

## ENGAGING A NEW GENERATION



# ENGAGING A NEW GENERATION

International Student/Young Pugwash Yearbook 2007  
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Juan Pablo Pardo-Guerra, Editor

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# Preface

For several years, International Student/Young Pugwash (ISYP) has sought to introduce critical issues of global affairs to members of future generations of scholars and policy-makers. Through this volume of the ISYP Yearbook 2007, we thus continue our endeavour of highlighting and analysing issues germane to the survival of humankind.

The contributions in this volume focus on a foundational topic of the Pugwash movement, namely, the risks of nuclear proliferation. Thus, Immaculate Motsi presents some of obligations and possibilities posed by the report of the Commission of Weapons of Mass Destruction; Moeed Yusuf deliberates on the consequences of the nuclear pact reached between India and the United States; Sebnem Udum discusses the complexities of Turkey's relationship with nuclear weapons as seen from the main theoretical standpoints of international relations; and Hans Tolkoen and Arthur Petersen analyse the role of Pugwash in the Middle East, particularly in connection to the conflict between Palestine and Israel.

This issue, however, also reminds us of the wide perspective one must adopt when confronting international conflict. The roots and multifaceted fuels of war are assessed, in different manners, by numerous authors. Hence, Kate Marvel and Jean-Andre Okito Lokake introduce the efforts of the African Institute for Mathematical Sciences in increasing the opportunity of access to high-quality courses for graduate and undergraduate students in Africa; Eli Lipetz looks into the role of the market for opium in Afghanistan; Antoinette Hildering writes of the state of international law in relation to the abuse of power; and Aleksandra Dzisiow engages with a timely issue, that is, the relation between Islam and the so-called West.

Support from members of the Pugwash Conferences on Science and World Affairs, the members of the Editorial and Advisory Boards, the additional reviewers and the Board members of Pugwash Netherlands, was invaluable for the completion of this book. I particularly acknowledge the patience of the contributors to this developing project.

Juan Pablo Pardo-Guerra

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# Opium and Afghanistan

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The Afghan opium economy presents a clear and present danger to international security as it enhances the chances of failed states emerging, of stable regions destabilising, and of human poverty, addiction, and disease proliferating. The root cause of the Afghan opium economy is the great number of domestic farmers who cultivate the crop. Thus, the factors that compel rural farmers to cultivate opium cause the manifestation of the opium economy in Afghanistan, and the subsequent insecurity that afflicts the international community. In this article, the root causes and security implications of the Afghan opium economy are analysed, and several policy options and recommendations are presented and evaluated. The illegal opium economy in Afghanistan is not a recent phenomenon. To date, there has been a reliance on traditional approaches to combat the drug problem in the country. This must stop. There are no quick and easy solutions. Instead, there are only long and multi-layered solutions, which need commitment, support, and open-mindedness. The world community must understand this, and act upon it. Otherwise, the opium economy will continue to dominate in Afghanistan, and insecurity will continue to plague much of the international community.

## **Probable causes**

During its war in Afghanistan (1979-1989), the Soviet Union (SU) encountered stiff resistance from mujahidin guerillas. Rural Afghanis backed these mujahidin, and provided them with support in the form food, water, shelter, and medical aid [1]. In hopes of harming the rural population and thereby weakening the mujahidin's support network, the SU attacked the agricultural sector [2]; aerial sorties destroyed vital infrastructure such as roads and irrigation systems [3], and scorched earth campaigns turned 'entire regions that once were fertile (into) areas of barren waste' [4]. From a Soviet standpoint, these tactics were successful, as the cultivation of licit crops traditionally grown by Afghani farmers declined during the war [5]. Corresponding with this decline was a rise in opium cultivation, as farmers increasingly switched to the illicit crop during the war [6]. This switch occurred because traditional crops need fertile land, irrigation, and quick road access to markets [7], whereas opium can grow on

most types of soil, it requires minimal irrigation, and its lightweight and non-perishable nature allow for easy transport [8].

Although the SU left Afghanistan, the conditions that compelled farmers to switch to opium cultivation remained. Governmental neglect is to blame for this, as rural reconstruction was never a priority for the Communist (1978-1992), Mujahidin (1992-1996), or Taliban regimes (1996-2001) that ruled Afghanistan [9]. The collapse of the Taliban in 2001 ended this trend of neglect. In its place came a new era marked by increased reconstruction and development programmes. However, this increase occurred, and continues to occur, in an uneven pattern [10].

Uneven patterns occur due to security issues, as reconstruction programmes may only take place in regions deemed sufficiently secure [11]. Due to this condition, the insecure agriculturally oriented countryside has not been a focal point of reconstruction and development efforts. Consequently, much of the infrastructure damaged in the past has remained unusable [12]. These dynamics are similar to the Cold War dynamics, as infrastructural constraints continue to hinder the cultivation of licit crops. Given that these infrastructural limitations do not apply to opium cultivation, it is understandable why farmers currently choose to grow this crop.

Additional incentive for cultivating opium results from the nature of Afghanistan's informal banking system. Most farmers take out loans on a yearly basis in order to satisfy basic needs such as purchasing food, clothing, medical services, and agricultural inputs [13]. The most widely used method of obtaining loans involves opium as a source of credit; farmers receive a loan by agreeing to cultivate a predetermined amount of opium that is to be transferred to the creditor at a later date [14]. This particular method is in wide use because opium provides the greatest access to loans, and the most favourable interest rates, when compared to other forms of credit [15]. With so many needs to satisfy, and so few means for satisfying these needs, it is only natural that farmers would choose the opium option.

