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TERRORISM AND OIL – AN EXPLOSIVE MIXTURE? A Survey of Terrorist and Rebel Attacks on Petroleum Infrastructure 1968-1999

KJØK Åshild, LIA Brynjar

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8) ABSTRACT <p>This report presents an overview of terrorist and rebel attacks against petroleum production infrastructure during the past three decades. It aims at providing an empirical basis for the development of scenarios for long-term defence and crisis management planning. The data analysed in this study have been drawn primarily from the ITERATE-database. According to our results, attacks against petroleum infrastructure have represented about 2 % of international terrorism during the past three decades. About half of the world's producer countries have been spared from serious terrorist strikes against their installations. The most common types of attack are blasting of pipelines and kidnappings of personnel, followed by bombings of offices. Our data suggests that 'petroleum terrorism' is a strategy pursued more often by insurgents or rebel groups whose ambitions are to physically weaken the government by striking at targets, vital for the national economy, than by political terrorists whose use of violence is characterised by strikes against highly symbolic but militarily irrelevant targets. Not surprisingly, 'petroleum terrorism' is much more widespread in countries at armed conflict. Domestic groups perform the lion's share of attacks on petroleum production infrastructure, while foreign groups are more rarely involved. Leftist and ethnic-separatist groups are the most active, each being responsible for about one third of the attacks. The most common motives are opposition to the existing political regime in the country and to foreign petroleum companies, followed by economic motives. It should be noted that there have been extremely few attacks against oil platforms and offshore installations, an important observation given the largely offshore-based Norwegian petroleum production facilities. The application of strong security measures at petroleum platforms has probably contributed to the rarity of such strikes.</p>				
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TERRORISM AND OIL – AN EXPLOSIVE MIXTURE? A Survey of Terrorist and Rebel Attacks on Petroleum Infrastructure 1968-1999

1 INTRODUCTION

This report is a publication by the *Terrorism and Asymmetric Warfare Project*, which began officially in March 1999 and was concluded by June 2001.¹ The overall aim of the research project is to map out and analyse asymmetric, non-conventional security challenges with a view to assessing their importance for Norwegian national security, and their implications for overall security policy planning in general and long-term defence planning in particular.

In most current assessments of the threat of terrorism to petroleum infrastructure in low-risk countries tend to focus on existing physical vulnerabilities and hence on the window of opportunities for a prospective adversary. Rarely does one find studies of terrorist target strategies, based on historical patterns of terrorist and rebel attacks on petroleum-related targets.² Among Norwegian scholars, Bjørge and Heradstveit have written on the threat of terrorism to Norwegian petroleum infrastructure and on the threat of maritime terrorism, more generally.³ These studies were written a decade ago, however, and none of them systematically analyzed data derived from empirical chronologies of terrorism.

This study is meant to fill a gap in our knowledge of non-state (or ‘terrorist’) threats against petroleum infrastructure. The present report is first and foremost a survey study, drawing upon terrorist incidents recorded in ITERATE, a comprehensive database of international terrorism, covering in principle the period 1922-99, although the collection of data for the pre-1968 period is less systematic. From this database of more than 5,000 incidents, we have collected 262 incidents of terrorist and rebel attacks (or attempted attacks) on petroleum infrastructure targets. The great majority of these incidents in this survey thus occurred in the period from 1968 to 1999, as only 14 happened between 1922 and 1968.

¹ Other publications in English by the *Terrorism and Asymmetric Warfare Project* include the following FFI-Reports: “Why Terrorism Occurs - A Survey of Theories and Hypotheses on the Causes of Terrorism”; “Globalisation and the Future of Terrorism: Patterns and Predictions”; “Terrorism, Political Violence and Organised Crime – Security Policy Implications of Non-State Actors’ Use of Violence – Proceedings from an international seminar”; “Islamist Insurgencies, Diasporic Support Networks and Their Host States: The Case of the Algerian GIA 1993-2000”; “Terrorism and Organised Crime in Post-Soviet Russia”; and “Terrorism and Peace Enforcement - Does ‘Muscular’ Peacekeeping Impact on Patterns of International Terrorism?” (forthcoming). The *Terrorism and Asymmetric Warfare Project* has also published the following FFI-Reports in Norwegian: “Er sivil infrastruktur sannsynlige mål for terrorgrupper i fredstid? Nokre førebelse konklusjonar om terrorisme som tryggingpolitisk utfordring i Norge”; “Asymmetri .. asymmetrisk krigføring.. asymmetriske trugsmål – Bruken av asymmetriomgrepet i tryggingpolitisk og militærteoretisk litteratur”; “Militære installasjonar som terrormål i fredstid? Ein gjennomgang av faktiske terroranslag mot militære installasjonar på 1990-talet,” and “Atommateriale, gass og mikrober som terrorvåpen? En undersøkelse av terrorgruppers interesse for og bruk av ikke-konvensjonelle våpen”(forthcoming). All reports are unclassified.

² One general study of terrorist targeting strategies is Drake (1998).

³ See Bjørge (1990) and Heradstveit (1992).

By outlining the main patterns that emerge from a systematic quantitative and qualitative analysis of these data, we hope to present a more precise picture of expected strategies and intentions of terrorist and rebel groups vis-à-vis petroleum-related targets.

1.1 Definitions

There is no universally accepted definition of **terrorism**.⁴ ITERATE, and hence this study, uses a definition, which focuses on acts with **international ramifications**:

“the use, or threat of use, of anxiety-inducing, extra-normal violence for political purposes by any individual or group, whether acting for or in opposition to established governmental authority, when such action is intended to influence the attitudes and behaviour of a target group wider than the immediate victims and when, through the nationality or foreign ties of its perpetrators, its location, the nature of its institutional or human victims, or the mechanics of its resolution, its ramifications transcend national boundaries”.

We will not enter into the discussion of the (il-)legitimacy of terrorist attacks, and the use of the terms ‘terrorist’ and ‘rebel’ groups should not imply any judgement on how much legitimacy these attacks enjoy. Wherever a distinction is made between ‘rebel’ and ‘terrorist’ groups in this study, it is primarily to indicate the scale of the armed conflict with the state (rebel movements operating in a civil war environment), not the legitimacy of the insurgency or the campaign of terrorist attacks. We have defined **petroleum infrastructure** to include the following:

Production facilities, such as petroleum fields, wells, platforms and rigs; refineries and gas processing plants; transportation facilities including pipelines and pumping stations, terminals and tank ships; oil and gas depots; administration buildings; distribution centres/gas stations; and all personnel on or employed at these installations.

Petroleum terrorism is defined simply as attacks by terrorist or rebel groups directed against or significantly affecting petroleum infrastructure. Further definitions can be found under *Coding rules* in the Appendix.

1.2 Some Methodological Problems

Before presenting the findings of this study, it should be emphasised that any statistics which draw heavily upon databases on terrorism is subject to *great uncertainty*, partly as a result of the absence of a generally accepted definition of terrorism – and thus of a general agreement as to what should be included, and partly due to the fact that existing databases often give disparate coverage of various geographical areas. A second problem with using statistical data on terrorism is that a statistical approach tends to accord equal importance to incidents of very different nature and gravity. Qualitative assessments may partly offset this bias, but not entirely.

⁴ For a further discussion of this problem, see Schmid & Jongman (1988) or Hoffman (1998).

A third methodological problem is that even though ITERATE is a comprehensive database, it is not complete. For example, we have been able to identify 26 additional incidents (excluding threats) from other sources.⁵ We have chosen not to include these additional incidents in the empirical basis of the study, as most of these additional sources focus on particular types of attacks and specific sectors of petroleum industry. The inclusion of these incidents in the statistical overview could therefore introduce an additional source of error. However, these incidents have been included in the qualitative assessments wherever relevant. We have also chosen to exclude *threats* from the survey, since such threats are clearly underreported in ITERATE. For example, Norwegian petroleum companies received at least 13 bomb threats between 1989 and 1998, but none of these are registered in the database.⁶

Although ITERATE concentrates on terrorism with international ramifications, many if not the majority of recorded incidents, are clearly linked to domestic terrorist or rebel groups. We have therefore chosen to use on the perpetrators' nationality as a criterion, categorising the responsible actor as either "foreign" or "domestic". One advantage using this dichotomy is that it enables us to differentiate between domestic groups attacking transnational petroleum companies running extensive economic activities in a country, and international terrorist groups targeting petroleum companies worldwide.

It may be considered a weakness that ITERATE, and hence this study, covers only international and transnational terrorism.⁷ This obviously implies that a number of terrorist attacks and incidents involving petroleum infrastructure are omitted. However, as the petroleum industry is predominantly international, we do not think this invalidates the survey's conclusions. The great majority of strikes against petroleum installations will have "ramifications that transcend national boundaries" as stated in ITERATE's definition. We may therefore presume that the underreporting in ITERATE of domestic terrorism is significantly less with regard to attacks on petroleum infrastructure than regarding attacks on other targets. On the other hand, it is quite likely that some petroleum companies have attempted to conceal or at least downplay minor terrorist incidents against their installations out of fear of losing market confidence. However, it is impossible to estimate the extent of such practices.⁸

When classifying attacks on petroleum infrastructure, the coding is very much dependent on the personal judgement of the coder. This is especially true when assessing the gravity of each attack since ITERATE does not report the effects of the incidents in a systematic manner.⁹ Moreover, it should be brought to the reader's attention that ITERATE rarely reports the environmental consequences of the incidents, which would have been of great interest when studying petroleum-related strikes, and we have therefore not been able to study this aspect of petroleum terrorism in any depth.

⁵ Anderson and Sloan (1995); Bjørge (1990); Heradstveit (1992); and Bodansky (1999).

⁶ These threats are not among the 26 additional incidents mentioned above.

⁷ See ITERATE's definition of transnational terrorism, cited previously in this chapter.

⁸ We have no reliable information to ascertain whether and to what extent terrorist and sabotage threats are covered up. For a similar judgement, see Sviland (1999).

⁹ For coding rules, see Appendix.

The coding is also complicated by the fact that the database frequently reports several incidents under one entering. The most extreme example relates to Colombia, where more than 300 separate attacks on pipelines are recorded as two separate campaigns, without giving any specific details about each attack or strike. This huge number of incidents risks altering the results of the survey in a disproportionate manner. We have therefore chosen to register them as two incidents only and to describe the campaign in more detail in the text.¹⁰

A final methodological problem is related to the fact that a few countries have been extremely exposed to attacks against their petroleum installations, and this may distort the overall picture. These countries are Colombia (42 incidents), Yemen (13 incidents), Nigeria (13 incidents) and Israel (12 incidents). We therefore run the risk of presenting petroleum terrorism mainly as a reflection of the nature of political violence and terrorism in these four countries, while important aspects of target selection strategies of terrorist and rebel groups are ignored. In order to avoid this, we have sometimes rearranged the results to show the patterns outside these four countries, for example by presenting the patterns of petroleum terrorism in democratic countries and in states without internal violent conflicts.

Given the limitations of existing databases with regards to the recording of terrorist incidents and the above-mentioned methodological problems, **the present results should not be interpreted as scientifically accurate findings. Our results are merely suggestive and tentative**, and more research efforts are needed, especially in generating better data, before more scientific results may be yielded. Nonetheless, given the poor state of the art, the present study nevertheless offers a good start in describing and outlining the basic patterns of petroleum terrorism. It should serve as a useful guide when developing scenarios for long-term defence and crisis management planning.

2 THE MANIFESTATIONS OF ‘PETROLEUM TERRORISM’

The number of incidents – 262 – indicates that petroleum installations are not a particularly attractive target for terrorist and rebel groups. **Terrorist strikes against petroleum installations represent only about 2% of international terrorism.** Between 1968 and 1978 we have recorded 49 attacks of a total of 3027 incidents registered in ITERATE (1.6%), and between 1985 and 1999 we have found 34 strikes on petroleum infrastructure among the 1655 incidents (2.1%). There was an average of eight terrorist strikes per year from 1968-88. There has been a certain increase, however. In the period 1970-74 the average per year was six attacks, whereas the yearly average from 1995 to 1999 was ten. However, we should avoid making too much out of this increase, as the number of incidents is quite small. It probably reflects the global expansion of the petroleum industry and hence, the number of targets, rather than a radical shift in terrorist target selection strategies.

The 262 registered incidents occurred in 59 different countries. Many of these countries do not produce oil or gas themselves, but have experienced attacks against traversing pipelines,

¹⁰ In a few other cases, however, we have chosen to register single inputs in the ITERATE chronology as several incidents. In these instances, the database does give specific details about each incident, and there is no evidence that they are directly related to each other.

depots, gas stations, etc.¹¹ As few as 152 of the 262 attacks occurred in petroleum-producing countries. If we compare the total number of producer countries to the number of such countries that have experienced attacks, we see that only 29 of the world's 56 petroleum-producing countries have experienced terrorist strikes against their installations. In other words, **nearly half of the world's petroleum producing countries has been spared from serious terrorist attacks against their oil and gas facilities.** Moreover, 13 of the producer countries, which suffered attacks have suffered only 1-2 strikes, according to ITERATE's data for the entire period from 1922 –99. Nonetheless, several of these countries have most probably experienced a number of less serious incidents that have not been recorded in the database.

