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Strategic Outlook 2012



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Emma Skeppström, Stefan Olsson and  
Åke Wiss (eds.)

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# Preface

This is the English edition of Strategic Outlook 2012. Strategic Outlook presents security policy issues that Sweden might face today or in the near future. The publication aims to contribute to the strategic analysis of foreign, defence and security policy issues that are important to Sweden. Its content is based on current research by the Swedish Defence Research Agency (FOI). The articles have been chosen to represent a range of issues that could affect Sweden or where Sweden could be influential, either on its own or within the realms of an international organisation.

Strategic Outlook 2012 is the fourth consecutive volume of the publication. It highlights patterns and trends that might gain in importance over the coming years, both nationally and globally. The articles cover both technical and social scientific research. Each article stands alone, but they are also interconnected in several ways. The publication shows that the global security situation and power balance is shifting, mainly in Asia and the Middle East. Tensions are also rising between the countries surrounding the Baltic Sea, partly due to energy issues. Energy security and energy solidarity within the European Union is another theme that is addressed in the report. Another important subject for Europe is regional and bilateral defence cooperation outside the realm of the EU and the North Atlantic Treaty Organization. Also, in the area of technology, changes are on the way that might redefine the field of security policy. Military robotics is becoming more common and the risk of a cyber-attack against physical hardware has increased.

Making predictions about the future is not an exact science. It is also not our purpose to foretell the actual course of history. However, we do hope that the articles will contribute to the current debate over security policy and that they will shed light on some of the issues that might affect Sweden in the near future.

The editors wish to express their gratitude to all the contributors of the publication. A special thanks goes to Gunilla Kruse for her commitment. The conclusions drawn in the report represent the views of the authors and do not necessarily reflect the opinions of FOI.

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Figure 1. The Baltic Sea area during the Cold War (source: FOI/Natural Earth 2012).



Figure 2. The Baltic Sea area today (source FOI/Natural Earth 2012).

# The Baltic Sea Area – A Zone of Peace or a Conflict Area in the Making?

Mike Winnerstig

*The Baltic Sea area has, since the end of the Cold War, constituted a very peaceful zone in the world. There are, however, some signs of increasing tensions between the states in the area. These tensions might change the peaceful situation in the region around Sweden. Since Swedish security and defence policy has undergone several changes over the past few years, Sweden will most likely be affected if the security situation in the Baltic Sea area turns negative.*

From a security policy perspective, the Baltic Sea area – i.e. Sweden, Denmark, Finland, the Baltic states, Poland, Germany and parts of Russia – can be viewed in several ways. Almost all the states – except Russia – are members of the EU. The EU is an international and partly supranational organisation, and its members cooperate closely in most political areas. The EU is also the centre of the European integration process. Most of the Baltic Sea area states – with the exceptions of Sweden, Finland and Russia – are also members of NATO, which is a political-military alliance of central importance for the military integration of the whole transatlantic area, which covers Europe, the US and Canada. All this implies that the Baltic Sea area is, politically speaking, a well-integrated area. Within such areas, tensions are not normally allowed to develop into military confrontations, since the political mechanisms of the integration processes are acting against this. This view is often highlighted in solemn political speeches given by politicians of the Baltic Sea countries.

But it is also possible to consider the Baltic Sea area in another way. During the Cold War the area was a border area between the East (i.e. the Soviet Union and the Warsaw Pact) and the West (i.e. the US and the other NATO states). Finland did not belong to any military alliance, but was – through the Agreement of Friendship, Cooperation and Mutual Assistance – associated with the Soviet Union. Sweden was not a member of any military alliance either, although contemporary research shows that the Swedish military and security policy-related links with the West and NATO (especially the US and the UK) were much stronger than was



publicly known during the Cold War. During the Cold War, however, it was perfectly possible for both Sweden and Finland to argue officially – not least by referring to the so-called policy of neutrality – that the interactions or conflicts of other countries in the Baltic Sea area did not affect them. The stated goal of Swedish security policy for most of the Cold War was, explicitly, to keep Sweden out of any conflicts in its own neighbourhood.

Today, this situation has changed profoundly. The Baltic Sea area can now be described as a ‘security complex’, a concept invented by the British international relations scholar Barry Buzan in the 1980s. The concept describes an area or a group of states whose primary security concerns are linked together sufficiently closely that their national securities cannot realistically be considered apart from one another. In stark contrast to the Cold War situation, Sweden’s security policy situation today is highly integrated with not only Finland’s, but also the Baltic states’, Poland’s, Russia’s and Germany’s security policy relations. For Sweden, this is both a new and an old situation. It is old in the sense that a similar situation has previously existed in Sweden for hundreds of years, at least until the early 19th century. But it is new in the sense that most Swedes living today are not familiar with it. This alone means that an analysis of the whole issue is needed.

### **PEACE OR CONFLICT IN THE FUTURE BALTIC SEA AREA?**

A good place to start an analysis of the conflict potential of the Baltic Sea area is to investigate the *endogenous factors*, i.e. problems which exist among the Baltic Sea area countries themselves. The relations between Russia and the Baltic states, in particular Estonia and Latvia, have been in focus in this regard for a long time. One of the main reasons for this is that Estonia and Latvia have relatively large Russian-speaking minorities, the majority of which is of Russian ethnic origin, within their borders. Among other things, these minorities have, for various reasons and to varying degrees, had problems fulfilling the criteria for citizenship in the independent Baltic states.

Most analysts today agree that it is highly unlikely that a conflict between the Baltic states and Russia will lead to a military confrontation in the near future. However, there are political forces in the area which foment further tensions between the countries. These tensions can be problematic in themselves and, in the long run, lead to a conflict spiral. The newly elected Russian president, Vladimir Putin, has repeatedly argued that support for the Russian minorities abroad is a central issue for Russian security policy. The new Russian deputy prime minister, Dmitry Rogozin – formerly

the Russian ambassador to NATO – described the Baltic states, in an article in late February 2012, as ”unjust regimes, based on violence, repression and mendacious propaganda”, and implied that they will not live long in their present form.

This kind of rhetoric is received with utmost concern in the Baltic states, whose governments have to balance the constructive integration of their Russian-speaking minorities with a policy based on independence towards Russia. The Baltic majority populations do not take attempts by the Baltic governments to appease Russia, the former occupation power, lightly.

One specific factor which is often related to the above-mentioned problems in the Baltic states is the actions of wealthy Russian commercial interests. To some extent, such interests have been buying up media and entertainment companies formerly owned by Baltic corporations. A suspicion being voiced in this regard is that these now Russian-owned companies might begin to transmit pro-Russian political messages in a Baltic context, which, in the long run, could undermine the concept of Baltic independence. Similar tensions and suspicions appear in the energy sector as well. Russian energy companies enjoy a monopoly in terms of natural gas deliveries, and this is sometimes used for political purposes.

The Russo–Baltic conflict potential is fairly well known, and probably the most serious in the whole area. This is not to say, however, that it is the only one. For example, Polish–Lithuanian relations have deteriorated severely during the past couple of years. The small Polish minority which is living in Lithuania for historical reasons is strongly against a number of new Lithuanian legislation concerning minority languages and school issues, and has received substantial support in this regard from Polish politicians at the highest levels. This has generated a series of irate verbal interactions between Polish and Lithuanian officials. Poland and Lithuania are members of both the EU and NATO, and nobody expects this conflict to turn into a military confrontation. The problems involved, however, make the prospects for a coordinated Polish–Baltic approach to Russia much more limited. This is troubling for NATO, since the alliance’s contingency planning – essentially territorial defence planning – builds on political-military solidarity and coordination among Member States. Thus, the Polish–Lithuanian problems can imply direct security and defence policy consequences for NATO as a whole.

Another sector that is receiving increasing attention in the Baltic Sea area is energy security. The notion contains several components. First, it concerns more practical issues, such as

transportation security related to gas and oil shipping and the new Russo–German gas pipeline Nord Stream. Second, although, it concerns more fundamental security policy issues: does Nord Stream lead to a peaceful ‘integration’, through trade, of Russia in the European context? This is a hope that many German officials subscribe to. Or is Nord Stream instead the embodiment of a dramatic German dependence on Russian energy deliveries, which could be used by Russia to make Germany act the way Russia would like? Some observers have already indicated that they have seen tendencies, in terms of German willingness, to accommodate Russian views in the internal NATO deliberations, which, allegedly, have led to substantial differences between Germany and states in Central and Eastern Europe.

These issues, however, have the same character as the Russo–Baltic issue: they are defining the security situation of the Baltic Sea area and they affect all the states in the area.

There are also a number of *exogenous factors*, i.e. factors that are generated outside the Baltic Sea area but which are still of essential importance for the security of the area itself.

Most well known are the plans of a US missile defence system, which will be based in several NATO Member States in the vicinity of the Baltic Sea and, in the long run, in the Baltic Sea state of Poland. The NATO missile defence system is directly linked to the US missile defence capability, and is designed to defend against a small number of incoming ballistic missiles from what is known as ‘rogue states’, i.e. Iran. But since there is a theoretical possibility that some of these systems might affect the Russian ability to fire nuclear ballistic missiles against the US and Western Europe, Russian officials have protested strongly against these plans. US officials have denied that the missile defence system is directed against Russia – from a technical standpoint there is no system in Europe today that might affect Russian missiles in flight. However, this has not stopped the Russian government from threatening to deploy medium-range Iskander missiles in the Kalinigrad area if the US and NATO proceed with their missile defence system.

In addition, the US will no doubt reduce some of its military installations in Europe, but it is, at the same time, also constructing new ones. Poland has demanded and received an advanced anti-aircraft battery site (armed with Patriot surface-to-air missiles) in north-eastern Poland. An American aviation detachment with permanent US military presence – although limited – is also under construction in Poland. In Bulgaria and

Romania, parts of the new missile defence system will be deployed, which also means permanent stationing of US military personnel at those bases. All this affects relations between the US and Russia, and thus also the security of the Baltic Sea area in its own right.

One victim of the increased tensions between Russia and the US has been the Treaty on Conventional Forces in Europe (CFE). The CFE treaty is a Cold War-era arms control treaty which, among other things, limits the amount of military equipment that might exist in the signatory states.

The treaty also contains far-reaching verification mechanisms, that is the ability of other states to physically investigate the implementation of the treaty by another state. During 2007, the Russian government decided to 'suspend' the treaty, i.e. not to abolish it but to stop all implementation of it. This action was officially linked to the US missile defence plans, but also to the fact that the Western world had not accepted a revision of the treaty. Several states, including the US, then decided to continue the implementation of the treaty – including fulfilling their obligations towards Russia – but argued that they could not accept the revised treaty as long as Russia was deploying troops on what was, in effect, and still is, occupied territory in Moldova and Georgia. In 2011, the US and the UK eventually decided to stop implementing the treaty vis-à-vis Russia. These developments might indicate that the relatively strong arms control frameworks which were devised and implemented after the end of the Cold War in Europe are now unravelling without much fanfare.

At the same time, the US Obama administration is still adhering to its so-called 'reset' policy towards Russia. This policy aims to improve US–Russian relations, and both Poland and Latvia have implemented similar détente-like policies towards Moscow recently.

What political impact the military developments described above will have is, therefore, somewhat uncertain so far. In any case, it seems to be perfectly clear that the Baltic Sea area can be regarded as a very important key to the question of whether tension or détente will be the defining feature of the relations between Russia and the Western world.

## **CONSEQUENCES FOR SWEDEN**

If we regard the Baltic Sea area as a security complex, it becomes problematic to subscribe only to the image of this area as a well-integrated and peaceful one, with an eternally bright future. On the contrary, there are security- and defence-related problems that

can lead to a considerably higher degree of tensions in the area. But how does all this affect Sweden?

First, Sweden is already a member of a political union (the EU) which can be regarded as a political alliance and which contains all the Baltic Sea area states except Russia. In the current EU Lisbon Treaty, there is even a clause giving the EU a theoretical possibility to develop itself into a military alliance (Article 42.7).

Second, Sweden has decided to be involved in the security problems that may arise in the Baltic Sea area. The so-called Swedish solidarity declaration, which was adopted by the Swedish parliament in 2009, states that Sweden is not going to remain passive if a Nordic state or an EU member is attacked, and that Sweden expects these countries to act accordingly if Sweden is attacked. This is a huge contrast to the situation of the Cold War, and entails a Swedish security policy engagement, e.g. Norway and the Baltic states, regardless of formal membership in military alliances. The Swedish government has also stressed that Sweden – when it comes to providing help to neighbouring states that are attacked – will judge every case by its own merits. Thus, there is no automatic mechanism involved. But Swedish Baltic Sea policy builds on its solidarity with its neighbours during times of peace, so abolishing that policy in times of crisis or conflict would come at a very high political cost.

Third, strictly geographical conditions – such as the location of Swedish air and sea territory – crucially affect the ability of other actors to provide military support. This means that if NATO e.g. decides to organise a major supportive action on behalf of the Baltic States, Sweden will be affected simply because of its geographical location.

The conclusion that can be drawn from all this is, therefore, the following. If – however unlikely it might seem today – a military conflict would emerge in the Baltic Sea area, i.e. in Sweden's own neighbourhood, Sweden will most likely be engaged in this conflict from day one, regardless of whether it is a formal member of a military alliance or not.

The question is, however, how the conditions for peace and security in the Baltic Sea area will be played out in the future. Today, there is a clear threshold for military confrontations. Despite this, most actors in the area still keep their guard up. Russia has embarked on a major military rearmament process – including the western parts of the country – and NATO conducts an increasing number of military exercises in the Baltic Sea area. On top of this, non-

traditional conflict methods are being developed, such as those within the cyber and energy security sectors, and this means that the importance of non-traditional threats increase as well.

A concluding fundamental issue concerns the 'identity', i.e. the collective self-perception, among the countries involved. If this identity is changed – which could be the case among, e.g., the Russian-speaking minority in Estonia, which is reportedly considering itself more and more Estonian and less and less Russian – old conflict patterns might change as well.

However, if the traditional geopolitical views continue to be dominant, i.e. whether military power and geographical factors are still regarded as the most important ones, identity changes among some of the actors will play a lesser role. The problem with a geopolitically inspired security policy is that if only one actor embraces it, the rest of the actors within a given security complex automatically become involved and have to deal with it on its own terms. This normally leads to a geopolitically dominated overall situation within the security complex.

The states within the Baltic Sea security complex will, therefore, have to make decisive security policy decisions in the future, in terms of how peaceful – or how conflictual – the complex will become. The only thing we know for sure regarding these decisions is that they will strongly affect the security situation of Sweden, which means that Sweden too must be prepared to take new decisions on security and defence policy in the future.

## **FURTHER READING**

Ljung, Bo; Neretnieks, Karlis (2010). *Security Policy in the Nordic Countries: Perceptions, Resources, History*, FOI Contribution to a forthcoming joint ICDS-FOI Study, FOI-R--2999--SE.



# Solidarity and Security – The Forgotten Energy Issues

Daniel K. Jonsson

*The European energy system will be subject to an extensive climate policy-driven changeover, and, at the same time, security of supply should be maintained. EU common problems should be approached in a spirit of solidarity between Member States, but energy security and energy solidarity are not, however, prominent themes in Swedish debate. Should the Swedish military-oriented solidarity declaration be expanded and also include other policy areas, e.g. energy?*

Energy is a prerequisite for a well-functioning everyday life. Energy is also strongly associated with economic and societal development and the growing world population is reinforcing the competition over energy resources. At the same time, the climate change problem calls for radical and necessary changes regarding global energy supply.

European energy supply faces a number of challenges. The extensive environmental and climate-driven changeover has just about started. Security of supply should, however, be guaranteed without entailing unreasonable consumer costs, but this is not an easy task. Moreover, it is evident that the foundation for Swedish and European energy policy relies on deregulated and functional energy markets. The Swedish energy situation is relatively favourable and an international energy crisis will probably hit other EU members harder, which could put Swedish solidarity to the test.

In recent years, the notion on solidarity has become more frequently used in energy policy discourse. Among other things, the EU's *Energy Security and Solidarity Action Plan* highlights the need for new interconnecting infrastructure as well as the need to make use of the EU's domestic energy resources in the best ways possible. Moreover, the EU has already highlighted the strategic weight of energy in the Lisbon Treaty:



...the Council, on a proposal from the Commission, may decide, in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy.<sup>1</sup>

How could this affect Sweden?

### **SOME FALSE NOTIONS ON SWEDISH ENERGY AND THE ABSENCE OF THE ENERGY SECURITY ISSUE**

Energy security has no prominent place in Swedish energy policy or debate. Swedish energy debate is seasonal, with the main emphasis on the autumns and winters. It is, roughly speaking, limited to the politically pregnant nuclear energy issue and the house-owners' exposure to high electricity prices and power failures. The European and international dimensions of energy security are hardly touched upon. To some extent, this is due to the fact that Sweden has been blessed with a number of favourable energy circumstances, e.g. a good portion of domestic hydroelectric power and bioenergy. A supplementary explanation, however, is that the general Swede has some obsolete and deceptive notions about Swedish energy. Before elaborating on the solidarity and security issues, at least some of these dubious notions should be addressed:

*The State decides what the energy system will look like.* This used to be what it was like, but today there is a different situation. The State's main role during the 20th-century's expansion of great infrastructure systems is neither in line with the political mandates of today, nor can it fit into contemporary budgets. The State no longer rules, controls or carries through. Today, politicians indeed create the ground rules for the market and influence these with taxes and subsidies. However, Sweden, as well as the EU, strives for a deregulated market. Also, state-owned companies have great freedom of action. It is no longer the State that comes up with the great investments, but the market actors, and the risk capital always picks out the best economic return, regardless of political will.

*Energy system = electricity system.* Today, Sweden is the sixth most electricity-intensive country on Earth. Yes, it is more dependent on electricity compared with most European countries (e.g. in the heating sector); however, electricity corresponds only to about one third of Sweden's consumption of energy carriers.<sup>2</sup> A narrow

<sup>1</sup> Lisbon Treaty, Article 122.

<sup>2</sup> Electricity 32%; oil products 28%; bioenergy, peat and waste 20%; district heating 15%; gas, coal and coke 6%.

debate on electricity prices and nuclear power does not give a comprehensive view on the energy issue. This might also lead to other false notions, e.g. that Sweden has a fossil-free energy supply (transportation etc., is forgotten) or that Sweden is not dependent on imports (imports of nuclear fuel, oil etc., are disregarded).

*Sweden's energy = the Swedes' energy.* Statistics on energy production and usage within Sweden's borders present a picture with no reference to Swedes' travel habits or consumption patterns in a world which has become more globalised. We travel by air more and buy more things and eat more food produced in other parts of the world. Compared with the Swedish energy mix, this indirect energy use is, to a much higher degree, based on oil and coal. Moreover, Swedish energy supply is not exclusively Swedish. Apart from Vattenfall, most of the large energy companies in Sweden are foreign owned, e.g. Fortum, E.ON, Shell and Statoil.

In conclusion, it does not make much sense to talk about 'the Swedish energy system'. Energy is traded on international markets, physical distribution networks are becoming more interconnected and energy is an EU common policy area. From a European perspective, it would be equally strange to talk about 'the Swedish energy system', as for Swedes to talk about 'the Laplandish energy system'. Sweden has hydroelectric power, plenty of bioenergy and a fast increasing wind power sector; however, around half of Sweden's energy is being imported.<sup>3</sup> Even though Sweden is perhaps not ready to talk about European security of supply and energy solidarity yet, Sweden has, as we can see, some (selfish) reasons to include the security aspects of energy in debate and policy.