Unfortunately, satisfying these needs became increasingly difficult for opium farmers in recent years, as widespread crop failure, governmental bans, and eradication efforts caused yields to be lower than expected [16]. Lower yields led some farmers to initially default on their loans, as they were unable to grow the predetermined amount of opium. While some were eventually able to repay their loans, others were less fortunate; as of 2005, over one-third of farmers had an outstanding loan to pay [17].

Farmers with outstanding loans have several means with which they can manage their debt. They may opt to sell or mortgage their land, give their daughter to marriage, grow licit crops, or work wage labour to supplement their farm earning [18]. Alternatively, they may choose to cultivate opium. This latter option is the one that is the most preferred and widely employed, as many consider it the best debt management strategy in contemporary Afghanistan [19]. At an age where debts have proliferated, this preference has contributed significantly to the rising levels of opium cultivation in the country.

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**Security implications***Weakening of the Afghan state*

According to Antonio Maria Costa, director of the United Nations (UN) Office on Drugs and Crime, the Afghan opium economy is 'now a clear and present danger' [20]. Costa is of the belief that 'there is a palpable risk that Afghanistan will again turn into a failed state' [21]. State failure is quite possible given the prominence of the opium economy, and the adverse influence that this economy has on Afghanistan's stability. Elucidating this influence is the Failed State Index as espoused by the Fund for Peace [22]. The Failed State Index calculates Afghanistan's proximity to becoming a failed state based on twelve indicators that have historically been prominent in bringing about failure to a nation. Of the twelve indicators, numerous are closely related to, and exacerbated by, the Afghan opium economy [23].

Enhancing the scope of the external intervention in Afghanistan is the fact that foreign forces have been, and continue to be, involved in counter-narcotic operations. Operations of this sort have worked to antagonise certain Afghan parties. Some of these parties have responded by sending their opium-funded security apparatuses who operate as a 'state within a state' to wage violent campaigns, in hopes of stifling the counter-narcotic efforts [24]. In turn, these campaigns of violence have caused the displacement of thousands of people [25], which has intensified the movement of internally displaced persons. Campaigns of opium-funded violence have as well led to uneven patterns of development. Uneven patterns arise because areas that are free of opium funded-violence receive more development assistance than regions that are plagued by the same type of violence [26]. The further exacerbation of these factors by the presence of the opium economy may cause Afghanistan to degenerate into a failed state. It would be very detrimental if such a scenario were to materialise, as 'failed states serve as safe havens and staging grounds for terrorist activities, and create environments that spur wider regional conflict which carry significant security costs to neighboring countries' [27].

*Strengthening the Taliban*

Recent reports suggest that resurgent Taliban forces have forged an alliance with opium traffickers; in return for protecting traffickers and farmers, the Taliban receives a share of the profits accrued from the opium trade [28]. Taliban forces in turn use this capital to finance weapons and equipment procurement [29], to pay combatant wages [30], and to entice recruits to join their cause [31]. With more weapons, equipment, and operatives, the Taliban is better able to wage its insurgency campaign. This opium-funded campaign undermines human security at present time, and it has the capacity to continue doing so in the future.

Human security suffers presently due to the Taliban's use of tactics that aim to terrorise the population [32]. In the future, human security will suffer if the Taliban's opium-funded campaign propels them back into power. This is the case, as the Taliban, during its previous stint in power, and throughout its recent campaign, have shown a flagrant and constant disregard for the human rights of women [33]. It is likely that this disregard would continue and become even more pervasive if the Taliban reassume control in Afghanistan.

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### *Strengthening of al Qaeda*

Islamic charities sympathetic to al Qaeda's cause have historically been its main source of financing. The anti-terror campaigns that ensued following 9/11 targeted charities of this nature, and in the process diminished their ability to divert funds to al Qaeda [34]. To offset this loss of income, al Qaeda, according to the American intelligence community, 'has turned to the poppy fields of Afghanistan as barter to finance its operations' [35]. More specifically, al Qaeda generates capital by levying a tax on each opium shipment that passes through its area of influence [36]. Capital accrued in this manner is subsequently used by al Qaeda to fund its operations in Afghanistan, and in areas of the former SU [37]. Regions where al Qaeda is active may in turn suffer through episodes of indiscriminate violence that have the potential to inflict death and injury to many.

### *Weakening of security in the region*

A majority of Afghani opium ends up in Europe after being trafficked through Central Asia [38]. Corrupt government officials in Tajikistan, Uzbekistan, Kazakhstan, and Georgia help facilitate the flow of drugs through the region [39]. This poses a threat to international security because corrupt regimes tend to breed poverty and terrorism [40]. Traffickers who enjoy these kinds of 'political favors' include transnational criminal organisations such as the Chechen and Russian mafias [41]. Groups of this type, who by virtue of the opium trade become financially stronger, affect people's sense of security by engaging in arms dealing, corruption, bank fraud, and money laundering [42]. Greater financial strength has as well allowed some of these groups to divert finances to separatist groups in Chechnya [43]. This is of great concern vis-à-vis international security, as there is fear that the Chechen conflict might spillover the border and lead to regional instability [44].

### *Weakening the security of opiate users and their communities*

Afghani opiates and the various drugs derived from it are highly addictive. These addictive properties lead to over-consumption and abuse, which in turn enhances the likelihood of drug users dying. With an increasing supply of Afghani opiates, deaths are becoming more common. One telling statistic regarding the frequency of death is the fact that Afghani heroin alone is the cause of approximately 75,000 deaths every year [45]. As well as enhancing the likelihood of death, the use of Afghani heroin enhances the odds that an individual will contract a disease; HIV, Hepatitis B, and Hepatitis C rates amongst users of Afghani heroin are disproportionately high, as many of these individuals inject the drug with contaminated needles [46].