With the exception of a bomb threat on 5 December 1981, the ITERATE database has not recorded any strikes against oil and gas infrastructure in Norway, currently the world's second largest oil exporting country. Nevertheless, there have been some minor incidents.¹² For example, there was a terror alert in 1973, as Norwegian authorities received information that an Arab group was planning to attack the Slagen refinery near Tønsberg in order to increase the economic impact of the oil embargo following the 1973 Arab-Israeli war.

Terrorist target selection is a complex process involving political, ideological and tactical considerations. When terrorist and insurgent groups choose to target petroleum infrastructure, it appears that tactical factors such as access to location and available escape routes are key determinants. At the very least, **attacks on difficult-to-protect targets such as pipelines and personnel accounts for more than half of the attacks on petroleum infrastructure (see figure 2.1).**

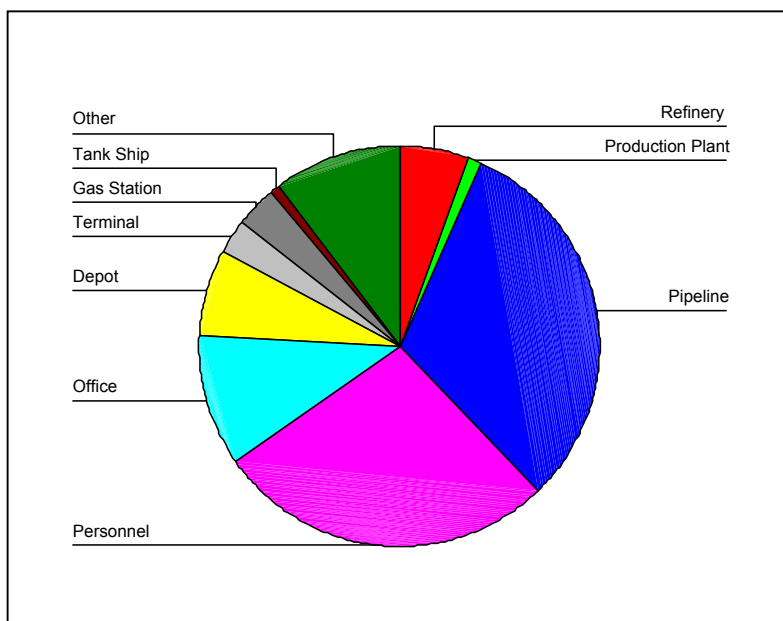


Figure 2.1 Distribution of physical targets¹³

¹¹ According to British Petroleum's Statistical Review, which offers two lists of the world's oil and gas producing countries respectively. These lists include 56 countries altogether. See <http://www.bpamoco.com/worldenergy>.

¹² See for example Bjørge (1990).

¹³ This figure has been slightly adjusted (by representing two protracted campaigns, consisting of more than 300 separate pipeline attacks in Colombia as two incidents). See sub-chapter on methodological problems.

2.1 Blasting of Pipelines

Blasting of pipelines is the commonest kind of attack (45 + 307 incidents).¹⁴ Moreover, it is **the type of action that has caused by far the greatest number of closedowns** (10 out of totally 28 closedowns). If we include incidents involving sabotage, arson and armed attacks directed against pipelines and /or pipeline personnel, these strikes have actually caused more than half (16 out of 28) of all closedowns resulting from terrorist or rebel attacks as recorded in the ITERATE database.

One incident from the Middle East may serve as an illustrative example of attacks causing closedowns of pipelines, as well as ecological damage. On 30 May 1969 the leftist Palestinian group *The Popular Front for the Liberation of Palestine* (PFLP) placed an explosive charge in the Baniyas River, heavily damaging a section of the Trans-Arabian Pipeline on the Israeli-occupied Golan Heights. The flow of oil through the one thousand-mile pipeline, which connected Dhahran in Saudi-Arabia to Sidon in Lebanon, was blocked due to the resultant fire, although Israeli authorities managed to contain the blaze after fourteen hours. The pipeline provided millions of dollars in royalties and transit fees to Saudi Arabia, Jordan, Syria and Lebanon. A PFLP spokesman stated that his group had intended to pollute water supplied to Israeli settlements and fisheries in the Hutz Valley. Oil was reported to be seeping into the northern part of the Sea of Galilee, and oil slicks were seen on the Jordan River.

Blasting of pipelines has caused the third largest number of incidents resulting in deaths (5 out of 43 lethal attacks). However, if we look at the number of casualties rather than the number of lethal attacks, it emerges that blasting of pipelines is the gravest type of attack, as **blasting of pipelines may kill a large number of people in one attack**. Several incidents illustrate the potential lethality of this kind of attack. On 18 October 1998 more than 70 persons died and more than 100 were injured when a Colombian rebel group *The National Liberation Army* (ELN) bombed the Ocesa crude oil pipeline in the country. The powerful bomb caused major damage when the oil spills caught fire and set ablaze houses and part of the conduit in Machuca, near Segovia in the Colombian Province of Antioquia. Between 20,000 and 40,000 barrels of crude were spilled in the attack. Another extremely lethal incident occurred the same month in Nigeria, as more than 1,000 people burned to death after a ruptured pipeline caught fire.¹⁵ Most of the victims of the inferno had been trying to collect leaking oil when there was an explosion, apparently set off by a spark from either a cigarette or a motorbike engine. According to the pipeline company, the fuel leak itself had been caused by sabotage. Both these incidents demonstrate the potential lethality and ecological consequences of sabotage attacks against pipelines. Fortunately, these very lethal attacks represent exceptions rather than a rule, and some 39 out of 44 pipeline bombings did not cause any injuries.

¹⁴ The statistics certainly show a greater number of kidnappings, but blasting of pipelines is underrepresented, as a result of two protracted bombing campaigns in Colombia which single-handedly represented at least 307 incidents, and which are only registered as two incidents in the ITERATE database. See chapter on methodological problems.

¹⁵ The incident is not registered in ITERATE, probably because it may have been caused by an accident. See Hilary Anderson, "Nigeria inferno survivors sabotage oil pipes," *BBC World News* 24 November 1998, and several other articles at <http://news.bbc.co.uk>.

With regard to motivation, the data suggests that guerrilla and rebel groups operating in a civil war context usually adopt the blasting of pipelines as a warfare strategy against the national government. The purpose is to harm the regime by attacking the national economy. Another widespread motivation is to protest against foreign ownership and bring forth a nationalisation of the petroleum industry. The reason why pipeline attacks are so common is probably tactical. They are easy to carry out, as there are long stretches of unguarded pipelines. Such attacks can inflict considerable economic damage using relatively simple means. It should be noted, however, that **none of the registered attacks have targeted pipelines offshore**. Technically, such operations would have been more difficult to accomplish.

Although all continents have experienced attacks against their pipelines, some regions have been more exposed than others. It is probably no surprise that a considerable portion of the recorded incidents have taken place in the Middle East (17 incidents), many as a result of the Israeli-Palestinian conflict (11 incidents). Moreover, Colombia has been extremely exposed (8 + 307 incidents), as a result of the civil war between the government and radical leftist guerrillas. More surprisingly, Western Europe has also suffered a significant number of attacks (12 incidents), mainly from domestic, radical leftist groups. The statistics for Western Europe reflect the large number of active terrorist groups over the past decades, the relative density of petroleum production and transportation infrastructure in Europe, and perhaps also an overrepresentation of anti-Western attacks in the ITERATE database.

The number of pipeline blasts has been more or less stable throughout the period, which is if we choose to ignore the enormous increase generated by the extensive bombing campaigns in Colombia during the 1990s.

2.2 Sabotage against Pipelines

Sabotage against pipelines (excluding blasting) is far less common than blasting, accounting for only 13 incidents. The number of such strikes has somewhat decreased during the 1990s (Two incidents in the 1990s, six in the 1980s and five in the 1970s). None of the attacks have caused any injuries, but as many as four resulted in closedowns and another four involved considerable economic losses.

An extremely serious event occurred on 19 December 1994, when unknown individuals cut crude oil pipelines at an oilfield in southern Nigeria. The pipelines carried crude oil from two stations in Bomadi, which produce about 60,000 barrels of oil daily. The coatings on the pipes were removed and the walls cut with handsaws. Oil was spilt over a vast area of farmlands, destroying food crops and trees in the area. Nigeria also lost millions of dollars in export earnings from the spilt crude. Armed security presence guarding oil pipelines and other strategic oil installations were reinforced in the early 1990s, following agitation in oil-producing areas for a larger share of oil export earnings.

Another remarkable incident took place in Germany on 22 February 1972, when the radical Palestinian group *Black September* sabotaged an ESSO-pipeline near Hamburg and accused the company of aiding Israel. This is the only example we have recorded from the European

continent of pipeline sabotage other than blasting, however. Nine of the attacks occurred in the Middle East, and the remainder took place in Afghanistan, Nigeria and Mozambique. At least six, possibly nine, attacks were part of guerrilla warfare against the government, and they were probably launched for the same reasons as blasting of pipelines.

2.3 Kidnapping of Petroleum Company Personnel

Like blasting of pipelines, kidnappings are much easier to accomplish than more direct attacks on petroleum production plants and refineries, and this may account for the high frequency of this type of action. **Kidnapping of petroleum company personnel is numerically almost as widespread as pipeline blasting (54 incidents), yet geographically it is more limited in scope. Kidnappings have become increasingly widespread over the past decades.** During the 1970s only five such incidents have been recorded, while there was 19 during the 1980s and 30 during the 1990s. During 1999 only we have recorded as many as 11 incidents. Kidnappings of petroleum company personnel are not necessarily lethal. Hostages have often been released without physical injuries, usually after a relatively short time, and frequently without ransom. Nevertheless, kidnappings involve serious threat to human lives in addition to economic losses and have therefore been coded as “serious”. At least 38 out of 54 recorded kidnappings ended with the hostages’ release. In 11 cases, the hostages’ destiny was not reported, and at least five hostages were killed along with three security personnel and a driver. There were altogether eight lethal kidnappings. Employees are normally abducted from their workplace (15) or during work journeys (17).

A rather typical incident happened on 30 October 1997, when al-Sha’if tribesmen near the Yemeni capital of Sanaa abducted Steve Carpenter, the American director of a Yemeni company that subcontracts to the US-based Hunt Oil. He was held at a desert site 100 miles to the North. The tribesmen demanded the release of two fellow tribesmen who were arrested on smuggling charges. The group also demanded that several public works projects allegedly promised to them by the government commence. Carpenter was freed unharmed on 27 November. Authorities could not determine the reasons for his release.

One of the eight lethal incidents started on 29 May 1978, when eight guerrillas kidnapped Juan Nicolas Escobar Soto, manager of the Texas Petroleum Company, in Bogotá. On 3 January, his body was found when Colombian troops raided a guerrilla hideout during a search for firearms. Soto, for whom a large ransom had been demanded, was shot inside a tunnel in the Lucerna suburb as the army and police closed in on the group.

Although leftist guerrillas have been behind at least 24 of the kidnapping incidents, this type of attack is not limited to leftist radicals. 18 incidents can be ascribed to Colombian groups, and ethnic separatist groups have carried out another 18. Most of these occurred in Yemen (8) and Nigeria (5). As many as 33 out of 54 kidnappings took place in these three countries, and eight out of nine deaths can be linked to Colombia with one occurring just across the border with Ecuador. By and large, kidnappings have been geographically confined to a handful of countries and have not been as common as the statistics may suggest.

The most important motivation is probably the need for funds, which can be obtained through ransoms. The potential profits are high. For example, in one case, in December 1973, a group called *People's Revolutionary Organization of Argentina* received US\$ 14,2 million in exchange for Victor E. Samuelson, the American manager of a local ESSO refinery. The sum was reportedly sufficient to equip and maintain 1500 guerrillas for more than a year.

2.4 Armed Attacks on Personnel

In line with the increase in kidnappings, armed attacks on personnel also became more common during the 1990s, although occurred far less frequently (11 recorded incidents only). There have been seven such incidents during the past decade, none in the 1980s and four between 1976 and 1980. Such attacks are by their very nature extremely lethal, and not surprisingly, all attacks except one resulted in casualties. Seven incidents happened during work journeys, three at the workplace and one while the victims were sleeping.

With regard to the attackers' ideology, the predominance of Islamist insurgent and terrorist groups is significant. Islamist groups were probably responsible for six attacks, separatists for three, and Communists for one, indicating that religiously motivated terrorist or insurgent groups may be more lethal than their secular counterparts. Some of these attacks took place in the context of the Algerian civil war, which has been extremely brutal. A typical incident took place in Algeria on 11 July 1994, when four Russians and one Romanian were shot dead in a morning attack near the Oued Ouchayeh tunnel, east of Algiers. They were shot after Islamist gunmen at a roadblock stopped their state-owned Sonatrach Oil Company bus.

