of counterterrorism policies. For example, the energy required to move to higher levels of performance by a terrorist organization necessitates a corresponding consumption of resources by both the state and insurgent or terrorist organization. This necessitates the state choosing policies in an attempt to constrain and defeat those organizations. But, resource constraints are a matter of fact for terrorist organizations more so than states, so that over the long-term, states should be able to progressively constrain and deplete terrorist organization's ability to sustain themselves. This is even more likely should states pursue multilateral efforts rather than unilateral actions. But this may require long-term commitment and consistency by key states in terms of patience and resources expended.

**Key words:** International Terrorism, Landscape Theory, Terrorist Organizations and Terrorist States

### **Introduction**

Applying key concepts taken from landscape theory will assist analysts and policymakers to create and monitor counterterrorism policies applicable to a variety of insurgent and terrorist movements. Specifically this can be applied to political, social, and economic criteria that can be monitored by the government and whose policy choices can prevent such groups formation, or to mitigate or constrain them from gaining momentum over time. Given the nature of various movements, this may very well underscore the need for a multilateral approach in order to succeed. It will also require on the part of more resource rich states, some insightful use of aid to those less well off, in order to deny such groups sanctuary and access to resources. Landscape theory allows both the analyst and policymaker a paradigm with which to measure the success and progress of any given policy. It also permits greater understanding when debating the costs and benefits of a proposed policy. In the end, the proposed use of the landscape theory will not

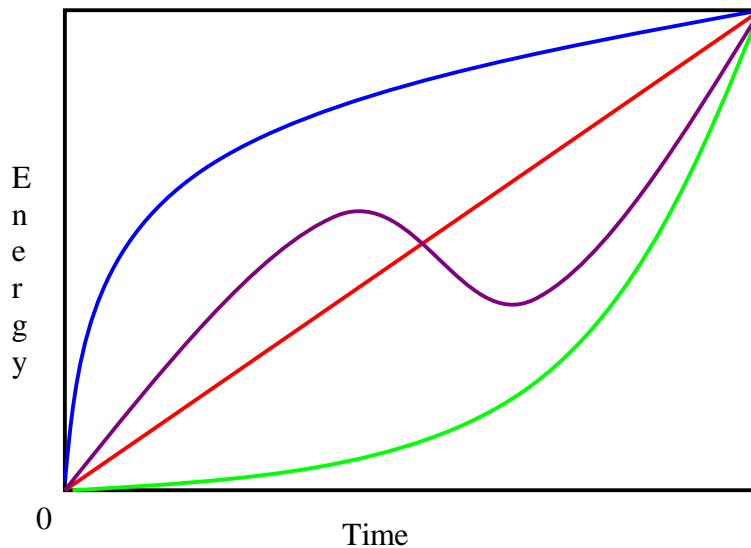
insurgencies or the use of terrorism as a political weapon, but it does provide a framework with which to study these movements and begin to anticipate the population's response to a policy or set of policies.

### Landscape Theory

One description of how insurgencies and terrorist organizations adapt to their environment involves the concept of a fitness landscape. In this concept, such movements are locked into a co-evolutionary struggle with a competing organization (the state in most cases) in order to determine which will survive, and which will perish. That which is more agile and adaptable is expected to be able to access the necessary resources to expend sufficient energy and achieve higher levels of performance as compared to its competitor. That higher level of performance is referred to as a fitness peak. Conceptually, there are no constraints placed on either entity other than the level of effort made based on the circumstances it faces (Williams, 2005).

In graphical terms, this can be portrayed as a number of profiles; diagonal, concave, convex, and S-curve. Each of these profiles describes a relationship between energy, resource consumption, and some manner of constraining factor(s) over time. One significant constraint is the state's use of various policy tools that can limit a terrorist organization's ability to adapt and seek relative respite by attaining a fitness peak. But the external factors that the state can exert some control over are not the sole constraints a terrorist organization faces. Internal to such organizations, their organizational complexity, scope, and cohesion are among many factors that contribute or undermine its ability to rise to these higher levels of performance (O'Neill, 2005). Graph 1 depicts some of these basic relationship profiles.