At the same time, it should be stressed that Sweden really has a favourable energy situation compared with other EU Member States. The Swedish/Scandinavian hydroelectric capacity is especially attractive when the EU strives for more renewable energy. Oil, coal, gas and firewood can be stored and used when needed, whereas electricity from wind, waves and the sun can only be produced when the conditions are right, which does not always correspond with demand. In order to balance supply and demand – i.e. at every moment produce as much electricity as is consumed – regulatory power is used, which hydroelectric power is well suited for.

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<sup>3</sup> Considering final use of energy carriers, where conversion losses (principally nuclear power), distribution losses, non-energy purposes (principally oil products) and foreign shipping and air traffic are excluded. Imports will be slightly more than 60% if supplied energy before conversion is addressed instead.

### **SWEDISH ENERGY SOLIDARITY?**

In the ongoing epoch of great energy system changes, continental Europe might feel envious of us in the North. Sweden has both a relatively large land mass which is sparsely populated and an efficient industry. It also has the capacity to export energy and the regulatory power. This is an excellent opportunity for Sweden to manifest solidarity as well as real options for rural development, innovations, foreign investments, industrial development, export revenues etc.

Sweden has a long tradition of international solidarity. No matter what is stated in the Lisbon Treaty, or how the treaty is read and interpreted, Sweden has actively chosen to join the concept of common European security, e.g. when it comes to defence and crisis management: To build security together with others. To build capacity to give and to receive help, and so on. However, as long as the false notions on 'the Swedish energy system' remain and energy policy is considered as a domestic affair – not in line with the EU policy development – the Swedish contribution to common security in the area of energy will be limited.

Despite some statements in the Lisbon Treaty, Sweden will probably not be forced by the EU to alter 'the Swedish energy system' in a way that affects Sweden negatively. Nevertheless, as long as Swedish EU solidarity is limited to only a few policy areas, there is a risk that Swedish rules and legislation are designed to be set out from a Swedish perspective, rather than from a perspective characterised by EU solidarity. That might mean that investment decisions in capital-intensive infrastructure with long lifespans are made on incomplete foundations.

Sweden would hardly remain passive in the case of a hardened security situation in the EU, e.g. inappropriate political or military pressure against a Member State from a third party. Even though Sweden does not include energy in the solidarity declaration, energy is *de facto* a critical resource to society, and thus a security political playing card. Sweden, as well as the EU, uses a liberal and market-oriented (win-win) perspective on energy security. It is, however, important to be aware of the fact that other actors might have a different point of view reminiscent of the Cold War (zero-sum game), where energy, if needed, becomes a defence and security political tool. The so-called energy weapon, i.e. political pressure/extortion in order to gain economic, political or security concessions in exchange for energy, is quite likely only to be used when it is believed to be working, and that at least short-term goals can be achieved. A Member State exposed to the energy weapon is surely already in an unfavourable situation when it comes to

infrastructure and resources – perhaps partly due to a lack of solidarity from fellow Member States?

Sweden is a true believer in the European project and has a long history of using a wide perspective on international solidarity as a security increasing element. The narrow interpretation of the European solidarity commitments – to exclude policy areas beyond defence and security – entail potential future risks. By not showing solidarity today, Sweden might indirectly contribute to a future situation where the Swedish military-oriented solidarity declaration has to be put into practice.

This is not a sensational insight. Not even the present strategy, in a liberal and market-oriented spirit – to rely on free and functional markets – can be released from the military dimension. Today, Sweden is already dependent on US military presence around the world – a presence, at least partly, with the purpose of maintaining these free markets.

#### **THE FUTURE IS ASSOCIATED WITH UNCERTAINTY – HOWEVER, WE NEED TO BE PREPARED FOR IT**

Changes in the energy area might at first seem rapid. Price changes, changes in public opinion and political decisions might come suddenly (e.g. the German nuclear phase-out). The actual changes are, however, rather slow. Capital which is tied up in expensive infrastructure puts a damper on change. Deeply rooted habits, norms and the view of what is suitable and proper have a similar effect. Great changes are, however, not unlikely, which can be proven with convincing clarity with a brief retrospect on history. Radical changes take time however, and to be able to understand and to build preparedness for these – and to be able to make proper and robust decisions – it is important to widen the perspective to what is possible, rather than tackle the hard task of trying to predict the most probable development. Consequently, it is not only a question of understanding possible energy developments, but also including other changeable elements of the future, e.g. the fact that the EU can develop in different directions. It is therefore important not to rely on single strategies involving long-term lock-ins that only work well in a future associated with particular conditions, e.g. a future very similar to current times.

The environmental and climate effects of fossil energy – its scarcity, concentration and uneven distribution – are interconnected aspects with significant security relevance. Future global energy supply – and the ongoing changeover – will affect future foreign and security political conditions in unpredictable ways – perhaps even

make energy a new polarising factor in the global security system? However, if Sweden chooses to believe in the European project, its solidarity should embrace all EU common policy areas with strategic relevance, including energy.

Some new research results show that the latest climate change scenarios produced within the framework of the UN Intergovernmental Panel on Climate Change (IPCC) underestimate the magnitude of the future changes. This, in combination with the ongoing energy changeover and an oil production maximum not that far away, motivates more challenging scenarios as a basis for planning in order to increase preparedness of action in a world where contemporary society might be confronted with radical change. To convey this insight – and of course to act on it – is something the research community calls for. Sweden could take its position within the EU and promote possible solutions to problems, thereby increasing preparedness in a spirit of solidarity between Member States.

# Outsiders – Defence Cooperation in Europe Outside the EU and NATO

Anna Sundberg and Teresa Åhman

*In Europe, during the past decade, we have seen an increased number of regional and bilateral defence cooperation initiatives outside the EU and NATO frameworks. In addition, the US is increasing its pressure on European states to take greater responsibility for peace and security. What impact will this development have on multilateral cooperation in the EU and NATO and on the European states' ability to respond to US demands and expectations? When defence cooperation is characterised by 'pooling and sharing' and 'smart defence', where does this leave Sweden and why is this trend happening now?*

Many European countries today express a desire to cooperate outside the EU and NATO. The ultimate proof of this is the many different defence cooperation initiatives that we have seen in recent years between small groups of European states. Their range, scope and content vary, ranging from collaborations on specific equipment projects to more extensive defence cooperations on policies and missions. Some of the initiatives are very formal, while others are loose declarations of intention. The most comprehensive agreement is, without doubt, the Franco–British initiative from November 2010, which includes far-reaching agreements on the creation of a joint expeditionary force, cooperation on the development of aircraft carriers, interoperability and joint nuclear tests. Other examples of defence cooperation are the Weimar Triangle, which includes France, Germany and Poland, and the Nordic Defence Cooperation (NORDEF).

The economic crisis is the most obvious driver behind this development. Most European states are facing savings and defence budget cuts. Many states are also experiencing substantial capability gaps, while they are still ambitious to participate in demanding international operations. For the states in question, defence cooperation in small groups can lead to increased efficiency and savings as well as a more efficient use of resources and skills. Together, states may also develop equipment and resources that are too expensive to produce on their own. If groups of states strengthen their defence capability, Europe as a whole will benefit, including the EU and NATO. Furthermore, from a policy perspective, the cooperation may, in turn, lead to a greater mutual

understanding between the states concerned and to more common analyses of shortfalls and requirements.

In addition to the economic crisis, another important driver behind the development is bad experiences of defence cooperation in multilateral groups. First, this includes several equipment projects that in the end have led to increased expenses and costly delays. Second, more recently, it has also become clear that in many states in Europe there is great frustration and disappointment with the cooperation, particularly in the EU and the Common Security and Defence Policy (CSDP), but partly also in NATO. Up until recently, France has always stood out as the CSDP's best friend, but today France is one of the states that can no longer hide its annoyance with the other Member States and their lack of political will and ambition within the CSDP when it comes to strengthening their abilities and contributing to international operations.

Additionally, there is a growing awareness among the European nations that the US is slowly but surely turning its attention away from Europe. In the summer of 2011, the outgoing US Defence Secretary Robert Gates severely criticised the European allies. He said that the US is becoming less interested in assisting with expensive capabilities to help states that clearly lack the ability and/or the willingness to participate in international crisis management. The current US Defence Secretary, Leon Panetta, also believes that NATO is in a critical period and that all members need to start sharing the burden with the US, otherwise NATO will "have a bleak future ahead".

In summary, the European states are facing a variety of challenges, including everything from a lack of capabilities and defence budget cuts at a national level to an inability to agree and produce tangible results in the EU and NATO and to nurture relations with the US. But does the current trend with a growing number of bilateral and regional defence cooperation initiatives between smaller groups of states mean that the European states have grasped the seriousness of the moment? Are there any possible negative effects of this development? And what are the limits?

### **COOPERATION, BUT TO WHAT EXTENT?**

Cooperation, in various forms, is basically a positive thing and should be widely encouraged. In the EU defence sector, 'pooling and sharing' is recognised as the way forward, while in NATO it is 'smart defence'. Both seek to promote cooperation, increased sharing and joint ownership of capacities. This is very commendable and may lead to a strengthening of the individual states' ability

and the overall capability in Europe. However, it may be useful to moderate and lower the expectations of the potential effects. Cooperation will not solve everything here and now. It is of the utmost importance to adopt a long-term perspective and to prepare for obstacles. One integral part of this is the need for an increased awareness among the European states of the potential negative effects that could evolve on different levels and to varying degrees as a result of the choices states make with regard to defence cooperation.

Defence cooperation can, for the involved states, in the first place, lead to an increased need for coordination and alignment, which could lead to delays that may mean that the real benefits and savings do not materialise. There is also a danger of becoming too dependent on others for the supply of defence equipment. On a political level, it can have negative effects on national sovereignty, since cooperation goes hand in hand with compromises and an increased interdependency.

In effect, as the various defence cooperation initiatives outside the EU and NATO framework are based on different needs and circumstances, the current defence development has led to a European division. This gradual fragmentation can have the effect that states are much less inclined to spend time and energy on the overall defence capabilities and the common security in Europe, to the detriment of cooperation within the EU and NATO. With the coexistence of several cooperation initiatives there is also a clear risk of unnecessary duplication.

Finally, the development of CSDP also loses speed when the two largest European military powers, France and the UK, openly prioritise their bilateral cooperation. If future defence cooperation only includes the states that have the greatest military capabilities, there is a risk that the other Member States will be even less willing to contribute to capability development and European crisis management operations. If this is the outcome, it is unclear whether the European states, jointly, will be able to create their own defence capability within the EU and NATO, with which they can both take greater responsibility for peace and security and meet common threats and challenges. The European states face a clear dilemma – cooperation is a must in times of economic crisis, but there are obvious limits. Cooperation in one forum might undermine cooperation in other forums, in this case, the EU and NATO.



## **SWEDEN'S SECURITY AND DEFENCE IS BUILT UPON COOPERATION WITH OTHERS, SEVERAL OTHERS**

The point of departure for Sweden's security and defence policy is cooperation with others – and currently there are quite a few others. Sweden actively participates within the EU and the CSDP as well as with NATO. The Swedish official position is also very supportive of defence cooperation within smaller groups of countries. Sweden is indeed contributing to the development we are now witnessing in Europe through its cooperation in, e.g., NORDEFCO, Northern Group and as one of the initiators of the Ghent process, which aims to promote cooperation among European countries through pooling and sharing.

One question is whether Sweden, through its engagements, is pushing a development that is undermining what has been built up so far in the EU and NATO. Or is the bilateral and regional context in which Sweden participates a prerequisite for the overall picture to work? The answer is not clear-cut. The message from the Swedish side is that regionalisation is the way forward and that the CSDP and NATO are still main priorities. Cooperation in smaller groups of countries will simply serve as a complement to the larger multilateral frameworks, such as the CSDP. How this will actually materialise in practice is, however, not yet clear. If Sweden wants to continue to promote the CSDP and cherish its partnership with NATO, it is obvious that Sweden could have an important role to play when it comes to finding ways to connect the external cooperation defence initiatives to the EU and NATO frameworks. Sweden's and Germany's initiative to launch the Ghent process can be seen as a good example. But Sweden could also work to promote transparency, coordination and information sharing among the various defence cooperation initiatives, especially the collaborations that Sweden participates in.

In this context, it is worth mentioning that France's apparent frustration concerning the lack of ability and willingness to act among the European countries does not currently include Sweden. During the past year, the image of Sweden in both France and the UK has become increasingly positive. France and the UK especially emphasise Sweden's contribution to the Libya campaign in 2011 as a positive example, which proves that Sweden is a loyal, active and serious partner.

In other words, Sweden now has an important amount of goodwill to use to promote a more coherent development of defence cooperation in Europe, where the common European objectives and long-term development of defence cooperation is taken into consideration. If cooperation in CSDP and NATO still is seen as important, this approach will be central.

### **TOWARDS THE FUTURE – ALL TOGETHER (OR EACH ONE BY THEMSELVES)**

In a better economic situation there would surely have been more choices of action for the European countries; however, now there is a political momentum to develop defence cooperation in Europe. The issues are high on the political agenda in both the EU and NATO, which is a prerequisite for the work to be taken forward. The fact that several of the European states work together in small groups and on their own initiative to tackle the shortfall in capacity, whereas the EU, because of political deadlock and slow processes has not yet been able to produce sufficient results, is positive. But both the inability of the European countries to act jointly in relation to events in Libya in 2011 and the US increased demands on Europe to assume a greater responsibility in security and defence are obvious examples of the importance of the European countries not to lose focus on the commonly established goals underpinning the cooperation in the EU/CSDP and NATO.

What actual effects the various initiatives for defence cooperation will have will be dependent on which path the European countries choose and to what extent the EU and NATO will be included.

Looking ahead, there are, in broad terms, two main choices for Sweden and the other European countries. If cooperation is based on a too short-term and strictly economic perspective, without being coordinated under common European strategic objectives, the current development will most certainly lead to the further fragmentation of Europe. We will see the emergence of islands of defence cooperation without anything tying them together, continued problems following the economic crisis as well as difficulties in dealing with the actual capability gaps in Europe within a reasonable period of time. The European states will, as a consequence, continue to have problems contributing substantially to international operations/missions. As a result, CSDP and NATO will be further weakened. US incentives for a close military alliance with Europe, in turn, will continue to decline if Europe does not take its responsibilities seriously. At the same time, it should be noted that the US neither can nor want to completely turn its back on Europe. The US supports the present European defence cooperation, but, at the same time, does not seem quite ready to entirely let go of the control and leave the full responsibility to the European states, especially not if it is considering American defence industrial interests. But regardless of US interests, the European challenges remain.

If Sweden and the other European states instead strive for openness, information sharing and coordination among the various defence

co-operations, and try to acquire an overall knowledge of the intentions and priorities of the other states, we may instead see a trend towards a stronger Europe with a capacity to act collectively for peace and security and that is able to live up to America's expectations. If the various defence cooperation initiatives are to be beneficial both for the individual state as well as for the common European security, including cooperation in the EU and NATO, this approach is central. Despite massive criticism, multilateral cooperation within the EU and NATO is key in order to create a credible, common and coordinated European capability following the economic crisis that can actually contribute to peace and security, and which enables the European states to come to each other's rescue in line with the solidarity expressed by both NATO and the EU. One possible way forward would be for the EU Member States to task the EU Defence Agency, given its broad mandate, to promote the exchange of information as well as consistency between the various defence co-operations, and to ensure that they are all in line with each other and with the EU's and, where possible, NATO's overall strategic priorities.

Sweden has a role to play, and it is possible to influence the development in Europe. Sweden should seize the political momentum that now exists to promote transparency and information exchange. Otherwise, Sweden will be involved in the pursuit of a development that will further undermine the CSDP, and to some extent also NATO.

There is no single, ultimate solution that can satisfy all capability gaps, short or long term, national, regional or at a European level. Cooperation also has its limitations and it takes time to achieve results. The main challenge ahead for Sweden and the other European states will, instead, be to look at the various bilateral and regional defence cooperations with a holistic approach and work together to remind themselves about the actual motives behind European-level cooperation in the EU and NATO – which is to have the capability to meet common threats and challenges, to promote international peace and security and to be able to assist one another in a spirit of solidarity. Whatever it is called – pooling and sharing or smart defence – today there is, above all, a great need for political will and determination.

# Analysis of Weak Signals for Finding Lone-wolf Terrorists

Andreas Horndahl, Fredrik Johansson, Lisa Kaati, Christian Mårtenson and Pontus Svenson

*Lone-wolf terrorism is a threat to the security of modern society, as was tragically shown in Norway on 22 July 2011, when Anders Behring Breivik carried out two terrorist attacks, resulting in a total of 77 deaths. Since lone wolves are acting on their own, information about them cannot be collected using traditional police methods, such as infiltration or wiretapping. One way to attempt to discover them before it is too late is to search for various 'weak signals' on the Internet, such as digital traces left in extremist web forums. With the right tools and techniques, such traces can be collected and analysed.*

Lone-wolf terrorism has recently become a substantial threat. On 11 December 2010, two bombs detonated close to Drottninggatan, in Stockholm, in the middle of the Christmas shopping season. Only the offender himself was killed, but the consequences could have been much worse as there were numerous people in the vicinity. Six months later, on 22 July 2011, Anders Behring Breivik carried out a bomb attack against government buildings in Oslo's city centre, and the massacre at Utøya, which resulted in the deaths of 77 people.

Both these terrorists acted alone, but, nevertheless, left traces that were found afterwards. Through the use of the Internet, they had been in contact with like-minded people, expressing their opinions and thoughts. Because of this, the news media have, subsequently, been able to map the terrorists' actions, and then raised critical concerns regarding the efficiency of the police's work. One potential way forward for anti-terrorist agencies could, therefore, be to search for these kinds of digital traces to be able to get early warnings that an individual is planning a terrorist attack.

The Swedish Security Service (SÄPO) and similar organisations in other countries have, in their studies on violent extremism, concluded that there are sites on the Internet where some people experience a process of 'self-radicalisation'. Examples of such sites are web forums where political extremists meet to exchange opinions, and in some cases also encourage each other to commit crimes.

The problem of searching for potential lone-wolf terrorists is like looking for a needle in a haystack. The Internet contains an overwhelming amount of information, and to manually find and read the content of all sites that have the potential of inducing self-radicalisation is impossible. Some interesting questions, therefore, are: Is it possible to use more automated techniques to find web forums where extreme opinions are exchanged? and if an individual is planning to commit an act of violence, can such techniques be used to detect them?

To the best of our knowledge, today there are no automated techniques for Internet monitoring which can collect and analyse data that can then be identified as 'weak signals' and indicate the planning of a terrorist attack. Techniques for automated text analysis do, however, exist, and it is possible that police agencies in the future could be equipped with such techniques. As the techniques are evolving fast, it is important to highlight what these methods are and how they work in order to bring to the fore political, ethical and juridical aspects that already are, or will become, relevant. Integrity concerns regarding surveillance issues have been heavily debated in recent years, not least due to technology developing faster than the laws. It is therefore important to determine the possibilities and limitations of techniques for detecting lone-wolf terrorists.