Along with the enhanced likelihood of death and disease, users of opiates experience greater than average human insecurity. This occurs because consumers often devote whatever money they have to quelling drug cravings rather than to satisfying basic needs such as hunger and shelter. When opiate consumers run out of money for quelling their drug cravings, they frequently turn to crime. For example, in England, which imports 90% of its heroin from Afghanistan [47], an estimated three quarters of heroin addicts partake in criminal activities to fund their habit [48]. Such drug induced criminal behaviour raises the level of insecurity in the community.

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## **Policy options and recommendations**

### *Eradication*

Eradication is both a proactive and reactive counter-narcotic programme that is currently in use in Afghanistan. It works to proactively dissuade farmers from growing illicit crops. The rationale for this proactive approach is as follows: when faced with the prospects of their crops being destroyed, farmers will have greater incentive to abandon the cultivation of opium, and instead choose to grow legal crops. When farmers nonetheless cultivate opium, it seeks to reactively disrupt the drug trade by physically destroying the illicit crops [49].

Eradication programmes are on the whole more successful and widespread in secure regions than they are in insecure regions. Due to the varying levels of security throughout the country, uneven patterns of eradication have emerged [50]. The effects of this imbalance are notable, as perceptions that the state is giving preferential treatment to certain ethnic and tribal groups have surfaced. Perceptions of this type are undesirable due to their ability to exacerbate pre-existing ethnic divisions that are prominent in the country [51]. Feelings of ill will also arise because eradication programmes destroy livelihoods. Without an income, farmers have a more difficult time satisfying basic needs and paying back loans on schedule. Consequently, some farmers may experience greater impoverishment and debt due to the eradication of their crops [52].

Compensatory eradication schemes aim to ease the economic hardships that farmers may endure due to the eradication of their crop. This nuanced approach provides monetary reimbursements to poppy farmers who consent to having their crops eradicated [53]. Despite its good intentions, this scheme is undesirable as it inspires popular resentment vis-à-vis the government who runs the programme. Resentment arises because compensatory sums of money promised to farmers at times remain undelivered. When compensation does reach the farmers, the financial sums are small one-time payments that require foregoing significant long-term payments [54]. Thus, compensatory and regular eradication programmes are inappropriate, as they have the 'potential to feed the insurgency and terrorism by losing the hearts and minds of the people' [55].

### *Interdiction*

Opium interdiction programmes are common in present day Afghanistan. The goal of interdiction is to decrease narcotics trafficking by seizing opium, destroying processing labs, and arresting high volume traffickers [56]. If the programme is successful, destruction will come upon the drug economy's infrastructure, and imprisonment will come upon its participants. The greater chances of infrastructural damage and jail time will raise the costs of participation in the economy, which will in turn work to dissuade individuals from joining due to fear of imprisonment and financial loss. Consequently, farmers will lose incentive to cultivate the crop, as there will be substantially fewer customers for its product. However, the fact that interdiction programmes manage to alienate Afghani warlords provides a counterweight to its perceived virtues [57].

In order to secure and stabilise Afghanistan, there is a need for local human intelligence. Warlords, who supply this type of intelligence, are often involved in the drug trade. Herein lies the problem, as it is unlikely that warlords will be willing to provide intelligence assistance to

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the very same forces that are destroying their business [58]. Given how important it is to secure and stabilise Afghanistan, it is essential not to alienate warlords, and therefore, interdiction is not a viable short-term solution.

#### *Drug amnesty*

Amnesty programmes aim to minimise the impact warlords have on the opium economy, and to maximise the impact they have on security operations. Under the framework of such a programme, warlords will receive legal pardons for past wrongdoings in exchange for their future abstention from the opium economy [59]. With the removal of warlords and their associates from the drug trade, Afghani opiates will have more difficulty reaching consumption markets. Concurrently, farmers will have less incentive to cultivate the crop, as a smaller number of traffickers would be in demand for their product.

The problem with this scheme is that the central government does not have the capacity to reprimand traffickers who are granted amnesty but nonetheless continue to partake in the drug trade. An inability to mete out punitive measures would undermine both the scheme and the government's already shaken credibility in terms of its ability to deal harshly with traffickers [60]. Political ruin will also result if amnesty programmes take place at the same time as eradication programmes; implementing the two programmes concurrently will ensure that individuals who generate large profits receive judicial pardons, while farmers who earn a subsistence living from the crop will face potential prosecution and destruction of their income [61]. Due to these various drawbacks, amnesty programme are undesirable.

#### *Alternative development programmes*

Alternative development (AD) programmes aim to reduce drug production by offering economic alternatives to a rural population otherwise dependent on cultivating illegal narcotics [62]. The scope of programmes currently employed in Afghanistan is wide and varied. 'Crop diversification' programmes urge farmers to cultivate legal crops such as wheat, potatoes, or fruits rather than opium [63]. 'Cash for work' programmes offer locals the opportunity to partake in wage work on important and necessary projects [64]. 'Microfinance' programmes offer loans to rural Afghans, which in turn allow them to escape the cycle of indebtedness associated with opium-as-credit loans, and as well allow them to start a new business or buy a new type of seed [65]. These programmes are in theory quite efficacious and appropriate for a society trying to transition away from a drug economy. However, programmes of this type have to date failed somewhat in their mission in Afghanistan.

Many regions in Afghanistan lack a secure environment, and this insecurity is influential, as it makes it more difficult for some AD programmes to succeed. For example, Taliban threats ordering farmers to grow opium have undermined 'crop substitution' schemes, while insurgent attacks on road workers have undermined 'cash for work' programmes [66]. Economic issues are also influential, as the aid received by AD programmes to date is less than what donors initially pledged. When aid does indeed arrive, government and aid agencies that are in charge of the programmes oftentimes mismanage it [67]. Political factors, similar to security and economic factors, negatively affect AD programmes in Afghanistan. Most notably, the presence of politicians who siphon aid money into their personal coffers is negatively influencing the programme [68]. Given the lack of security, economic means, and political determination in

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Afghanistan, there is a need to scale back the goals of AD programmes in the short-term, as the present goals are too ambitious for the current environment.