Graph 1. Relationships between Energy, Consumption and Constraints over Time.



Here the red diagonal line represents a linear progression that describes the relationship between energy and consumption over time as if those constraints levied by various forces decrease in direct proportion to energy expended. The green concave line represents an ever-

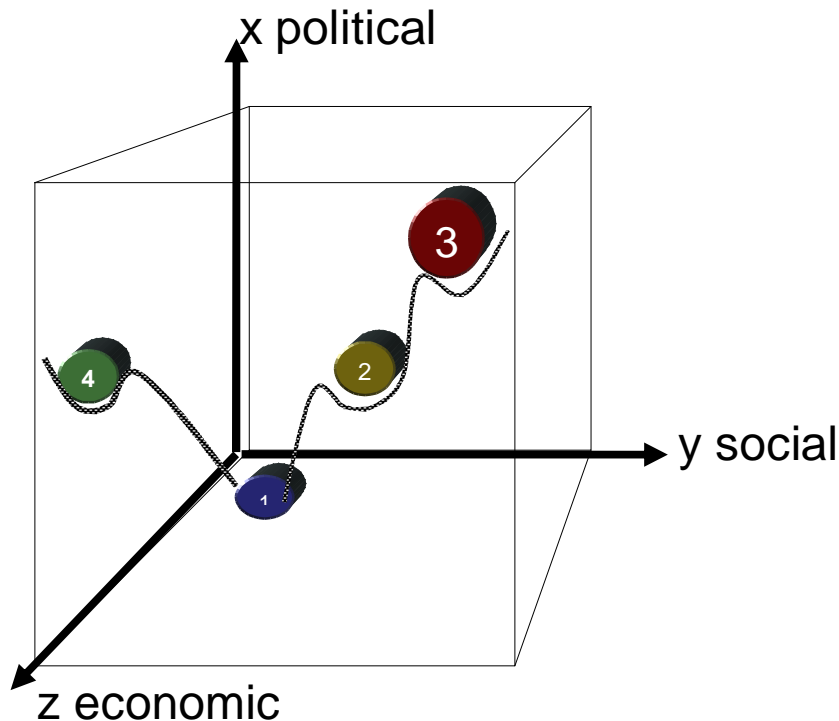
increasing geometric progression depicting a scenario wherein those constraints levied by various forces slowly give way to growth, and resource consumption increases unabated. The blue convex line describes an ever-diminishing geometric progression, as if those constraints levied by forces only come into play over time and resource consumption decreases as some force (such as scarcity) retards growth. Finally, the purple S-curve depicts a fitness peak that entails the expenditure of resources to a higher energy level until constraints are placed upon it that cause it to regress. This state appears to be temporary as those constraining factors then are overcome by some change in the system that permits continued expansion. It is theorized that these fitness peaks may be episodic and therefore a temporary condition within a dynamic system or that there may be multiple fitness peaks within a landscape (Whitlock et al., 1995). The point of these profiles is to describe the interplay between these factors, and project how these can convey the dynamics at work as states attempt to confront insurgent or terrorist organizations.

A two-dimensional representation fails to depict the complexity involved in the dynamics surrounding insurgencies that employ terrorist tactics or terrorist groups themselves. The next available means to attempt to describe terrorism falls onto three-dimensional representations that begin to depict the interplay of energy, levels of performance, fitness peaks, and the specific causative factors that either promote or constrain terrorist growth as compared to that of the state.

As mentioned previously, the greater the distance from a lower to a higher energy state represents increased levels of energy in the system. This then is suggestive of either fewer constraining factors or greater consumption of resources or both in order to attain, and maintain, this relative position. Simply put, lower energy states have an inherently lower rate of consumption of resources or greater constraints at work, or both. There is also a tendency for equilibrium to be achieved as excessive resource consumption is countered by either scarcity of those resources or by factors working to constrain unchecked expansion. In landscape theory these areas of equilibrium are called aggregation pools as they represent entities (states or populations) that have similar characteristics as well as levels of resource consumption in order to maintain their relationship with its peers. There may be more than one aggregation pool within a system. The defining factor that makes that distinction is an energy barrier. An energy barrier must be overcome for an entity to migrate from one aggregation pool to another (Axelrod et al., 1993).