### **TECHNIQUES FOR DISCOVERING DIGITAL TRACES**

So, how can we detect these digital traces? Recently, rapid progress has been made in the research area of text analysis. Few have missed the progress that has been made in machine translation, where free services such as Google Translate offer a quick and automatic translation between a large number of languages. A strong contributing factor to these developments is the change from using only traditional linguistic-based methods requiring a lot of work and expert grammatical knowledge to a combination of methods based on statistics that make use of the enormous amounts of text available from the Internet and other places (e.g. translations of various EU documents to all official EU languages). This type of machine translation can be very useful for translating texts from various extremist websites, reducing the need for the analyst to be fluent in the original language of the text. The developments within text analysis can also become useful in other ways when analysing extremist websites or postings in social media that, for some reason, can be related to potential lone-wolf terrorists or other kinds of radical groups.

Another type of text analysis techniques, sentiment analysis, have become an increasingly popular way for companies to determine what opinions regarding their products or brand have been expressed in social media. An important part of sentiment analysis is to retrieve relevant posts and make a classification of whether it contains positive, negative or neutral opinions regarding a particular brand. In a similar way, at least in theory, machine learning can be used to 'teach' computer algorithms to learn the difference between radical or non-radical texts, and to identify threats targeted to specific individuals or (ethnic) groups.

Text analysis can also be used to automatically discover potentially 'problematic' websites (e.g. containing material related to violent extremism), and to create networks of such websites and their relationships. The analysis methods mentioned above can then be used on individual postings in web forums, in order to identify users (web aliases) expressing themselves in such a way that human analysts should investigate the issue further.

As has already been mentioned, it is, in general, hard or impossible to identify a unique individual just based on the discovery of an interesting alias. There are usually good opportunities for users to create aliases without any traceable connection to themselves. Even when the users are required to verify their identity with a valid email address, nothing prevents them from creating an email address only for this purpose. Even though the actual IP address used for the creation of the email account or the forum posting may be stored, and possibly also handed over to the police when a serious crime is suspected, the individual can make use of various types of anonymous surfing services or Internet cafes in order to avoid being traced.

Another text analysis technique, which is not mature enough today but may become relevant in the future, is author recognition or author identification. Here, the algorithms extract various features from texts, such as the frequency of specific words or word stems (lexical features), parts-of-speech tags or other kinds of sentence constructions (syntactic features), and use them to identify the author of the text. This type of technique is currently useful when trying to determine who, out of a small set of potential authors, has written a certain text, or to which kind of community (e.g. young or highly educated people) the author belongs. However, today's techniques are far from ready to be used to determine who, out of a large number of potential authors, has written a piece of text, and the majority of available research focuses on large texts rather than short pieces of text. Nevertheless, research is progressing quickly in this area, making it necessary to monitor the progress closely.

### **TOOLS FOR THE ANALYSIS OF WEAK SIGNALS**

As has been seen, there are many techniques available for automatic detection of digital traces online. However, using these techniques to discover potential threats is not easy. In addition to the techniques not being completely reliable (e.g. in terms of accuracy), there also is too much information available for an exhaustive analysis. Instead, it is necessary to select only parts of the Internet to be analysed, e.g. by constraining the retrieval of texts to include posts only from certain selected web forums that are classified as being of interest. Despite such a constraint, the amount of information for analysis will be daunting, making it necessary for human analysts to use a structured method and computer-based support tools in order to carry out the task.

A classical method to attack a complex problem is to break it down into sub-problems that are easier to manage, solve these separately and then aggregate the results into a solution to the original problem. This kind of approach is well suited for the analysis of weak signals. For every potential threatening actor (or alias), a model can be created using a step-by-step decomposition of the threat into a set of indicators, corresponding to the weak signals that we want to discover. Figure 3 shows a (simplified) model of such a decomposition for a lone-wolf terrorist named Actor X. At the first level the problem is separated into three general threat criteria: intent, capability and opportunity. All these criteria have to be fulfilled in order for an attack risk to be deemed to exist. The next level in the breakdown exemplifies a number of indicators that can be discovered by means of web monitoring, and a 'Material procurement' indicator that could be discovered by other means or information channels. In the example, two weak signals that, treated separately, can be considered harmless have been discovered. However, after fusing the signals, the aggregated result can be considered reason enough for a deepened investigation.

This type of modelling provides a good support for structuring and evaluating the weak signals. An even better support can be obtained if the model can be managed in a computer-based tool in which the information regarding various individuals is sorted automatically, hence drastically increasing the number of potential suspects that can be monitored. Another reason for using computer-based tools is that, in the case of lone-wolf terrorists, it is necessary to collect and analyse information during long periods of time, requiring the ability to quickly update an earlier analysis as new information arrives.

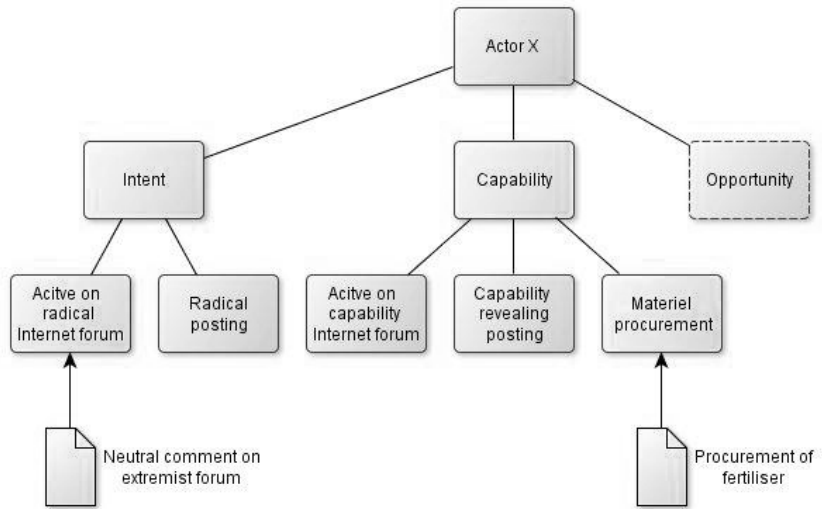


Figure 3: Example of problem decomposition.

### INTEGRITY AND PRIVACY

The surveillance methods mentioned above raise a number of issues regarding the protection of privacy and integrity. The dilemma is that the search for potential lone-wolf terrorists cannot be based on a suspicion of crime. Potentially integrity-violating methods, such as wiretapping telephones, may generally be used only when the police have reason to believe that a crime has been committed or is being planned. Permission for the interception must be obtained from a court. Such a procedure requires the police to know the identity of the suspect. This is not possible when searching for lone-wolves with an unknown identity, where it is instead necessary to watch, e.g., a specific forum and everybody who is active in it.

The problem is similar to camera surveillance used in public places. The cameras are meant to be used to detect criminal behaviour, but they have the drawback of also monitoring innocent people.

If Swedish authorities are to use automated surveillance methods to search extremist online forums for possible lone-wolf terrorists, it is necessary to have a detailed regulatory framework that specifies what is allowed. This framework needs to be as detailed as the one used for signals intelligence.

A promising new research area is 'Integrity-Preserving Data Mining', which aims to develop algorithms where the design takes



into account both ethical and privacy aspects. The algorithms that are developed ensure that privacy and integrity is protected when analysing data, e.g. from the Internet.

### **THE FUTURE**

Lone-wolf terrorists and self-radicalisation are real threats to Swedish society. The Internet is, of course, a virtual space, but for active participants, web forums can, nevertheless, seem real. In these forums, violent extremists can meet, be inspired by each other, leading to further radicalisation and possibly even the planning of violent actions. The authorities charged with protecting society against terrorism, provided the legal opportunity is given, want to use automated surveillance methods on forums. Today similar automatic investigations are used by companies who want to know what Internet users think and say about their products. It is therefore reasonable to assume that such methods will become more and more common in the future.

To the best of our knowledge, no methods for the automated surveillance of lone-wolf terrorists are implemented. However, technology develops quickly in this area, and so there is a reason for Sweden's law enforcement agencies and elected politicians to take an interest in this area. There are a number of ethical, political and legal issues that need to be answered. A first step towards this is to know what technology is available and how it develops.

# The Electromagnetic Antagonist – Cyber-attacks Against Hardware

Anders Larsson and Tomas Hurtig

*The heavy artillery in a cyber-attack targets the physical hardware, as opposed to hacker attacks that target software. By destroying or disturbing electronic components, it is possible to cause great damage in modern society. The increasing dependence on electronics and electrical systems in combination with Sweden's open society makes the electromagnetic antagonist an increasing threat. The threat from the electromagnetic antagonist may come from several different, and sometimes unexpected, sources.*

We live in a society based on information technology, where, in practical terms, the whole infrastructure relies on electronics and electrical systems. Electronics are found everywhere – in computers, in telephones, in ATMs, on trains, on aircrafts, in hospitals, at the stock exchange, in supermarkets, in parliament, in wastewater treatment facilities, in nuclear power plants ... only the imagination limits the list. There is a great public awareness regarding computer security breaches, and we have virus filters and firewalls on our computers, but it is not widely known that it is possible to destroy electronic hardware by the use of electromagnetic energy. What was science fiction a few decades ago is a reality today. The electromagnetic antagonist is now among us. The scientific community and authorities, among them the Swedish Defence Research Agency (FOI) and the Swedish Civil Contingencies Agency (MSB), are well aware of the threat and take it seriously. The general public's awareness is, however, limited, primarily because the threat from the electromagnetic antagonist only appears sporadically in newspaper articles. The electromagnetic antagonist is, therefore, an unknown concept to most companies, and it is difficult to justify investments to protect oneself against a threat that is not yet perceived.

The following scenario is conceivable today. A message suddenly appears on the computer screen of a CEO of a large bank: "In a few minutes the IT manager of one of your branches will call you to inform that the computers at the office are down. You can tell her that there is a problem with the hardware." The CEO indeed receives such a phone call, where he is informed that they are trying to locate the problem. The CEO asks the IT manager to

check the hardware, and the network interface controllers on all the computers have been destroyed. A new message appears on the CEO's computer, with a threat of a similar attack occurring on the bank's main branch if a certain ransom is not paid. The software attack, showing that the perpetrators can gain access to the bank's computer system, in combination with the demonstration that they can destroy the bank's computers, cause the CEO to make a decision to pay the ransom. The costs of computer malfunction and loss of customer confidence is considered to exceed the ransom.

### **How? – THREE POSSIBILITIES**

In general, there are three ways to destroy or disturb electronic hardware. The simplest way is to use a jammer, and these can be bought via the Internet. In many countries it is illegal to possess a jammer, but that does not imply that it is illegal to sell them, and online shops tell you, in the fine print, to check what is legal in your country. A well-known incident where jammers were used by political activists to block the police radio communications was during the riots at the 2001 EU Summit in Gothenburg. In this case, the activists managed to suppress the police radio communications, which made the coordination of the police work more difficult, and most probably contributed to the extent of the riots. Jammers have also been used by shoplifters to interfere with security gates in shops.

The next level of electromagnetic attack is a direct injection of electric energy via cables. This can be done, for instance, via an electric power socket or a telephone plug. From a technical point of view, this is easier than jamming, but less equipment is readily available. During a technical conference in the US (AMEREM 2006), it was reported that one of Moscow's telephone stations was down as the result of electromagnetic energy being delivered by remote injection. As a result, almost two hundred thousand people did not have access to telephone communication for a day.

Finally, high-power microwave (HPM) radiation can also be emitted by the electromagnetic antagonist. The electromagnetic energy in microwave radiation may destroy sensitive and critical electronic components, thereby interrupting the operation of entire systems. Military HPM weapons are often large and complex systems, but they are intended to cause damage at distances of up to one kilometre. To build a microwave device that can disturb electronic equipment at just a few metres away is a much simpler task. This can be done, for instance, by connecting an antenna to a microwave oven magnetron. Since banks often have shop windows and office floor plans, a passer-by equipped with a simple

HPM weapon can easily disturb computers and other electronic equipment inside the bank. Even if such an attack does not close all bank operations, it might serve as a tool for extortion, since it is effective in spreading insecurity.

### **WHO IS THE ELECTROMAGNETIC ANTAGONIST?**

The threat from the electromagnetic antagonist is often referred to as 'electromagnetic terrorism'. The problem is that this label tends to limit the mind regarding possible threat scenarios. It is not only terrorist groups that might want to disturb or destroy electronic hardware. As already mentioned above, it could also be used by criminals for extortion or as a tool for theft. Political activists have also been mentioned in connection to the riots during the EU summit in Gothenburg. Other possible electromagnetic antagonists can be individuals who wish to eliminate an economic or sporting competitor, a disgruntled employee who wants to take revenge on their employer etc.

It is easy to get hold of the equipment that is required. Jammers can be bought. Equipment for direct current injection is also available, but such a device is not difficult to build and it might be useful to have a device that is tailored to the target to obtain the intended effect. Microwave weapons cannot easily be bought, but must be constructed. Some technical knowledge is required, particularly if you want to build your own device, but no advanced knowledge is necessary. It is straightforward to build a simpler microwave weapon for short range, since drawings are available on the Internet and the components are readily available. Small microwave weapons and current injectors fit in an attaché case and a jammer fits in a pocket. Thus, no large resources are required regarding money, logistics, knowledge or personal network.

### **WHAT ARE THE COUNTERMEASURES?**

There are well-known and well-functioning methods to protect against unintentional electromagnetic interference from, e.g., lightning strikes. But there are mainly two reasons why the traditional methods are insufficient to protect against the intentional electromagnetic interference discussed here. First, the traditional protection measures are adapted to well-known unintentional electromagnetic threats, and these measures do not give a general protection against an electromagnetic attack. Examples of known threats are lightning strikes, switching impulses, electrostatic discharges and radar stations at airports. Second, when designing the protection of an object, the electrical system of the object is divided into zones where the threat is

expected to be in the outermost zone. Inner zones are created where the electromagnetic pulse is attenuated in each zone interface by the use of filters and screens. But the electromagnetic antagonist can often pass into inner zones and carry out the sabotage within the electromagnetic protection barriers.

Three factors need to be considered when analysing a system's vulnerability and when making a plan to protect the system from an electromagnetic attack: susceptibility, accessibility and consequence. An electrical engineer usually approaches the problem by analysing the systems and its components' *susceptibility* for an electromagnetic attack and gives advice about how to reduce this susceptibility. Disturbances via wires in computer networks can be mitigated by replacing the electrical wires with optical fibres all the way to the computer. The simplest methods to protect against microwave weapons are to screen sensitive electronic equipment and to proper bundle the cables.

The *accessibility*, or how close the antagonist can get, is of great importance. The best way to counteract the electromagnetic antagonist is to make sure they cannot get close to electrical systems and sockets. In many cases this can be problematic and practically impossible, since many of the systems that need protection are public places and open spaces, such as offices, train stations and banks. Security checks can be introduced at sensitive installations, but this can be perceived as a limitation of open society. *The consequences* of a system's or one of its component's failure ought also to be considered. If the consequences are large, a more substantial effort can be considered to reduce the possibilities of a successful attack by an electromagnetic antagonist. After the turn of events during the riots in Gothenburg during the 2001 EU Summit, the police force have replaced their old analogue radio communication system with a more modern digital one which is much harder to jam.

The international union of radio science, Union Radio-Scientifique Internationale (URSI), passed a resolution during its 1999 General Assembly regarding the criminal use of electromagnetic tools. The main objective of the resolution was to increase the public awareness of this threat. The International Electrotechnical Commission (IEC) has, for several years, had a working group studying how systems can be protected against these new electromagnetic threats. Sweden is represented both in URSI and IEC. Sweden has also created a forum for cooperation between government agencies and companies in the area of electromagnetic threats. The coordinating agency is the Swedish Civil Contingencies Agency.

### **INCREASED UNDERSTANDING AND KNOWLEDGE IS REQUIRED**

One initiative where the electromagnetic antagonist is given new opportunities due to the increased dependence on electronics and electrical systems is the European Rail Traffic Management System (ETRMS). It is a system to enhance cross-border interoperability by creating a single Europe-wide standard for train control and command systems. ETRMS is still under development, but is already partly implemented and in operation. One essential part of the ETRMS is a system for communication between train and railway regulation control centres, which is based on the international wireless communication standard for railways, GSM-R, hence a wireless system. It should not be possible to cause an accident by disturbing or destroying communications with the trains, since the safety system will stop a train if no clear signal is received. But a delay on the railway system causes a lot of irritation and costs time, money and trust.

The increasing dependence on electronics and electrical systems leads to vulnerability in society, which the electromagnetic antagonist can utilise. By increasing the understanding and knowledge of this threat, effective countermeasures can be identified that do not limit our daily lives. New, large infrastructure ventures ought to be accompanied by a thorough analysis of the threat from intentional electromagnetic interference. Preferably, this analysis should follow the susceptibility, accessibility and consequence model.

### **FURTHER READING**

The research conducted at FOI mainly concerns the susceptibility of military equipment and how to make microwave weapons, and this is classified information. A research group at the Royal Institute of Technology (KTH) is also active in the area and their research is more directed towards civilian systems. Below are a few suggestions for further reading based on their work.

Månsson, Daniel; Thottappillil, Rajeev; Bäckström, Mats (2008). *Propagation of UWB transients in low-voltage power installation networks*, IEEE Transactions on Electromagnetic Compatibility, Vol. 50, pp. 619–629.

Månsson, Daniel; Thottappillil, Rajeev; Bäckström, Mats (2009). *Methodology for Classifying Facilities with Respect to Intentional EMI*, IEEE Transactions on Electromagnetic Compatibility, Vol. 51, pp. 46–52.



# Military Robotics Transform the Face of War

Magnus Jändel and Fredrik Lindvall

*We are heading into a major military technology transformation, as manned platforms will largely be replaced by unmanned autonomous systems. Besides the impact on military operations, there will be momentous, but largely unpredictable, political consequences.*

Today, armed forces are based on manned platforms such as aircrafts, ships and armoured vehicles. In addition, there are remote-controlled machines including missiles, observation balloons and unmanned aircrafts. When required, some weapons can be made more or less independent. Cruise missiles, homing missiles and mines are equipped for autonomous detection and the destruction of targets.

There is a sliding scale from human control to full autonomy. Automobiles are considered to be controlled by the driver even as an increasing range of features, including automatic transmission, cruise control and self-parking, points towards escalating autonomy. Similarly, autopilots are standard for airliners and modern unmanned aircrafts are supervised rather than piloted, simply by pointing and clicking on a screen. In the following, 'robot' refers to any unmanned partially or completely autonomous technical system. Robotics is the science of developing robots.

Currently, robots help technically superior participants in armed conflicts to limit their losses and costs. If there is total air supremacy, war fighters can afford the luxury of human remote control of unmanned platforms and their weapons. Robots designed for combat with technically equal opponents will, however, be made more and more autonomous so that they can survive future lightning-fast battles between smart machines. The role of humans 'in the loop' will increasingly be shifted to overall strategic supervision. In this article we will focus on the prospects of such future generations of military robots and, in particular, on longer-term security policy challenges.



