The **Jimmy Reid** Foundation

No Need To Be Afraid

An assessment of possible threats to Scotland's security and how they should be addressed

Rebecca Johnson, Bill Patterson, Paul Rogers and William Walker

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Bill Patterson studied for his PhD at the University of Stirling. He has taught at Edinburgh University, Cranfield University, Strathclyde University, and UWS. Now back at Stirling University, Bill's research is concerned with the manner in which ideas about accountability; democratization and legitimacy are reconstructed by the continuous struggles between social forces within the institutions of global, regional, national and local governance. Bill's PhD (2007) developed an historical materialist approach (Gramsci/Cox) to identify and evaluated the World Trade Organization's reforms in response to its 1999 crisis of legitimacy. He has a contract with Routledge to publish the thesis, published a chapter on this subject in a collective volume with Routledge and written an empirical article on the legitimacy of the WTO for journal publication. Bill's wider research project seeks to identify and evaluate alternatives to austerity/neoliberalism through bringing them into dialogue with other alternative discourses and practices being conducted around the world.

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Introduction

The debate about Scotland's constitutional future has pushed discussion of the security threats facing Scotland to the forefront of Scottish politics. However, there are three fundamental flaws in the discussion which has taken place so far:

- It has been based on no credible assessment of the form of or response to security threats Scotland might face.

- It has failed to consider the most pressing security threats Scotland faces

- It has failed to give any consideration whatsoever to security responses other than military ones

In many regards this is unsurprising – the subject has been treated not as a real issue of national significance but in terms of political sloganeering. The discussion has also been heavily moderated by UK defence interests with next to no neutral assessment of the sorts of emotive claims that have been made. And 'national security' has been vaguely defined and taken to be more or less synonymous with protecting the interests of the state.

It is therefore time that the debate was informed by a neutral, credible and serious assessment of the security threats faced by Scotland. That is the aim of this report. We do not seek to give a single definition of 'security' (with the risk of selectivity that implies) but take it to mean broadly the ability to protect within the territory of a nation the democratically agreed values, rights to free action and acceptable levels of subsistence for the citizens and institutions of the nation individually and collectively.

It has been produced from the assessments made by three leading international experts on security issues, each of whom have been chosen for their independence from the UK military and from commercial defence interests. They have considered five areas of security threat and in each they have considered the nature and scale of the threat (taking a 30-year time horizon), the appropriate response to the threat that we should be discussing and whether or not the threat would increase or decrease if Scotland was independent.

This is the first major assessment made of the full range of security threats faced by contemporary Scotland. It seeks to create a starting point for debate about 'national security' which is informed by clearly-stated factors to which we can respond, and not unnamed fears from which we can only cower.

The broad conclusions are encouraging; Scotland need not be afraid. The only serious and viable threat which is largely outside our control is the global environmental threat (and even in that case there is much Scotland could do). In every other case there are straightforward responses we can pursue which will further reduce the already low level of threat we face. Importantly, the necessary military response to these threats is not large.

It is to be hoped that this report can encourage the beginnings of a much more sensible debate about security in Scotland. It is also to be hoped that this will encourage those who

advocate a primarily military-focused view of security to join us in setting out some simple and comprehensible assessments of the threats they perceive we face. That, finally, would provide the kind of information required for a real debate.

Methodology

A questionnaire was sent to all authors. The final report (not including the introduction and conclusion) is drawn directly from their responses. Where there was any disagreement in views (for example, on the likely implications of independence), a range of opinions has been presented. Not every view will be shared in full by every author.

Summary

Five areas of security threat that Scotland might face were considered. **Territorial threats** include any form of threat to the territorial integrity of Scotland or the democratic sovereignty of the Scottish people. **Terrorism** includes any threat of violence by a non-state agent carried out in Scottish territory. **Cyber attacks** include any information-based attack on the functioning and viability of the democratic state and its direct agencies, but not commercial cybercrime against individual enterprises. **Environmental change and access to resources** includes any factors which might impede the functions of democratic government or the ability of the Scottish population to secure subsistence. **Social disruption** includes any aspect of the breakdown of social cohesion domestically or internationally which might lead to disruption of the operation of democratic government or the security of the population.