Taking these same principles and applying them to a three-dimensional representation requires a greater appreciation of both the difficulties encountered in such a representation as well as the complexity of the results of such an effort. Selecting three variables by which to categorize insurgent and terrorist groups is not without controversy in itself. Numerous efforts have attempted to identify causative factors result in the formation of these organizations. One very broad characterization leads to a selection of three broad categories; social, economic, and most importantly political dynamics within a state that lead to insurgent or terrorist activity. Graphically depicted, this is demonstrated by the relative position of one group against others or its own movement within such a graph over time.

Graph 2. A Three-dimensional Model



In graph 2, the x-axis reflects the political characteristics of a fictional state, from a relatively low score of expressed political dissatisfaction at the nexus to a high level of dissatisfaction as one moves further away from that nexus. Similarly the y-axis reflects the social dynamics that may support and nurture insurgent or terrorist movements. The z-axis then represents those economic matters that contribute to the formation of such movements (Owens, 2000).

The policies employed by a government may exacerbate or diminish the sense of dissatisfaction by a segment of its population with its governance. Should those policies continue to exacerbate this dissatisfaction, as represented by following the numerical sequence provided (1, 2, 3), the potential for terrorism increases. Similarly, should a state pursue measures that diminish the level of dissatisfaction with its governance by its people, this would lessen the likelihood of an insurgent or terrorist group from forming or acting (the sequence would then be 3, 2, 1). Accepting that autocracies represent the most stable states with respect to a domestic terrorist threat (albeit through the potential employment of repressive means), and well functioning democracies (as defined by its effective engagement in socio-economic and political matters) as the next least likely to confront a serious domestic terrorist threat, then those democracies with poorly functioning and weak institutions would prove to be the most susceptible to a domestic challenge by an insurgent or terrorist group (Hewitt et al., 2008). This relationship between relative position and the level of energy being expended is very much like that described by landscape theory, wherein higher levels of energy are required to move an organization from one position to another, with entropy at or near the nexus of all three axes. Rather than an energy barrier that separates organizations from one another as posited in landscape theory, this distinction may be better equated to an energy threshold. So that, although

organizations at positions 1 and 4 may have similar energy levels in terms of economic (z) and political (x) dissatisfaction as compared to that found at position 3, they are dissimilar in terms of social (y) dissatisfaction with their government. Although not impossible, it becomes much more difficult for organizations to mirror each other in such a multivariate depiction. Because of this then, the differentiation between either 1 and 4 with that of 3 is significant enough to be considered a threshold in which significantly more energy must be expended to attain that relative position. Simply, each relative position has its own energy expenditure as defined by the dissatisfaction with the government by a segment of its population as measured against these three broad criteria. If we apply the same process to one organization over time, one can then see the mutation of that group as it consumes resources to produce enough energy to move from one position to another, as well as respond to any constraints placed upon it (the sequence then being 1, 2, 3, 4).

This necessitates a discussion of the types of criteria that are most useful for this type of analysis as well as what resources are required for such heightened states of energy expenditure. As those are pivotal to such an analytical tool, they will be described below.

### **Causative or Enabling Factors; Analyzing the Circumstances**

The criteria selected in order to depict relative positions of energy expended and resources consumed appear to be based on three broad topical criteria. Although there is no definitive agreement on what those criteria are, there is some consensus forming. Those appear to be the social, economic, and political manifestations of the state's ability to govern its populace effectively. That apparent consensus is depicted in the table 2. What is striking is that there is general agreement (depicted in bold font) as to two of the three criteria used previously, those being the political and social attitudes of some segment of the populace with regards to its government. The third topic is less definitive, but is so often mentioned that it is worth including as a criterion (economy).

Table 1. Comparison between Causative Factors to Underscore General Consensus.