### **WHY NOW?**

Autonomous systems have an increasingly prominent role to play on today's battlefields, both because of the innate weaknesses of manned platforms and because of some recent technical trends. Robots have become increasingly more cost-effective and powerful military instruments, while a number of key technologies have reached a critical level.

A fundamental reason why robots will be superior to manned platforms in most tactical duels is that microelectronics already operates at least a million times faster than the human brain. While the speed of computers doubles every or every other year, human brain power remains at the level set by natural evolution. Humans' limited ability to handle swift and complex processes implies, e.g., that pilots find it more and more challenging to fly and fight while handling the threat of increasingly competent autonomous missiles.

Another significant factor is that robots are unsurpassed as fast learners. Once a trainable robot has developed a capability, other robots of the same type can learn the skill in seconds, while people require hours, weeks or years to become proficient in complex tasks. When a robotic machine-gunner has learned to recognise targets in sensor data, it can also hit the target with superhuman speed and precision. Furthermore, this ability can be uploaded instantly to all other robots of the same variety. Human gunners, in contrast, require arduous individual training.

Robots are less expensive to operate and faster to develop than equivalent manned platforms, as no account needs to be taken of the crew. This comparative cost reduction is partly due to the fact that lower standards of quality are acceptable for robots. It is easier to tolerate battle casualties and training accidents if no human lives are at risk. Robots are also much more resilient to combat hardships, such as g-forces, toxins, radiation, explosions, heat and cold. Furthermore, robots do not require food, drink or rest.

The development of advanced military robot systems requires a broad technical expertise. It is seen as important at the moment because several critical incumbent technologies will soon reach maturity.

First, military autonomous systems can take advantage of the growing civilian production of progressively better, smaller and cheaper technical components. Consumer demand drives, e.g. the development of microelectromechanical circuits containing inexpensive miniaturised sensors. Gyros for inertial navigation used

to be expensive and bulky, and were therefore reserved for the most advanced missiles. Today, gyros are smaller than a fingernail and found in mobile phones and game consoles. Input devices for the Xbox game console include both a camera and a laser that together provide the ability to recognise and follow human movement. This is the critical capacity for a robotic machine gunner. The problem is to identify the target – aiming and shooting are easy.

Second, the ever-increasing performance of computers translates to a corresponding improvement in computation-intensive robot capabilities, including sensor data analysis, decision making based on sensor input and built-in knowledge, as well as learning from individual and collective experiences. More than 50 years of patient research is beginning to pay off in the form of practical machine intelligence. Computers are, e.g., now superior to people at playing chess and Jeopardy! This demonstrates that it is possible for artificial intelligence to transcend human intelligence, at least in some specialised domains.

Third, more than half a century of accumulated experience is coalescing in the form of operational robot components. The four-legged US military robot prototype BigDog inherits its robust ability to traverse uneven terrain from many generations of experimental four-legged robots. Autopilots for ground vehicles are under rapid development and, for several years, robots have been able to drive on roads, independently and as part of truck convoys. The Darpa Urban Challenge robot competition and the driverless car that Google introduced in 2011 have shown that robots are ready to navigate in urban environments.

#### **NEW MILITARY ROBOTS ON THE BATTLEFIELD AND IN LABORATORIES**

The development and deployment of military robots has increased dramatically over the past 10 years. The US is the leading proponent of military robotics and currently has more than 20,000 unmanned platforms in active service. Most of these are remotely controlled and used for reconnaissance, transport and demining, but there are also armed robots. There are regular media reports describing attacks using remote-controlled unmanned aircraft. The US is, however, not the only player in the expansive field of military robotics – at least 40 nations are active in the field. For example, in 2010 Iran revealed an unmanned bomber and China has a very ambitious programme for military robotics.

A report by the US Defense Department exemplifies the wide spectrum of robotic systems in various stages of development and

testing.<sup>4</sup> The inventory includes an armed carrier-based unmanned aircraft (Northrop Grumman X-47B), unmanned armoured vehicles that can be armed with guns, missiles or machine guns and a completely autonomous air-to-ground combat aircraft (Boeing X-45).

### **THE PUBLIC VIEW ON MILITARY FORCE WILL CHANGE**

It is difficult to predict the security implications of technology breakthroughs in military robotics. One could identify trends and create scenarios but not make precise predictions.

The public resistance against using military violence could be lowered if machines instead of soldiers are used in wars. We can now see how unmanned military vehicles are extensively used in areas of conflict and over states without having those countries' permission to fly. The missions are much more dangerous than manned platforms are allowed to perform. If war fighting does not risk having troops coming home in body bags or as invalids the opinion at home will be less critical to military adventures.

The probability that leaders would be accused of war crimes will decrease, partly because of the lack of international agreements and laws for robots and partly because the robots follow rules more strictly than humans. Neither do robots commit crimes like rape or torture, nor do they make mistakes due to fatigue, fear or stress. But there is a risk that armed robots cause problems due to incomplete rules of engagements or technical errors. An autonomous anti-aircraft artillery piece ran amok in South Africa in 2007, killing nine people before the trays were empty.

The line between different roles in war and in peace is being blurred. Is a non-uniformed woman in Nevada, who controls the armed unmanned aircraft over Pakistan, a combatant? If her Toyota is destroyed by a Pakistani bomb when she is driving from work to pick up her children at a daycare center, is the bomb maker a soldier or a terrorist?

### **ARMED ACTIONS BY ROBOTS ARE PERCEIVED TO HAVE LOWER RISKS**

The perception of risks in armed actions is an area which has been greatly affected by the breakthrough in robotics. Important aspects from a military point of view are operational security, reliability and speed.

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<sup>4</sup> FY2009–2034 *Unmanned Systems Integrated Roadmap*, US Secretary of Defense report.

It is easy to conceal an attack by armed robots as there will be only a small group of people involved in the planning stages. Robots do not gossip on Facebook and Twitter and they have no political, religious or ethical views. Robots can, if necessary, self-destruct after the completion of a mission or mission failure. With robots there will be no prisoners that the opponent can interrogate. If common and commercial components are used, it would be difficult to determine who had carried out the attack. An attack with autonomous systems can, if necessary, be kept secret, in a similar way as the 2010 computer virus attack on Iran's nuclear programme.

The result of an attack with robots will also appear to be more predictable than if soldiers are used. Robots strictly follow predetermined tactics and plans, which make them look more reliable than humans. The robot's software and hardware can be tested in simulations. Exercises can be conducted under more realistic circumstances when people are not at risk. Military operations will never be entirely predictable, but robotic forces will often seem more controllable than a potentially unruly commander. The risks associated with the use of autonomous weapons systems will therefore be seen as more foreseeable and therefore politically more acceptable.

In wartime, the defender will often be forced to give autonomous weapons system permission to open fire within their own defensive zone. If the new capabilities give surprise attacks a decisive advantage, a very unstable situation is created where the defender is forced to enable automatically triggered preventive actions. In 1988, this led the autonomous air defence of a US cruiser to shoot down an Iranian passenger airplane while defending against incoming missiles.

In conflicts between states, the development within robotics gives incentives to both increase as well as decrease the use of military force. On the one hand, more powerful weapons could potentially reduce the inclination to use military force against others who have the same kind of arms – during the Cold War, the possession of nuclear weapons by both superpowers reduced the risk of direct hostilities between them – on the other hand, satellites and unmanned aerial vehicles are today used for aerial reconnaissance over other states without permission. In addition, the latter aircrafts are also utilised to kill individuals in other states. Although the practice of war will always involve both manned and unmanned systems, state leadership can believe violence could be confined to machines and robots. Thus, the threshold for violence could be lowered when seemingly no humans are at risk.

## **WINNERS AND LOSERS**

Major shifts in military technology often have strategic and geopolitical implications. Who are the winners and losers when military robotics is one of the main themes in modern warfare?

Robotics reinforces the trend that high-tech know-how and cooperation prevail over brute strength. A large population will play little role in a country's military potential. Industrial capacity is not decisive either. Access to a broad base of research and knowledge-based industry is, however, vital. Advanced robots have so many subsystems and components that not even the largest companies or the US could be self-sufficient in the long term. Products developed for a civilian market are becoming increasingly important. Membership of military alliances will not in itself be decisive, but it will help to gain access to a broad international cooperation and technology exchange.

Relevant standards for robots is lacking today which is temporarily holding back development. This means that anyone who can dominate the emerging international standards will have a big advantage. Operators with a sufficient industrial base who manage to establish a plug-and-play standard for robots will benefit greatly, both industrially and militarily. Future robots will, just like computers, be made of components from hundreds of subcontractors. Today's cheap and efficient personal computers would not be possible without standards for software, hardware and communications. The robot industry currently lacks such standards.

Those who are able to adjust their defence to the potential of military robotics will also benefit greatly. It is often the strategic and tactical use of new military technology rather than technological superiority, as such, which becomes the decisive factor. German tanks were not technically superior to the French in 1940; however, it was the new way to use the tanks that crushed France. For manned military units, it takes years to change doctrine because people at all levels need to be retrained. Units made of robots can relearn in seconds. The military potential will be determined by the creativity of operational and strategic management. We will need military organisations which implement the state security policy with the same dynamism and innovation that Apple or Google are developing for their owners' interests. In a crisis, collaboration between the military and political leadership must take place in shorter time cycles.

In conclusion, the development of military robotics has given war a new face and can fundamentally change the dynamics of warfare.

The technology is based largely on the civilian development and becomes more widely available – unfortunately this is also true for less scrupulous operators. States as well as small groups and individuals can use military robots. The threshold for the use of military force and violence against individuals is reduced. The difference between military and police missions is also reduced. Technology, ethics and current regulatory systems may find it increasingly difficult to match each other. The distance between the warring parties increases geographically as well as culturally. The perspective on war is changing when opponents are separated not only by distance and technology but also by values and worldviews. There is also a risk for destabilisation, since robotics accelerates the progress of battle and conflict as well as lowering violence thresholds.

Sweden, with its high level of knowledge, innovation and international collaboration, has an excellent potential to both monitor technical progress in robotics and contribute to the responsible management of its consequences. Both in the technical context and within the framework of international cooperation, Sweden has a good chance to promote its interests and values.

#### **FURTHER READING**

Jändel, Magnus (2011). *Plug-and-play Robotics*, Proceedings of NATO RTO-MP-IST-099.



# Submarine Technology – An Instrument with Strategic Dimensions

Mats Nordin

*Today, only a few countries have the capability to develop and build qualified conventional submarine systems. Through the continued commitment to the development of the submarine project NGU/A26, Sweden will be in a world-leading position regarding submarine systems. The current demand for national submarine design capability, especially in Asian countries, has become a crucial strategic issue of how new technologies are managed and protected. This puts Sweden and the few countries that master these new technologies at a crossroads. Should the technologies be exported to achieve short-term economic benefits? Should the technologies be reserved for strategic partners? Or is the value so great that any export or collaboration with other countries should be avoided? Are there any prerequisites or other considerations that must be met in order to be able to make the choice?*

It is a well-known fact that it takes a long time to build up skills for the design of submarine systems that, by their nature, are very complex structures, well in the class of aerospace systems. Today there are only six countries – France, China, Russia, Germany, Japan and Sweden – which have the capability and the capacity for the development, design and production of conventional submarines. The list becomes, if possible, even shorter if you count the countries that can design and build effective operational air independent power plants (AIP) and systems with low signatures. The AIP system allows covert and forward deployment and submarine operation for several weeks of underwater activities. Sweden, which bases its system on the Stirling engine, is one of these few countries. That is mainly due to the fact that Sweden, during the Cold War, had to find its own solutions within the limits and opportunities that were available to a non-aligned country.

To whom Sweden chooses to export, and with whom it cooperates on these types of strategic technologies is crucial to how Sweden is perceived. This is an important strategic and security policy choice for Sweden where it, as a small country, is dependent on the continued supply of technologies in other strategic areas such as aircrafts, electronics, crypto, telecommunications warfare and



missiles. This supply may suffer if Sweden sells or cooperates with the wrong partner.

Today the Anglo-Saxon sphere (The US, the UK, Australia and Canada) have no complete capability for the design of qualified conventional submarines. The US and the UK have focused on the development of future generations of nuclear attack submarines (SSGN/SSN) and strategic submarines (SSBN) and have no conventional capability. Australia, whose new submarine programme clearly shows this shortcoming despite the earlier Collins programme from Sweden, is therefore, once again looking for partners to rebuild their competence in conventional submarines.

Interest is also stirring in Brazil, India and Pakistan for new and qualified submarine systems. Brazil and India are actively looking for new technologies, especially for conventional AIP submarines. They have traditionally sought submarine technologies from all submarine contractors and designers around the world. Both Germany and France have built submarines for the two countries. Brazil has recently closed a strategic deal and agreement with France for the supply of both submarines and submarine technologies for both conventional and nuclear submarines. India buys both conventional and nuclear submarines from Russia. Pakistan has traditionally built its submarine solutions on French technology.

Even South Korea, which has commissioned several generations of submarines from Germany, has decided to develop its own national capacity for submarine design. Like Australia, South Korea now seeks new technology and strategic partners.

Both France and Germany offer air independent machinery, but, so far, these have both technological and operational shortcomings. Both countries could be selected for future submarine projects and collaborations, but since the submarine business in both countries has mainly focused on generating industrial and commercial values, they have chosen to export their submarines rather freely. By doing so, they have come to be at odds with the Anglo-Saxon sphere, which has a restrictive view of how advanced submarine technology should be disseminated. For a long time, these countries have put substantial resources in research and development, but have opted to keep the knowledge within their own circle. This has resulted in the group maintaining a strategic advantage over other countries in the underwater domain throughout the 20th century.

A possible consequence of supplying qualified conventional submarine systems to states outside of the Anglo-Saxon sphere can be that other dependencies that Sweden has with this sphere are seriously damaged. However, so far, Sweden has through the export of submarines to Australia and Singapore as well as the Stirling system to Japan, not ended up in a similar situation as these countries are part of the Anglo-Saxon sphere.

### **THE SUBMARINE'S ROLE AS A STRATEGIC WEAPON**

Since the 16th century maritime activities have, by their nature, been carried out across the world to increase trade and development. The global trade operations are carried out at almost 90 % by keel along the world's waterways. These waterways are vulnerable and go through strategic narrows and regional areas where traffic is particularly vulnerable. The protection of waterways is, therefore, of vital importance for most countries. The threat to the waterways has, historically, mainly consisted of pirates and enemy privateer and naval vessels. Maritime countries have used their naval forces to protect waterways and their own national interests, as well as, if possible, to secure additional market shares with the help of their naval forces. These have, since the beginning of naval conflicts, been built up after the marine calendar principle, the more and larger ships, the stronger naval power.

This principle clearly capsized already a few months into the First World War, when the small submerged German submarine U9 within one hour, surprisingly sunk three armoured cruisers off the Dutch coast, without any damage to the submarine itself. During the two world wars, the submarines were close to starve out and paralyse the war fighting parties. Submarines interfered and effectively prevented opportunities for naval operational activities on the surface by means of denying activity in important areas.

In the three major conflicts during the 20th century: the First World War, the Second World War and the Cold War, the submarines were developed to remain below the surface for ever longer periods of time. When at sea during the First World War, they were only able to remain submerged for a short period of time, but the capability developed progressively, so that in principle, they could operate fully submerged throughout the mission. Although the conventional diesel-electric submarines had to get close to the surface and through a mast get new air each and every other day to recharge their batteries, this strengthened the submarine's role as a strategic weapon, a weapon that now could threaten even the largest seagoing opponent.

With the introduction of atomic energy, the nuclear submarine became the undisputed ruler of the seas from the late 1950s, as it was capable to remain hidden below the surface for long periods of time. The nuclear submarines were gradually developed and became increasingly larger and eventually they were armed with strategic nuclear weapons.

But the conventional submarines were also being developed. With the introduction of signature reducing technologies and AIP, submarines were able to stay under the surface for a long period of time. Signature reducing technologies, are technologies which have been developed in order to reduce the transmitted signatures, both in the form of sound or hydrodynamic pressure as well as magnetic or electrical signatures.

The AIP system enables underwater operation for several weeks at a time and this technology also means that the submarine does not need to go near the surface with a snorkel to recharge its batteries every other or every third day. This also means that conventional AIP submarines have become much more difficult to detect over time. As a consequence, the atomic submarine's position as the undisputed ruler of the oceans has been challenged.

This situation became obvious when conventional Swedish submarines again and again eluded their pursuers during co-operations with nuclear submarines from the French and US Navy. The co-operations started with the Swedish submarine HMS Halland's expedition to the Mediterranean in 2000. This led to continued co-operations west of Sweden and finally that the submarine HMS Gotland was based in San Diego, California in 2005, for two years of co-operations with the US Navy.

### **SWEDEN STANDS AT A CROSSROADS**

Since the end of the Cold War, in which the US became the only surviving superpower, the world has experienced a period of global military stability. At the same time, regional tensions have increased and the global economic growth has substantially come to be affected by new threats as new players have emerged.

The capability to operate with submarines covertly and forwardly deployed under water for several weeks is a strategic resource of crucial importance to a country's military capacity and thus a security policy instrument. This has led to a strong incentive for submarine procurement for many countries in order to effectively secure their own national interests, such as access to and the protection of waterways and maritime zones. A growing number of

Asian countries have therefore chosen to procure submarines. Some have even invested in national development to safeguard their interests.

Through the continued commitment to the development of the NGU/A26 submarine project, Sweden continues to be in a leading position for submarine systems. Submarine systems have, based on advanced technologies, primarily within signatures, sensors and air-independent Stirling machinery, given Sweden the opportunity to develop NGU/A26 with its unique capability for covert and sustainable operations in comparison to the existing submarine types at a global level.

Since the Gotland submarine class was developed in the 1980s, Sweden decided to reduce its focus on anti-invasion defence and naval combat in favour of a wider and deeper commitment to other roles and tasks. NGU/A26 has become more of a stealth submarine than an attack submarine. New technologies have been developed by the Swedish authorities, universities and industry, primarily focusing on the capacity to operate covertly over a long period of time.

A continued development of NGU/A26 and future submarine systems, however, cannot only be based on the actual submarine projects. It is absolutely crucial that there is a continued development and strategic investments in technology projects of independent technologies that forms the technology baseline for future submarine systems to be developed. As a result, the technical and financial risks can be reduced.

Sweden can choose to export worldwide to interested parties, similar to what France and Germany have done, and, therefore, in the short term, obtain financial benefits that may be reinvested in future submarine technology. Another solution would be to create long-term strategic partnerships with, e.g., the Anglo-Saxon sphere. Such cooperation would both enable the financing of continued development and prevent that security disturbances due to the inappropriate dissemination of qualified submarine technology arise. By using a developed strategic cooperation, gains can instead be achieved in other areas of interest in which Sweden may need support.

A prerequisite for active choices, however, is that the Swedish government and its authorities have national control over strategic technologies and design competence so that they are not lost through leakage, drainage or negligence. Only then can the technologies and competence continue to be developed and useful in line with the Swedish government's interests.