### *State building*

In the absence of effective short-term policies for combating the opium problem in Afghanistan, there is a need to adopt a comprehensive long-term policy focusing on state building [69]. State building is a time consuming process, with multiple steps. Establishing and maintaining security, rule of law, and due process in the country is the top priority. Large-scale development programmes and public awareness campaigns, which depend on security and rule of law, are the next step. The last step involves implementing eradication and interdiction programmes. However, these counter-narcotic programmes may only take place after the previous steps succeed in their missions. Closer examination of each of these steps will occur in the following sections.

### *Security, rule of law and due process*

In modern day Afghanistan, a very lawless culture has arisen, and this culture is one of criminal impunity. The presence of such a culture influences the illegal opium economy. For example, individuals increasingly join the lucrative opium economy due to the knowledge that their actions are likely to go unpunished. Other individuals who happily operate outside the economy often end up within it, as coercive elements that are unafraid of legal repercussions force them to join. What is driving these types of actions, and more generally the culture of impunity, is the fact that the central government is unable to assert its sole and sovereign authority in all regions of Afghanistan.

Criminal impunity is rampant in some Afghani regions due to a lack of security. The presence of insecurity is partly the fault of international forces, who have been, and continue to be, somewhat unsuccessful in their mission to secure Afghanistan [70]. These failures make it tougher for the central government to establish its authority, as its personnel and infrastructure are constantly under threat of attack. Concomitantly, these failures have led to the emergence of 'shadow governments' who thrive off the absence of rule of law and due process, and therefore promote actions that undermine the central government's authority.

Bureaucratic factors as well contribute to the rise of culture of criminal impunity. Afghanistan's Security Sector Reform (SSR) agenda has not yet established strong, effective, and accountable institutions and law enforcement agencies that can create and maintain security, rule of law, and due process [71]. Reasons for the SSR's shortcomings include a lack of funding, a poor structural organisation, and the presence of deep-rooted corruption [72]. In order to rid the country of the culture of criminal impunity, there is a need to strengthen foreign and domestic apparatuses so they can better establish security, rule of law, and due process.

Additional foreign troops, as requested by commanders on the ground [73], should deploy to Afghanistan to help suppress destabilising forces. As for Afghanistan's security sector, it must become strong, effective, and accountable at a more accelerated pace. To accomplish this, a single party such as the UN, the United States, or Afghanistan should assume control of the SSR agenda in hopes of implementing a more coherent and balanced strategy than is currently in place [74]. Additional aid to augment the relatively low funding enjoyed by the SSR

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agenda is as well necessary for eliminating some of the ills plaguing the programme [75]. Moreover, there is a need to abandon the counter-narcotic pillar due to its capacity to alienate vital segments of the population.

With these modifications in place, the security situation will improve, and apparatuses that can maintain security will develop at a more rapid pace. Greater security and stability will enable the state to uphold the rule of law and due process more effectively, and the dominance of the culture of impunity will decrease. As impunity decreases, participants in the opium economy will be more reluctant to participate as the risks of breaking the law and facing punishment will be greater. Those who do nonetheless choose to participate will encounter legal repercussions at a greater frequency than they do now. The end result will be fewer participants, and with fewer participants, the magnitude and severity of the opium problem in Afghanistan will decrease.

#### **Alternative development programmes**

The perceived failure of AD programmes in Afghanistan does not mean that they are inherently flawed. In fact, given the right conditions, programmes of this nature have the capacity to succeed as part of a long-term process. Success however, depends on satisfying the right conditions. Firstly, it is of the utmost importance that local and international forces secure and stabilise Afghanistan. Second, donor nations need to deliver on their promises, and hand over all previously pledged aid that has yet to arrive in Afghanistan [76]. Lastly, it is necessary to strengthen the civil and governmental bodies currently overseeing the programme, as these programmes are inefficient and lack in determination. To achieve this, there is a need to modify existing bodies or create new bodies such as to rid the programme of corruption and mismanagement. These bodies will supervise the programmes, and as well muster support for the programmes domestically and around the world. If, and when, these conditions are satisfied, alternative development programmes can and should proceed on a large scale.

#### ***Licensing opium***

At present, according to the World Health Organisation, there is a global shortage of opium-based medicines such as morphine and codeine. The incongruity between the global demand and the global supply is especially notable in the developing world [77]. Afghanistan has the capacity to bridge this gap between supply and demand, by developing a system of opium licensing to complement other AD programmes in the country. Under this system, which has received support both from within Afghanistan and from around the world [78], farmers will receive a license to grow opium for conversion into legal medicines.

From an international law viewpoint, this proposal is a viable one for Afghanistan, because the country is a signatory to the three UN treaties regulating drug policy. In accordance with the treaties, Afghanistan may produce opium for medicinal purposes. Afghanistan may also convert the opium into medicine and subsequently export these medicines. In order to cultivate, convert, and export opium and its derivative medicines, all that is required is the establishment of a national agency to oversee the licensing process [79]. From an agricultural viewpoint, this proposal is as well viable for Afghanistan, as evident by the fact that it projects to produce over 6,1000 tonnes of opium in 2006 [80]. From a security standpoint, Afghanistan is somewhat lacking, as destabilising forces may try to sabotage the programme, and thus it is

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essential to secure regions where this programme will take place. With security in place and the licensing system under way, the desirability of the programme will become evident, as it will work to undermine the illicit opium economy [81].