In each case the assessment focussed on level of threat, nature of appropriate response to the threat and whether Scotland's constitutional position would be likely to affect the level of the threat. A summary of the broad assessment is as follows:

	Level of threat	Response to threat	Impact of independence
Territorial threats	Extremely low to vanishingly small	Rethinking attitudes to international security, international action on conflict mitigation, removal of nuclear weapons which increase the small threat of attack	Minimal – other than the ability to remove nuclear weapons and to be more active in international peace initiatives

Terrorism	Hard to assess but certainly real, though probably lower than UK as a whole	Policing, vigilance, intelligence-sharing, policies to reduce perceived provocation and to reduce support for groups using violence	Somewhere between 'no difference' and 'likely decreased threat resulting from detachment from UK foreign policy'
Cyber attacks	The threat is growing in all countries; there is no obvious Scotland-specific factor	This is an emerging area: it will require some domestic investment and much international cooperation	There is currently no obvious implication one way or the other
Environmental change and access to resources	Serious and highly likely	Contribution to international action, decarbonization of domestic economy, domestic mitigation investment, action on energy security	Could go either way depending on how much the UK is willing to do and on what an independent Scotland chose to do
Social disruption	The threat is growing in the context of the global economic crisis, not because of Scotland-specific factors	Balancing competitive markets with efficient welfare policies, commitment to combating economic inequalities, strengthening of civil society, political transparency and social inclusion, among others	The threat is unlikely to go away or be amplified by independence. May be reduced if alternative policies are implemented, compared to the current UK ones

It is possible from this to estimate a 'hierarchy of threat' (although this remains subjective):

1. Environmental change and access to resources. Global warming and its consequences, and increased competition for resources such as oil and gas, are existing facts. They are very likely to impact on Scotland's security, including the impact of environmental catastrophes such as flooding. Ensuring continuity of energy supply (energy security) in the context of increased competition for Middle East oil and gas might be a particular issue. It is unlikely that these threats can be mitigated without action.

2. Social disruption. The threat of social disruption resulting from growing inequality has already been seen in 2011's riots in England, in violent clashes across Europe resulting from austerity policies and globally in mass, unmanaged migration. There is a high likelihood of some of these impacts threatening security in Scotland.

3. Terrorism. While the current threat may not be high, sources of terrorism can develop rapidly and so over a 30-year period the possibility of renewed periods of terrorist activity must be taken seriously.

4. Cyber attack. It is not immediately obvious what motive there would be for a concerted cyber attack on a Scottish government but this is such a rapidly-developing area that it would be wise to take future threat seriously.

5. Territorial attack. This is not seen as a likely credible threat to Scotland.

Factors identified as likely to increase the threat to Scottish security (ordered according to appearance in the report):

- Association with UK foreign policy

- Presence of nuclear weapons on Scottish soil

- Membership of military alliances with policies of aggression or retaliation, such as NATO

- Domestic social, economic and religious division

- Failure to collaborate internationally on developing practice in tackling cyber attacks

- Continued dependence on fossil fuels or over-reliance on other scare resources

- Failure to invest in projects to mitigate the impact of environmental change

- Failure of international action on climate change

- Increasing levels of economic inequality domestically

- Failure to mitigate social, economic and political conflict globally

The conclusions on the implications of independence are as follows:

- There is no fundamental reason why Scottish independence in its own right should affect the security threat one way or another.

- The impact of independence on Scotland's security would be related almost entirely to the actions of an independent Scottish state. Distance from UK foreign policy would be likely to decrease the threat and there are a number of areas (such as policing and energy policy) where Scotland would be likely to have more scope for pursuing policies likely to reduce the threat. Removal of nuclear weapons would have a clear security benefit. On balance, independence might be expected to improve security for Scotland.

- However, in areas beyond the action of individual nation states, independence for Scotland would have mixed implications. In policy areas where the UK does not have a strong track record, such as nuclear non-proliferation, an independent Scotland might have a bigger impact. But in areas where the UK might seek to develop a world-leading contribution (such as development of renewable energy technologies) Scotland and the rest of the UK separately might have a smaller impact than UK as a whole. The

picture of how an independent Scotland would contribute to global security is mixed, and would depend on the future actions of an the country or an ongoing UK

The Reid Foundation would therefore draw some overall conclusions:

- Scotland faces no credible security threat to which the primary response is military.

- Seeing 'national security' in terms of military threat is not only seeing Scottish security issues the wrong way round, it is likely to increase the real threats to Scottish security. This is in part because many of the military-focussed responses are likely to increase and not decrease threats, but even more importantlybecause it acts as a dangerous distraction from the real threats to Scottish security.

- Instead the focus should shift to the issues of national resilience to environmental catastrophes, energy and resource security, human security domestically and internationally, and possibly a re-evaluation of policing and intelligence-sharing strategies.