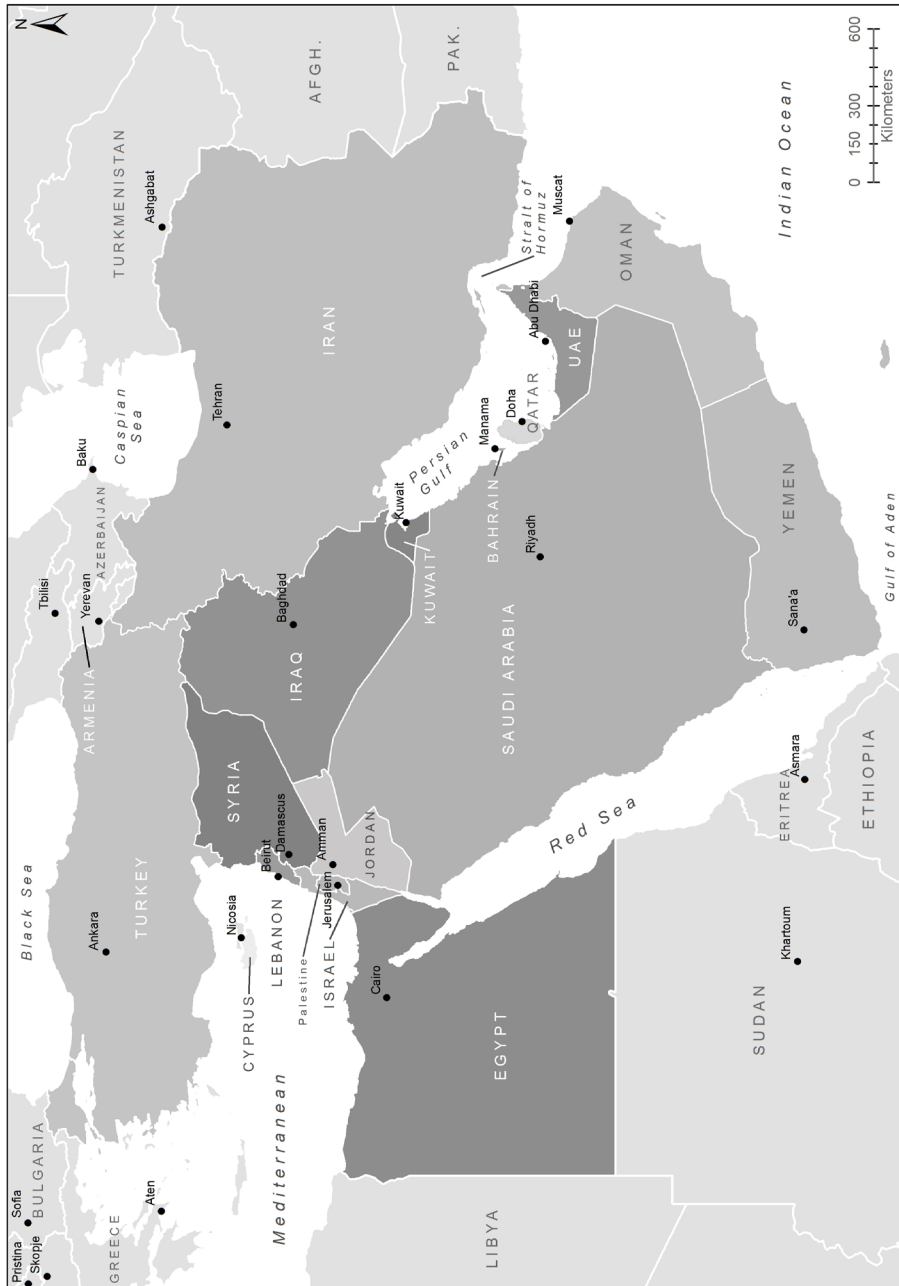


Figure 4. The Middle East (source FOI/Natural Earth 2012).

# The Competition Continues

Erika Holmquist

*One effect of the Arab Spring is that the governments of Iran, Saudi Arabia and Turkey seem to be increasing their attempts to influence developments in their neighbouring countries. Their motive for doing so would simply be to gain better positions in the competition for regional influence. The actions of Saudi Arabia and Iran, which to a great extent are fuelled by mutual antagonism, may continue to have destabilising effects on the region. Turkey, on the other hand, could, due to its well-established regional connections, have a constructive role to play.*

The Arab Spring has destabilised the Middle East, at least in the short term. No regime feels safe as the old regional order is being challenged. There is an uprising going on in Syria, and the conflict between Iran and Israel is heating up. Egypt's political direction is still uncertain. But the fact that the greatest stakeholders of the Egyptian parliament, the Muslim Brotherhood and the Islamist party Al-Nour, both agree that the peace treaty with Israel should be reviewed, indicates that a change in Egypt–Israel relations may be under way. These new insecurities and uncertainties combined with the US ongoing withdrawal from Iraq and Afghanistan have caused many states to attempt to fill the strategic void that is now being created. In addition, the Obama administration has voiced intentions that, from now on, it will prioritise South East Asia. Whether this becomes reality or not remains to be seen, but it is clear that few actors will stay passive. Several will want to seize the opportunity to further their positions in the regional game of power, and Turkey, Iran and Saudi Arabia are among the most adamant.

Rivalries in the Middle East are acted out on different levels. Religious rivalry exists between Sunni and Shia Muslims, as well as between moderate Muslims and Islamists. One example of this, which has become more apparent during the Arab Spring, is the rivalry between Shia Iran and Sunni Saudi Arabia. Turkey, meanwhile, has, due to its democratic state structure, surfaced as the West's favourite model for the transforming states of the Middle East. While the actions of Saudi Arabia and Iran may have destabilising effects on the region, Turkey may have a stabilising role to play in the future. The behaviour of these states makes it clear that the patterns of rivalry in the Middle East are the same

as before. Therefore, one could argue that the Arab Spring, in fact, has not changed very much. However, the new air of uncertainty has exacerbated the competitive nature of the relations, and that will surely have consequences for the region.

### **TURKEY – A BRIDGE BETWEEN THE EAST AND WEST?**

Turkey's foreign policy strategy is called the 'policy of zero problems', and basically means that Turkey aspires to have problem-free relations with its neighbours. At the same time, Turkey has increasingly shouldered more responsibility in the foreign policy arena. The declaration of 'zero problems' notes Turkey's unique position between the Middle East and Europe, and that it is Turkey's duty to take on more responsibility because one of the few factors that unite the countries of the otherwise divided region is good relations with Turkey. Thus, Turkey could play the role of a mediator. Turkey's ability to mediate is in fact a new phenomenon. For a very long time the legacy of the Ottoman Empire weighed heavy on its shoulders, and Turkish influence was not welcome in the region.

During the leadership of Foreign Minister Ahmet Davutoğlu, Turkish influence in the Middle East has increased. A contributing factor is Turkey's growing importance in the economic sector – in 2011 it had one of the fastest growing economies in the world. Another factor is that the ruling party, Adalet ve Kalkınma Partisi (APK), has a Muslim identity which it has succeeded in merging with democratic rule. The Turkish model therefore offers an interesting alternative for other moderate Islamic parties in the region.

It is Turkey's ambition to mediate in conflicts near its borders, and the UN is viewed as the main platform from which to do that. The country has previously stated that it will not participate in the US-led sanctions against Iran's oil sector, because it believes that it is a measure which requires a UN resolution. Contrary to its ambitions, Turkey has now announced that it will cut imports of Iranian oil by 20 per cent. This constitutes a small victory for the US, which has been lobbying for Turkey to have a change of heart. Most likely the decision was not an easy one to make, since Iranian oil makes up 30 per cent of Turkey's total imports. The two countries also share a common problem in the mountainous border areas, which is where Kurdish separatist movements reside. Turkey and Iran sometimes join forces to fight them. The way that Turkey has handled its Kurdish minority is one of the greater obstacles towards a Turkish EU membership. Thus, it remains to be seen if Turkey's stance for peace and democracy outside of its borders will

also be applied inside. Notably, Turkey has taken a stand against the Assad regime of Syria in defence of the Syrians' democratic rights, even though this means going against the 'zero problems' policy.

Turkey has consistently argued in favour of Iran's right to a civilian nuclear programme. Turkey negotiated a deal in 2010 between Iran, Turkey and Brazil which entailed that Iranian low-enriched uranium would be sent to Turkey in exchange for fuel to the Iranian research reactor. The deal was met with suspicion in the West because it did not put a stop to Iranian enrichment. In the end, the agreement was not implemented.

Turkey still strives to find a peaceful solution to the Iranian nuclear issue and tries to balance between the US and Iran. During autumn 2011 the country agreed to allow the US to base a part of its missile defence radar on Turkish territory. Even though the US clearly stated that the system is aimed to protect against Iranian missiles, Turkish politicians carefully avoided pointing fingers at Iran. When the negotiations on the Iranian nuclear programme between Iran and the P5+1<sup>5</sup> restarted in April 2012, Turkey yet again hosted the event.

Turkey is trying hard to pursue its own policies and has all the requirements to become a serious competitor for influence in the Middle East. It has a clear ambition to be a greater player, and it represents a political model that could appeal to Western and Middle Eastern countries alike. Additionally it has a vibrant economy and good relations with its neighbours as well as with the US and Europe.

### **IRAN – STILL RELEVANT TO WORLD POLITICS**

Iran too has an ambition to be a regional power, and portrays itself as the ideal Islamic state. Iran awards itself some credibility in that respect as the country underwent an 'Islamic' revolution in 1979. When the Arab Spring began during 2011, Ayatollah Khamenei, the supreme leader of Iran, announced that the world was witnessing an Islamic awakening. The connotation was that the countries in question had found the right path and were now following in Iran's footsteps.

Iran's continuous efforts to gather influence under the banner of religion are viewed as a threat by many of the other countries in the region, although most are Islamic countries. The reason for that is

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<sup>5</sup> China, France, Russia, UK, US and Germany.



that Iran follows Shia Islam. Even though there are Shiites all over the Middle East, most of the ruling regimes consist of followers of Sunni Islam. Bahrain is an interesting example, where the ruling family is Sunni but the majority of the population is Shia. Because of that, the Bahraini regime worries about Iranian influence. The same is true for Saudi Arabia, whose Shiites constitute a minority of the population, but reside in the crucially important, oil-saturated eastern province.

The religious divide is mirrored in the allegiance patterns of the region. Iran is closely allied with Syria, whose regime is Shia. Syria has, just like other regimes in the region, reacted violently to the demonstrations following the Arab Spring. Interestingly, Khamenei does not seem to think of the Syrian uprising as a case of 'Islamic awakening'. Iran supports the Syrian regime because it is one of the few allies that Iran has in the Arab world. If that ally were to be lost, it would be very problematic. But, due to the fact that the new government of Iraq is also dominated by Shiites, the strategic landscape has actually changed. This new development has caused Iran to view its former enemy in the light of a potential ally, or at the very least to see enhanced possibilities to exert influence.

There is an additional reason as to why many of the Arab countries feel threatened by Iran and, ironically, that is the country's tough rhetoric against Israel. By acting as a stronger advocate of Palestinians' rights than some of the Arab countries, Iran is able to take a traditional Arab issue and transform it into an Islamic issue. In that sphere, it is legitimate for Iran as an Islamic country to influence developments. This is a meticulously calculated strategy that really has less to do with religion or Palestinians' rights than strategic influence. Thanks to this strategy, Iran has been able to make allies such as Hamas and Hezbollah. Hamas alliance with Iran has always been a tactical one and the organisation now claims to have severed its ties with Iran and the Assad regime in Syria.

Hezbollah and Iran have their enmity with Israel in common and their relations are of a symbiotic nature. Iran needs a platform for its antagonism against Israel and Hezbollah's homeland, Lebanon, is suitable for that. Hezbollah, in turn, needs economic, political and military support, which Iran can provide.

The Iranian nuclear programme is more topical than ever. Aggressive rhetorical exchanges between the Israeli and the Iranian governments have escalated since autumn 2011. Israel suspects that Iran's nuclear programme has a military dimension and wants to stop it before it is too late. Israel is not the only country to be worried about this, as the issue of Iran's nuclear ambitions was a

hot topic in Riyadh as early as during the 1990s. Most think that an Iranian nuclear bomb would lead to a proliferation race in the region, as a nuclear armed Iran would undoubtedly tip the scales of strategic balance. The US and the EU are trying to force Iran to negotiate by applying sanctions aimed at the Iranian oil sector. Oil is Iran's main revenue source and when comparing countries' joint oil and gas resources, Iran is number two in the world, just behind Saudi Arabia. It will be difficult for large consumers of Iranian oil, such as China, Turkey and India, to replace it. This indicates that the sanctions may be rendered inefficient.

### **SAUDI ARABIA – COUNTERING THE SHIA THREAT**

Saudi Arabia is a Sunni kingdom, and the religious antipole of Iran. The two countries' strategic, religious and cultural rivalry goes back a long time. At the root of the problem is an ancient conflict between the Arab and Persian identities. If the influence of Shiites were to increase in the Middle East this could have a direct effect on the survival of the Saudi dynasty and that is the reason why so much of Saudi Arabian politics hovers around the rivalry with Iran.

It is not surprising that Saudi Arabia worries about Iranian influence, considering that Iran represents a competing version of Islam, and in addition to that overthrew its monarchy in 1979. The Arab Spring has stirred reactions in Riyadh; an uprising on Saudi soil is not on the regime's wish list.

When the demonstrations in Bahrain began in the beginning of 2011, Saudi Arabia supported the Bahraini regime's efforts to put down the protests. Bahrain is, as previously mentioned, a country with a Shiite majority population that has a Sunni ruling family. Any democratic developments in Bahrain could result in a Shia rule, with increased opportunities for Iranian influence.

Saudi Arabia has traditionally exerted influence over its neighbour to the south, Yemen. The goal has always been to prevent Yemen's internal conflicts from spreading. An unstable Yemen carries a lot of risk: the first being that problems could spill over to Saudi Arabia, the second would be that a civil war would generate an influx of refugees to Saudi Arabia and the third is that the Yemeni Shia movement, also called the Houthis, could gain influence. Saudi Arabia perceives the Houthis, who besides being Shiites also demand equal citizenship and religious rights, to be such a grave threat that it dispatched soldiers to fight them in 2009–2010.

Considering Saudi Arabia's actions in Bahrain and Yemen, it is impossible to view its support for the Syrian opposition as anything other than strategic. If the Assad regime falls that would mean that Iran also loses its key ally in the Arab world, which would be of great benefit to Saudi Arabia. But, even if Assad disappears, the risk of Iranian influence over Iraq still lingers.

According to a document released by WikiLeaks, Saudi Arabia has asked the US to "cut the snake's head off", which, in translation, means to put a stop to Iran's nuclear programme before it is too late. If Iran's acquires nuclear weapons, Saudi Arabia and the other Gulf countries will most likely feel the need to do so as well. At the same time, if it comes down to a military confrontation, it is not unthinkable that Iran would strike American interests in the Gulf, which could directly affect Saudi Arabia. Yet another aspect is the fact that Saudi Arabia lacks diplomatic ties with Israel, and siding with Israel in a conflict against another Muslim country would be complicated. Saudi Arabia has to pit one strategic consideration against another, and the fact remains that Israel does not constitute an existential threat, but increased Shia influence does.

## **CONCLUSION**

There is no doubt that religion is being used for political purposes in the Middle East. Both Saudi Arabia and Iran use it successfully to drive their political agendas. Both countries continue to exploit the inherent tensions between Sunnis and Shiites, and their actions speak loudly. Saudi Arabia has actively worked against democratic developments in Bahrain, but at the same time it lends support to the Syrian opposition. Iran has branded the Arab Spring an 'Islamic awakening', but supports the regime in Syria. Thus, it is reasonable to believe that neither the 'Islamic awakening' nor the Syrian opposition's fight for democracy will mean very much to Saudi Arabia and Iran. If the Assad regime in Syria falls, there is a risk that the competition of influence between the countries is simply transferred to Iraq instead.

For as long as Iran and Saudi Arabia hold the greatest oil and gas resources in the world, Sweden and the EU will need to relate to them, and that is why Turkey is likely to continue to be an attractive partner for Sweden and the EU in the Middle East. Because of its connection to both regions, Turkey can easily act as a bridge. Turkey represents a new kind of Islamic state which is more compatible with democracy than other countries in the region. The question is, will Turkey be forced to leave its problem-free policy behind to pursue more confrontational policies? Turkey's stance against Syria is a step in that direction. Turkey's strong economy

and well-established trade connections have created good relations with the other countries in the region, and that, in turn, has made it more influential. This could enable Turkey to act as a regional stabiliser.

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Figure 5. Afghanistan and its neighbouring countries (source FOI/Natural Earth 2012).

# Will Women's Rights be Sacrificed for Peace in Afghanistan?

Helené Lackenbauer

*After a decade of war, the US and Afghan governments have deemed it necessary to negotiate with the Taliban and related insurgent networks in order to end the armed conflict. The international community needs to ensure that a potential peace agreement guarantees that women's freedoms and rights will be protected and improved.*

At this point, it is still unclear what compromises the opposing parties are willing to make in order to reach a peace agreement. Senior officials of the US Foreign Service have made statements in the media suggesting that one of the concessions may be restrictions on women's rights and freedoms. The US Secretary of State Hillary Clinton has promised that the US, after the withdrawal of international forces in 2014, "will not abandon the women of Afghanistan". Mrs. Clinton, however, is a solitary voice in the context.

In Afghanistan, increased rights for women are closely linked to central government attempts to modernise the country and seize political control over the periphery. The modernisation reforms have been met with resistance and rebellion in the periphery on numerous occasions. The Afghan population's acceptance of reforms to increase women's rights is a measure of their acceptance of the central government influence in the regions and over the tribes, which is a necessary condition to unite a country divided between different groups and warlords and to create a modern democratic nation that can guarantee a sustainable peace.

## **WOMEN'S SITUATIONS HAVE IMPROVED SINCE 2001**

Several analysts have argued that the US and its coalition partners have used the Afghan women's vulnerability to further their own geopolitical interests. This is a simplified narrative. The Taliban regime's harsh violations of human rights had already attracted the attention of the international community in the 1990s, although, at this time, few initiatives were taken to change the situation for the Afghan population. The crucial changes are linked to the terrorist attacks in the US on 11 September 2001. The US government and its coalition partners have used the Afghan

women's vulnerability to justify the battle against al-Qaeda and the Taliban. However, at the same time, the US military operation has contributed to improved conditions and greater freedom for women and children in Afghanistan.

International development organisations have gained access to Afghanistan and have contributed to the reconstruction of necessary social institutions and functions. A new constitution was adopted which guaranteed equal rights for women and women's participation in society and the elected assemblies. Education and health services also improved. The reconstruction of Afghanistan will be slow, just as the improvement of women's rights will progress slowly.

### **REFORM ATTEMPTS THAT FAILED**

Two radical attempts to modernise the Afghan government and improve women's equality were made during the 1900s. Both of them were followed by violent protests and resulted in less freedom and decreased social participation for women. The first attempt to reform was led by King Amanullah in the 1920s. The king banned child marriage, started girls' schools and gave freedom to the widows who were coerced by their deceased husband's families. The second attempt followed the coup in 1978, where the Marxist–Leninist party People's Democratic Party of Afghanistan (PDPA) seized power. PDPA implemented a series of progressive reforms – often through coercion and violence – which especially benefited women.