The supply of opium diverted to the illegal economy will decrease because farmers will likely join the legal opium economy. Incentive for doing so results from the fact that growing opium legally allows them to operate within the confines of the law while still earning a comparable livelihood [82]. The supply of operatives in the opium economy may as well decrease, as some may join the workforce in factories that convert opium to medicines. Despite these benefits, the supply of operatives and illicit opium is unlikely to disappear completely.

However, the scale of the entire opium economy will be smaller than it is now, and this is preferable in a number of ways. Instead of 100% of Afghani opium reaching the illegal market, only some opium will end up there [83]. The smaller scale of the illegal opium economy will as well enable Afghani authorities to deal with the opium problem more effectively; a smaller illegal drug economy means there are fewer people to incarcerate, fields to eradicate, and processing labs to interdict. Afghani institutions and law enforcement agencies will also be more effective due to increased funding generated by taxing the legal opium economy [84].

#### **Education and public awareness**

Many Afghans view opium in a positive light due to its economic usefulness. In a bid to curb the opium economy, there is a need to appeal to the population's intellect, and educate them regarding the negative impact of opium. Enhanced knowledge of this sort may deter Afghans from cultivating, trafficking, and consuming the narcotic. One way of enhancing the population's knowledge is by conducting a public awareness campaign. The scope of information encompassed in the public awareness campaign will be broad and comprehensive. It will focus on how opium harms the country's security, its economic growth, and its international reputation. The fact that opium is illegal, injurious, and un-Islamic will as well be a focal point of the campaign [85]. Government organisations, civil groups, educational institutions, and the media will be responsible for disseminating the campaign's message [86].

A public awareness campaign of this sort is not a novel idea, as one is currently in place in Afghanistan. However, there are some flaws with the current campaign. Primarily, there is a problem with hypocrisy: individuals and institutions that publicly educate the masses and condemn the narcotic are often complicit in the drug trade. When this occurs, the thrust of the message loses some of its strength. To avoid this, there is a need to ensure that all parties involved in heightening awareness practice what they preach. One way for making this happen is by establishing rule of law and due process, which will minimise the number of people involved with the drug, including those who are in charge of delivering the message to the masses. Thus, the main difference between this public awareness campaign and the one currently taking place in Afghanistan will be the elimination of hypocrisy amongst those delivering the message.

#### **Counter-narcotic operations**

There is a need to suspend all interdiction and eradication programmes, as at present time they are inappropriate strategies for Afghanistan. However, programmes of this type should start up

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again once an appropriate environment manifests. An environment deemed appropriate is one that is marked by security, rule of law, due process, and bountiful alternative livelihood options. The reasoning for why such an environment is integral for the resumption of interdiction and eradication programmes is as follows.

As counter-insurgency and counter-terrorism efforts reach successful completion, the importance of warlords as sources of intelligence will diminish. When this occurs, the issue of whether or not interdiction alienates them becomes irrelevant [87]. The presence of many alternative livelihood options will deprive farmers of their current rationale for growing opium, which focuses on how it is their sole means of earning a living. As a result, crop eradication will become less alienating, and opium fields not licensed by the government should and will face eradication.

### **Conclusion**

The illegal opium economy in Afghanistan is not a recent phenomenon. To date, there has been a reliance on traditional approaches to combat the drug problem in the country. This must stop. There are no quick and easy solutions. Instead, there are only long and multi-layered solutions, which need commitment, support, and open-mindedness. The world community must understand this, and act upon it. Otherwise, the opium economy will continue to dominate in Afghanistan, and insecurity will continue to plague much of the international community