O'Neill (2005) - Human Environment	<b>Economy</b>	Demographic Distribution	<b>Social Structure</b>	<b>Political System</b>	<b>Political Culture</b>
Feldman et al., (2004)	<b>(e) 4<sup>th</sup></b> ; unemployment, uneven growth, inflation	(p) unk; social injustice, distro of income	<b>(h) 1<sup>st</sup>; level of state repression and abuse</b>	<b>(si) 2<sup>nd</sup>; nature of political system</b>	<b>(t<sub>t-1</sub>) 3<sup>rd</sup>; Previous incidence of terrorism</b>
Goldstone et al., (2005)	<b>3<sup>rd</sup> Infant Mortality</b>		<b>4<sup>th</sup> State led discrimination</b>  In Africa this becomes 3 <sup>rd</sup> , as infant mortality is statistically insignificant, instead adds Religion as 4th	<b>1<sup>st</sup> Regime Type</b> Poor governance. In Africa, duration of leader becomes a factor	<b>2<sup>nd</sup> “Bad neighborhood”</b> Factionalism; extensive polarization, open competition
Hewitt et al., (2008)			<b>Policies of Discrimination and State led Repression</b>	<b>Regime Type</b> as it reflects the Level of Democracy	<b>Ideology</b> ó Nationalism and Religion
Rice et al., (2008)	<b>Economic Basket</b>		Social Welfare Basket dependent on Economic Basket; excludes Human Rights abuses	<b>Political Basket</b>	Security Basket dependent on Political Basket; includes Human Rights abuses

Not only are these criteria with which to evaluate the dissatisfaction of a population segment toward its government, but these allude to the some of the broad categories of resources that are required, by both states and insurgent or terrorist groups in order to progress from one energy level to another. In broadest strokes, those resources can be categorized as being people (social), institutions (political), or material (economic) as table 2 suggests.

Table 2. Categories of Resources by Entity

	State	Insurgent or Terrorist
People (Social)	Leaders, Bureaucrats, Academics, Business Executives, Politicians, Professional and Working Classes	Leadership, Organizers, Logisticians, Ideologues, Lieutenants, Cell Leaders, Facilitators, Members
Institutions (Political)	Judiciary, Executive, Legislative, Police, Security, Military, Regulatory, Intelligence, Financial, Political (parties), Social Services, Regulatory, Educational, etc.	Combat Forces, Intelligence, Security, Political, Financial, Logistics
Material (Economic)	Arms, Communications, Facilities, Infrastructure, Natural Resources	Arms, Communications, Facilities, Natural Resources

In the final analysis, although there are several solid candidates as to which set of causative factors may be best employed in this analysis, whether one outperforms another remains to be seen, but overall some systematic approach must be applied. Correspondingly a feedback mechanism must be created by the state to modify or eliminate those policy(s) that are either unproductive or counterproductive to the state's overall goals. Otherwise such an analytical tool is worthless.

### Case Studies

In the following three examples, the application of such an analytical tool is demonstrated in order to show its potential use in policymaking. Both two-dimensional and three-dimensional descriptions are included to assess their relative merits.

### The Indonesian Experience

Many of the insurgencies in the Pacific Rim are tied to a combination of political change as well as economic downturn. With the weakening of the Indonesian government after the Suharto regime, such tensions fueled pre-existing local social movements that espoused their secessionist agenda. In the case of Jemaah Islamiah (JI), this also took on a transnational component given its relationship with al Qaeda. Although true that JI had a hierarchical command structure, it also has exhibited some degree of compartmentalization, such that even the arrest of key leaders after the Bali bombings has not ceased its operations. In fact these arrests may have only helped JI to evolve its structure into even more decentralized form(s). This is in response to the efforts of the Indonesian government to dismantle JI in the region as subsequent arrests and trials can attest (Nathalia, 2008). A reflection of JI's continued efforts are those subsequent bombings of softer targets in the region even under circumstances of active counter terrorism measures and policies being enacted (Vaughn et al., 2005; Jemaah Islamiyah,