- This is not the only possible analysis of Scotland's security threats but it sets out a mature and informed model for how political debate on security issues should be carried out, with a clear and comprehensive analysis of the issues that can then be properly discussed. Vague intimations of fears the wider public cannot understand will not do; we must 'give our fear a name' so we can decide whether to be afraid at all.

- But above all, Scotland must reject that politics of fear. No one is 'out to get us' and no one is about to invade. No-one on any side of the debate has produced a credible scenario that should make Scots 'afraid in their beds'; we should therefore agree that this is not the point from which debate about security should begin.

Issue One: Territorial threats

Level of threat: extremely low to vanishingly small

Response to threat: Rethinking attitudes to international security, international action on conflict mitigation, removal of nuclear weapons which increase the small threat of attack

Implications of independence: Minimal – other than the ability to remove nuclear weapons and to be more active in international peace initiatives

It is worth stating that history tells us that no country can assume itself to be eternally secure. However, once we accept that very general position and look at a specific country (Scotland) at a specific time (over the 30 years from 2012), we can arrive at more specific conclusions.

Realistically, Scotland does not face any direct territorial threats. The nature of conflict and war in the 21st century has largely moved beyond nation-state and inter-state warfare, and as part of a group of offshore islands, Scotland would be even less likely to be affected by territorial threats than most other countries in the world. Over the thirty-year period the greatest problems will stem from a worldwide circumstance of deep socio-economic divisions, resource conflict and climate disruption. These transcend all other problems.

Only two credible territorial issues are seen as even remotely likely:

- **A NATO/Russia conflict.** The raison d'etre of NATO is that war with a resurgent Russia cannot be discounted. The assumptions for this lack evidence-based analysis. Russia has enough difficulty managing its own land area (with growing incursions from the Chinese), and while it may still use military force if it feels its own territorial integrity is threatened on its European borders (as happened recently with Georgia), Russia is far more likely to wield its economic or political tools than military, for dealing with European neighbours. Russia may conceivably become a renewed military threat under certain conditions, for example if it finds itself in a position of perceived existential threat (nuclear, space or cyber), but that would arise more from rivalry with the US or China than in Europe. Scotland would have little impact on this one way or another, but would not be a primary target for retaliation, though it could suffer collateral damage. As long as Russia and NATO remain wedded to 20th century military attitudes and rivalries they will continue to develop and deploy weapons of increasing sophistication and destructive capability. As long as they produce nuclear weapons, there remain not insignificant risks that panic, miscalculation, inadvertence or military decisions may precipitate nuclear conflict, with or without any other military engagement. If that were to happen, Scotland could be particularly vulnerable because of the nuclear warhead store at RNAD Coulport and the Trident homeport at Faslane.

- **Renewed Northern Ireland conflict or similar paramilitary violence.** Were Northern Ireland to revert to armed conflict and then degenerate into civil war, there are potential paramilitary territorial implications for Scotland. However, these are at the far end of theoretical.

It should be noted that no contributor viewed 'conflict in the Arctic' as a viable threat to Scottish territory.

There is a fundamental need for an overall rethink of approaches to international security in the face of the global socio-economic, resource and climate challenges listed above, with a move towards a sustainable security approach rooted in conflict prevention. There are still many conflicts around the world where hundreds of thousands of civilians are raped and murdered by militaries, militia and armed gangs. These multiple conflicts cost millions of lives and destabilise various countries and regions. Not only is this a tragedy for the people in those countries, with the harm falling disproportionately on women and children, but it also creates security threats outside the affected regions, for example through transborder crime and trafficking in drugs, weapons, people (desperate refugees and low-paid workers including women for exploitation in the sex industry), and so on.

The best way for Scotland to reduce such threats would be through humanitarian outreach and engaging in peace education and conflict mitigation projects. However, opportunities to be really effective in this area are probably limited as long as Scotland is represented and constrained by the Westminster government's decisions on defence and foreign policy, which place undue emphasis on 'punching above the UK's weight' (especially since the Department for International

Development under the Coalition government has been repositioned as a neutered adjunct to UK foreign and control policies).