### **Notes**

1. The reason the Soviet Union targeted the agricultural sector results from the fact that agriculture was the main source of livelihood for rural Afghans. Assessment Team assembled by the International Center for Agricultural Research in Dry Areas (ICARDA), Recent Agro-Economic Conditions, in: Seed and Crop Improvement Situation Assessment in Afghanistan, ICARDA, Consultative Group on International Agricultural Research. ([http://www.icarda.org/Afghanistan/NA/Full/General\\_F.htm](http://www.icarda.org/Afghanistan/NA/Full/General_F.htm)).
  2. Lester W. Grau, The Soviet-Afghan war: a superpower mired in the mountains, *The Journal of Slavic Military Studies* 17 (March 2004) 145.
  3. Vital agricultural infrastructure destroyed by the Soviets includes irrigation systems, roads, and channels. Jonathan Goodland, *Frontiers and Wars: A Study of the Opium Economy in Afghanistan*, Crisis States Research Center, London School of Economics, January 2003, p. 4. (<http://www.crisisstates.com/download/others/SeminarJG29012003.pdf>).
  4. Richard F. Nyrop and Donald M. Seekins, *Crops and Developments after 1978*, Afghanistan Country Studies and Government Publications, Washington, DC, 1986.
  5. Ibid.
  6. United Nations Office on Drugs and Crime, *Afghanistan Opium Survey*, 2004, Vienna, Austria, p. 9.
  7. Vanda Felbab Brown, *Afghanistan: when counternarcotics undermines counterterrorism*, *Washington Quarterly* (Fall 2005) 58.
  8. Frank Kenefick and Larry Morgan, Report submitted U.S. Agency for International Development: *ium in Afghanistan: People and Poppies, the Good Evil*, Kabul, Afghanistan, 2004, p. 19.
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9. Omar Zakhilwal, The communist era: the Taliban take over, in: Institute for Afghan Studies, The Afghan Economy: Past, Present & Future, May 12, 2002, ([http://www.institute-for-afghan-studies.org/ECONOMY/afghan\\_economy\\_past\\_present.htm](http://www.institute-for-afghan-studies.org/ECONOMY/afghan_economy_past_present.htm)).
  10. Farish A. Noor, Warlords, drugs, and landmines, op-ed, The Daily Times, November 30, 2003.
  11. Ibid.
  12. Ibid.
  13. David Mansfield, The incidence and size of seasonal loans & Key messages, in: World Bank, The Role of Opium as a Source of Informal Credit in Rural Afghanistan. ([http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW\\_4\\_Role\\_of\\_Opium\\_as\\_Source\\_of\\_Credit.htm](http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW_4_Role_of_Opium_as_Source_of_Credit.htm)).
  14. See [7, p. 58].
  15. David Mansfield, Key messages, in: World Bank, The Role of Opium as a Source of Informal Credit in Rural Afghanistan. ([http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW\\_4\\_Role\\_of\\_Opium\\_as\\_Source\\_of\\_Credit.htm](http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW_4_Role_of_Opium_as_Source_of_Credit.htm)).
  16. David Mansfield, Coping with accumulated debt, in: World Bank, The Role of Opium as a Source of Informal Credit in Rural Afghanistan. ([http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW\\_4\\_Role\\_of\\_Opium\\_as\\_Source\\_of\\_Credit.htm](http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW_4_Role_of_Opium_as_Source_of_Credit.htm)).
  17. Bob Weber, Drug traders use debt to keep Afghan farmers in cycle of opium production, Canadian Press, June 9, 2006.
  18. David Mansfield, Strategies for repayment, in: World Bank, The Role of Opium as a Source of Informal Credit in Rural Afghanistan. ([http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW\\_4\\_Role\\_of\\_Opium\\_as\\_Source\\_of\\_Credit.htm](http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW_4_Role_of_Opium_as_Source_of_Credit.htm)).
  19. See [15].
  20. United Nations Information Service, Increased Supply of Afghan Heroin Promises Overdoses and Death, Vienna, Austria, 2004, p. 1.
  21. Ian Traynor Zagreb, Afghanistan at the Mercy of Narco-Terrorists, The Guardian, October 30, 03, Special Reports.
  22. Fund for Peace, Failed State Index, Fund for Peace. (<http://www.fundforpeace.org/programs/fsi/fsindex.php>).
  23. Ibid.
  24. United Nations Office for Coordinating Humanitarian Affairs, Bittersweet Harvest: Afghanistan's New War, New York, NY, 2005. See also Pamela Constable, In Afghan poppy heartland, new crops, growing danger, The Washington Post, May 6, 2006, p. A11.
  25. IRINNews.org, Afghanistan: thousands displaced by fighting in Kandahar, United Nations Office for the Coordination of Human Affairs, 6 September 2006. (<http://www.irinnews.org/report.asp?ReportID=55433&SelectRegion=Asia&SelectCountry=AFGHANISTAN>).
  26. See [10].
  27. Susan E. Rice, U.S. Foreign Assistance and Failed States, Global Economics, The Brookings Institute. (<http://www.brook.edu/views/papaers/rice/20021125.htm>).
  28. Declan Walsh, Better paid, better armed, better connected: Taliban rise again, The Guardian, September 16, 2006.
  29. Michael Yon, Afghanistan's other war, CBS News Online, CBS Broadcasting Inc., September 12, 2006. (<http://www.cbsnews.com/stories/2006/09/12/opinion/main2000748.shtml>).
  30. It is interesting to note that the Taliban pays well, which may explain its successes in recruiting. Taliban fighters receive twice as much pay as Afghan soldiers, and four times as much as Afghan
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- police. Anna Badkhan, Afghan government failure reopens door to the Taliban, *The San-Francisco Chronicle*, September 17, 2006.
31. Rachel Morarjee, Taliban goes for cash over ideology, *The Financial Times*, July 26, 2006.
  32. Human Rights Watch, Afghanistan: bombs and threats shut down school, Human Rights Watch, July 11, 2006. (<http://www.hrw.org/english/docs/2006/07/06/afghan13700.htm>).
  33. The rights that were violated during the Taliban's previous stint in power include the right to freedom of expression, association, and assembly, the right to work, the right to education, freedom of movement, and the right to health care. Examples of current Taliban attitudes vis-à-vis rights is evident through the letter they post around rural villages. For example, one letter said: 'Respected Afghans: Leave the culture and traditions of the Christians and Jews. Do not send your girls to school.' A. Widney Brown and Farhat Bokhari, *Humanity Denied: Systematic Violations of Women's Rights in Afghanistan*, Report Prepared for Human Rights Watch, Section V. See also [32].
  34. GlobalSecurity.org, Funding in Afghanistan, GlobalSecurity.org. (<http://www.globalsecurity.org/military/world/paralal-gaida-funding.htm>).
  35. Rowan Scarborough, Drug money sustains al-Qaeda, *The Washington Times*, December 29, 2003.
  36. Ibid.
  37. Steven Metz and Raymond Millen, *Insurgency in Iraq and Afghanistan: Change and Continuity*, Strategic Studies Institute, Central Intelligence Agency, pp. 20-21. ([http://www.cia.gov/nic/PDF\\_GIF\\_2020\\_Support/2004\\_05\\_25\\_papers/insurgency.pdf](http://www.cia.gov/nic/PDF_GIF_2020_Support/2004_05_25_papers/insurgency.pdf)). See also Tamara Makarenko, Crime, terror and the Central Asian drug trade, *Harvard Asia Quarterly* (Spring 2002).
  38. Glenn E. Curtis, *Involvement of Russian Organized Crime Syndicates, Criminal elements in the Russian Military, and Regional Terrorist Groups in Narcotics Trafficking in Central Asia, the Caucasus, and Chechnya*, Library of Congress, p. 18. ([www.loc.gov/rr/frd/pdf-files/RussianOrgCrime.pdf](http://www.loc.gov/rr/frd/pdf-files/RussianOrgCrime.pdf)).
  39. Ibid., p. 6 and p. 14.