In most cases, the immediate motivation for the attacks was unknown. However, guerrilla movements at war with the national government have carried out eight attacks of the recorded attacks, and it seems likely that the attacks were part of a wider insurgent strategy. In Algeria where four of the armed attacks on petroleum company personnel occurred, the so-called *Armed Islamic Group* (GIA) has employed assassinations and massacres of civilians as one of the major modes of operation. The physical petroleum infrastructure does not seem to have been singled out as a particularly favoured target, perhaps due to its remote and well-protected location far away from the war zone. The GIA's assassinations of foreign personnel seem to be linked to the particular conditions of the Algerian civil war in the mid-1990s when the disruption of all foreign support for the Algerian regime was seen as a critical precondition for victory on the battle field.¹⁶

The 11 incidents coded as armed attacks on personnel, consisted of direct attacks on people. However, it is often difficult to determine whether an attack is directed specifically at personnel, material infrastructure or vehicles. Personnel can be targeted indirectly, for instance through an attack on their transportation vehicles. Some rebel groups have proved capable of bringing down helicopters and aircrafts. One such attack happened on the 8 March 1995 in Burma where three military helicopters carrying French and Burmese employees working on a pipeline project were shot down by the separatist *Karen National Union* (KNU). Five people were killed and 11 were injured.

¹⁶ For a detailed analysis of the GIA and its external operations in Europe, see Lia & Kjøk (2001).

2.5 Bombing of Petroleum Company Offices

Bombing of petroleum company offices is the third most frequent type of attack, accounting for 25 incidents alone, superseded only by pipeline attacks and kidnappings. Such incidents have occurred throughout the period, but were most common during the 1980s (12 attacks in the 1980s, as compared to 5 attacks in the 1990s and 7 in the 1970s, plus 1 in 1968). Only one incident caused very serious material damage. About one third of the incidents involved serious material damages, whereas the remainder had less important consequences.

The most serious attack recorded occurred on 8 May 1989, when the offices of three foreign oil companies in Angola were damaged by a bomb that exploded during the night. Texaco's offices were completely destroyed. Those of the French company Petromar and the Japanese Sumitomo Corporation were seriously damaged. Takamasa Umeji, the local Sumitomo director, was slightly wounded in the head. Several cars were damaged in the explosions in central Luanda, which also shattered the windows of many buildings, including those of a major hotel, the *President*. The bomb apparently exploded in Texaco's office, housed in the same building and on the same floor as the Sumitomo office. The perpetrators were not identified. A more typical incident occurred in Cyprus on 14 March 1985. Around midnight, a dynamite blast occurred in front of the ESSO oil company office on Grivas Dhiyanis Avenue in Nicosia. The bomb damaged the entrance to the office and broke windows in nearby buildings. No one was injured. The perpetrators were not identified.

Offices are usually easy to attack, as they are often located in city centres. The commonest way of attacking is simply to place a bomb in front of the entrance, and this occurred in 7 incidents. The reason for targeting petroleum company offices is most likely that they are important symbols of such companies, and of the countries and interests they represent. Terrorist groups tend to see violence as a means of political communication, a form of 'armed propaganda' where targets are chosen entirely because of their symbolic value rather than their military significance. Hence, in this regard, it is rather surprising that offices do not figure as target group number one. It is interesting to note, however, that in many attacks the bombs exploded at night, a timing that was most probably deliberately chosen in order to inflict material damage without causing a great number of casualties. However, one person was killed and another injured during such nightly attacks, whereas the other bombings resulted in four injuries and one death.

The relative infrequency of attacks on symbolic targets such as offices as compared to pipeline attacks and kidnapping may suggest that **attacks on petroleum infrastructure are normally the work of insurgent and rebel groups, while political terrorists lacking well-defined territorial or military objectives are inclined to avoid such targets.** This conclusion is partly supported by the observation that attacks on petroleum infrastructure are far more common in countries at armed conflicts (see chapter 4). We also see that attacks on offices occur relatively frequently in Western countries (which host a large share of the world's terrorist groups, but have very few militarily strong rebel movements) accounting for nearly half of the attacks. Western Europe and the USA have suffered 6 bombings each, while the numbers for other regions are Asia (6), Southern America (4), Middle East (2) and Africa (1). The Philippines has also been a special case in this regard with as much as four attacks alone

When it comes to ideology, domestic leftist radical groups were responsible for at least nine of the attacks, while ethnic groups carried out four attacks (all of these occurred in the USA, three were committed by the Puerto Rican group FALN (or ‘Armed Forces for National Liberation’)¹⁷ and one by Cubans). For the remainder, the perpetrators are unknown. The immediate motivation behind the attacks has been difficult to discern, but it appears to be to protest against foreign oil companies’ involvement in the national petroleum industry and against the conduct of multinational corporations in Third World countries.

The remaining types of attacks — **bombing of oil- and gas depots, refineries and gas stations and hijackings** — **have been far less common** than the previously mentioned modes of operation such as kidnappings and attacks on pipeline and offices.

2.6 Bombing of Oil- and Gas Depots

We have recorded only 13 incidents of bombing of oil and gas depots. The attacks spread more or less evenly over the entire period. Half of the incidents had no serious material consequences, whereas the remainder involved economic losses in the form of spilt petroleum. Two incidents resulted in deaths, but none of the others involved any bodily injuries. Three of the strikes targeted national oil depots, although one of these may have been an accident.

Separatist groups are accountable for at least five of these attacks. The IRA, for example, has carried out 2-4 strikes against petroleum depots in England, as well as two attacks on terminals and one on personnel. One of the attacks took place on 26 February 1993, when the IRA claimed credit for setting off three bombs, which destroyed two huge natural gas tanks in Warrington, 15 miles west of Manchester in northern England. No injuries were reported, but about 100 people were evacuated from their homes.

Six of the depot bombings took place in Western Europe and three in the Middle East. Any specific reason for oil/gas depot targeting is hard to find. One may surmise that some depots have been easily accessible, and may have been attractive targets because they represent large economic assets. Moreover, oil depots make spectacular fires, which guarantee a return on investment in terms of media coverage.

2.7 Bombings of Refineries

Bombings of refineries have also occurred relatively infrequently with only 12 recorded incidents. There were only two such incidents in the 1990s, and six in the 1980s. The remaining four happened between 1958 and 1971. (Underreporting may well be a source of error). One incident resulted in considerable economic damage, while two attacks involved

¹⁷ The group mostly active from 1974-85, has sought Puerto Rican independence. It was formed from the merger of the remnants of the Armed Commandos of National Liberation (CALN) and the Armed Independence Revolutionary Movement in 1974. Its first operation was to bomb five banks in New York in October 1974. Between 1974 and 1985 the FALN carried out more than 160 bombing attacks on the US mainland. It has concentrated largely on bombing symbolic targets such as banks, corporation headquarters, government offices and military installations, although later, it also struck hotels and department stores. See Anderson & Sloan (1995), p.42.

casualties. However, **two-thirds of the incidents had no important consequences, neither in terms of material damage nor in terms of casualties.**

One incident took place in the USA on 28 September 1982. Officials of the Gulf Oil Company petrochemical plant in Cedar Bayou, Texas, received a letter threatening to set off 10 bombs if the extortionists were not paid \$10 million. The seven-page letter indicated where one of the bombs was and said 4 others were easily found. Police detonated one of the bombs harmlessly by firing a water cannon at it and found the other 4 bombs. The last 5 bombs were found when the Federal Bureau of Investigation (FBI) agreed to free a suspect's wife in return for information as to their location.

Another interesting incident targeting refineries was an armed attack (not bombing!) that occurred in South Africa on 13 May 1984. Four gunmen fired several grenades at fuel storage tanks at the refinery, and caused damage estimated at \$ 25 000. The attackers sped from the scene in a car, but were later chased down and shot by the police.

No region seems particularly affected, and no groups stand out. Nonetheless, guerrilla or rebel groups fighting the national government were responsible for at least five of the bomb attacks against refineries. The motivation was probably the same as for pipelines. Refineries, however, are likely to be even more tempting targets, but since they usually are better protected and more difficult to attack, only groups with resources can hope to succeed in carrying out such an attack. The relatively rare occurrence of such attacks can almost certainly be attributed to security measures.

2.8 Bombings of Gas Stations

Bombings of gas stations have not been common, according to ITERATE, and we have recorded only 8 incidents. It is very likely, however, that attacks on petrol stations are greatly underrepresented in the database, since such incidents seldom have international ramifications. All the recorded incidents happened after 1980, and half of the attacks resulted in casualties, but this may be due to a significant underreporting of low-scale incidents, such as incendiary bomb attacks against the gas stations of oil companies, which continued to trade with South Africa under the apartheid. No region or groups seem to stand out. However, eight out of nine target countries suffer from strong, internal conflicts.¹⁸

One illustration of such attacks was a bomb explosion, which occurred in Jerusalem on 24 August 1980. A bomb hidden in a trashcan exploded at a Jerusalem gas station, killing a station attendant and wounding several tourists. The *Palestine Liberation Organisation* was blamed for the attack. It appears that in many cases the gas stations themselves were not directly targeted, but served as a suitable arena for an attack.

¹⁸ Colombia, India, Iraq, Israel, Mozambique, Namibia, Singapore and South Africa. The ninth country was Poland.

2.9 Hijacking with Hostage-Taking

Hijacking of petroleum infrastructure facilities, accompanied by hostage taking is another type of strike worth mentioning. Such attacks are not very frequent; only 10 incidents have been recorded, but they might have very serious consequences. Half of these attacks resulted in closedowns, and two, possibly three, incidents had important material consequences such as the loss of a helicopter, whereas the remainder had no such consequences. Casualties have been low: one hostage has been killed, while at least 11 have been injured. The incidents include **hijackings of helicopters (4) and production plants (2), as well as a flow station, an office, a housing complex and other oil company facilities.**

A typical example of such an incident took place in Nigeria on 22 March 1997, when forty Ijaw villagers armed with cutlasses, automatic rifles, cudgels, and crude implements attacked the Egwa flow station. They disarmed a lone policeman and kept the Shell Oil workers hostage. The Ijaw occupied the buildings to protest the redrawing of regional boundaries. The incident was part of the rivalry between the Ijaw, the Itsekiri, and the Urhoboh tribes. The Ijaw tribesmen made political demands and beat their 127 Nigerian captives, threatening to kill them. They released 76 captives on 26 March and the remainder on the following day. Three of the hostages had been injured.

Responsible groups include predominantly local populations, such as disaffected tribesmen (6 incidents), but also leftist (2) and rightist (1) guerrillas, members of the national opposition (1) and ‘criminals’ (1). Such hijackings bear a certain resemblance to kidnappings with the three countries Nigeria (4), Colombia (2) and Yemen (1) accounting for most attacks. Motivations are also similar: ransom (3) and concessions from the government (4). However, hijackings normally involve the capture of more people, and enable the terrorists to control the facilities taken over. They are therefore likely to create more media attention. On the other hand, hijackings are quite difficult to accomplish and offer few escape opportunities. These are probably the reasons why hijackings are rare. See table 2.2 below for an overview of the methods and targets identified in our data.

	Blasting	Hijacking	Kidnapping	Sabotage	Arson	Armed attack	Other	Total
Refinery	13				2	1		16
Production plant	45	1	1	13	2	3	1	63
Pipeline	4	10	54			11	1	80
Personnel	25				1	2	3	31
Office	13			3	2	2		20
Depot	4			2		2		8
Terminal	8				1			9
Gas station	1					1		2
Tank ship	9	2	1	2	7	5	4	30
Others	122	13	56	20	15	27	9	262
Total								

Table 2.2 Type of attack: cross-tabulation of methods and targets

2.10 Very Few Attacks against Oil Platforms and Offshore Installations

Finally, one should emphasize the rarity of strikes against oil platforms and offshore installations, which is good news for those producer countries whose petroleum production facilities are situated largely offshore. We have recorded only a few attacks on oil platforms. Two of them occurred in Nigeria. On 27 June 1999 an oil platform in Port Harcourt in the Niger-Delta Region was stormed by four heavily armed youths. They inflicted damage to the platform, hijacked a helicopter and kidnapped three employees, who were released for ransom after 19 days. Moreover, on 1 August 1999 three employees were kidnapped from another oil platform in the region, but they were released unharmed – and without ransom – after one day.