Following the Soviet withdrawal and the PDPA's fall in 1992, a brutal era of civil war erupted between the different Mujahideen fractions. The Mujahideen had a conservative opinion on women's role in the community and they legislated against women's freedom of movement and participation in society. The civil war between the Mujahideen factions was marked by extreme cruelty and gross violations of human rights. This paved the way for the Taliban's seizure of power; a vast majority of the population welcomed them as a moral alternative that would establish law and order.

### **WILL THE TALIBAN GIVE UP THEIR POLICY ON WOMEN?**

The Taliban is a religiously motivated political movement with a programme on social order. The programme especially focuses on women's status, functions and private moral issues. Their view on women as subordinated and separate from society is a noticeable feature in their interpretation of good governance. During their regime, 1996–2001, they used substantial resources on controlling

women's behaviour and limiting their participation in society and social life, which not only affected women but also their children. Women were forced into seclusion in their homes. They were only allowed to leave if they were completely covered in a burqa and escorted by a male relative.

Since female doctors were forbidden to work and male doctors prohibited from treating female patients, women had de facto no access to health care. Before the Taliban takeover, women made up 70 per cent of the teachers, 50 per cent of the civil servants and 40 per cent of the physicians. When a vast majority of the trained workforce in critical areas of society were banned from practicing their profession, it had a negative effect on the whole of society and hindered the possibility of sustainable development.

Women in Afghanistan vividly remember the Taliban regime. The living conditions for women have improved after the US ousted the Taliban from power in 2001. Many international organisations and prominent female Afghan politicians are deeply concerned about the peace negotiations that the US and Afghan governments are trying to initiate with the Taliban. There is a risk that women's rights and freedoms will be curtailed in order to bring about a peace deal with the Taliban. The Afghan constitution, adopted in 2004, guarantees men and women equal rights. The Afghan law also guarantees the participation of women in the legislature. This is contrary to fundamental elements of the Taliban's policy on how a society should be governed. A crucial question is whether the Taliban are really willing to reconcile with a state whose constitution is contrary to fundamental values in their view of society and humanity? There is a risk that the Taliban will require a constitutional change in order to approve a peace accord and eventually become part of the government.

There are analysts who argue that the Taliban has been reformed over the past decade. Their view on women and ethnic minorities has become more tolerant. Above all, it is alleged that they now accept that girls participate in education. However, Afghan women have reason to be worried. There are few concrete signs that the Taliban have changed their view on society or humanity. In regions under Taliban control, the population is forced to live under similar restrictions as they did during the Taliban's time in office during the 1990s. In Taliban-controlled areas in Afghanistan, women who actively participate in community life, e.g. female politicians, are being threatened and even killed. If parents send their daughters to school, they are threatened with brutal punishments via so-called night letters.



## **PRESIDENT KARZAI AND THE CURRENT GOVERNMENT**

Mujahideen leaders – from the Northern Alliance who supported the US during the invasion in 2001 – are currently dominating all levels of the Afghan government and society. It is highly unlikely that they would fight for the equal rights of women if their power and privileges were under threat. The current government is characterised by corruption and nepotism. There are few political representatives who are ready to defend women's rights.

President Hamid Karzai has, during his time in power, not proved that he and his government are prepared to defend women's rights. Before the 2009 presidential election, Karzai endorsed a bill on sharia family law which would affect the Shia denomination of the population. By approving this legislation, Karzai increased his chances of winning the conservative Shiite leaders' votes and support in the election. The bill limited the Shia Muslim women's rights and freedoms and legalised marital rape. Following demonstrations by Afghan women and protests from the international community, certain changes were made. The law was adopted; however, it still contains elements that infringe the rights of Shia women and their security. For example, men can legally deny their wives food if they do not meet their demands for sex.

Karzai has not made any major efforts to increase women's participation in the peace process. When the High Peace Council – which is tasked to lead the peace process – was formed in 2010, only 9 out of 70 members were women. Women parliamentarians have pointed out that their opinions have not been listened to by the High Peace Council; they are only there to be displayed. This has also been highlighted by the UK Parliament. At the Bonn Conference in 2011<sup>6</sup>, it was unclear, until the final moment, whether any women at all would be part of the Afghan delegation. With the exception of non-governmental organisations, the international community did not demand that women had to be represented or that their views on future security and peace would be on the agenda.

Today, better preconditions exist than during previous reform attempts to achieve sustainable development for women. During the years of occupation and civil war, around six million Afghans were forced into exile. For women, this was a mixed experience. On the one hand, it was a humanitarian disaster to live in refugee camps; on the other hand, it created new opportunities for their participation in society. In the camps, international relief agencies provided opportunities such as better health care, education for girls and income-generating projects that contributed to increased

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<sup>6</sup> The international conference on reconstruction and peace in Afghanistan.

knowledge and freedom for women. Many Afghan women have returned from exile with increased insight and are determined to achieve change for themselves and their daughters.

### **THE INTERNATIONAL COMMUNITY MUST ENSURE WOMEN'S RIGHTS IN THE FUTURE**

Today, no one knows what a possible peace deal with the Taliban will contain. The US and Afghan governments are currently at the start of a process which aims to bring about talks with the Taliban movement, to bring them to the negotiation table. So far, the process has been marked by a series of setbacks. The biggest impediment was when the President of the High Peace Council, Burranuddin Rabbani, was assassinated by a suicide bomber pretending to be an envoy from the Taliban.

Over the past year, the US has been struggling to begin a three-step process. It consists of confidence-building measures, the establishment of an official Taliban office in Qatar and peace negotiations. By transferring prisoners from the Guantanamo detention centre to the Afghan authorities, the Americans want to create trust that could lead to negotiations between the Afghan government and Taliban. What other benefits are the US and Afghanistan willing to pledge?

The Taliban has shown few signs that their policies have changed. President Karzai has demanded that they must accept the Afghan constitution and lay down their arms in order for him to enter into an agreement and offer them a place in government. However, even if the Taliban recognise the constitution which guarantees women's equal rights, there is no assurance that they are willing to honour their promises in the future. The Karzai government has had a flexible relationship with the constitution and has accepted measures which have deteriorated women's rights, as in the case of the Shia Muslim women, in order to stay in power. It is quite possible that in the future Karzai will negotiate away the rights of women if his position is threatened.

Afghan women have appealed to the international community to guarantee their rights and to ensure that their situation does not deteriorate after the international armed forces have left the country in 2014. These insurances should not only include the Taliban, even the current political leadership needs to be required to give guarantees to make improvements for women. Women's rights are threatened in today's Afghanistan, even under President Karzai's leadership, and the international community needs to take action to protect and strengthen them in the future.

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Figure 6. Pakistan and its neighbouring countries (source FOI/Natural Earth 2012).

# The Significance of Pakistan for Regional and Global Security

Samuel Bergenwall

*On 2 May 2011, US Navy SEALs broke into the safe house of Osama bin Laden in the Pakistani town of Abbottabad and assassinated the al-Qaeda leader. The incident signifies that Pakistan is on the centre stage of world affairs. When the international forces withdraw from Afghanistan, Pakistan will be a new hot spot. Pakistan faces a large number of domestic challenges while the country plays a key role in the stability of South and Central Asia.*

Over the past few years, developments in Pakistan have, in many respects, been negative. The country is plagued by two armed conflicts and has a high frequency of terrorist attacks, recurrent natural disasters, economic difficulties and social underdevelopment.

In the aftermath of the death of Osama bin Laden, Pakistan's relations with its historical ally, the US, have become increasingly frosty. President Barack Obama has, in recent years, stepped up the attacks with unmanned aerial vehicles, so-called drones, on Pakistani territory, while Pakistan has provided support to the Taliban insurgency in Afghanistan.

Pakistan also faces formidable domestic challenges. Further destabilisation of the country can have far-reaching regional and global consequences. How Pakistan's relations with the US as well as its internal situation develops can affect key questions of security policy concern: the war in Afghanistan, the security in South Asia, the risk of nuclear proliferation, the threat of terrorism in the West and the geopolitics in a world where great powers, such as China and India, play more prominent roles.

## **A WEAK STATE WITH NUMEROUS CHALLENGES**

Since 2007, the security situation in Pakistan has deteriorated, which, to a large extent, has to do with two armed uprisings – instigated by Baluchi rebels and the Pakistani Taliban movement.

In 2004, Baluchi separatists took up arms, for the fifth time since the creation of Pakistan, and demanded an independent

Baluchistan. The military of Pakistan responded by harshly cracking down on rebels and civilians. This has just strengthened the popular support for rebel groups and escalated the conflict in Baluchistan, which claims hundreds of victims every year.

The war between the army and the Pakistani Taliban in the northern parts of the country is, however, a much larger threat to the overall security of Pakistan than the uprising in Baluchistan. In 2007, a Taliban movement, Tehreek-e-Taleban Pakistan (TTP), was established. TTP is an umbrella organisation of predominantly Pashtun militant groups. In theory, TTP is subordinated to the Afghan Taliban, but in practice it operates independently. In contrast to the Afghan Taliban, TTP aims its weapons at the Pakistani state. During 2008–2009, TTP managed to take control over large parts of northern Pakistan. Following military campaigns in 2009 the Pakistani army pushed back the Taliban. The army applied collective punishment and the campaign led to a humanitarian disaster. The conflict is far from over and the threat from TTP is not warded off. Every week approximately 100 people lose their lives in the conflict.

According to the Pakistan Institute for Peace Studies, approximately 40,000 people have been killed in political, sectarian or ethnic violence in Pakistan since 2008. The main reasons for the high numbers of casualties are terrorist attacks, military clashes and military operations linked to the two armed conflicts.

In addition, Pakistan faces major economic, political and social challenges. The economy is vulnerable: the budget deficit is large and the tax revenues are tiny. Inflation and unemployment are high while population growth is rapid and energy needs are huge. The democratically elected government is also constrained by the military, the real power holder of Pakistan, which dictates foreign and security policy and consumes a large amount of both gross domestic product and foreign aid.

Furthermore, during the past seven years Pakistan has been hit by three devastating natural disasters. An earthquake in the Pakistani part of Kashmir in 2005 resulted in the death of approximately 70,000 people. Floods in 2010 put one fifth of the country under water and affected approximately 20 million people. Then, in 2011, major floods hit southern Pakistan once again.

### **ON A COLLISION COURSE WITH THE US**

In addition to major internal problems, Pakistan has, over a short period of time, gone from being one of the closest allies of the

US to becoming accused of supporting groups that attack the international troops in Afghanistan.

Pakistan was closely allied to the US during the Cold War and President George W. Bush's war on terror. The regime in Islamabad contributed to the fall of the Taliban regime in Afghanistan in 2001 and has cooperated with the US in the hunt for al-Qaeda members. The American economic and military aid to Pakistan has therefore been massive.

But Pakistan's military and intelligence has, due to reasons of security policy, played a double game behind the back of its benefactor. Islamabad has separated between 'good' and 'evil' Taliban. Military operations are conducted against the Pakistani Taliban, while the Afghan Taliban groups (the Quetta-shura and the Haqqani network) are allowed to operate bases on the Pakistani side of the border.

Pakistan's military perceives TTP as a threat to its internal stability, but views the Afghan Taliban as a useful tool in the geopolitical game – above all to impede the influence of India in Afghanistan. Islamabad also avoids cracking down on the Afghan Taliban bases in Pakistan so that it does not create yet another enemy within and thereby aggravate internal security threats.

Pakistan's tolerant attitude vis-à-vis the Afghan Taliban has caused Washington to lose patience. Obama's so-called Af-Pak policy has implied an escalation of the secret CIA-directed war in Pakistan. Large-scale attacks with drones began during Bush's last years in power, but these have subsequently escalated. Since Obama became commander-in-chief, more than 200 drone attacks have been carried out against targets in Pakistan, which has resulted in more than 2,000 deaths. Drones have proved to be effective instruments for assassinating leaders of terrorist groups, but the attacks have also resulted in a large number of civilian deaths.

Anti-Americanism is thriving in Pakistan, partly because of the detested drone strikes. The majority of the population perceives the US as the primary cause of the deteriorating security situation in the country. In 2011, the bilateral relation deteriorated due to a number of incidents. Raymond Davis, a CIA-contracted American, killed two Pakistani men on a street in Lahore. Osama bin Laden hid away and was killed in Abbottabad. US military leaders have accused the Pakistani intelligence agency (ISI) of terrorist attacks in Afghanistan. At the end of 2011, a NATO air strike killed 24 Pakistani soldiers, which made Pakistan close down the supply route for military material to Afghanistan, demand that the US vacated



an airbase, and then refuse to participate at a high-level summit in Bonn on the future of Afghanistan. Relations between the US and Pakistan have been shaken to their foundations.

### **REGIONAL SECURITY – AFGHANISTAN AND INDIA**

Pakistan's domestic development as well as its relations with the US are significant for stability in Afghanistan and the conflict between India and Pakistan. Thus, Pakistan is a key to the security in South and Central Asia.

The relations between Pakistan and its neighbours India and Afghanistan are, due to historical reasons, very tense. The border between Afghanistan and Pakistan, the Durand Line, is porous and has never been recognised by Kabul. Afghanistan has at times supported Pashtun nationalists in Pakistan and has good relations with Pakistan's historical rival, India. Pakistan has, on the other hand, in the name of national security, supported militant extremist groups in Afghanistan, including the Taliban. The ISI assisted the Taliban to conquer Kabul in 1996, helped them to regroup after 2001 and stage a successful comeback in Afghanistan.

Pakistan's close relations with the Taliban do not contribute to good neighbourliness to either Afghanistan or India. Continued tensions between the US and Pakistan will damage the relations between Kabul and Islamabad and make a peace agreement in Afghanistan more difficult to achieve.

Pakistan's relations with India is even worse. Along the border between the countries, four major wars have been fought. Pakistan and India have been involved in several minor clashes and conflicts through proxies. Islamabad has supported the Afghan Taliban as well as militant groups in Kashmir, while India has provided assistance to other Afghan warlords and is accused of training and arming Baluchi rebels.

Following the terrorist attack on the Indian parliament in December 2001, South Asia was on the brink of yet another war between the two nuclear powers. The attacks in Mumbai, in 2008, perpetrated by the Pakistani-based group Lashkar-e-Taiba, likewise heightened the tensions. The threat that terrorist groups such as Lashkar-e-Taiba execute yet another terrorist attack in India is more probable if Pakistan is unstable. This can imply the suspension of talks between the countries and an escalation of the conflict.

## **GLOBAL SECURITY – NUCLEAR PROLIFERATION AND TERRORISM**

The stability of Pakistan and its relations with the US are of significance not only for South and Central Asia, but also for other regions. Pakistan has a large and growing arsenal of nuclear weapons and has been fertile soil of recruits for domestic as well as global terrorist organisations.

The nightmare vision of militant extremists getting hold of nuclear weapons has increasingly been deemed a possible scenario. Osama bin Laden could be kept hidden close to the military centre of power and Pakistan has been fighting a civil war against a Taliban movement for more than four years. It is also disquieting that TTP has managed to stage attacks both on the army headquarters in Islamabad and the naval base, Mehran, in Karachi.

The deliberate proliferation of nuclear material and knowledge from Pakistan to state and non-state actors has also been a threat. In the early 2000s, it was revealed that the father of Pakistan's atomic bomb, A. Q. Khan, was linked to a network that spread nuclear material and knowledge to Iran, Libya and North Korea. The illegal trade on the black market has been stopped and, reportedly, the security of the nuclear weapons has been improved considerably. But a weak state, like Pakistan, that faces numerous internal and external problems is hardly a safe place to keep over 100 nuclear warheads.

Over the past decade, Pakistan has been the epicentre of terrorist organisations with global reach. Many terrorist attacks in the region, as well as in the West, have been planned in the mountainous tribal areas of Federally Administrated Tribal Areas (FATA) in Pakistan. Through Obama's drone attacks, leaders of al-Qaeda, TTP and other militant organisations have been assassinated and the threat of al-Qaeda as an organisation has been reduced. The question is what the long-term effects of Obama's warfare will be. Basic underlying factors of terrorism still remain: the religious schools that instil jihadist ideology, personal motives, many militant movements and the state's limited control in the socially and economically neglected FATA. Moreover, India-focused terrorist groups are patronised by the ISI, since they are deemed valuable assets in the conflict with India.

## **GEOPOLITICS – THE US–CHINA–PAKISTAN TRIANGLE**

Since the 1960s, Pakistan has pursued a delicate balancing act – being a close US ally and, at the same time, also keeping very good relations with China. Until now, relations with the US have, due to economic, strategic and military reasons, been one important

focus. But the American financial, diplomatic and military aid has fluctuated along with current world affairs and changed political realities in the US. On the contrary, China is regarded as Pakistan's all-weather friend. In the context of conflicts with India, the common rival, Pakistan and China have developed closely on economic and military matters.

To balance China's growing regional and global power, the US has, over the past decade, strengthened its ties to India, mainly through agreements on military and nuclear cooperation (despite the fact that India has not signed the Non-Proliferation Treaty). This has caused great annoyance in China and Pakistan, who responded by deepening their cooperation. Beijing promises, e.g., to contribute by building two nuclear power plants in Pakistan.

China has considerable economic and strategic interests in Pakistan – its investments and trade are constantly increasing. Through the construction of roads and a deepwater port in Gwadar, China endeavours to establish a transport route, via Pakistan, to the economic and geostrategic important Persian Gulf.

While Pakistan's relations with the US are deteriorating, the relations with the presumptive superpower China are gradually strengthened. If these trends continue, it could cause Pakistan to break the alliance with the US and instead turn wholeheartedly eastward, to what Prime Minister Yousuf Reza Gilani describes as Pakistan's 'enduring romance' with China. Such a significant geopolitical shift is hindered today by Pakistan's need for economic aid from Washington, the US's and China's common interest of a stable Pakistan and China's inclination to accept a status quo. A Pakistan allied to China and with cold relations with the US would, however, be a sign that the economic shift towards the East also has political consequences. It is therefore important to keep an eye on how Pakistan's relations with China and the US may change.

#### **PAKISTAN AS A THREAT OR AN OPPORTUNITY**

Pakistan can be perceived as a threat or an opportunity. A destabilised Pakistan which turns its back on the West constitutes a threat to regional and global security. A stable Pakistan with good bilateral relations with the US and its neighbours is key to a secure South and Central Asia. It would also reduce the risk of nuclear proliferation and terrorist attacks. What will happen in Pakistan during 2012 and in the future will therefore be of importance both for security in South Asia, but also in Sweden and the EU.

Sweden, the EU and the international community have interests in and roles to play in turning around the negative developments in Pakistan. Through the support of the peace processes in Pakistan and improved bilateral relations, not least with regard to India, the security in the region could improve. The international community then needs to understand Pakistan's legitimate security concerns, actively work to solve the Kashmir and water conflicts between India and Pakistan, as well as promote the peace agreement in Afghanistan. Regional and local peace agreements ought to be complemented by initiatives to combat poverty and social underdevelopment, to improve internal security and strengthen the economy, as well as to support democratic development and reinforce civilian rule.

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Figure 7. The border between India and China (source FOI/Natural Earth 2012).