2005). With the 2004 election of former General and Security Minister Yudhoyono to the Presidency, the Indonesian state exhibited further efforts to strengthen its institutions in order to address economic and social causative factors and succeeded in capturing two top militant leaders. Whether entirely true or not, much of his win is attributed to the civilian population desiring to see an end to the casualties they incur from such violence. In this example, it is clear that the state can respond to challenges to its authority through employing a strategy of reinvigorating poorly functioning institutions as well as police and military actions to secure its population from further harm. Its efforts did set off a set of corresponding actions on the part of local movements, and especially the JI in order to attempt to counter those efforts. Although Indonesia appears to be outperforming the JI, the JI has sanctuaries in other outlying areas where other states are less capable of policing their territory. This then provides JI respite from the successes enjoyed by the Indonesian government. This essentially describes a very clear example of a fitness peak, where JI is able to continue to perform and exist outside the reach of the Indonesian state. This is even more critical when JI is less capable of sustaining itself within the boundaries of the Indonesian state. The resources necessary on the part of the Indonesians to either unilaterally act or build a multilateral coalition to take action against JI elsewhere in the Pacific Rim suggests a energy barrier that exists between it and like minded states and JI (among others such as the MILF and MRLF, that provide succor to JI). Indonesia, for one, is wary of appearing to accept US aid in this regard, since the costs involved in this aid would negate it, at least in part. This is due to the manner in which the US has pursued its war in Iraq and elsewhere as it appears as being focused against Muslims in general and the securing of oil reserves globally, rather than on specific actors or groups that jeopardize its immediate survival. Particularly interesting are the allegations that the Indonesian government under President Yudhoyono has used these events to employ more autocratic means in an attempt to counter subsequent attacks (Balowski, 2005). If founded, this would describe a greater emphasis by the government to constrain insurgent and terrorist movements through returning to the use of more autocratic mechanisms to control the population. This may provide further escalation to those groups challenging the government or it may be successful in constraining and diminishing their ability to conduct any meaningful operational acts (irrespective of the morale or legal implications of such a return to autocratic and potentially very repressive governance).

Graphically depicting the initial Indonesian experience would suggest the convex profile. As the authoritarian regime weakened, the ability of dissenting movements such as JI grew rapidly to fill the vacuum left behind as governance dissolved in outlying areas of the island state. Subsequent efforts to constrain JI after the 2002 and 2005 bombings would very easily depict the next stage as a S-curve profile as the JI did suffer some manner of set-backs, but as suggested, those were short-lived and may have had only stimulated JI to effect changes in its organizational structure. Given the current administration, JI is facing yet another challenge to its strategic goals, which would suggest yet another S-curve as the government attempts to dismantle it would appear to further limit its effectiveness. Graphing this conflict's history in three-dimensions is only vaguely outlined as a progression from positions 1, 2, and 3. The recent reversals in fortune suffered by JI in relation to the government (S-curves in two-dimensions) would be depicted as vacillations between positions 2 and 3. Given no clear resolution of the situation this vacillation will continue as each party to the conflict seeks success.