A terrorist hijacking of a North Sea oil platform has often been seen as a worst-case scenario for Norwegian oil production. As far as we know, the only country where an offshore hijacking of a petroleum platform has taken place is again Nigeria where a hijacking occurred on 31 July 2000.¹⁹ Thirty-five armed young men from Bayela village used a rowboat to reach two oil platforms off the coast. They managed to board the rigs and take 165 oil workers (including 20 foreigners) hostage. They subsequently demanded that Shell employ more Nigerians and that it pay a fee to the local community for exploiting its petroleum resources. Shell made an agreement with the hostage-takers, and the employees were released after four days. It is important to notice that **a crucial factor to the hijackers' success in this case as well as in a most cases involving terrorist and rebel attacks on petroleum infrastructure, was the considerable support the group enjoyed among the local population.** Needless to say, support for such extralegal actions would be far more difficult to solicit in a wealthy Western democracy.

3 WHO ARE THE 'PETROLEUM TERRORISTS'?

3.1 Domestic versus International Groups

According to our data, domestic groups have performed the lion's share of terrorist strikes against petroleum infrastructure (79%). Foreign groups (judging by the dominant nationality of the perpetrating group members) have carried out only 6% of the recorded attacks (see figure 3.1). The terrorists' nationality was unknown in 15% of the incidents. However, in most of the uncertain cases, the perpetrators were probably domestic groups, judging by circumstances and available information about these strikes. (The predominance of domestic groups would have been even higher, if the database ITERATE upon which the survey is based did not confine itself to incidents of terrorism with international ramifications).

¹⁹ It is thus not included in the statistical survey, which only covers the period 1922-99. See *Nettavisen*, <http://www.nettavisen.no>, 2 August 2000.

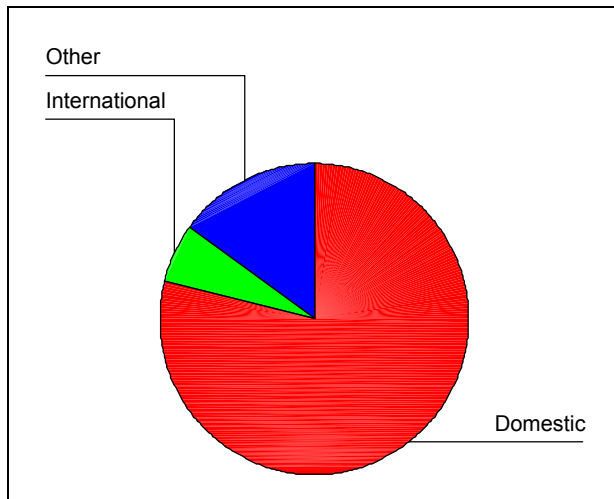


Figure 3.1 Domestic versus international terrorism 1922-99

It has become common wisdom that globalisation has led to an internationalisation or *transnationalisation* of terrorism, i.e. that terrorist groups – including their ideas, weapons, funds and personnel – move across national borders more easily now than they did in the past. Nonetheless, our survey tends to show the opposite: **There was a decrease in strikes committed by foreign groups from 1970 to 1994** (see figure 3.2).

In 1970-74, domestic and international groups were responsible for 48% and 26 % of the strikes respectively, whereas in 1990-94, the numbers were 95% and 0%. The high frequency of international attacks in the first half of the 1970s is largely a result of **the effects of the Arab oil embargo in 1973** when there occurred a series of strikes against petroleum infrastructure by Palestinian and Arab groups.

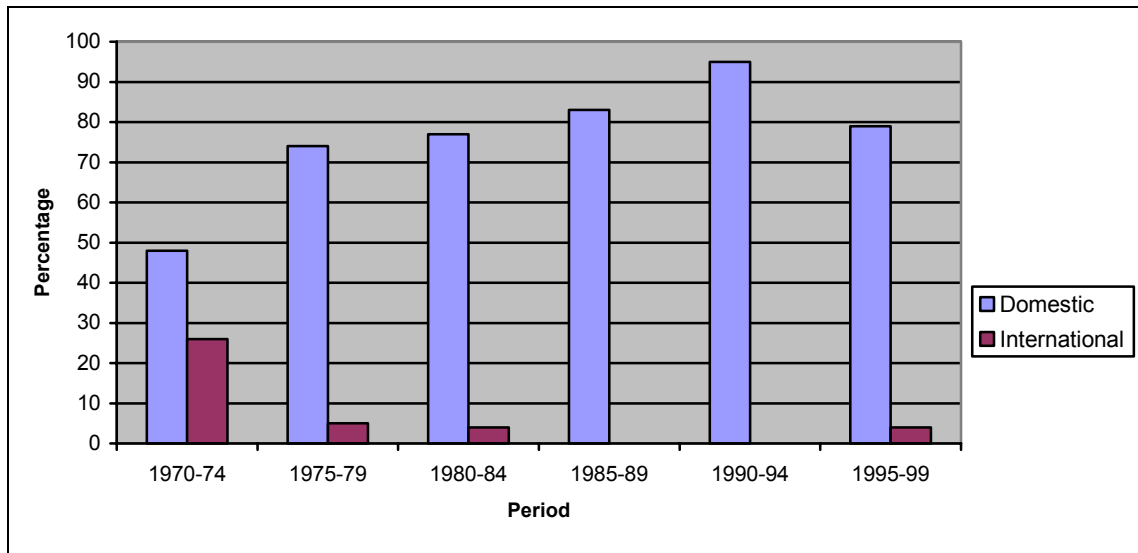


Figure 3.2 Domestic and foreign group involvement in petroleum terrorism

During the second half of the 1990s one has witnessed a new increase in strikes carried out by foreign groups (8 %). It is too early to say whether this increase is indeed an indication of globalisation, or if there are other explanations, but the latter seems more probable. In any case, the total number of attacks by foreign groups was larger in the early

1970s than during the late 1990s, and the great majority of attacks are still the work of domestic groups.

Throughout most of the period there has been a very significant increase in the number of attacks performed by domestic groups. It is probably a result of the gradual expansion of the petroleum industry into regions hosting active rebel and terrorist groups. In this connection, it should be re-emphasised that ITERATE is a database that focuses on terrorist attacks with international ramifications, so that the actual predominance of domestic groups is likely to be even larger. This is an important finding, which suggests **that countries with little or no domestic terrorism are seldom exposed to attacks on their petroleum installations, in spite of the globalisation processes.**

The number of attacks perpetrated by foreign groups is small. One should therefore avoid making too much out of these results. Alterations over time may simply be caused by coincidence or changes in the strategy of a few groups. For example, Palestinian groups perpetrated nearly all recorded 'petroleum' attacks by foreign groups in the early 1970s. Moreover, Colombian guerrillas operating across the borders into neighbouring countries carried out three out of four foreign attacks targeting petroleum infrastructure after 1995. Islamist groups have also performed attacks on petroleum infrastructure outside their home country, whereas **to our knowledge rightist and militant environmental groups have never carried out any attacks abroad.**

Norway belongs to a group of European countries, lacking domestic terrorism or which have suffered only sporadic and, mostly, isolated attacks.²⁰ This has obvious implications for the threat against petroleum infrastructure, since domestic groups have been behind the great majority of terrorist attacks on petroleum installations.

The pattern of target selection is quite similar for domestic and foreign groups. However, **domestic groups have targeted personnel more often** than have foreign groups.²¹ Foreign groups have shown a greater propensity to attack refineries. As a matter of fact, our data show that **refineries are the most common targets for foreign groups**, in addition to personnel.²² This might indicate a preference for high-profile strategic targets on the part of foreign groups. On the other hand, we have recorded no attacks on depots and production plants by foreign groups. For other targets, there are only minor differences between domestic and foreign groups (see figures 3.3 and 3.4).

²⁰ See Dr. Jan Oskar Engene's work *Patterns of Terrorism in Western Europe 1950-95*, one of the most thorough studies on domestic terrorism in Western Europe. Engene (1998).

²¹ 35% and 22% of their attacks respectively.

²² Each represents 22% of the attacks from foreign groups.

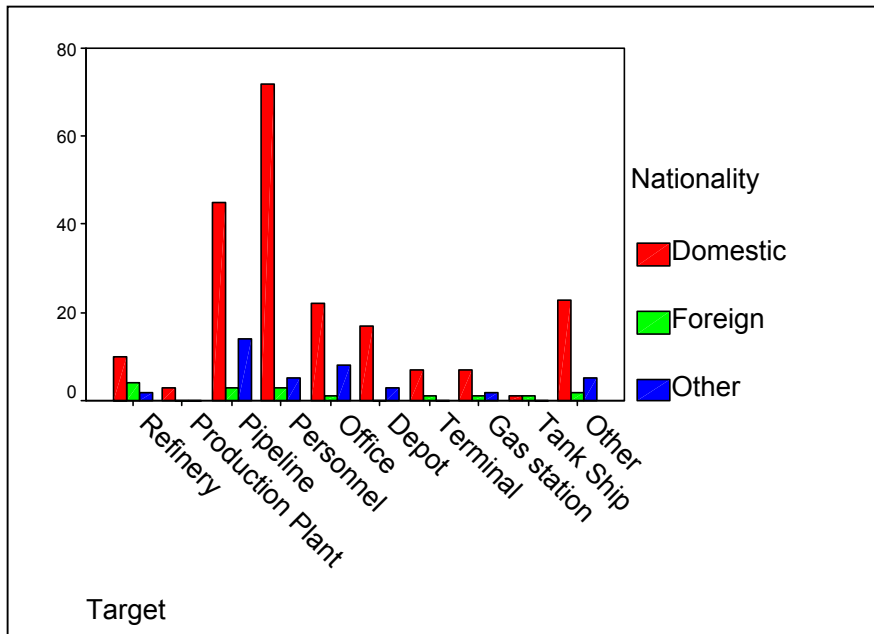


Figure 3.3 Target selection by foreign/domestic groups

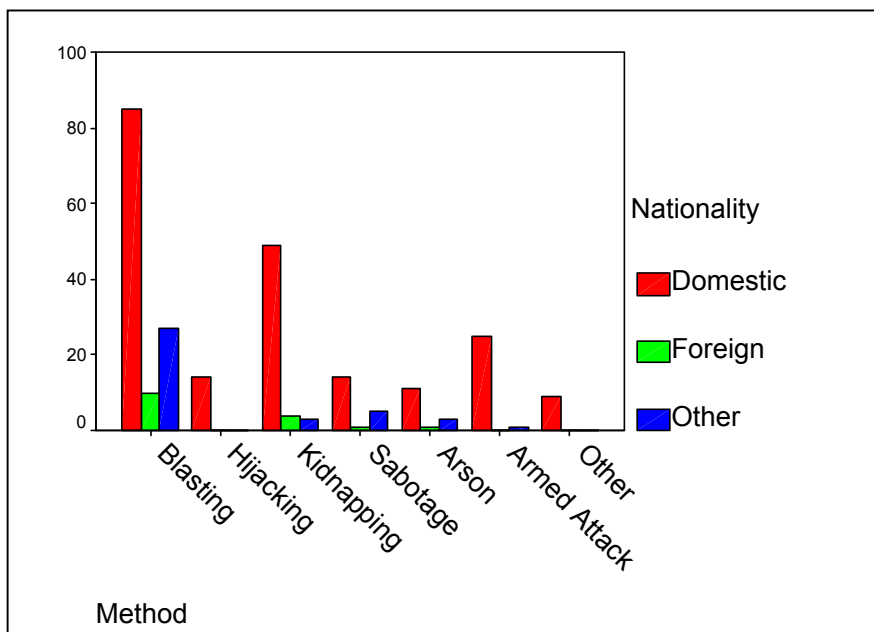


Figure 3.4 Method selection by foreign/domestic groups

We may also discern differences between foreign and domestic groups regarding methods of attack. **Foreign groups seem to prefer blasting (61%), and have never carried out any armed attacks.** This may be an indication that foreign groups have a smaller range of capabilities and operational modes than have domestic groups. In other respects, both categories show similar patterns with blasting and kidnapping being the most used methods.

With regard to the threat to Norwegian petroleum installations, it is interesting to note that **foreign groups have thus far never succeeded in carrying out any hijackings or armed attacks on petroleum installations, and that their attacks have never caused any**

closedowns. Still, international groups have been behind attacks classified as “very serious” (see coding) over the past decades. In general, one may assume that the threat against national petroleum facilities in Norway will remain low given the absence of domestic terrorist groups.

3.2 Ideological Orientation of ‘Petroleum Terrorists’.

Terrorist and rebel groups that have been involved in strikes against petroleum infrastructure belong primarily to one of two ideological trends: either nationalist with separatist goals or various leftist Marxist- Maoist ideologies. These are the most active groups as they are responsible for 34% and 28% of the attacks respectively (see figure 3.5). Considering the many unrecorded attacks committed by leftist guerrillas in Colombia, one could presume that the two groups are about equally active.