  40. Francois Melese, The problem of corruption, *The Free Market* 20 (6) (2002) 13. See also John McFarlane, Corruption a threat to national stability, *Platypus Magazine* (June 2002) 31.
  41. See [38, p. 23].
  42. Canadian Security Intelligence Service, *Transnational Criminal Activity, Priorities*, Ottawa, ON, 2005.
  43. Christopher M. Blanchard, *Report for Congress: Afghanistan: Narcotics and US Policy*, Washington, DC, 2004, p. 19.
  44. Jean-Christoph Peuch, Russia: Ingushetia mourns its dead amid renewed concerns for regional stability, *Radio Free Europe/Radio Liberty Online*, RFE/RL Inc., June 23, 2004. (<http://www.rferl.org/featuresarticle/2004/6/e69d054a-7af3-459a-83ea-e3fdec4bca42.aspx?npage=2>).
  45. Keep in mind that deaths resulting from other narcotics derived from Afghani opiates (i.e. morphine, codeine, opium resin) are not part of the 75,000. United Nations Information Service, *Increased Supply of Afghan Opium Promises Overdoses and Death*, Vienna, Austria, 2004.
  46. John D. Negroponte, *Remarks to the United Nations Security Council*, New York, NY, June 17, 2003. See also Lance L. Smith, *Opening Statement on the Conference to Counter-Narcotics and Regional Stabilization in Central and South Asian States*, Freising, Germany, May 17, 2005.
  47. See [43].
  48. BBC News, *Gauging the UK's drug use*, BBC News UK Edition.
  49. See [7, p. 63].
  50. Ibid., p. 65.
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51. Ibid., p. 65.
  52. Ibid., p. 64.
  53. Andrew North, The drugs threat to Afghanistan, BBC News UK Edition.
  54. See [7, p. 66].
  55. Ibid., p. 67.
  56. Powell, Testimony before the United States.
  57. See [7, p. 67].
  58. Ibid., p. 67.
  59. Ibid., p. 68.
  60. Ibid., p. 68.
  61. Ibid., p. 68.
  62. Venda Felbab Brown, Drugs and state building in Afghanistan, *Precise* 15 (1) (Fall 2005), pp. 6-7.
  63. Nikola Krastev, Afghanistan: UN drug agency promotes 'alternative development' for curbing poppy cultivation, Radio Free Europe/Radio Liberty Online, RFE/RL Inc., March 1, 2006. (<http://www.rferl.org/featuresarticle/2006/3/301DEF7C7-AFB2-46F1-8DDD-1A3103D837B1.html>).
  64. This work may for example include road repairs, river re-channelling, and irrigation systems repairs. Mark Ward, Statement before U.S. House of Representatives, Committee on Appropriations, Subcommittee on Foreign Operations, Export Financing, and Related Programs, Washington, DC, September 11, 2006.
  65. See [62].
  66. Carlotta Gall, Afghanistan's openly flourishing poppy trade, *The New York Times*, February 17, 2006, p. 13. See also Agence France Presse, 19 workers killed in Taliban attack in Afghanistan, Agence France Presse, September 22, 2006.
  67. Reuters, Reconstruction and transparency, Afghan turmoil at a Glance, Reuters Foundation Alertnet, Reuters Limited. ([http://www.alertnet.org/printable.htm?URL=/db/crisisprofiles/AF\\_REC.htm](http://www.alertnet.org/printable.htm?URL=/db/crisisprofiles/AF_REC.htm)). See also Jason Motlagh, Analysis: Afghanistan fights for its future, *World Peace Herald*, News World Communications Inc., September 28, 2006. (<http://wpherald.com/articles/1480/2/Analysis-Afghanistan-fights-for-its-future/Three-interrelated-challenges.html>).
  68. Reuters, Reconstruction and transparency, Afghan turmoil at a Glance, Reuters Foundation Alertnet, Reuters Limited. ([http://www.alertnet.org/printable.htm?URL=/db/crisisprofiles/AF\\_REC.htm](http://www.alertnet.org/printable.htm?URL=/db/crisisprofiles/AF_REC.htm)).
  69. David Mansfield, Conclusion, in: World Bank, *The Role of Opium as a Source of Informal Credit in Rural Afghanistan*. ([http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW\\_4\\_Role\\_of\\_Opium\\_as\\_Source\\_of\\_Credit.htm](http://siteresources.worldbank.org/INTAFGHANISTAN/Resources/AFRFW_4_Role_of_Opium_as_Source_of_Credit.htm)).
  70. Ibid.
  71. Afghanistan's SSR agenda consists of five pillars, each supported by a different donor state: military reform (US); police reform (Germany); the disarmament, demobilisation, and reintegration of ex-combatants (Japan); judicial reform (Italy); and counter-narcotics (UK). Mark Sedra, Security first: Afghanistan's security sector reform process, *The Ploughshares Monitor* 24 (4) (Winter 2003).
  72. Mark Sedra, Security first: Afghanistan's security sector reform process, *The Ploughshares Monitor* 24 (4) (Winter 2003).
  73. BBC News Online, Afghan force needs more troops, BBC News Online, BBC.
  74. Incoherent results arise because different pillars are led by different states, which are working at a different pace, and contribute different amounts of fund. This imbalanced approach works to hinder security in Afghanistan. For example, advances in police reform become undermined because the
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- justice system lags behind and often times does not know how to deal with detainees, and as a result releases them back to the streets. Ali A. Jalali, *The future of Afghanistan*, Parameters (Spring 2006).
75. Per capita external assistance to Kosovo from 1999-2001 was \$288; to Bosnia from 1996-99, \$326; and to Rwanda in 1994, \$193. In contrast, per capita aid distributed in Afghanistan in 2002 was \$63, and this figure will decline to \$42 by 2006. See [72]. Additional aid can moderate if not solve many of the problems currently facing the SSR agenda. Better funding means that recruits will receive better training and equipment. Greater funding will as well allow for higher wages, which may in turn entice more recruits to join and dissuade those already in the service not to take bribes.
  76. Max Boot, *Get serious about Afghanistan*, *The L.A. Times*, October 4, 2006.
  77. Proliferating rates of HIV/AIDS and cancer ensure that the need for pain killing medicines is likely to increase. The Senlis Council, *Memorandum From the Senlis Council, United Kingdom Parliament*, March 1, 2006. (<http://www.publications.parliament.uk/pa/cm200506/cmselect/cmdfence/558/558we06.htm>).
  78. Drug War Chronicle, *As fighting flares in Southern Afghanistan, support for licensed opium production grows*, *Drug War Chronicle Newsletter*, [stopthedrugwar.org](http://www.stopthedrugwar.org/chronicle/447/afghan_opium_proposal_gaining_support). ([http://www.stopthedrugwar.org/chronicle/447/afghan\\_opium\\_proposal\\_gaining\\_support](http://www.stopthedrugwar.org/chronicle/447/afghan_opium_proposal_gaining_support)).
  79. Senlis Council, *Feasibility Study on Opium Licensing in Afghanistan: For the Productions of Morphine and Other Essential Medicines, Initial Findings*, Kabul, September 2005, pp. 2-3.
  80. Kim Barker, *Very bad news on opium war*, *The Chicago Tribune*, September 3, 2006.
  81. For an alternative view on some of the problems associated with this proposal, and why some might deem this proposal as undesirable, please see Vanda Felbab Brown, *Afghanistan and opium*, *The Boston Globe*, December 18, 2005.
  82. According to the Senlis council, 'the price structure of opium under a licensed agreement compared to that of the current illegal industry would not necessarily create an economic disincentive for farmers to cultivate opium legally.' See [79, p. 3].
  83. See [79, p. 24].
  84. Rosemary Righter, *Let Afghan poppies bloom*, *Times Online*, Times Newspapers Ltd., September 6, 2005. (<http://www.timesonline.co.uk/article/0,,1072-1766388,00.html>).
  85. Afghanistan Ministry of Counter-Narcotics, *National Drug Control Strategy for Tackling the Illicit Drug Problem*, Kabul, January 2006, p. 22.
  86. *Ibid.*
  87. See [7, p. 71].
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# International criminal responsibility for abuse of power?