# China and India – Great Powers on a Collision Course

Jerker Hellström and Kaan Korkmaz

*Half a century has passed since the Chinese army marched into Indian-controlled territory in 1962. Nevertheless, the experiences from the border war continue to shape India's suspicion towards China's intentions. Although the two rising Asian powers are making attempts to repair their bilateral relations, this relationship is increasingly characterised by strategic rivalry, and is, as a result of history, both fragile and volatile. It is clear that these relations are important and that they have the potential to deteriorate further before China and India are able to improve their ties.*

China and India are expanding their regional and global footprint and, as a result, the two neighbours are increasingly attracting international attention. The discourse tends to focus on their abilities to maintain rapid economic growth and the risk that their growing political clout may constitute a challenge for the rest of the world. Furthermore, to what extent China and India will be able to cooperate and assert their common interests has become a key area of discussion.

The official stance in both countries is that their growing bilateral trade reflects a general improvement in their relations. However, most factors point to the fact that their ties are developing in a negative direction. The deterioration of the relations between China and India is caused by changing bilateral strategic dynamics as well as the fact that both countries remain highly suspicious of each other's moves to engage with other states in the region. The relations between China and India are already characterised by a number of acute and infected issues which both countries continuously have to address, albeit often with limited success.

One such issue is the dispute over the 4,000 km-long border, ranging from Pakistan in the north-west and moving alongside Tibet down to Myanmar in the south-east. China, which shares land borders with 14 countries, has managed to settle all of its land border disputes except the one with India. As recently as in 1962, the two countries were engaged in a border war which ended in what India, to this day, still regards as a humiliating defeat.

Although 50 years have now passed since the Chinese army marched into Indian-controlled territory, the experiences of the war continue to shape India's suspicion towards China. Concerns that the country will yet again become the target of Chinese aggression are, however, dismissed by officials and analysts in China. Their message is that Beijing is not seeking to challenge New Delhi and that a peaceful development of their relations is in the interest of both countries. What complicates matters is that there is also mistrust in China towards India, which is partly based on the presence of the Tibetan government-in-exile in the Indian city of Dharamsala, just west of Tibet. India's tacit support for the political activities of the Tibetan exiles is perceived in China as a threat to the country's so-called core national interests. These interests, which are characterised by their non-negotiable nature, involve Tibet and Xinjiang, i.e. regions where Beijing's sovereignty is being challenged, and Taiwan, which Beijing asserts should be incorporated into China. Despite India's official recognition of China's sovereignty over Tibet in 2003, Beijing remains suspicious of its neighbour's intentions.

#### **HISTORICAL MISTRUST AND MILITARY BUILD-UP**

The strategic dynamic between China and India is highly affected by their mutual mistrust, which, e.g., effectively prevents a closer relationship between their armed forces. During the summer of 2010, New Delhi severed its military contacts with Beijing in response to China's refusal to issue a visa to an Indian military officer from the state of Jammu and Kashmir. While China did not offer any explanation, the decision was interpreted in India as a reflection of Chinese opposition to Indian sovereignty over the state. Bilateral military exchanges were not resumed until a year later. Moreover, as recently as in late 2011, the annual Sino-Indian border talks were cancelled. The meeting would have coincided with a Buddhist conference sponsored by the Indian foreign ministry and which featured the Dalai Lama. Official Indian support of an event involving Tibet's spiritual leader is likely to have provoked the Chinese government into aborting the border talks. The talks were eventually held three months later. Incidents such as these occur frequently and result in heightened tensions, suspicion and deteriorating political relations. In extension, they diminish the possibility to conduct effective and progressive bilateral political dialogue.

India's military modernisation and build-up is taking place in consideration of China's growing military power. New Delhi is concerned about Chinese improvements in infrastructure and military capabilities on the Tibetan side of the border. This has

prompted India to deploy combat aircraft and raise new army divisions in its north-eastern state of Arunachal Pradesh, which Beijing claims as Chinese territory and refers to as 'South Tibet'. India, for its part, has claims on the areas of Kashmir which are under Pakistani and Chinese control. India is particularly concerned with the presence of the Chinese army in Pakistani-controlled Kashmir. During autumn 2011, reports in the Indian media of Chinese engineer troops in these areas of Kashmir prompted Defence Minister A. K. Antony to assert that India was making preparations for the protection of its territorial integrity by military means.

With consideration to the tensions around the border, both China and India have identified a need to prepare for possible armed conflict. The military build-up is a contributing factor to the existing mistrust between the two countries, which is also reinforced by the border incursions taking place on both sides. The incursions can be explained by the fact that India and China differ in their interpretations of the line of demarcation – the *Line of Actual Control*. Nevertheless, such incidents invariably increase the risk of miscalculations and clashes.

China and India have met regularly over the past 30 years in an effort to solve the border dispute, but the progress has been slow at best. One of the few tangible results from these meetings was the agreement in the early 1990s to establish a number of confidence-building measures. These measures were expected to pave the way for a settlement of the border issue, but it later became evident that the agreement in itself was not enough to produce an increased consensus regarding the border. During his visit to New Delhi in 2010, Chinese Premier Wen Jiabao stated that it would take a long time before the two countries could settle the border issue. What Wen's statement reflected was a scaling-down of ambitions due to the apparent lack of progress in the border talks. The objective is no longer to resolve the dispute, but merely to prevent it from escalating into armed conflict.

While crisis management has become increasingly important, the leaders of China and India hope that business interests will contribute to stabilising bilateral relations. Trade between the two neighbours has increased rapidly over the past few years, which could be interpreted as prospects for closer relations. Chinese observers, in particular, argue that Beijing and New Delhi are headed towards economic interdependence, which strengthens the bonds between the two nations. They point to the fact that bilateral trade has recorded a 30-fold increase over 10 years, turning China into India's largest trade partner.



Nevertheless, relations between the two economies will have to develop further before they can be characterised by interdependence. Trade with India still merely amounts to 2 per cent of China's total foreign trade. Moreover, Indian exports to China are overshadowed by Chinese exports to India, a fact which is causing friction in their relations. The Indian trade deficit has led to demands in India for import restrictions on Chinese goods. No other country has initiated more anti-dumping investigations with the World Trade Organization against China than India.

The rapidly increasing bilateral trade has thus become a source of frustration in both China and India. However, if there was an increase in bilateral investments, serious improvements between their relations could be made. Yet, according to available statistics, such investments are on a very low level. For instance, official Chinese numbers show that China has invested several times more in Pakistan than it has in India.

#### **A DOWNWARD SPIRAL**

There are few reasons to believe that Sino-Indian relations will develop in a positive direction in the short term. Looking at this from a broader perspective, the trends seem to indicate that it is on a downward spiral. There is a risk that increased tension between China and India may lead to conflict, both within the existing areas of friction and in new emerging domains where their interests collide. As the economic, political and military power of China and India grows, the two countries also improve their capabilities to assert their increasingly incompatible national interests. The need to project power has, in turn, produced new potential areas of conflict, further complicating their relations.

China's and India's naval activities and interests in the strategically important Indian Ocean and South China Sea constitute one such new domain. Chinese observers describe the Indian Ocean as an increasingly important region for China, whose foreign trade is dependent on the Indian Ocean's shipping lanes. This holds especially true with regard to its growing demand and need for energy resources. Currently, approximately 80 per cent of China's oil imports traverse the Indian Ocean. The ambition to safeguard the security of the maritime trade routes, and thereby ensuring continued economic growth, implies that the Chinese Navy is likely to increase its presence in India's neighbourhood in the coming decades. In order to curb Chinese power projection in its backyard, India is developing its own naval capabilities in the wider Indian Ocean. New Delhi is concerned that it may witness a development similar to what has been seen in the South China Sea,

where, since 2009, China has more vigorously asserted its maritime interests. One factor making the South China Sea particularly interesting for the countries in the region, including India, is the potential existence of extractable oil and gas deposits.

Beijing considers large parts of the South China Sea to be within its exclusive economic zone, and, for that reason, does not allow other countries to conduct maritime activities in the region. Consequently, China regarded it to be a provocation when, in 2011, India's largest national oil company, ONGC, agreed with Vietnam to jointly explore the oil and natural gas deposits just west of the Spratly Islands (see Figure 7). Over the past few years, there have consistently been reports of confrontations and stand-offs between Chinese vessels and ships from other countries with competing claims in the South China Sea, including Vietnam and the Philippines. India has also been confronted by China, e.g. during the summer of 2011, when the Chinese Navy reportedly tried to prevent an Indian naval vessel from sailing through the South China Sea after a port call in Vietnam.

The naval rivalry between China and India is coupled with their ambitions to maintain their own strategic freedom of action. While China does not want to become dependent on other countries for the safety of its maritime trade routes, similarly, India does not wish to see its dominant position in the Indian Ocean being challenged. There is a shift in India's threat perceptions, where China has replaced Pakistan as the primary long-term strategic rival. Meanwhile, China perceives the closer ties between India and the US as problematic. China regards the US as its biggest rival and threat to its national security, and is concerned about increased American military presence in its geographical neighbourhood, which could become a significant challenge to the country's strategic freedom of action. Beijing's concerns for a US-led strategic encirclement of China have been amplified since India and the US, in 2008, agreed to cooperate in the nuclear power sector. Washington's recent announcement to re-engage and increase its strategic presence in Asia further reinforces Beijing's concerns.

Both the strategic development in Sino-Indian relations and the two countries' relations with other states in the region provide clear indications that the security relations between the two neighbours is intensifying. Beijing and New Delhi are now carefully observing each other's military build-up. While Indian security policy analyses tend to focus on the development of China's naval power, Chinese analysts are primarily concerned with India's land-based capabilities, in particular those deployed in the vicinity of their common border. Furthermore, scholars on both sides attach

significant importance to their respective development of nuclear weapons, missile systems and cyberspace capabilities.

During spring 2012, China and India reached an agreement to expand their confidence-building measures to also include issues in the naval domain. However, the extent of these new measures, and what specific areas they are to address, remains to be seen. There are few reasons to believe that they will be any more successful than the mechanisms designed to address the border incursions. Furthermore, there is a lack of regional mechanisms that could contribute to preventing heightened tensions between Beijing and New Delhi. The existing regional security cooperation within the framework of the Association of Southeast Asian Nations (ASEAN) has yet to fully engage China and India. Regional crisis management is further incapacitated by China's unwillingness to discuss its internal and bilateral problems with third parties.

Two important reasons why the tensions between China and India do not escalate, in the short term, are their mutual emphasis on maintaining economic growth and ensuring internal political and social stability. Moreover, the Chinese government is currently highly focused on domestic issues, in part due to the imminent leadership transition, and is therefore less inclined to actively assert its external interests. Once the political transition is complete, this could change and China may revert back to pursuing a more aggressive foreign policy, similar to what it did during 2009 and 2010. The likelihood of Sino-Indian relations taking a turn for the worse is greater than that of a development in which the two countries manage to build confidence and, in extension, resolve their most pressing disputes.

### **INCREASING RELEVANCE FOR EUROPE**

As China and India are becoming more important both regionally and globally, the development of their relations is likely to have an increasing, if not crucial, impact on the rest of Asia. As a result, it will be vital to keep their actions toward each other under close observation. Concerns in India over China's growing economic and military power have attracted some attention in Europe and the US, but the interest in Chinese perceptions and perspectives is still marginal. There is a lack of a more profound understanding in Europe of the problems which characterise the relations between China and India. As China has come to play a key role in international relations, European policymakers will need to establish an understanding for the perceptions which are likely to shape China's domestic and international behaviour. This is particularly true with regard to China's perceptions of its problematic relations with India.

The prevailing perception among Chinese opinion makers and political leaders is that both Europe and the US seek to prevent closer relations between Beijing and New Delhi. As the EU Member States have similar democratic values as India, they are considered to take India's side in the disputes with China. Furthermore, it is believed that Europe has an interest in a more powerful India which can counter China's growing economic and military strength. This view is amplified by the fact that the US and the EU have lately entered into military and defence industrial cooperation with India, while they maintain embargoes on arms transfers to China.

It will also become clearer that the relations between the two neighbours will affect their respective international behaviour in a wide range of areas, which will have implications for European interests. For example, in the short term, it will become important for China and India to reconsider their activities in Afghanistan as the NATO-led ISAF coalition starts its withdrawal in 2014. In the absence of regional security mechanisms, apart from some limited cooperation on counterterrorism within the Shanghai Cooperation Organisation (SCO), there is a need for the countries in the region to prepare for ISAF's departure from the country. It remains, however, highly difficult for China and India to cooperate on security matters, and there is a risk that their engagement in Afghanistan will feature more rivalry than cooperation.

In the long term, the development of relations between China and India will become particularly relevant for the EU in regard to the issue of stable trade flows, not least due to the growing naval presence of the two navies in the Indian Ocean and the South China Sea. Increased naval tensions between the two countries have the risk of destabilising maritime security and regional trade flows. As a consequence, the EU's economic and trade interests in Asia would be negatively affected.

China and India do in fact have a certain capacity to cooperate in areas where they have shared national interests, such as on climate issues. The two countries have managed to stop initiatives from the EU within the framework of international climate negotiations, thereby promoting their economic growth interests. It would be desirable for the EU to see Beijing and New Delhi also successfully cooperating on promoting regional and global peace and security. It is, however, highly unlikely that such cooperation will materialise. With an unresolved border dispute, divergent national interests and mutual mistrust, China and India's relations are likely to be defined by increased tension and rivalry.

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# Targeted Sanctions as Foreign and Security Policy Instruments

Mikael Eriksson

*UN and EU targeted sanctions against individuals, groups and commodities have become an important part of Sweden's foreign and security policy. There is continued discussion of ways to strengthen the sanctions instrument to effectively handle reoccurring political crises and armed conflicts around the world. A fundamental question is whether it is possible to evaluate the effectiveness of the measure and if it is possible to conclude that targeted sanctions make a difference in security and defence policy? These issues are both relevant and central to policy and decision makers working to enforce the policy on a daily basis.*

Mugabe of Zimbabwe, Lukashenko of Belarus, al-Assad of Syria, Taliban entities in Afghanistan and family members of former regime leaders in Tunisia, Egypt and Libya (among many others) all have one thing in common: they have all been put on targeted sanctions lists. The sanctions instrument has in recent years become an increasingly important instrument of Sweden's foreign policy. Not only is the Swedish government nowadays required to implement all sanctions regimes adopted under UN chapter VII Resolutions but also to apply supplementary or autonomous sanctions measures adopted under the EU's Common Foreign and Security Policy. These sanctions obligations engages Sweden in a number of foreign policy contexts which it would not have encountered if acting alone. The implication is that it has steadily changed Sweden's foreign and security policy practice.

## **WHAT ARE TARGETED SANCTIONS?**

A general political intention of targeted sanctions practice is to bring about a behavioural change of a carefully selected political entity (e.g. individual or an armed group). This goal could be achieved by limiting a listed entity's freedom of action or by reducing its capacity by imposing targeted sanctions against a commodity on which the target is dependent on.

Historically, sanctions have often formed part of a general strategy of economic warfare. Sometimes broader economic sanctions have been used to undermine an opponent's political, military

or economic power in order to primarily protect a state's own sovereignty. At other times, it has been used as a trade weapon against a hostile or belligerent state. In ancient Greek city conflicts, sanctions and economic blockades were applied prior to, or in combination with, military action in order to have the enemy surrender. During the early 19th century, the US government imposed carefully selected sanctions measures against parts of the British fleet, due to the latter's perceived harassment policy towards US merchant ships.

Today, however, protecting state sovereignty is not at the forefront of sanctions policies. Although states are still imposing bilateral sanctions, decisions to impose this tool have increasingly come to be transferred to regional or multilateral organisations. From the post-war broad and comprehensive type of sanctions, the sanctions has nowadays received a novel policy rational, as they have become increasingly both targeted and 'smart'. Today the sanctions policy incorporates a wide range of policy measures, such as travel bans against decision makers, freezing of assets owned by individuals or rebel movements, sectoral sanctions against specific parts of the oil industry or prohibitions in the illegal trade in precious stones and metals. The number of applications has increased over the past two decades.

Whereas, historically, sanctions were adopted against entire states to uphold sovereignty principles, targeted sanctions of today have moved beyond such primary principles. Rather than targeting entire states, targeted sanctions are directed against specific parties whose political actions are contrary to fundamental norms and principles such as peace, security, democracy and human rights. Newly published research regarding patterns of its use finds that UN targeted sanctions mainly have four application areas: in intrastate conflicts, in interstate conflicts, against terrorists and terror groups and for so-called 'norm-building purposes' (e.g. such as respect for human rights or democratic principles). Targeted sanctions also appear to work best when they are tailored to specific contexts, including to dry out military morale (as was the case during the civil war in Liberia), pressuring parties to enter into negotiations (Sudan), to prevent the export of sensitive technology that can be used for military purposes (Iran), limiting the spread of weapons and undermine terrorism (al-Qaeda) and to stigmatise parties for not respecting democracy and human rights' principles (Burma/ Myanmar, soon to be lifted).

A particular strength with the targeted sanctions instrument is that it is based on a non-violent method. As such, it also enjoys much credibility. Hence, targeted sanctions also have a clear ethical

element to it. Above all, the logic is, ultimately, to avoid causing hardship to those not directly responsible for an unwanted policy. Instead, by the adoption of targeted sanctions, the intention of the sender is to enforce maximum pressure against carefully selected individuals and commodities. In this way, the sanctions sending body may avoid causing negative consequences to entire populations (see, for instance, the debate on the negative consequences following the comprehensive UN sanctions against Iraq in the 1990s).

Although there are several strengths with targeted sanctions, one contemporary weakness with the instrument has, so far, been how to ensure that relevant legal safeguards are in place for entities listed for sanctions. After all, being listed can lead to severe political, economic and social hardship, a problem that becomes particularly problematic if the listed person is being designated without proper reason (which in this case evokes principles of due process and due diligence).

Following problems with sanctions lists and the procedures surrounding them, actors such as the EU and the UN have encountered severe legal problems. Listed entities have been able to bring designated authorities to court on grounds that suggest that listing decisions have often had political rather than legal grounds, thereby ignoring certain human rights standards. Court processes have, on several occasions, favoured listed entities' claims, instead of the designating body which have contributed to a situation where the policy tool has suffered significant losses of legitimacy. After all sanctions is meant to uphold certain legal principles. At present, there are intense efforts at both the UN as well as the EU to craft a more legally consistent and reliable decision-making procedure around the sanctions policy instrument – procedures that seek to strengthen the legal ground both for senders and targets. The challenges of listing and de-listing practices in the EU and UN realms have had considerable implications for Sweden's foreign affairs.

To complicate matters, targeted sanctions are also about commodities. Certain products within a sanctions regime against a particular party could either be prohibited to import or export. Not only does this sometimes lead to implementation problems (domestically), but also to moral concerns. For example, when is it justified to deny a certain actor a particular commodity in the name of achieving a certain behavioural change, bearing in mind the fact that the actor might be facing considerable unintended negative consequences?



## **TRENDS AND PATTERNS**

The use of targeted sanctions has expanded in recent years. Not only have the number of leaders, groups, individuals and commodities being placed on sanctions lists increased, but also the kind of actors and policy being targeted. For example, on the international arena the UN Security Council is continuously expanding its use of targeted sanctions to respond to threats against international peace and security.

Besides an increasing number of entities being targeted with sanctions, there are also an increasing number of actors imposing sanctions. For example on a regional level the African Union (AU) and the Arab League have been applying targeted sanctions and put sanctions implementation systems in place.