### **The Provisional IRA Experience**

The case of the Provisional Irish Republican Army (PIRA) reflects similar dynamics that can be depicted using landscape theory. As the PIRA sought to change British policies their shift to include economic targets such as Central Business Districts (CBDs) in London and elsewhere, the government response played into the dynamic of landscape theory. Manifest in this is that as the few successful bombings occurred (such as those in London's CBD), the government heightened security in order to prevent subsequent attacks. This made the already expensive proposition of carrying out such attacks by the PIRA even higher. In turn, the PIRA shifted its attacks to lesser CBDs that were also less secure. In doing so, the government had mitigated recurrent attacks on more sensitive CBDs in favor of new attacks but on what are considered lesser economic targets. Although attacks on these lesser targets still were felt by the markets and impacted the populace, the overall effect was lessened. What also occurred was that the interdiction efforts by the government also succeeded in preventing subsequent bombings as well. International investment and business, at first wary because of the costs of rebuilding after a successful attack, soon rebounded in response to the government's preventative measures. The local population's support of the PIRA's goals waned as well, as peace was valued more highly than continued violence. Continued success by the government in arresting PIRA members also succeeded to some degree in the state maintaining the overall advantage. Even when PIRA bombing campaigns did succeed in bringing the government to grant concessions, as the populace demanded peace in lieu of a clear "victory" the government was able to succeed in preventing the PIRA goal of gaining an end to British rule in Northern Ireland (Provisional Irish Republican Army, 2005). In this ever increasingly expensive and challenging scenario, it should be evident that the dynamics of ever increasing resource consumption by both parties had the overall effect of bringing about a negotiated resolution in the end. On the part of the PIRA, the ever increasing costs involved in the acquisition, production, transport and emplacement of successful bombs throughout Great Britain. Not only were monetary costs incurred, but also the costs in skilled operatives being arrested by the authorities as well as the loss of support by the population to its cause eventually led to their being willing to forego all their goals in lieu of concessions granted by the government. Conversely, although the British efforts by and large were successful in denying the PIRA its ultimate goal, the expenses incurred involved significant monetary losses (both in terms of security measures as well as insurance claims), as well as the loss of life and prestige internationally as it was forced to react to the PIRA's shift of targeting and attacking economic institutions and symbols. The government was successful in mitigating the temporary loss of prestige in its assurances of greater security of its CBDs and its successful interdiction of other bombing plots. Should the government's efforts have failed, then the outcome may have been different, but this was not the case because its resource consumption and well functioning institutions were able to progress to higher levels of performance in fairly short order, effectively countering the PIRA's efforts (Rogers, 2000).

The PIRA example depicts, in terms of the two-dimensional graph, a clear S-curve. The relative success enjoyed as it adopted a new target set of London's CBDs that resulted in some clear economic losses as well as some significant concerns raised by businesses for their continued (or future) activities in that CBD. Given the government mitigation strategy of implementing security measures and encouraging businesses to stay by downplaying the effects of those bombings, the PIRA's influence was quickly reversed. Through successful investigative and policing efforts, subsequent bomb plots were either foiled or where shifted to less critical

(but still vulnerable) CBDs within England. It was the general exhaustion of the population with the renewed violence that brought the British government to grant some concessions to the PIRA, which appears to have brought a relatively lasting peace between the two parties. In a three-dimensional depiction, this would be best described in the following manner. The first attacks on the CBDs by the PIRA would equate to a movement from position 2 to 3. The government assurances to business and physical security measures emplaced, as well as successful interdiction of other bombing plots would suggest a reversion to position 2. PIRA's renewed bombing successes against infrastructure targets suggests movement back to position 3, while the subsequent effort to negotiate some manner of concessions returned the system to position 2. Finally, with the cessation of hostilities and apparent peace and disarmament may have brought the system to a position close to 1.

### **Islamic Fundamentalism in Europe**

With the advent of transnational terrorism, the same set of dynamics can be seen at work today in Europe as elsewhere. As the expansion of the Muslim Brotherhood in Europe suggests, the incremental establishment of a complex and well integrated network of Muslim organizations continues to evolve is representative of the vast resource base that it can leverage at the time and place of its choosing (Vidino, 2005). The relatively large Muslim enclaves throughout several of the largest and most wealthy states within Europe represent a broad support base from which it may extract resources (Archick et al., 2005). Because they are not well integrated into their host nations, they are able to establish parallel societies within them. Extending further, their relative position within their various host societies over 40 years of growth also permits them a level of access to local governments with which they've stated they wish to impose Islamic law upon (Vidino, 2005). All of this does not mean to say that their hosts, individually or collectively, are unaware of this taking place, but their relatively liberal laws regarding asylum and immigration do not prevent or mitigate this evolution (Archick et al., 2005). In the meantime, each government's individual police and security apparatus are monitoring these networks and groups for overtly criminal acts although their terrorism laws are generally weak (Archick et al., 2005). Over time, these individual state laws are becoming more stringent given the terrorist attacks since 9/11 and the recognition that their own populations have been a source of these attacks. But many governments are facing the prospect of these groups becoming more security conscious should a significant enforcement campaign be employed. If this occurs, they believe these groups will become further distanced from the society in which they reside, and that they could deny the government useful information as to their intentions (Archick et al., 2005). In this dynamic, it is evident that the tensions of access to resources and the expenditure of those toward either state government or terrorist groups could quickly escalate. Given the transnational nature of the terrorist groups' respective network(s) this would prove to be significantly more challenging for any one state to counter. What in fact appears to be happening is the expansion of the European Union (EU) from a merely economic organization into a broader political, social, and security (blurring the lines between law enforcement and military organizations) entity that spans the European continent as well. This effort can be viewed as one countermeasure to the transnational threat as the EU develops and refines its legal and information sharing mechanisms that will be necessary to constrain a concerted transnational terrorist movement in its territories. Although difficult and fraught with various rivalries, laws, and phobias against sharing information between these states, it is not to suggest that it is