The threat that Scotland could suffer 'collateral damage' if nuclear weapons were used (deliberately or unintentionally) remains salient, with increased risks as long as the UK continues to deploy nuclear weapons in Scotland. An attack or accident (involving the warheads in storage or transport) would not only risk Coulport and Faslane, but could have catastrophic consequences for Scottish people and the environment. Consequence-management or attempts at emergency response and mitigation would most likely be overwhelmed. The only sensible security approach against such threats is to prevent them. The best way to prevent them is to take UK nuclear weapons off deployment, dismantle and remove them from Scotland, close down the nuclear facilities and halt all further transports. Under the 1998 Scotland Act, defence and foreign policy were reserved to the UK government, so such a policy shift cannot be undertaken by Scotland in the short term unless it can persuade Westminster. However, since the risks disproportionately affect Scotland because of the Faslane and Coulport bases, Scottish politicians and the agencies and unions responsible for emergency response (national and local) can continue to raise these security and environmental concerns with the UK government. They can also push for London to decide not to replace Trident, to step down the nuclear ladder by taking the current Trident system off deployment, and to join in international efforts for a global ban on nuclear weapons.

These worldwide challenges will be faced whether Scotland is independent or not. In theory, if independent, Scotland might more easily be able to play a positive role, and if not it could have a stronger influence in the UK. In practice, the vanishingly small threat of territorial invasion or war would not be affected one way or another by independence.

Independence would increase Scotland's ability to reduce nuclear threats, providing that an incoming Scottish government were prepared to ensure the removal of UK nuclear weapons from Scotland. That would reduce the risks of nuclear accidents or hostile strikes on Scotland by an adversary wishing to neutralise threats from the UK's nuclear arsenal.

An independent Scottish foreign and defence policy would make it much easier also for Scotland to forge the kind of peace-building identity and influence associated with small independent countries like Sweden and Norway.

Issue Two: Terrorism

Level of threat: Hard to assess but certainly real, though probably lower than UK as a whole

Response to threat: Policing, vigilance, intelligence-sharing, policies to reduce perceived provocation and to reduce support for groups using violence

Implications of independence: Somewhere between 'no difference' and 'likely decreased threat resulting from detachment from UK foreign policy'

Identifying future terrorist threats is difficult as causality changes – there is likely to be an on-going Islamist threat and potentially some resurgence of Northern Ireland-related terrorism, or entirely new groups might emerge. For terrorist threats to be carried out, there generally has to be a combination of factors, including cause/grievance/provocation, accessible and high impact targets, opportunity, resources (weapons, bomb-making materials and skills, etc.) and calculation of benefits (which may be political, religious, racist, economic or some warped notion of fame, retribution or justice).

Terrorist attacks tend to increase in times of political or religious conflict. Familiar examples would be 'Irish terrorism' during the 1970s and 1980s and 'Muslim terrorism' after Tony Blair involved the UK in the Iraq and Afghanistan wars. But there are dangers in categorising or demonising certain communities when looking for terrorist threats, as such an approach may blind security forces to the activities of 'home-grown' terrorists, such as Timothy McVeigh in the US (1995) or Anders Breivik in Norway (2011). In addition, some security laws and policies targeted towards deterring certain kinds of potential terrorists may feed into the prejudices of others, and have the unintended consequence of provoking terrorist attacks against vulnerable or 'minority' communities, such as the nail bombs used against areas frequented by gay, Black and Bangladeshi citizens by David Copeland (London, 1999).

The UK's continued military involvement in Afghanistan, and the conduct and atrocities committed during the 'war of choice' in Iraq, have provided 'cause' in the minds of some potential terrorists. Additional provocation may be perceived by potential terrorists each time the news covers human rights violations carried out by British troops or the UK government, which can also add to perceptions of grievance, which may be real or manipulated and amplified by charismatic political or religious leaders. In general UK – particularly London – targets will continue to be more attractive to terrorists than Scotland. However, this doesn't mean the proximity or accessibility of a high impact target in Scotland wouldn't attract terrorists as well, especially if they are based nearby, as demonstrated by the Glasgow airport attack, thought to be connected to opposition to the Iraq war and Scottish involvement in rendition. Scotland may become a target of choice or collateral target in certain circumstances.