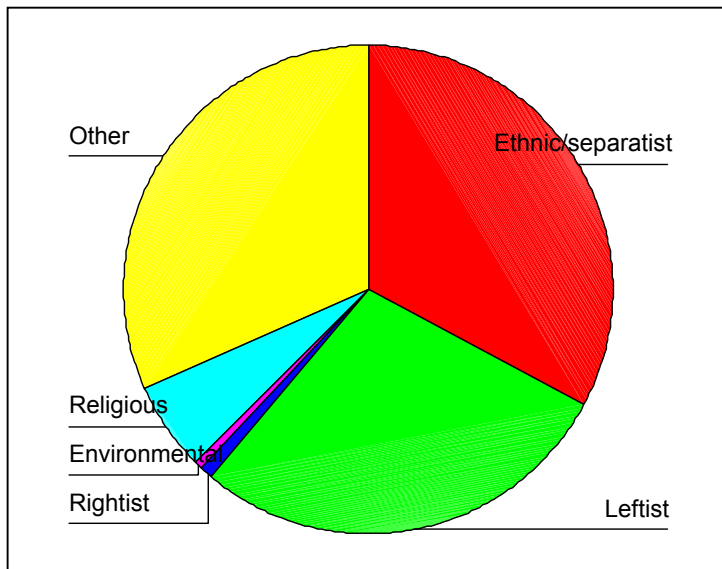


Figure 3.5 Distribution of responsible groups

Religious ‘fundamentalist’ groups have carried out 6% of the incidents, nearly all of which can be ascribed to militant Islamists (15 incidents in total – 14 by Islamists). Attacks by rightist and environmental groups account for two and one attacks respectively. The remaining strikes can be attributed to mentally disturbed individuals, criminals or unknown groups. Nevertheless, it is likely that many of the “unknown” actors were leftist and ethnic-separatist groups.

The pattern of ideological orientation of ‘petroleum terrorists’ has changed over time, however. During the 1970s, ethnic-separatist groups were the most important group, being responsible for 23 attacks. Only 10 attacks could be ascribed to leftist radicals, whereas Islamists were accountable for two strikes, both of which happened during the Iranian revolution. (Other and/or unknown groups were behind 15 incidents). By the 1980s, leftist groups appear to have replaced the ethno-separatists as the most active group in attacking petroleum infrastructure, especially during the second half of the decade. Leftist radicals were

accountable for 32 attacks, while ethnic/separatist groups were only responsible for 11. Islamists accomplished five strikes, whereas militant Sikhs and rightwing militants carried out one each. However, one should note that as many as 49 incidents in this period were carried out by unknown groups, adding much uncertainty to these findings. In the 1990s, the pattern altered anew. Ethnic-separatist groups regained their former position by accomplishing some 40 strikes, whereas leftist groups carried out 30 strikes. The remaining attacks can be attributed to Islamist groups (7), environmentalists (1), rightists (1) and others/unknown (16).

It is difficult to draw any general conclusions as to why these changes occurred, but it seems clear that they have been caused by alterations in the strategy and behaviour of a few groups. **Notably, the great activity of ethnic-separatist groups in the 1970s can primarily be ascribed to Palestinian and Arab groups** (16 attacks). The level of petroleum attacks by these groups declined with nearly 50 per cent from the 1970s to the 1980s, while ethnic-separatist groups other than Palestinians increased their activity (from 7 to 10 attacks) during the same period. **The 1990s witnessed a considerable rise in the number of ethnic-separatist strikes against petroleum infrastructure.** This was mainly caused by the upsurge of intertribal conflicts in Yemen and Nigeria, but there was also a certain increase in other ethnic-separatist attacks (25 strikes in Yemen and Nigeria, 15 in other countries). There was a general upsurge of intra-state ethno-nationalist conflicts in the early post-Cold War period, partly caused by the collapse or weakening of former Soviet client regimes around the world.

Although leftist groups were predominant in the 1980s, the lion's share of these incidents occurred as part of guerrilla attacks during the civil war in Colombia (19 out of 32 attacks). If we exclude the Colombian incidents, there was only a minor increase in strikes perpetrated by leftist radicals from the 1970s to the 1990s (1970s: 8 strikes, 1980s: 13 strikes, 1990s: 12 strikes). It is interesting to note that **a few Western European Communist or leftwing groups were particularly active in targeting petroleum infrastructure during the mid-1980s**, accomplishing as many as 10 out of 13 attacks carried out by non-Colombian groups, including **a number of attacks on NATO oil pipelines in Europe**. This might possibly be explained by increased support for these groups from the Soviet bloc, which turned on the heat following the collapse of the *détente* of the 1970s, President Reagan's Star War program, and his 'Empire of Evil'-rhetoric, and more important, the US Administration's overt support for anti-Communist rebel and terrorist organisations in Nicaragua, Afghanistan, and elsewhere.

There has been an increase in the number of attacks by Islamist organisations after 1979. This may in part be caused by inspiration from the success of the Islamic Revolution in Iran, and the Iranian regime's commitment to exporting the revolution and supporting radical Islamist, and in particular Shi'ite, groups abroad. Notwithstanding, **most Islamist attacks have occurred during armed conflicts** where Islamist groups were one of the belligerent parties. These attacks should thus probably be seen as components of general warfare strategy. Only three out of totally 14 recorded Islamist attacks happened in countries not involved in internal armed conflicts or interstate war.²³

²³ The figures are uncertain due to the number of incidents by the "unknown" groups. At least 2-3 of the attacks committed by "unknown" groups during peacetime are likely to have been carried out by Islamists. The actual number of attacks that were accomplished by Islamists in peacetime may therefore be somewhat higher.

The remarkably low number of incidents involving environmentalists and rightist groups is an interesting finding. First of all, it demonstrates **the relative marginality of ‘Green terrorism’ and rightwing extremists as a threat to petroleum production facilities**. Secondly, it shows that right-wing extremists have generally failed to act according to one of their doctrines, which is to destroy their main enemy, the ‘Zionist Occupation Government’ (ZOG), by attacking its infrastructure.²⁴

3.3 Who Attacks What?

Our statistical results suggest that *ethnic-separatist groups* predominantly attack personnel (26) and pipelines (23). They have also shown a propensity to attack depots (9) and refineries (6). Their preferred method is blasting (35) followed by kidnapping (18). They have also used armed attacks (10), sabotage (9) and arson (6) more often than leftist groups. In 14% of their attacks there were casualties, and 30% had other important impacts on human beings (loss of freedom due to kidnappings about 21% and physical injuries 9%). Closedowns of the targeted petroleum infrastructure seem to have been caused in 14% of the incidents, while 39% involved other important material damages. The economic consequences are uncertain for 8% of the cases.

Leftist groups also predominantly target *personnel* (29) and *pipelines* (18+), and their preferred methods are blasting (35) and kidnapping (24). As for the consequences, 15% of their strikes resulted in casualties, while 36% had other important effects on human beings (loss of freedom 32% and physical injuries 4%. In 9% of the cases, the impact on human beings is unknown). Nine per cent of the attacks probably resulted in closedowns, and 25% had other important economic effects (The economic consequences are uncertain for 12% of the cases). **It seems clear that attacks by ethno-separatist groups cause more material and economic damage than those of leftist groups.** This may have ideological causes. Leftist terrorist have often seen terrorism as a kind of ‘armed propaganda’, a theatre conveying a political message to the government and a wider audience, while ethno-separatist seek to weaken the physical and military capability of the regime as a step towards independence.

Religious-political ‘fundamentalist’ groups are not prominent in the statistics. The attacks that they have been involved in are mainly armed *attacks on personnel* (6). Furthermore, they have carried out three kidnappings and an assassination attempt, and have also blown up a refinery, a terminal and a gas station. Finally, they have set fire to an entire complex in Kuwait, containing an oil well, a plant and a terminal. **Islamists distinguish themselves from other groups by using armed attacks as their number one method. Accordingly, almost half of their attacks have resulted in casualties**, and nearly a quarter of the attacks have had other important impacts on human beings such as injuries or loss of freedom. On the other hand, none of their attacks led to closedowns and *only 7% had important economic effects* (The economic consequences were uncertain in 13% of the cases). This conforms to a more general

²⁴ The rightwing theologian David Lane writes for example that “The goal of Wotan [a true beserk who will carry on the battle until the day of Ragnarök] is clear. He must hasten the demise of the system before it totally destroys our gene pool. Some of his weapons are fire, bombs, guns, terror, disruption, and destruction. Weak points in the infrastructure of an industrialised society are primary targets. Individuals who perform valuable service for the system are primary targets. Special attention and merciless terror is visited upon those white men who commit race treason.” Cited in Kaplan (1997). See also Lia (2000), p.17.

trend, which suggests that **radical Islamist groups tend to prefer more lethal attacks than leftist groups.**²⁵

Rightwing groups have been responsible for only two recorded attacks. A rightwing group occupied a production plant in Bolivia in 1981. The occupation lasted for three days, during which time 52 employees were kept hostage. Another rightwing extremist group planned to blow up a refinery in the USA in 1997. The plan was exposed by police on beforehand, and was never accomplished. In addition to blowing up the refinery, the group probably intended to cause the release of lethal gas, thereby killing rescue workers, first response teams, policemen etc, and possibly even neighbours. The group had provided their own family members with gas masks.

Militant environmentalists have barely been involved in attacks on oil and gas facilities, according to our data, although a thorough survey of domestic incidents during the past decades would probably expose more incidents. The only recorded incident that can be related to an environmentalist cause occurred in Ecuador in 1998, when an Indian group kidnapped three employees from an oil company as a protest against environmental damage to their land, caused by the oil companies. The hostages were released unharmed.

It is difficult to determine why terrorist groups of different ideological trends choose different target types when they attack petroleum infrastructure. Tactical security considerations are important when planning and carrying out attacks on petroleum targets, and since the security environment differs from one group to another, the targeting pattern will also differ. It is therefore impossible to ascribe different targeting patterns to ideological differences alone. Moreover, terrorist groups do not necessarily act according to their ideological writings. Nonetheless, the inactivity of militant environmentalists may well stem from a fear of inflicting additional environmental damage, which is a major risk when attacking petroleum infrastructure. The inclination on the part of leftist and separatist groups to avoid casualties, relatively speaking, as compared to Islamist groups, may be explained by differences in ideology. Militant Islamists tend to seek religious justification of their attacks by obtaining a *fatwa* from a religious authority, while leftist and separatist groups may be more dependent on maintaining a level of popular support from a constituency.

3.4 Motivations: Why Do Terrorists Attack Petroleum Infrastructure?

Terrorist and rebel groups do not necessarily state their intentions and goals, and it may be difficult to understand their motives. The present survey of the most common motivations and demands put forward by the groups themselves cannot therefore be exhaustive.

- **Economic motives** are the most frequently stated motivation. Demands for ransom, blackmail and also outright robbery have occurred in altogether 21 incidents. Fundraising is extremely important for rebel and terrorist organisations, especially with the decline of state sponsorship after the end of the Cold War. In a number of cases, rebel groups have degenerated into profit-hungry warlords and criminal organisations, abandoning their erstwhile political-ideological goals.

²⁵ See for example the discussion in Hoffman (1998), pp.196ff.

- **Resistance to the national regime** has been stated as a reason in 13 cases of attacks, and demands for a greater share in the government's revenues have been put forward in four recorded incidents.
- **Resistance to foreign oil companies'** exploitation of national petroleum resources has been quoted in 7 cases.

Other common reasons include protest against the policies of multinational companies in third world countries, and also Western governments' policy towards these countries, efforts to negotiate the release of imprisoned group members and labour conflicts. Each of these is cited as group motivation in 4-6 incidents.

The list above presents motives, which were explicitly stated by the terrorist or rebel group. If we try to discern the implicit reasons, judging by available information of the groups involved, **the most common motivation seems to be resistance to the national regime and foreign petroleum companies, followed by economic motives.**

3.5 Material Damages, Casualties and Human Injuries

Terrorist and rebel attacks on petroleum infrastructure are not necessarily very serious. Approximately 50% of the recorded strikes did not result in any important material damage, 29% had some economic effects, while only **about 11% of the recorded attacks led to temporary shutdowns**. For the remainder, the material consequences are unknown. (For the coding of the degree of seriousness, see Appendix).

More than half of the attacks did not involve any injuries, while 29% involved harm to human life and well-being such as loss of freedom due to kidnappings (48 out of 76 incidents), and physical injuries (at least 28 incidents). About 16% of the attacks resulted in casualties, while 25 incidents led to 1-2 casualties, 13 caused 3-6 casualties and **only five attacks (out of a total of 262) involved between 10 and 100 deaths.**

There are important differences between foreign and domestic groups with regard to impact of their attacks. According to our data, **attacks by foreign groups have never resulted in shutdowns**. In other respects, there are no significant differences (see figures 3.6 and 3.7).