impossible ó only that it will take time and political will to do so. This does not mean that individual domestic measures are valueless (e.g. promotion of moderate Muslim messages in European politics) but as is seen, European violence against Muslims exists alongside terrorist violence against Europeans. Equally possible is that the Muslims that are in influential positions are already helping shape various European statesø policies to their advantage (Archick et al., 2005). Overall the situation appears to be one where the primary effort is the marshalling of resources and establishment of competing networks. One being that of the various distinct Muslim groups that are disenfranchised with their European host nations and seek to challenge it; the other the individual host states which are recognizing that the threat is real and transcends any one of their abilities to counter it.

Although there have been attacks tied to Islamist groups in Europe (e.g. Madrid train bombings in 2004, London transit bombings in 2005, etc.), there are countering actions being employed by these governments, individually and collectively. The latter have included various post attack investigations and arrests and pre-emptive arrests made by state governments (21 July Attacks, 2006; Gebauer et al., 2007). This is in addition to greater coordination between governments as the EU and UN take on more of a role in anti-terrorism (European Union Counter-Terrorism Strategy, 2005; UNSCR 1373 Directory of International Best Practices, Codes and Standards).

If this scenario were to be depicted in a two-dimensional graph, the relatively liberal environment encountered by Islamists in Europe would be very similar to the convex profile, where constraints imposed by the governments in question are generally lacking. But as time has progressed and outbreaks of violence within Europe and abroad are tied to the Islamist threat, governmentsø police and security apparatus as well as their legal system are altering to constrain the spread of this threat in their respective states. Furthermore, the shift in attention by the EU to internal security matters also represents a general pattern of multilateral cooperation by the states against this threat as well. Looking to the three-dimensional graphic depiction, a general position can be assessed as to the same scenario. In this manner, given the information available, it would be reasonable to assess that the Islamist movement, in general, resides in the region of position 2. Their social isolation, relatively poor economic successes, and overall disenfranchisement with Western European politics suggest that the potential for violence exists. Granted there are efforts afoot at some national and supra-national levels that are attempting to reduce or mitigate some of the present dissatisfaction, but those are less common than what may be needed to alleviate further tensions (Nasiha Citizenship Foundation; Muslim Alienation Risk in Europe, 2006).

### **Conclusions**

Although exact terminology may be inconsistent, there is a certain degree of agreement that the nature of the stateø relationship to its populace defines the likelihood of insurgent and terrorist activity against it. And it is the use of the instruments of state power (police, security, intelligence, military, political organization, legal system, etc.) that can both exacerbate these issues as well as mitigate them. They can also be employed, unilaterally or multilaterally, in attempts to constrain insurgent or terrorist activities. What is evident in those circumstances, where there is any form of external support involved, that unilateral action will probably be

insufficient. In those circumstances some degree of multilateral cooperation will be necessary.

There are several potential uses of some of the concepts surrounding landscape theory based on some qualitative assessment of the relation between states and their populace. One employs this theory as a means of understanding the aggregation of like-minded states over select issues (e.g. those who adhere to the prohibition of the use of terrorism as a political weapon versus those who do not). A more complex use of landscape theory suggests that the resource consumption by either a state or group of states and that of either insurgent or terrorist organizations (in general) will have to increase in order to survive the other as it attempts to destroy it. Given that many states possess sizeable resource reserves, they may be able to eventually out perform their rivals. This does imply that state(s) may have to expend more energy (and consume more resources) than their own well being dictates, in particular when an insurgent or terrorist group is transnational.