Depending on their political objectives and message, some terrorists may seek to produce mass casualties, while others may want to minimise the human casualties while seeking to harm a high profile building or person. Currently, nuclear facilities and transports probably provide the most high profile/high impact targets but, depending on their objectives, some terrorists will avoid nuclear targets because of the unpredictability and indiscriminate consequences of a nuclear attack. Nuclear facilities, whether active (like Faslane, Coulport, Hunterston B, Torness) or in the process of being decommissioned (such as Chapelcross, Dounreay, Hunterston A), have particular vulnerabilities that could be exploited by terrorists prepared to use explosives to create a 'dirty bomb' scenario or release of radioactivity. Such threats, whether implemented or not, could provoke high levels of public fear and anxiety. If carried out, they could necessitate evacuations and long-term clean-up challenges. Paradoxically perhaps, the frequent, unpredictable and visible activities of nonviolent peace protesters around Faslane, Coulport and the nuclear convoy may reduce the risk of actual terrorist attacks against these nuclear targets, even though the nonviolent protesters persistently expose nuclear security weaknesses. Though the risk of nuclear attack may currently be assessed as fairly low, the consequences of a successful terrorist attack could be catastrophic for Scotland.

Depending on levels of accessibility and security, planes, airports, trains, buses, and crowded areas like football terraces could still be considered 'easy targets' by terrorists seeking to cause public insecurity and shock with mass casualties. But terrorists would need to factor in widespread public revulsion, including among sectors of population that they might see themselves as fighting for,

representing or seeking to attract. If the sense of grievance is directly associated with Scottish policies, then political targets (people or places) are possible.

In terms of responding to terrorist threats, everything depends on the specific threat and its severity. To deter or reduce terrorist threats, action can be taken on each of the contributory factors: cause, opportunity, resources and benefits. Intelligence and police action can make a difference with regard to opportunity and resources, by preventing terrorist access to intended targets or guns or bomb-making materials. Political action could significantly reduce the cause/ provocation side of the equation, as well as fostering conditions under which potential terrorists would have to calculate that they would not further their own political or religious objectives, or that the calculated benefits would be outweighed by the risks.

With regard to intelligence, Scotland would need to collaborate with intelligence services and police in various different countries, including the UK.

The political action Scotland could take would be limited by its inextricable links with UK military, defence and foreign policies. Distancing itself from provocative or aggressive military or foreign policies might reduce the attractiveness and benefits associated with an attack on Scotland. However, even if Scottish opinion is obviously lukewarm about particular policies or practices emanating from London, a terrorist might choose to attack Scotland in order to create splits or drive a wedge, just as terrorists attacked trains in Madrid even though Spain was a very junior NATO partner in the US-led wars in Iraq and Afghanistan. Such a calculation would probably not be made unless the terrorists thought that driving a wedge would result in pressure being put on the UK government.

While arguments can be made for increasing the levels of security for public venues and transport, two limits to the effectiveness of imposing security must be understood. First, 100 per cent physical security is not feasible, so there has to be a balance found between reduction of risks, protection of civil liberties, privacy, and effectiveness of resource allocation. Second, a mania for securitisation (heavy-handed levels of restrictions in the name of security by police, military or private companies) can actually increase the real risks, since undermining human rights and civil liberties can play into terrorists' hands and reduce the public and personal commitment to shared values and responsibility for protecting highly valued rights and freedoms.

With regard to nuclear threats, the best response needs to be prevention. Under the current arrangement, Scotland cannot decide to reduce the UK's reliance on nuclear weapons, but the Scottish government has responsibilities for health, transport, safety, environment etc. and so could take steps to reduce its vulnerability to nuclear terrorism by restricting the transport of nuclear warheads by road and in Scottish waters. This would no doubt lead to a major political clash with the London government, but could also feed into the growing scepticism about nuclear weapons among the UK's military and political opinion-formers, and perhaps start a much-needed debate about the humanitarian and environmental costs and risks of the UK's continued nuclear dependency.

As discussed above, terrorism is an unpredictable product of a number of factors. Reducing any or all of these factors will reduce, but cannot eliminate, terrorist threats. It is therefore difficult to make a confident assessment of the implications of Scottish independence. It may make no great difference; on the other hand, there is a strong possibility it would decrease if Scotland were less closely linked to UK foreign policies which are closely associated with at least some terrorist threats.

Issue Three: Cyber attack

Level of threat: The threat is growing in all countries; there is no obvious Scotland-specific factor

Response to threat: This is an emerging area: it will require some domestic investment and much international cooperation

Implications of independence: There is currently no obvious implication one way or the other

The issue of cyber attacks as a national security issue is still developing. This is not an expert area of the contributors to this report. It is a rising problem for all countries, but it is important to draw a distinction between cybercrime directed at individual enterprises, and cyber attacks on the state, its agencies and its functions. As we have seen, even the US Government and the CIA are succeptible to attacks -from lone hackers to foreign state agencies. Responding to cyber attacks cannot be tackled in one country alone; like terrorism it requires both a multinational response and investment at the domestic level. At present there is little clear evidence on whether an independent Scotland would be likely to be a greater or lesser target than the UK. This is, however, a real and growing threat.