In recent years, the UN and the EU have been actively working to find new ways to meet rapid threats to regional and international peace and security. A number of innovative steps have been taken to expand the scope of how their instruments can be used to freeze assets of listed entities or prevent trade in luxury goods or goods that could be used for torture etc. By making the sanctions toolkit tougher, more flexible and adaptive to circumstances, this also makes it more forceful and rational. The UN Security Council has recently begun to impose targeted sanctions against parties and commodities related to conflict minerals. As a result, commercial actors in the Democratic Republic of Congo (DRC) must nowadays refrain from trading with minerals such as Cassiterite (tin stone), Coltan (or Kolumbit-tantalite, important for making electronic devices), Wolframit (which contains iron, manganese and tungsten) and gold. Trading in these items is prohibited as they may risk contributing to the financing of illegal armed groups' activities.

The UN has also started to consider targeted sanctions against perpetrators involved in the recruitment of child soldiers, or those who forcefully violate the rights of children, in armed conflicts. As such, the UN Security Council has suggested that targeted sanctions should be adopted against those that do not live up to the United Nations Children Convention. Targeted sanctions have already been applied in the DRC, where various actors were judged to ignore or violate the convention.

In the latest policies in a series of newly developed areas in which targeted sanctions have been applied, we find those measures applied against individuals engaged in organising mass rape. For example, in the wake of a UN resolution in which the Security Council discussed the criteria for who should be blacklisted for sexual violence, it listed sanctions against an individual in the DRC

because he was believed to have organised mass rape in armed conflict (note also in this context that all UN-led efforts currently have the task of reporting violations of the rights of children and the prevalence of sexual violence in conflict to the sanctions committees).

Besides the pioneering steps already taken, there are also several other areas in which targeted sanctions can move. Experts in the sanctions policy community have, for instance, proposed that bodies applying sanctions could adopt targeted sanctions in situations of cyber crime, piracy and against crime syndicates. Moreover, it has been suggested that targeted sanctions can be applied in situations where there are clear violations of international environmental laws (e.g. against individuals, industries or government representatives that are responsible for dumping hazardous waste in environmentally sensitive areas, resulting in negative health and environmental consequences or against industries violating international regulations for emissions).

In addition to the EU's and the UN's expanded scope and practice of targeted sanctions, another interesting development is under way. Regional security actors have taken an interest in the sanctions instrument. The AU has nowadays adopted well-designed structures and criteria's for imposing targeted sanctions (although the modalities of implementation are not yet finished). Some of these sanctions structures are closely aligned to UN and EU sanctions practices and principles, others are more unique to the AU's own specific approach to conflict resolution. Another actor which has recently stepped forward in the sanctions realm, in conflict situations like the civil wars of Libya and Syria, is the Arab League.

### **ARE SANCTIONS EFFECTIVE?**

A challenge to the sanctions instrument is whether it can be considered an effective measure to put pressure on and engage listed entities. Put differently, is it at all possible to measure degrees of sanctions efficacy? This question is not easy to answer from a scientific point of view.

A fundamental idea existing in previous research on sanctions suggested that the greater degree of economic pain a transmitting sanction sending body was able to achieve, the more political gain it was likely to achieve in making the target government changing its behaviour. However, later sanction research has come to view this logic as the *naïve principle*. By carefully looking into the dynamics of sanctions regimes during the Cold War, when comprehensive sanctions were implemented, scholars were able to

demonstrate that economic isolation often had the implication to strengthen a regime instead of ousting it, as the population of the country had a tendency to increase the support to their regime. This was partly explained by the fact that the regime often controlled media and other propaganda instruments. This control allows the sanctioned state to be able to portray the sanctions enforcing body as having malicious intentions. Through the shift in practice from comprehensive to targeted sanctions, this rally around the flag have effectively been reduced. Today, it is difficult for a regime to make the case that the sanctions imposing body is punishing an entire state (including its population), as the sender is very clear that it seeks to hold particular entities responsible for political decisions.

Despite the fact that sanctions are getting more precise and more rational, it is still very difficult to assess sanctions effectiveness. One problem is that assessments of sanctions are generally too static and that the definition of what a sanctions policy covers is often too narrowly defined. The fact is that sanctions may be defined differently by decision makers in various contexts, in addition to the fact that the policy may include different types of measures and have different goals have not been considered sufficiently in cross-case comparisons. This fact contributes to the uncertainty of our understanding of sanctions utility. Moreover, in sanctions evaluations, there are also the general problems with how to achieve reliability (materials, data and existing knowledge of sanctions); how to think of causality (the understanding and assumption that a decision is expected to achieve certain goals); and how to think of the constitution of a sanctions 'success'. Furthermore, an assumption of the existence of a causal link between decisions and implementation also exists, i.e. a logic that suggests that political pressure would automatically be expected to lead to a change in behaviour. In social science, this is rarely clear.

Besides the many problems of evaluating the sanctions tool per se, there is also a clear pattern in published research to evaluate sanctions as an isolated policy instrument. Yet, sanctions are seldom applied in isolation from other measures and must therefore be seen as complementary to other strategies and instruments. Any effort that seeks to make a judgment of sanctions efficacy needs, therefore, to take other ongoing measures into account. This broader take on sanctions is also likely to make the evaluation very complex. Finally, targeted sanctions may also be shaped by a number of background factors. For example, various stakeholders in the decision-making chain may simply perceive targeted sanctions in a very different way. Whereas some actors may perceive sanctions as symbolic, others may perceive sanctions as an instrument meant to achieve a direct

impact. Different actors may therefore be inclined to implement it more or less forcefully.

As sanctions have come to shift towards targeted sanctions, the methodology for evaluating this instrument needs to be amended. Previously, it was considered sufficient to evaluate a sanctions 'case' or a sanctions 'regime'. However, as targeted sanctions nowadays deal with individuals, an evaluation of sanctions must also be able to assess individual impact, i.e. how well it is able to inflict pressure. Also, an evaluation of sanctions needs to consider how a listed entity perceives sanctions, and how he or she responds to it. After all, the idea of blacklisting is to have an impact on attitudes and political behaviour.

In light of the increasing use of targeted sanctions by Sweden, the EU and the UN, a well-developed method and institutional arrangements are prerequisites to get intended results. Today, a well-crafted method for sanctions evaluation shines with absence. Neither the EU nor the UN has developed an evaluation framework. This is rather strange given that it is one of the strongest policy elements of the UN Charter. Unless careful evaluations are made prior to and after a sanctions policy regime is put in place, there is a great risk that the entire instrument's legitimacy could be called into question, and also the sending body of that instrument. This is a challenge that must be taken as seriously as the design of a peacekeeping force.

Sweden has, for a long time, gained extensive experience and knowledge about the use of the targeted sanctions instrument. These insights could well come into use when thinking of new ways to meet threats to international peace and security. Is Sweden ready to invest in continued thinking on these issues?

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# What Swedish Support to International Crises Management can Learn from Cholera Outbreak in Haiti

Birgitta Liljedahl, Louise Simonsson and Annica Waleij

*Troops deployed by the UN to Haiti are accused of discharging untreated wastewater from a camp, thereby causing one of the most serious cholera outbreaks in modern time. What does this mean for Swedish international crisis management? What risks are associated with our camps? What is a camp, beyond a logistic solution to provide shelter, hygiene and food for deployed personnel, refugees or internally displaced persons?*

The past few decades have seen a significant increase in peace support operations. These operations are often deployed to regions where the environment is under severe stress. If the operations leave behind a positive or negative environmental footprint depends on several factors. In this context, we know that camps, that is, temporary or semi-temporary compounds aiming to support deployed personnel or refugees/internally displaced persons, are a key issue.

Since the early 1970s, a gradual expansion of what encompasses security has occurred, an understanding that also includes environmental issues. Human security, together with environmental security, is consequently more in focus in peace operations and crisis management. The implications for Sweden, as well as the international community, include a higher demand for sustainable operations in general and sustainable camp solutions in particular. Aligning such provisions with the wider mission imperatives will, in the longer term, provide a means for solving the task at hand.

The camp does not exist in isolation but should be put into a larger context: as a means to deliver something to the mission mandate (e.g. protection of civilians) or the exit strategy of the mission itself. A question of paramount importance is how the mission will have an impact on the security of the local population in general as well as the opportunity for sustainable development in the long term.

## **LAX WASTEWATER MANAGEMENT LEADS TO VIOLENT RIOTS IN HAITI**

On 12 January 2010, an earthquake shook Haiti. With a magnitude of 7.0, the earthquake was the most severe in the region for over 200 years. The earthquake caused serious damage to the already vulnerable livelihoods and fragile infrastructure. The UN-led stabilisation mission, the United Nations Stabilization Mission in Haiti (MINUSTAH), was also severely impacted and saw its headquarters in Port-au-Prince torn to pieces. The international community mobilised to provide aid and assistance to Haiti, and during the months following the earthquake a large number of aid organisations as well as military contingents were present in the country.

The massive aid effort generated large amounts of solid and liquid (sanitary) waste in a region that already, prior to the quake, virtually lacked any capacity for waste management. In October 2010, an outbreak of cholera emerged with far-reaching consequences no one had predicted. The outbreak was one of the largest cholera outbreaks to affect a single nation in modern times, with over a half million reported cases and 7,000 casualties. Cholera is endemic in many regions around the world, but this is not the case in Haiti. Hence, the suspicion that the cholera infection had been introduced by the international presence arose. Discharge of un-treated wastewater, from a Nepalese contingent in MINUSTAH, to a tributary to Arbonite, one of the most important rivers in Haiti, was suspected to be the source.

The reason behind this suspicion was, first, that the outbreak was caused by a South East Asian cholera serotype and, second, that the management of sanitary waste in the camp in question at the time of the outbreak was below acceptable sanitary standards. Contamination of fresh water with untreated wastewater is a common cause for contagious infectious disease around the world, including cholera. The suspicion that the outbreak may have been caused by the UN peacekeeping force led to violent outbreaks in several cities – some with deadly outcomes. As a consequence, the local opinion of the UN presence deteriorated and a lot of negative media attention occurred.

## **EXPECTATIONS FOR SWEDISH MISSIONS INCREASES**

The above example is by no means unique; this scenario may very well have taken place in South Sudan, Afghanistan, the Democratic Republic of Congo or any other crises or conflict-ridden regions around the world where the UN, EU, NATO or civilian aid organisations or authorities operate. Dried-up wells,

land polluted by oil spills or damaged cultural heritage sites have recently led to negative media attention, as well as legal claims for alleged damage caused by deployed civilian and military organisations with demands for economic compensation. In other words, the need for a well-thought-out exit strategy has been accentuated, and that also includes the environmental dimension.

In 2009, an environmental policy for UN field missions became effective. The policy directs the environmental considerations that should be taken into account in order to minimise negative direct or indirect environmental impact in the receiving nation. According to the policy, it is, for instance, not acceptable to discharge untreated wastewater to any water body. However, at the time of the cholera outbreak, the policy was not effectively implemented in Haiti. The blame for the cholera outbreak cannot be placed only on MINUSTAH. As a matter of fact, the insufficient environmental considerations were, and still are, a common circumstance among deploying organisations to Haiti. What led to the magnitude of the cholera outbreak was a result of accumulated shortcomings. It has also been recognised that even if a deploying organisation has an environmental policy, there is often a large gap between the general strategic level and practical implementation at the tactical level. Environmental considerations are often seen as a burden on already strained resources without any clear benefits.

The cholera outbreak in Haiti has, however, led to a review within the UN system regarding the possibility to demand Environmental Impact Assessments (EIAs) from deploying organisations. The Swedish Civil Contingencies Agency has, for instance, started a pilot project with the aim of strengthening environmental considerations throughout the life cycle of its Haiti operations. The Swedish Armed Forces are also developing routines for reduced negative environmental impact from their operations. In fact, there are many Swedish ongoing initiatives in the field which lays a foundation for a prominent position.

Although the significance of environmental issues is gaining ground in deploying organisations, a common view often lingers. This can be explained by the fact that the environmental situation in the area of operation is often perceived to be so dire anyway and the environmental impact of the deployed organisations really does not add significantly to the situation, and thus can be disregarded. There is generally a low awareness of the fact that environmental legislation is evolving, even in post-conflict and crises-ridden nations. For instance, today Afghanistan has a fairly advanced environmental act, developed with the support from



the international community. The insight that environmental considerations will be critical for a positive development in environmentally stressed regions is growing. To put it bluntly, the international community is opportunistic by leveraging the fact that the institutional capacity to monitor its legal environmental provisions in most receiving nations is low.

Legal requirements are hence increasing, in receiving nations as well as for the international community as a whole. However, implementation plans and oversight systems of results are largely missing. A key issue in this context will be how we plan, construct, operate and phase out camps.

### **THE CAMP – HOW CAN THE NEGATIVE IMPACT BE MINIMISED WITHOUT COMPROMISING SECURITY?**

A camp has as its primary task to provide safe living and/or working conditions for its residents. For deployed personnel, living standards resembling conditions that are similar to those found at their home stations are also a requirement. In many cases, a camp can be seen as a miniature society, with the same basic infrastructural requirements, such as roads, electricity, potable water and waste management capabilities. At the same time, the camp differs from a peacetime Western society in the sense that current or expected level of threats often dimensions the need for force protection or surveillance of the threats from hostile fire. In many cases, a requirement is also that the camp infrastructure needs to be able to be evacuated at short notice. This also influences the camp design.

In military terms, a camp is often referred to as a 'system of systems'. That is, there are interrelations and interdependencies between the individual camp components. What this means is that the camp consists of a system built of small internally dependent system components that needs to be dealt with in a holistic manner.

The camp is, for instance, a large consumer of water and energy and a corresponding large producer of various types of liquid or solid waste. This constitutes a dependency on the surroundings that does not come without security implications. US experiences from Iraq have, for instance, showed that when the local population has its basic infrastructural needs fulfilled (such as electricity, waste management and potable water) it tends to have a more positive view of the operation. This means that the likelihood for insurgency actors to recruit these people decreases. In Iraq, and also increasingly in Afghanistan, supply of water and fuel to remote forward operating

bases has become a common cause for American casualties, as the supply convoys constitute easy insurgent targets.

Accumulations of large quantities of waste has also proven to develop into health threats as well as security threats, when not managed properly. In addition, there may also be environmental requirements from the receiving nation. One such example is the NATO-led intervention in Afghanistan, ISAF, which has applied for, and been granted, a certificate from the Afghan Environmental Protection Agency for its wastewater treatment plant in Kabul.

A camp also impacts the local society in several ways, regarding its infrastructure, security, socio-economy and with respect to natural resource consumption. The camp can be planned, operated and liquidated/handed over in ways that either strain the local environment or contribute to a variety of possible positive development opportunities. Experience also shows that the opportunity to win the hearts and minds of the local population can be secured, or lost, by acting or not acting proactively.

*Negative* impacts from camps can be seen when a short-term positive solution has not been weighted against the long-term consequences. Two such examples are roads constructed in a way that increases an unsustainable resource extraction and/or causes erosion, or when an increased water extraction for a camp exceeds the surrounding groundwater capacity. Security procedures in insecure environments have also occasionally led to the local production and procurement of bricks. In Darfur, demand for perimeter protection increased demands for bricks that led to water mining and deforestation, and in Afghanistan, bricks procured by NATO were manufactured by child labourers.

The cholera outbreak in Haiti can be partly explained by a common practice of several deploying organisations, namely to manage the produced waste fairly well, from a health standpoint, within the camp perimeter. However, once the waste leaves the camp boundaries, by means of local contractors, there is no monitoring or supervision of the final part of the waste management chain. Commonly, the waste is disposed of in an unhealthy, environmentally unacceptable manner, namely by dumping the waste in the nearest watercourse. This practice results in unhealthy exposure risks for the local population.

Other negative impacts that have been observed are when the international presence results in local inflation and creates markets for prostitution, where there previously were none. There are also examples where trade in endangered animal species has emerged.

A brain drain of local capacities is also fairly common, since it is more profitable for a local teacher to work as a camp caretaker or interpreter in a camp than to teach children in a local school.

Also, camps for refugees or internally displaced persons struggle with security-related challenges. A classical undesired and complicated downwards spiral around such camps is related to living conditions. Refugee camps, supported with international aid, have fairly good access to health care, food, schools and sanitary facilities, whereas camps for internally displaced persons have slightly worse conditions and the local population around the camps are even worse off.

*Positive impacts* can be seen when security conditions increase for residents who live adjacent to the camp. Migration from surrounding areas to the vicinity of the camps often occurs since the camp may offer both employment opportunities and protection from atrocities committed by local guerrillas or militia. A camp may also contribute to infrastructure development in a region by, for instance, providing better roads, given that they are planned and constructed in a good manner.

In South Sudan, the UN peacekeeping mission United Nations Mission in the Republic of South Sudan (UNMISS) is constructing a new camp, where environmental and socio-economically sustainable conceptual solutions are in focus, especially regarding resource consumption. Sweden has contributed to this effort by providing environmental expertise as well as developing concepts for energy conservation and alternative energy sources, water conserving technologies and better waste management practices. Emphasis has also been placed on environmental awareness and training.

The planning and construction of the new camp is also aligned with the local disarmament, demobilisation and reintegration (DDR) process. Former child soldiers are trained to gain building skills and work with the construction of the locally adapted buildings. After approximately nine months in the camp project, the participants are transferred to the civilian building market that supports the expanding capital Juba.

## **THE WAY AHEAD**

Sweden currently operates in crises and conflict areas around the world, where improved health and environmental conditions are underlying, vital prerequisites for solving the problem that was the reason for going there in the first place. Although positive

examples of environmental stewardship in operations and camp constructions/operations can be noted, much work is still to be done before environmental considerations sufficiently counteract the negative impact the camps result in outside its perimeters.

The Swedish Armed Forces intend to leave Afghanistan in 2014, and a substantial and complex effort of downsizing and ending the Swedish operation will begin. This effort can be significantly decreased in future operations if a sustainable and holistic mindset is mainstreamed in the operations from the very start of the planning phase. This, however, demands that the operation, in general, and its camps, in particular, are approached from a life cycle perspective. Upfront expenses in the planning and execution phase of a mission may repay its initial investment cost and, in the end, save money as well as contribute to a peaceful and sustainable development in the receiving nation. Calculations performed by the UN show that the return of capital investment from proposed sustainable camp constructions varies between one to three years, after which break-even occurs and money is saved.

Another important aspect is that, if a paradigm shift towards sustainable operations does not in fact occur, there is a risk of legal claims against the Swedish government. That is what happened to the Canadian Forces peace operation in Bosnia and Herzegovina, where the Canadian government faced a claim of several million dollars for alleged oil pollution caused by one of the Canadian camps in the mission. In the aftermath of the Haiti cholera outbreak, the UN also faces a lawsuit from a group of Haitians who claim that the UN did not manage wastewater according to its own policy, thereby causing the outbreak.

With increasing legal demands, expectations from the local population on the deployed organisations to demonstrate environmental stewardship also increase. The Swedish capability to successfully solve its task is at risk if environmental considerations are neglected. The largest challenges will, however, not be associated with technological solutions only, but rather how these solutions are holistically aligned and coordinated, not only with the local communities in the region where they operate, but also with other deploying organisations.

## **FURTHER READING**

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