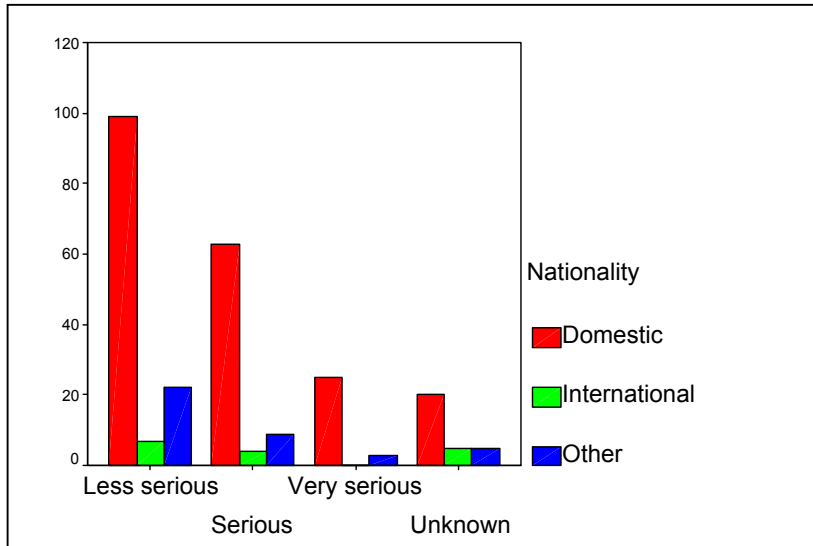


Figure 3.6 Material consequences

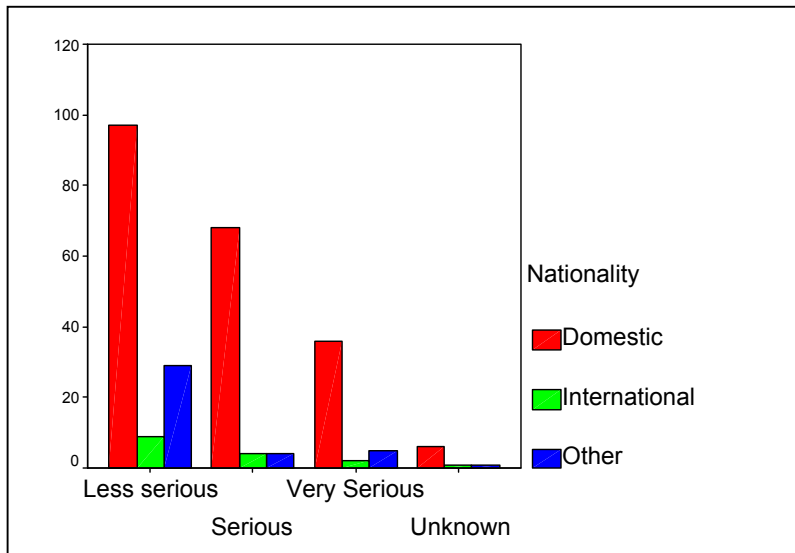


Figure 3.7 Human injuries

3.6 Extraordinary and Spectacular Cases of Petroleum Terrorism

A number of attacks on petroleum infrastructure have been rather extraordinary and spectacular in terms of methods of operation as well as material, ecological and human consequences.²⁶

- On 19 January 1987 several cases of arson were reported at an oil complex in Kuwait. The fires erupted in an oil well, a terminal, and a plant, and took two hours to extinguish. The fires broke out as Arab officials were gathering for the fifth Islamic summit. A group called *Prophet Muhammad's Forces in Kuwait – Revolutionary Organization* claimed credit two days later.

²⁶ Source: ITERATE-Chronology of Transnational Terrorism

- Mobs seized two Shell Oil helicopters and an oilrig in Nigeria on 22 March 1998. Days earlier, anti-regime demonstrators seized nine oil pumping stations, halting the daily transfer of 250 000 barrels of oil. The strikes were carried out by groups in the Delta Region, who claimed they had been shut out from registering to vote in the presidential elections.

- *African National Congress* (ANC) guerrillas attempted to destroy three South African oil-from-coal plants with a co-ordinated set of midnight bombings on 1 June 1980. Blasts at the SASOL I plant in the Orange Free State set ablaze four tanks, and a second series of two bombs went off at the SASOL II installation in Eastern Transvaal. At the Natraf refinery about three kilometers away from the SASOL II plant, a guard was wounded in the shoulder from gunfire, which was followed by explosions at three storage tanks, a diesel tank, and two aviation fuel tanks. Damage was estimated at \$ 7 million.

- The Cuban Freedom Fighters, an anti-Castro exile group, attempted to bomb oil refineries in the vicinity of Havana on 25 April 1963. They dropped a one hundred pound bomb, and several smaller ones, from a plane. Cuban sources claimed that the bomb did not explode.

- On 11 May 1977 saboteurs set fire to a production center in Saudi Arabia, causing \$ 100 million in damage to a network of pipelines.

- Thousands of barrels of crude oil were spilt into jungle rivers, as Colombian guerrillas blew up three different sections of the Cano Limon-Covensa pipeline on 8 February 1991.

- Unknown attackers armed with a rocket launcher shelled the Kan Bauk field office of the French TOTAL oil-company on 8 February 1996. They killed four local staffers and a French citizen, and wounded five other people.

4 THE IMPACT OF POLITICAL REGIME AND ARMED CONFLICT

The preceding analysis of incidents has left the impression that terrorist attacks on petroleum infrastructure are more often undertaken by insurgent and rebel groups at armed conflict with their national government, rather than by political terrorists operating in peaceful democracies, and lacking well-defined territorial or military objectives.

4.1 Case Studies

In order to illustrate the different target selection strategies by insurgent groups at armed conflict and political terrorists in peaceful democracies, we offer two short case studies of the Colombian *Simón Bolívar* guerrillas and a European (alliance of) group(s), the so-called *Anti-Imperialist Armed Front* from the mid-1980s.

4.1.1 Insurgent Groups: The Case of the Colombian Rebels

A civil war has raged in Colombia since 1984. The main contending parties are the national government, a conglomerate of leftist guerrillas, and drug trafficking mafias. The *Simón*

Bolívar Guerrilla Co-ordination Board is an umbrella organisation for all the leftist insurgents, founded in 1985. Its most important members are the *National Liberation Army* (ELN) and the *Revolutionary Armed Forces of Colombia* (FARC). They are fighting to achieve a Communist revolution in Colombia.

These two groups alone have been responsible for as many as between 31 to 41 of the 262 recorded incidents in our survey (ELN 23-24 incidents; FARC 4-5 incidents; ELN and/or FARC 3-5 incidents. In addition, Colombian leftist guerrillas other than FARC and ELN are responsible for 5-7 incidents). This demonstrates that petroleum infrastructure has been a highly prioritised target for these groups. Writes Anderson and Sloan about the ELN:

“ELN has tried to destroy systematically the economic infrastructure of Colombia. In December 1986, they attacked U.S.-associated oil production facilities, destroying machinery and stealing explosives. During January to August 1987, ELN bombed petroleum pipelines, attacked oil exploration and drilling camps, as well as other U.S.-Colombian targets. These attacks serve the twofold purpose of protesting the foreign presence in the Colombian economy and of depriving the government of economic viability. Attacks on the petroleum producing facilities cost the Colombian government \$ 400 million in 1988 alone.”²⁷

These attacks form part of the Simón Bolívar Guerrilla Co-ordination Board’s larger warfare strategy. The board has also targeted numerous police stations and military installations, which is demonstrated by a campaign that they conducted on 3-4 August 1998:

“The ELN and FARC carried out at least 42 attacks throughout Colombia, leaving 275 dead and scores wounded in a ‘farewell to the current government’. They wrecked oil installations, attacked the main port city, blasted a major anti-drug base, blocked highways, set off car bombs in city centres, attacked villages, and fired rockets and mortar shells at military bases in 16 provinces. Seven rebels died in the fighting. Nearly 30 soldiers and police went missing and were believed kidnapped. Moreover, pumps and storage tanks at three oil fields operated by the US-based Argosy Energy International were destroyed.”²⁸

Since 1988, the Simón Bolívar guerrillas have continued their attacks on petroleum installations. They have carried out two protracted bombing campaigns against the 480-mile Cano Limon-Covenas oil pipeline, with related oil camps and pumping facilities. From 1988-92, the pipeline was attacked over 230 times, and during 1999 Marxist rebels blew it up at least 77 times. The pipeline has a capacity of transporting 230,000 barrels a day, and is jointly owned by Ecopetrol of Colombia and a consortium of foreign oil companies. A typical and serious, example of such attacks would be: “On 30 July 1997, ELN bombed the Cano Limon-Covenas pipeline in Norte de Santander. The rebels wrapped sticks of dynamite around the pipes of the pump, causing a major oil spill and suspending pumping operations for more than a week, resulting in several million dollars in lost revenue.”²⁹ Many of the pipeline attacks

²⁷ Anderson & Sloan (1995), p. 242.

²⁸ Cited in *ITERATE Chronology on Transnational Terrorism*.

²⁹ Cited in *ITERATE Chronology on Transnational Terrorism*.

have had very serious effects. On 5 September 1992, the Simón Bolívar guerrillas set off a bomb on a pipeline, causing 10,000 barrels of oil to spill.

The Simon Bolívar Guerrillas have financed their activities *inter alia* “through kidnapping for ransom of foreign nationals and wealthy Colombians and through extortion of foreign-affiliated businesses”.³⁰ They have been responsible for at least 11–17 kidnappings of oil company employees.³¹ The hostages were killed in 2-3 of these cases, and their destiny is not indicated in 6-8 cases. The amount of ransom that they have managed to obtain is uncertain.

Pipeline blasting and kidnappings have been the main activities of the Simón Bolívar guerrillas with regard to petroleum infrastructure. However, they have also hijacked (three) helicopters, and attacked petroleum company employees. In one incident on 25 May 1985, ELN guerrillas “shot down a helicopter chartered by Occidental Petroleum Corporation, a U.S. company. The 10 people aboard survived the crash without injury. Following the crash, the guerrillas handed the pilot a written declaration denouncing the exploitation of Colombia's natural resources by foreign countries.”³²

According to current press reports, the struggle for control over Colombia’s oil resources continues unabated. In mid-July 2001 the FARC threatened renewed sabotage against the operations of the U.S. based Occidental Petroleum, only hours after pumping resumed following a five month suspension due to earlier guerrilla bombings. In its statement, the FARC vowed to prevent “even a drop of petroleum” from being pumped out until the company agrees to enter into negotiations, but Occidental Petroleum said “it does not make extortion payments to rebels”.³³ The Cano Limon pipeline, transporting oil from the Occidental run field to ports on the Caribbean coast, has been bombed 109 times so far this year.

4.1.2 Political Terrorists – The Case of European Leftwing Groups

Writes Anderson and Sloan about a Belgian leftist group which targeted petroleum infrastructure targets in Europe in the mid-1980s:

“*The Communist Combatant Cells (CCC)* was a non-state Belgian leftist group active from 1984 to 1985 that engaged in bombings for the limited purposes of protesting against ‘the Americanization of Europe’, capitalism, and the NATO alliance. The CCC [...] briefly formed an alliance with the *Red Army Faction (RAF)* and *Action Directe (AD)* known as the “Anti-Imperialist Armed Front” to coordinate their actions against NATO member governments. Unlike RAF and AD, however, the CCC tended to pick symbolic and strategic targets for bombings and to target property rather than human life, using the terrorist event as ‘armed propaganda’ for publicizing their own specific issues or causes rather than as direct military tactics to achieve revolution.”³⁴

³⁰ Anderson & Sloan (1995), p. 311. See also p. 241.

³¹ Two of the kidnappings happened in connection with more extensive attacks, i.e. a hijacking and an armed attack on a camp.

³² Cited in *ITERATE Chronology on Transnational Terrorism*.

³³ “Colombia Rebels Threaten Sabotage,” *Associated Press* 13 July 2001.

³⁴ Anderson & Sloan (1995), pp.70-71.

The Anti-Imperialist Armed Front carried out **an extensive bombing campaign against NATO pipelines in Europe in 1984-5**. Its German ‘branch’, the RAF, bombed 4-6 NATO pipelines going through Germany, and probably also a pumping station in an attack where nobody claimed responsibility, and a NATO study centre. The RAF stated that these attacks were “part of the anti-imperialist struggle against NATO, the state and the capital [sic]”.³⁵ The Belgian CCC carried out a series of bombing attacks of NATO pumping stations in Belgium. On 11 December 1984, they attacked six unguarded pumping stations along the 3700-mile NATO oil pipeline that runs across Belgium, the Netherlands, Luxembourg, Germany and France. Fires resulting from the blasts were quickly brought under control, but caused nevertheless a 48-hour shutdown to the pipeline. CCC claimed that the bombs were part of their “war against NATO and military imperialism”. In the following year, the CCC attempted to repeat the campaign by placing a bomb in a NATO pipeline pumping-control room in Ghent. Material damage was described as minor. At the same time, a bomb went off at NATO’s Central European Operating Agency in Versailles, causing serious damage. The CCC indicated that this attack was perpetrated by a French group of a “common Communist identity”, which probably meant *Action Directe* (AD).³⁶ AD also bombed the offices of the Elf-Aquitaine Petroleum Company in Paris on 10 December 1984. However, this attack was carried out in protest of the killing of 10 Kanaks in New Caledonia, and may not have been directly related to the joint bombing campaign.