Issue Four: Environmental change and access to resources

Level of threat: Serious and highly likely

Response to threat: Contribution to international action, decarbonization of domestic economy, domestic mitigation investment, action on energy security

Implications of independence: Could go either way depending on how much the UK is willing to do and on what an independent Scotland chose to do

Global warming leading to climate chaos poses significant security risks for Scotland, ranging from sea level rises inundating coastal areas, to the risk of changes to the gulf stream, which could greatly increase the length and severity of Scottish winters, with impacts on agriculture, food security, fisheries and potentially also transport and access to some areas of Scotland. Climate chaos is also associated with increasingly severe and unpredictable storm systems, which could pose security risks.

Extreme weather events arising from climate chaos may have particular impacts if combined with the vulnerabilities of nuclear facilities, particularly if they are active (Faslane, Coulport, Hunterston

B, Torness), though amplified levels of risk may be associated with any facilities with nuclear materials on site, even if they are in the process of being decommissioned.

It should also be noted that the impact of food insecurity, climate problems and environmental degradation in some regions could result in migrations of desperate people, which would likely put pressure on security in countries perceived as having more food or resources or a more stable environment and living conditions. Migrations from Africa or Asia would likely have more impact on Southern Europe, so Scotland's location may insulate it from some of the pressures and 'threats'. Nevertheless, as a member of the international community – and presumably of the European Union (if it survives) – Scotland would need to consider its responsibilities to disadvantaged people victimised by environmental degradation or climate change.

There is also the issue of ongoing economic competition for scare resources. The main issue is competition and conflict over oil and gas, particularly in the Persian Gulf where over six per cent of the world's quality oil and 30 per cent of the natural gas is found. There is also some risk of mineral resource shortages including catalytic metals, ferro-alloy constituents and rare earths. The main threat to Scotland is in fuel and energy security (although there may be some specific economic threats from other resource shortages).

Scottish security could also be harmed by the environmental consequences of the use of nuclear weapons even if nuclear detonations did not occur directly in Scotland (or even the UK). Concerns about the 'nuclear winter' scenarios that were so influential in bringing Presidents Gorbachev and Reagan to the negotiating table in the 1980s receded with the end of the Cold War, as people relaxed in the belief that there would not be an all-out US-Soviet nuclear war.

More recently, however, climate scientists have updated studies with data derived from climate change research and calculations based on the use of only a small fraction of today's arsenals in a 'limited' or regional nuclear war. Taking the scenario of war between India and Pakistan, in which just a hundred Hiroshima-sized bombs (small by today's standards and amounting to less than one per cent of the nuclear explosive power available to the nuclear-armed states in 2011) are used on urban areas. Taking into consideration the increases in global population and urbanisation since the 1980s, the studies indicate that the explosions and fires would propel millions of tonnes of soot, smoke and debris into the upper atmosphere, darkening the skies, causing temperatures across the planet to fall by an average of 1.25 ˚, and disrupting rainfall. These effects could persist for over a decade, with devastating consequences for agriculture and the health and life cycles of many species.

Building on this research, further studies conducted by physicians, and scientists food-security experts have addressed the health and humanitarian consequences if nuclear weapons detonations produced the predicted climate and environmental consequences. These have concluded that in addition to the millions that would die from the direct effects of the nuclear detonations on the target cities, over one billion people around the world would be put at risk of starvation and death due to famine and the epidemics and other health and security disasters that breed on the backs of large-scale hunger and malnutrition. According to these studies, the nuclear winter effects and reduced food resources would have health and hunger consequences all over the world, but the worst affected would likely be in regions already on the margins of food insecurity, such as Africa and parts of Asia. As far as the autors are aware, no specific studies have been carried out to assess the environmental, health and agricultural consequences for Scotland or elsewhere in the British Isles, but even if Scotland was not among the countries most directly affected, it is clear that a 'limited' use of nuclear weapons in the world would have some level of negative impact on the environmental security of Scotland.

As a small country Scotland can do little on its own to influence climate change, although it can make a significant contribution through the development of renewable technologies. Domestically, there is one primary response to the problems of energy security – it is vital to move to an ultra-low-carbon economy (with an 80 per cent reduction in carbon emissions by 2030 at the latest).   It is also an absolute priority to invest heavily in far higher levels of energy conservation, both in new-build and refitting, coupled with a rapid move to renewable energy sources.