Predicting how a state(s) will ultimately prevail is unlikely given the complexity of both the nature of insurgencies and terrorist movements as well as the analytical endeavor to predict their future actions. But applying the technique of graphing the relative dissatisfaction of segments of the population against a standard set of values can, over time, provide some manner of analytic assessment for a government to employ as it assesses the effects of its policies. It can also be used to attempt to predict those scenarios where violence as a tool used by insurgent and terrorist organizations may become more likely.

### **Policy Implications**

As mentioned previously, states will continue to choose between multilateralism and unilateralism when they confront insurgent or terrorist groups. Although a multilateral approach is not dissimilar with a multiplayer, multi-turn game of stag hunt or tit for tat, the benefits may outweigh the risks. The risks involved do include the potential for a defection by a key coalition partner. These "Black Knights" can subvert a broad counterterrorist strategy, whether they are states (e.g. Syria, Pakistan) or other organizations (e.g. World Assembly of Muslim Youth, Muslim Brotherhood) (Rogers, 1996). It will be incumbent on such coalitions to establish the penalties beforehand that will be levied should a participant opt to defect, and gain some tacit acceptance by its peers that such penalties are just.

Although the application of landscape theory as a tool to perform a multivariate analysis by the state or states pursuing a counterterrorism policy(s) is plausible, it must be tailored to the existing circumstances unique to each co-evolving system. The broad generalization, for example, that instituting a regulation that requires the reporting of suspicious financial transactions equal to US \$10,000 is probably inadequate to both Saudi Arabia and Mali, given their differing levels of economic prosperity and extent of international financial transactions between each state.

The realization by analysts and policy makers for the state is that even with a well functioning analytical tool, it is only as accurate as the feedback mechanisms emplaced make it. Faulty and misleading information will remain an issue irrespective of any analytical tool. Because of this, and the nature of altering what is typically very substantial elements of a governmental system in an attempt to mitigate or reduce those factors leading to insurgent and terrorist group formation and activity, long-term policies will be necessary.

The corollary to the above is that some resource rich states will have to come to terms with the likelihood that they may be required to expend some of their resources on the behalf of

less well endowed states. In the process of driving the terrorist organization(s) to expend more resources than they have, they may displace to more marginal and poorly governed regions of the world. This may trigger a corresponding need for aid to less well-off states if a multilateral effort is to succeed (e.g. Africa). Should this prove true, then the resource consumption and energy expended by states of a multilateral effort to limit terrorism must be prepared for this increased expense. An example of such an effort that is coming to terms with this reality is that of the US's Millennium Challenge Corporation (About MCC).

Part and parcel to the above, the states ability to regain control of its land, maritime borders or airspace by means of effective governance and institutions (transport, financial, social service, etc.) is critical. Both because poor governance enables these groups to elude the state, but these also function as the "gateways" through which terrorist organizations access resources. As borders are the demarcation between sovereign states, their control should be managed by all states in order to deny insurgents and terrorist movements access to support and sanctuary (Hoffman, 2006). Because this support can be garnered by supportive populations, organized criminal elements (arms, drug, human, etc.), and states some level of consensus will be required as to defining those criminal behaviors with some legally recognized definitions (Rabasa, 2008). This also substantiates the need for the establishment of international normative standards by such supra-national governance bodies such as the UN.

Finally the massive marshalling of resources to accomplish these tasks and the differentiation of enclaves of specialist in order to establish an effective counter to insurgent and terrorist activity underscores the organizational differences between them and the state. In these matters, it is the state's ability to organize, provide for safety and security of its populace, establish long-range plans, and resource them adequately that will pose the greatest challenge to such dissident activities. Although insurgencies and terrorist groups are more innovative, agile, and require less specialization than the bureaucracies of the state, it is this distinction that may favor the state, if given time (Turnley, 2006). This is especially true should those groups fail to maintain a coherent and common view as to their goals and the means by which they are to pursue them, and even more so when they face adversity and setbacks as created by the state(s) that they seek to overcome.

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