The main difference between the strategies of the European political terrorists and the Colombian guerrillas was first and foremost the intensity of the attacks. Compared to the Colombian rebels who were capable of sustaining a high level of damaging strikes with serious consequences for the national government and the oil industry, the campaign against NATO pipelines by European leftist terrorist groups was definitely a nuisance, but not a strategic threat. **The targeting pattern was also different.** *The Anti-Imperialist Armed Front* does not seem to have perpetrated any kidnappings or armed attacks on personnel from the petroleum sector, apparently due to the CCC’s ideological inhibitions against excessive bloodshed and casualties.

4.2 Rebel and Insurgent Attacks on Petroleum Targets During Armed Conflict

In order to study how the patterns of petroleum terrorism may vary with regard to the presence of internal armed conflicts, we divided the incidents into two main categories: “strikes in countries in armed conflict” and “strikes in countries at peace”. We sorted the strikes according to Wallensteen and Sollenberg’s table of armed conflicts, which covers the period 1989-98.³⁷ The results were as follows: countries at armed conflict suffered from 54 incidents in the period while countries at peace suffered only 29 incidents. **The intensity of the armed conflict was also significant in accounting for the level of petroleum terrorism:** states with minor armed conflicts had 3 incidents; intermediate armed conflicts 18 incidents; and states engaged in major armed conflicts suffered from as many as 33 incidents. **Terror strikes**

³⁵ *ITERATE Chronology on Transnational Terrorism*.

³⁶ *ITERATE Chronology on Transnational Terrorism*.

³⁷ *Journal of Peace Research*, Vol. 36, no. 5, 1999, pp. 593-606. The table covers wars (more than 1000 deaths a year), intermediate armed conflicts (more than 1000 deaths during the conflict, but less than 1000 a year) and minor armed conflicts (less than 1000 deaths during the entire conflict). We found no table of wars covering the entire period (1922-99).

against petroleum installations were thus nearly twice as common in countries at armed conflict. However, as much as 19 out of 54 wartime attacks took place in Colombia, and might be explained by country-specific factors. On the other hand, many wartime attacks have probably been left out from ITERATE, as the database is only meant to cover terrorism, (mostly by non-state actors) not ordinary warfare between states.³⁸ As the number of incidents is relatively small for the 1989-1999 period (54 incidents), we decided to review them by sorting the events from the pre-1989 period using Singer and Small's "Correlates of Peace and War", which covers the entire period from 1816 to 1992 (although with a higher threshold for casualties). Some 80 incidents were then yielded, and the general pattern of targeting corresponded to our previous results, using Wallensten and Sollenberg's table.³⁹

Our analysis of incidents occurring in countries at armed conflict indicate that the patterns of petroleum terrorism (i.e. methods and targeting) in these countries chiefly follow the general pattern of petroleum-related attacks outlined in earlier chapters, with blasting of pipelines and kidnapping as the most frequent method of attack. Not surprisingly, armed attacks on personnel employed in petroleum companies are much more common during armed conflict (see table 4.1).

Kidnapping of personnel (11)	Bombing of gas station (2)
Bombing of pipelines (7) {+307}	Bombing of terminal (2)
Armed attack on personnel (6)	Hijacking involving capture of personnel (2)
Bombing of office (5)	Other (16)
Bombing of depot (3)	Total (54)

Table 4.1 Petroleum terrorism during armed conflict 1989-1998: Methods

It should be noted that even though attacks against personnel and pipelines are the most common type of incident in armed conflicts, insurgent groups have also targeted other parts of the petroleum infrastructure, due to ideological and tactical considerations. In the period 1989-98, a total of 14 countries in armed conflict experienced attacks on their petroleum installations. However, only eight of them experienced attacks on personnel and as few as four suffered attacks on their pipelines. These observations underline **the importance of country-specific factors** when evaluating the probability and character of future attacks.

The kind of strike that most often involves casualties is, quite evidently, strikes against personnel. From 1989-98, 7 out of 20 such wartime attacks resulted in casualties (21 deaths). However, if we focus on the number of dead people rather than the number of lethal strikes, the picture changes, as the 2 - 3 lethal attacks against pipelines resulted in at least 74 casualties. Moreover, if we choose to look at the entire period (1922-99)⁴⁰, there were 4 - 5

³⁸ For example, this applies to several strikes that occurred during the Iran-Iraq war (1980-88), which are not recorded in ITERATE.

³⁹ The disadvantage of using *Correlates of War* is that it uses a much higher threshold for armed conflict than Wallensten and Sollenberg's table, and hence, it does not cover minor and intermediate armed conflicts. See <http://www.umich.edu/~cowproj>

⁴⁰ Wallensten and Sollenberg's table and the *Correlates of War & Peace* combined.

lethal attacks against pipelines, which involved at least 124 deaths. As a matter of fact, **all lethal terrorist attacks against pipelines occurred during armed conflict.**

The ideological orientation of rebel (or terrorist) groups targeting petroleum infrastructure during armed conflicts largely correspond to the general pattern of attacks, (although leftist groups appear to be the most frequent perpetrator). Leftist guerrillas carried out 23 attacks, ethnic-separatist groups 16 and religious groups 6 attacks. In 9 incidents ideological orientation was unknown. **Domestic groups carried out nearly all attacks** in the 1989-98 period (50 out of 54). Although the perpetrators are unknown in four cases, it seems clear that **none of the attacks on petroleum infrastructure during armed conflict could be ascribed to foreign groups.**⁴¹

4.3 What Kinds of Attack Occur in Peaceful Democracies?

For threat assessment purposes, we are interested in incidents in countries comparable to Norway. We have therefore analyzed **patterns of petroleum terrorism in democracies without internal armed conflicts.** In order to determine which countries can be classified as “peaceful democracies”, we have drawn upon data from Wallensteen & Sollenberg, the *Correlates of War & Peace*, Ayeres’ list of armed separatist conflicts, and *Freedom House*.⁴² The latter regularly rates countries as “free”, “partly free” and “not free”.

It is indicative of the relationship between political regime and the level of terrorism that ‘not free’ countries, the number of which was quite high during most of this period, and which also hosted a large part of the petroleum industry, have had a relatively small share of the attacks (see table 4.2). It underlines a common observation that highly authoritarian and totalitarian regimes rarely experience high level of terrorism.⁴³

Incidents in ‘free’ countries	90	Incidents in ‘not free’ countries	48
Incidents in ‘partly free’ countries	91	Total	229

Table 4.2 Political regimes and the occurrence of petroleum terrorism 1972-1999

If we look at incidents in ‘free’ countries without internal armed conflicts,⁴⁴ we find that out of a total of 229 incidents of petroleum terrorism between 1972 and 1999, **there were only 53 recorded incidents (or 23%) in peaceful democracies.**⁴⁵

⁴¹ If we use the *Correlates of War & Peace*, we get a similar result: 72 attacks by domestic groups, 8 by unknown.

⁴² For *Freedom House*, see <http://www.freedomhouse.org>; for Wallensteen & Sollenberg’s data, see *Journal of Peace Research*, Vol. 36, no. 5, 1999, pp. 593-606; for *Correlates of War & Peace* see <http://www.umich.edu/~cowproj>; and for Ayeres’ list, see *Journal of Peace Research*, Vol 37, no. 1, 2000, pp. 107-117.

⁴³ For more on political regimes and the occurrence of terrorism, see our study Lia & Skjøberg (2000).

⁴⁴ There were 37 incidents that happened in “free” countries at armed conflict.

⁴⁵ Eight incidents that have occurred in England are not included in this overview, as a result of the Northern Ireland conflict (included in Wallensteen and Sollenberg, as well as Ayeres’ table). Between 5 and 7 of these incidents were indeed carried out by the IRA, and mainly targeted depots (2-4) and terminals (2). However, an unknown group (possibly Islamists) bombed the offices of Kuwait Oil in London in 1980.

With regard to changes in the occurrence of petroleum terrorism in peaceful democracies over time, it appears that while the number of attacks on petroleum installations world-wide has stayed more or less the same during the last 20 years (1972-79: 37, 1980-89: 99, 1990-99: 95), **the number of attacks has in fact decreased in peaceful democracies over the past decade** (1972-79: 19, 1980-89: 21, 1990-99: 10).

If we study methods and targeting, we find that incidents in peaceful democracies chiefly follow the general pattern of attacks. However, it appears that **bombing of offices is relatively speaking more common in peaceful democracies** than elsewhere, actually almost twice as frequent as in countries at armed conflicts. Refineries have also been targeted in peaceful democracies. **The virtual absence of armed attacks on personnel (employed in the petroleum sector) is significant.** The only attack we have recorded did not result in any casualties.⁴⁶ Moreover, apart from a PFLP-attack at an OPEC-meeting in Vienna in 1975, we have not recorded any hijacking operations against petroleum targets in peaceful democracies. As we can see in table 4.3, **kidnappings of petroleum sector personnel in democratic countries are rare**, and have been confined largely to Latin America.

Kidnapping of personnel (12)	Bombing of refineries (3)
Blasting of pipelines (12)	Bombing of depots (2)
Bombing of offices (9)	Other (15)
	Total (53)

Table 4.3 Petroleum terrorism in peaceful democracies 1989-1998: Methods

Let us take a look at some typical incidents of petroleum terrorism in democracies at peace.

4.3.1 Blasting of pipelines

On 16 June 1986, anti-apartheid militants, critical of Shell's ties to South Africa, firebombed three Shell petrol pump stations in Amsterdam during the night. Damage was estimated at US\$ 420,000. Several other stations were also damaged in Groningen. According to our data, nine out of twelve pipeline blasting operations have occurred in Western Europe. Most of these attacks can be attributed to the *Anti-Imperialist Armed Front* (see case study). The remaining three attacks occurred in the USA (2) and Japan (1). The most widespread motivation was resistance to capitalism and imperialism, accounting for 6-9 incidents.

4.3.2 Bombing of offices

On 13 June 1974 the Gulf Oil Company's offices in Pittsburgh, USA, were bombed, and suffered a \$ 450,000 damage. The US-based radical leftist group *The Weather Underground* claimed that the bombing was in protest of Gulf Oil's policies vis-à-vis Angola and Portugal's involvement in that country. Bombing of offices has mainly taken place in the USA (5), but also in France (2), Argentina (1) and Greece (1). Leftist groups carried out at least four of these strikes, while Puerto Rican separatists were behind three of the attacks in the USA.

⁴⁶ On 21 April 1976 the *Armed Communist Fractions* attacked the Italian President of Chevron Oil.

4.3.3 Kidnappings

On 26 January 1999 the *Colombian National Liberation Army* (ELN) kidnapped five petroleum engineers in Venezuela. The guerrillas released one hostage on 15 February, and the other four on 17 February. Eleven out of twelve recorded kidnappings in peaceful democracies took place in Latin America in the following countries: Colombia (3), Ecuador (3), Venezuela (3), Argentina (2) and Italy (1). As a matter of fact, Colombian guerrillas were responsible for at least three, probably as many as seven, kidnappings in other Latin-American countries. Export of the Colombian conflict to neighbouring democratic countries thus seems to be an important cause of kidnappings of personnel in the petroleum sector.

4.3.4 Causes

From the above, it seems clear that **the main causes of terrorist attacks on petroleum targets in peaceful democracies are ideology and export of conflicts**. The perpetrators have usually been domestic groups motivated by leftist ideologies, often claiming to act on behalf of the oppressed masses in the third world. A rough estimation of the 53 incidents indicates that export of conflict was the cause in 10-12 strikes, ideology in 23 strikes and ideology combined with export in 7 strikes (The motivation is uncertain for 11-13 strikes).

The Gulf war in 1991 witnessed an upsurge in attacks on petroleum targets in Western Europe:

- On 29 January 1991 the Greek leftist group *November 17 Organisation* fired rockets at the British Petroleum office in Athens, causing serious damage, in protest of “the barbarous Western assault” on Iraq. The missile was launched from a nearby construction site, and broke two adjacent windows on the second floor of the BP building, pierced two wooden partitions, and exploded in a large office housing the firm's distribution department. No injuries were reported.
- On 21 February 1991 a Spanish leftwing group *October First Anti-Fascist Resistance Groups* (GRAPO) told a radio station that they had planted a bomb, which damaged an oil pipeline supplying a joint US-Spanish naval base at Rota in southern Spain. The pipeline suffered limited damage, and was repaired within a few hours.
- On 18 March 1991 a bomb slightly damaged a military fuel pipeline near the German town of Emstek. The pipeline was used by two German Air Force units that were stationed in Turkey during the Gulf war. The blast caused 300 cubic feet of aviation fuel to leak. No one claimed responsibility.⁴⁷

4.3.5 Foreign versus Domestic Groups

Even though the perpetrators are usually domestic groups, it seems clear that **foreign groups have been responsible for a slightly larger share of the attacks in peaceful democracies** — than elsewhere, accounting for between 7 and 11 of a total of 53 incidents. (The perpetrators cannot be determined in all cases). As far as we know, attacks by non-domestic groups on petroleum targets in peaceful democracies in 1972-99 can be ascribed to **only two sets of groups, i.e. Palestinian and Colombian organizations**.