Scotland has extraordinary potential for onshore and offshore renewables. Its offshore engineering experience is first rate and there are good universities and engineering companies. A really strong investment in wave and tidal energy, as well as an emphasis on sub-sea turbines, is required with consistently strong political leadership. Scotland will benefit if it gains a world leadership role in this field, as climate disruption will force so many other countries to follow suit by the 2020s. Scotland will also be in a strong position in the international sphere, able to punch well above its weight by virtue of its pioneering role. Scotland can also act to maintain and even increase biodiversity within its borders.

In terms of reducing direct the impact of environmental threats and climate pressure in Scotland, it would be useful to increase flood and sea defences in the vulnerable areas, particularly near nuclear, chemical or high-value industries. Such measures could reduce, but would not necessarily prevent, the threats of inundation, accident, malfunction or toxic contamination. Scotland should also consider ways to reduce the causes, by investing in renewable, sustainable energy production and use. For example, the lochside location currently occupied by the Faslane naval base on the Gare Loch could be rather quickly adapted for light industry including research, testing and production of wave and solar energy.

With regard to reducing the environmental threats from nuclear weapons, the only rational policy response is to ban and eliminate nuclear weapons globally. International efforts are now progressing towards starting a diplomatic process to negotiate a global treaty, as illustrated by intiatives from international Red Cross and the governments of Norway, Switzerland, South Africa and 13 other nations. Scotland's options to contribute to these international efforts are currently limited by its lack of an independent foreign and defence policy, but the Scottish government could still express its support for both the denuclearisation of UK security policy and a multilateral treaty banning nuclear weapons globally.

The impact of independence could go either way - Scotland can do a great deal without independence and can influence the UK in the process, but independence may allow more room for action. As irreversible environmental change already appears to be underway, driven by the industrial policies and practices of many different countries, independence is unlikely to have a significant impact on the nature or development of such threats. Scotland's ability to mitigate or cope with environmental threats could be enhanced if it undertook more progressive policies to reduce reliance on nuclear technologies and fossil fuels, and invested in sea and flood defences and research on food production under the changed conditions. Many of the necessary policy investments and progressive shifts could be undertaken under current devolution arrangements, but independence could arguably make it easier for Scotland to develop a coherent security approach to deal with the range of coming challenges.

Issue Five: Social disruption

Level of threat: The threat is growing in the context of the global economic crisis, not because of Scotland-specific factors

Response to threat: Balancing competitive markets with efficient welfare policies, commitment to combating economic inequalities, strengthening of civil society, political transparency and social inclusion, among others

Implications of independence: The threat is unlikely to go away or be amplified by independence. May be reduced if alternative policies are implemented, compared to the current UK ones

The issue of state security has traditionally focused on external threats, but since the end of the Cold War Security Studies have acknowledged that states can be destabilized by their own society. At the heart of societal security is a concern with the degree of collective identity and social cohesion within a society that enables a 'we' feeling amongst different societal groups. Since the Keynesianism of 1945 social justice, as equal access to social rights, has been at the heart of social cohesion in Western societies. However, concerns have been raised that the collective identity is fragmenting due to the social exclusion brought about by the interlinked processes of constructing market economies (neoliberalism) and widespread immigration. The United Nations, OECD, European Commission, UK and Scottish Governments all recognised the impact of these forces on social cohesion. For example a 1997 OECD conference report highlighted that with neoliberal policies had come 'a growing political disenchantment arising from the increasing income polarisation, persistently high levels of unemployment, and widespread social exclusion that are manifesting themselves in varying ways across North America, Europe and OECD Pacific' (OECD 1997). Furthermore, the emphasis on market forces demanded a reduction in the welfare state and public services, which challenged existing societal ideas of social justice and social cohesion. With the opening of national markets throughout the 1990s migration also increased rapidly from developing to developed countries and transformed demographic, social and cultural diversity within cities. In 2006 the OECD recognized "social exclusion and loss of social cohesion that follow the creation of socially segregated zones of poor people, often immigrants and within minorities in cities" (OECD, 2006).

The terrorist attacks of 2001 and the 2008 financial crisis further inflamed existing areas of social exclusion as diverse studies identified an increase in racism (i.e. Islamophobia), and socioeconomic marginalisation. As a consequence 'cultural differences have changed from an identity and diversity issue into a problem of internal security' (Dukes and Musterd 2012). One need only think of the current threats to the security of the Greece and Spanish states. These are not caused by external enemies, but by the demos rioting at the imposition of free market structural adjustment policies, which have exacerbated existing deficits in social cohesion (cultural diversity and socioeconomic inequalities). Similarly, whilst Westminster political elites were determined to assert that the UK riots of 2011 had nothing to do with poverty a number of academic studies have illustrated the links to social exclusion in the areas of the riots. For example 71 per cent of the riot locations were in Local Authority Districts ranked in the worst 10 per cent for social cohesion because of socio-economic inequalities (long term unemployed, high crime rate, and low levels of health and education status).

What does this discussion of societal security and social cohesion mean for Scotland's security? Without doubt social cohesion and therefore societal security are issues for Scotland in the 21st century. Firstly socio-economic inequalities and poverty have long been endemic, persistent and growing problems. As one commentator pointed out 'The overall distribution of income has changed little over the last decade. The poorest tenth have 2% of total income'. The current Scottish Government has recognised the issue of poverty and what it means for social cohesion (15 per cent of individuals, 17 per cent of children, 14 per cent of working adults, from 16 per cent of pensioners are living in relative poverty in Scotland between 2010/11). In addition, there have been an increased number of immigrants living in Scotland due to the European Union enlargement policy towards Central Eastern Europe. The current Scottish Government is very positive about immigration for creating growth in the Scottish economy. However a report in 2009 acknowledged that a Mori poll of 1,000 Scottish adults conducted in 2005 found that 46 per cent agree with the statement that 'the number of asylum seekers living in Scotland is a problem, with 26 per cent disagreeing with this view (Crawley, 2005). IPPR research conducted with residents of Dundee, Glasgow and Edinburgh, found many people to support the principle of asylum. However, open hostility to asylum seekers, and migrants more generally, was also found. They were seen as a threat to jobs and as a drain on public services, particularly housing (Scottish Government 2009). Academics have also argued that social exclusion and marginalization of migrants living in Scotland will continue because primary legislation dictates that Central Eastern European migrants will have 'no recourse to public funds'. What we then see is that the twin issues of socioeconomic inequality and greater numbers of new immigrants bearing down on Scotland's social cohesion and societal security. Evidence suggests that the implementation of further neoliberal policies that both increase unemployment and reduce the welfare state (access to social rights) may further undermine social cohesion at a time when mass immigration is also perceived to place further pressure on the welfare state and public services. This hostility to immigrants may also exaggerate the sense of social exclusion felt by many immigrants in Scotland.

For Europeans affected by the economic crisis, the prospect of a military attack is the furthest away from their concerns. It is their ability to pay the bills, to provide for their families, to find/ sustain a job and the prospect of market failure and social explosions that are at the fore of their concerns. Economic turbulence also has the potential to increase intolerant attitudes. This may be amplified by increased migratory pressures.

Issue: Some remaining threats

As the international community closes off some military options, including nuclear weapons, there is the risk that unless international and industrial relations are transformed and the power of the military-industrial complexes in a handful of key countries is diminished and deconstructed, they will spawn new kinds of military tools and technologies. Nano-technologies may amplify weapons' effects and dissemination, and carry unintended consequences and threats. Dependencies on space assets for a growing number of civilian as well as military functions, including banking, travel, and communications, may also introduce a range of vulnerabilities, spawning potential space-based as well as cyber threats. Although Scotland would be unlikely to create or contribute significantly to such threats, they could have negative consequences for Scottish security.

To forestall and cope with such kinds of threats Scotland could at least form alliances with more aware and enlightened countries that are less dependent on traditional modes of national threats, aggression and conflict. This would require an enlightened security policy, steering clear of the UK's traditional positions and NATO (which has outlived its usefulness, even though it contains a few progressive actors, like Norway).

Conclusions

The conclusions of this report are straightforward; the debate we have had in Scotland on security has not been based on an assessment of the threats to security that Scotland faces. These are not primarily threats that require a military response but threats that fall under the heading of 'human security' - environmental catastrophe, access to resources, social disruption. The response to all of the threats Scotland faces must be the same - first, take action to reduce the threat as far as possible and second, prepare to mitigate the impact of the threats as much as possible. This is how to ensure that the people of Scotland are best protected and supported. What we do not need is a debate driven by fear and based on scare stories and grounded in an assumption of perpetual conflict. Yes, there are threats which Scotland faces but if we take a calm, clear approach to dealing with them there is absolutely no need to be afraid.

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