⁴⁷ ITERATE Chronology on Transnational Terrorism.

4.3.6 Material and Human Consequences

Only one attack seems to have resulted in a closedown, 16 involved other important material damages, 28 had no important economic effects, whereas the effects are uncertain for 8 attacks. The material damages mainly correspond to the average pattern, except for the incidence of **closedowns, which have been remarkably rare in peaceful democracies**. In terms of harm to human lives, we find that eight incidents resulted in (19) casualties; twelve had other serious effects on human beings such as loss of freedom and physical injuries, whereas 26 incidents had no such effects. The percentage of lethal attacks largely corresponds to the average, but there are **fewer casualties per incident in peaceful democracies**.

4.3.7 Ideological Orientation

Leftist groups represent the predominant actor in petroleum terrorism in peaceful democracies (27 incidents). Separatist groups have carried out seven strikes, while rightist and ecological groups are responsible for one attack each. The perpetrators are uncertain for 16 cases. However, six of these were probably carried out by leftist radicals, four by criminals and two by mentally disturbed individuals. The predominance of leftist groups confirms **the importance of symbolic-ideological considerations**, not strategic-military goals, when terrorist groups in target petroleum infrastructure in peaceful democracies.

5 CONCLUDING REMARKS

Given the fact that Norway is a full-fledged democracy without internal armed conflict and with hardly any active domestic terrorist groups, the possibility of extensive terrorist attacks on petroleum installations in Norway seems rather remote. The threat of terrorism is more immediate with regard to the involvement of Norwegian petroleum companies abroad, especially when they operate in conflict-prone regions with strong domestic rebel movements, and where the policies of the national regime and the activities of foreign petroleum companies are widely resented. Indeed, the resistance to foreign petroleum companies appears to be one of the most common causes for terrorist attacks on petroleum infrastructure worldwide.

This being said, the Norwegian domestic petroleum industry, including its offshore installations, represents a vital component of Europe's energy supply, and may therefore become a preferred target for non-state groups, and states who wish to inflict harm and damage to the economy of the European Union or to those European states, who are most dependent on Norwegian oil and gas supplies. Judging by the patterns of petroleum terrorism in Western Europe over the past three decades, it appears that terrorist groups have rarely targeted petroleum infrastructure, and when they have, the impact of their attacks has not been very significant in terms of material damage and human casualties. State actors are obviously capable of inflicting much more damage and widespread sabotage, yet according to our data, state involvement in petroleum terrorism in Europe, if any, has so far been limited to sponsorship of terrorist groups.

Underreporting and incomplete databases is a major problem in terrorism research, however, and historical patterns do not repeat themselves endlessly. Nor should they be seen as a guarantee for a future absence of serious petroleum terrorism in Western Europe. **The recent**

upsurge of extreme leftist and anarchist groups, rallying around anti-globalization may well signal a new era of leftwing violent activism, for whom the capitalist, powerful and global petroleum industry will stand out as a preferred target. It is important to note, however, that the targeting strategy of leftist terrorism has historically been characterized by symbolic, rather than strategic-military targeting. Violent attacks are often directed against purely material and highly symbolic targets with an explicit intention to avoid the loss of human lives, and they serve the role of “armed propaganda”.⁴⁸ The attacks seem to lack a specific military strategy, for example, maximizing material damage of key strategic petroleum infrastructure.

If the current anti-globalisation trend causes a radicalization within segments of the environmentalist movements, we may witness more violent expressions of protest against the petroleum infrastructure.⁴⁹ Active Norwegian participation in future controversial peace enforcement operations may also motivate both domestic and foreign groups to stage violent protests, or less probably, to launch attacks against Norwegian petroleum targets. Judging by the incidents in Europe during the Gulf war, such attacks will more probably be the work of domestic groups and will be directed more specifically against military oil supplies. If, on the other hand, the main adversary in a controversial peace enforcement operation is capable of mobilizing **one or several sympathetic diaspora communities in Europe**, one may expect also attacks by **foreign groups**. Non-domestic groups may more easily recruit members, raise funds, procure arms, identity papers and safe houses among a sympathetic diaspora, than in an environment without local supporters.⁵⁰ Still, strong opposition to Norwegian participation in peace enforcement operations will more probably manifest itself in public disorder and violent demonstrations rather than in terrorist bombing campaigns against out petroleum infrastructure.

Norwegian threat perceptions have long been dominated by the scenario of a terrorist hijacking of an oil platform in the North Sea, although the vulnerability of on-shore installations is probably much higher. Large-scale offshore attacks require resources and capabilities that most non-state groups do not have. The scenario is not entirely unlikely, however. One should pay attention to a recent incident in April 2001, when Greenpeace activists, protesting the new US Administration’s energy policies, especially its refusal to adopt the Kyoto Protocol, boarded a drilling rig off the coast of Scotland. Six protesters inside a three-metre bell-shaped survival capsule, which they hoisted up to the underside of the platform, strapped themselves to the rig 75 miles out into the North Sea. The activists were thus able to halt the towing of the platform for 24 hours. The activists left the platform after they had received a court order to do so.⁵¹ No serious scholars would classify such environmental activism as ‘terrorism’. The incident is nevertheless interesting because it demonstrates that **it is possible for intruders to board North Sea oil installations and cause a halt to its operations**, at least for shorter periods. The security of North Sea petroleum installations should remain a high priority issue for the National Defence. Norwegian oil platforms represent resources that are vital to the nation’s

⁴⁸ See for example Anderson & Sloan’s discussion on ‘Armed Propaganda’, pp.43-44.

⁴⁹ This has been predicted in several studies, see for example Lee (1996)

⁵⁰ See also two other FFI-studies Lia & Kj ok (2001) and Hansen, Knutsen & Hegghammer (2001).

⁵¹ “Oil rig protest ends peacefully,” *BBC World News* 7 April 2001, <http://news.bbc.co.uk>. A similar Greenpeace demonstration occurred in Norway in June 2001, during the EU summit in Gothenburg, as Greenpeace activists occupied a tank ship near the Mongstad refinery.

economy, and a possible hijacking could have very serious consequences.⁵² Nonetheless, this should not prevent policy-makers from working out **security measures against the wider range of low-scale onshore attacks**, which are far more probable than the worst-case scenario of a platform hijacking. The future role of the National Defence in protecting vital petroleum infrastructure onshore should be clarified.

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⁵² For further discussion on platform hijackings, see Heradstveit (1992).

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APPENDIX

A CODES

When systematising the 262 incidents, we have used the following variables and values:

Date of occurrence

Country of occurrence

Target

- | | |
|---------------------|---|
| 1. Refinery | - includes oil refineries, gas processing plants, oil-from-coal plants and appurtenant depots. |
| 2. Production plant | - includes drilling rigs, oil platforms, fields and wells and appurtenant depots. |
| 3. Pipeline | - includes pipelines and pumping stations. |
| 4. Personnel | - includes personnel of oil companies and subcontractors. |
| 5. Office | - includes main administration buildings and field offices |
| 6. Depot | - includes petroleum depots that do not appertain to terminals, refineries, production plants, etc. |
| 7. Terminal | - includes terminals and appurtenant depots. |
| 8. Gas station | - includes gas stations and appurtenant depots. |
| 9. Tank ship | - includes tank ships only. |
| 10. Others | - includes targets that are not listed above. |

If a strike hit multiple targets, we have entered the more important one. If there was no main target, it is registered under “others” (even if all the targets were listed above).

Method

Concerning methods, the coding rules are mainly the same as those used in Tore Bjørngo’s study of maritime terrorism, albeit with a few changes:⁵³

- | | |
|-------------------------|---|
| 1. Blasting | - use of dynamite, TNT or other explosives. |
| 2. Hijacking/occupation | - unlawful taking over of a craft or installation, which often also involves taking the employees as hostages. |
| 3. Kidnapping | - hostage-taking involving use of force or threat of violence. The hostage is taken to a (usually) unknown location, and the hostage-takers threaten to injure, kill or continue keeping the hostage, if certain conditions are not met. Kidnapping differs from hijacking/occupation in that the kidnappers usually keep |

⁵³ Bjørngo (1990), p.77.

their victims at an unknown location, while they themselves can move around freely, change guards, etc. Hijackers, on the other hand, are usually beleaguered and kept under surveillance.

4. Sabotage - deliberate infliction of material damage to another person's property, intending to harm the owner economically, politically or militarily. Only destruction caused by methods other than blasting, arson and firearms.
5. Arson - fire that was started deliberately, in order to destroy buildings or installations, or to injure human beings.
6. Armed attack - attacks with firearms, grenades, artillery, bomb launchers or corresponding weapon systems.
7. Others - any method that is not mentioned above, and also combinations of several of the above-mentioned methods, of which none is more important.

Unfounded bomb threats or hoaxes have not been included in the survey, mainly because ITERATE only reports few such threats, whereas the actual number is probably very large.⁵⁴ If we were to include the few bomb threats that are reported in ITERATE in the survey, it would only distort the overall picture and introduce a serious source of error.

Actor

1. Name of responsible group
2. Unknown

Type of Actor

1. State sponsored
2. Non-state sponsored
3. Others – the responsible group, or its affiliation, is unknown.

In order to determine which groups are state-sponsored, we have relied on Anderson and Sloan's *Historical Dictionary of Terrorism*.

Ideology

1. Ethnic/separatist - ethnic groups fighting to obtain specific rights, e.g. economic privileges and/or autonomy/independence.
2. Leftist - radical groups or guerrillas, with communist ideologies.

⁵⁴ For instance, there were at least 13 such bomb threats against Norwegian petroleum installations from 1989-99. None of these are reported in ITERATE.

3. Rightist - radical groups and /or guerrillas, extreme rightist ideologies.
4. Environmental - groups fighting to protect the environment.
5. Religious - groups motivated by religious ideologies (mainly Islamists).
6. Others - unknown groups, groups with unknown ideology and co-operating groups with different ideologies, none of which appear to be more important.

In order to determine the groups' ideology, we have mainly relied on information from ITERATE. However, when ITERATE has not been adequate, we have also consulted Anderson and Sloan's *Historical Dictionary of Terrorism* and other literature. Our criteria for attributing an attack to a specific group have been that members of the group have either claimed responsibility for or been convicted of the attack. (Although claiming responsibility does not imply responsibility, it is nevertheless an indication of what kind of attacks the group wants to be associated with).

If a group falls into several ideological categories according to our coding rules, we have focused on the one that appears dominant. For instance, Kurdistan Workers' Party (PKK) is registered as "ethnic/separatist" rather than "leftist". The same goes for Mojahedin e-Khalq, which is registered as "religious" rather than "leftist" (although in the latter example this classification may be disputed).

When several groups co-operate (in carrying out an attack or a campaign of attacks), we have focused on the ideology of the group that was more active. However, if none of the groups appears more important, and the groups have different ideologies, we have used the value "others".

Actor's nationality

1. Domestic - the responsible group consists of citizens and/or subjects of the state where the incident occurred.
2. Foreign - the responsible group consists of people who are neither citizens nor subjects of the state where the incident occurred.
3. Others - the perpetrator's nationality is unknown, or the group consists of both foreign and domestic members.

For example, the IRA will be defined as a "domestic" group, even when it carries out attacks in England. The same goes for Algerian guerrillas that performed strikes against petroleum-installations in France during the Algerian war of liberation (1954-1962).

Graveness (people):

1. Less serious – no injuries or only insignificant injuries, and little danger of serious injuries.
2. Serious – serious injuries or great danger of such injuries, and also loss of freedom.
3. Very serious – deaths or great danger of deaths.
4. Unknown – the consequences are uncertain.

Graveness (material):

1. Less serious – no or only unimportant material damages, and little danger of serious damages.
2. Serious – material damages that involve considerable economic losses, but do not affect the day-to-day activity. The incident represented great danger of such damages.
3. Very serious – closedown or great danger of closedown.
4. Unknown – the economic consequences are unknown.

In order to determine the consequences of each strike, we have relied on information provided in ITERATE. However, as information on consequences is not systematic, the coding will necessarily be somewhat subjective. Nevertheless, in cases where we have not had sufficient information to make a valid evaluation, the consequences were registered under “graveness unknown”. The only exception is kidnappings where the hostages’ destiny is uncertain, i.e. it is neither indicated that they have been killed, nor released. These are coded as “serious”.