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This article surveys the possible application of International Criminal Law to address abuse of power. It thereby aims to stimulate discussion on criminal responsibility for abuse of power. Military commanders and civilian superiors, including politicians, can under conditions be held liable for abusing their power position in relation to the commitment of war crimes, crimes against humanity and genocide. War crimes require a state of conflict, while crimes against humanity and genocide can take place in both times of peace and war. Criminal forms of participation include committing and ordering such crimes. The abuse of a position of authority can be an aggravating factor in the sentencing. Even if the superior did not get involved in the crime directly, command responsibility can be established if the superior did not prevent his or her subordinates from committing the crime. It can also be established if the superior did not punish these subordinates for committing the crime. Criteria include that the commander or superior had effective control over his or her subordinates, whether on a legal basis or in fact, and knew or had reason to know that they were committing or about to commit such crimes. Therefore, people who abuse their position to, for example, cause or maintain a conflict situation at the cost of the human security of population groups, could find themselves accused of having committed international crimes.

During my research and interviews in conflict areas in Asia [1], again and again a pattern of abuse of power to safeguard interests at the cost of people at grassroots level appeared. One interviewee from the Philippines, who witnessed the emotions of both military and rebels, said that the war that took place seemed like a game played by ambitious men. Interviews in other countries also referred to interests of people far away from the conflict area and personally unaffected by the consequences of armed conflict. Interests in natural resources such as gas and wood were referred to as root causes to the conflict.

Based on reoccurring patterns, including those in the former Yugoslavia and Rwanda, it can be argued that (armed) conflicts at grassroots level often serve certain interests of people in power positions. Such conflicts can threaten the security of large groups of the population. International criminal tribunals focus their efforts on people in high positions as the people

with the greatest responsibility for the conflict. In its Policy Paper, the Office of the Prosecutor at the International Criminal Court states [2]:

The Office will function with a two-tiered approach to combat impunity. On the one hand it will initiate prosecutions of the leaders who bear most responsibility for the crimes. On the other hand it will encourage national prosecutions, where possible, for the lower-ranking perpetrators, or work with the international community to ensure that the offenders are brought to justice by some other means.

This paper surveys the possible application of International Criminal Law to address abuse of power. It thereby aims to stimulate discussion on criminal responsibility for abuse of power. First, underlying interests in conflicts are touched upon. Second, international criminal law is introduced. Third, international crimes are elaborated upon. Fourth, individual criminal responsibility is discussed with a focus on command or superior responsibility.

### **Interests in conflict**

Taking a look at the world map, there is a striking overlap between the location of natural resources, conflicts and human rights violations. The presence of big (international) companies is also noticeable in these areas. Our current consumption patterns result in transport of resources and products all over the world. The huge amount of trade and finances involved increase the stake for multinationals in access to resources and interests of States in exploitation of resources for export. Another big business at a global scale is the weapon industry, entailing high financial interests in (potential) conflict.

As an example, part of the conflict in Aceh concerns the wish for independence, often related to the call for an Islamic state. This fuels the fear of many Indonesians to loose (another) part of the country's territory. However, the main interests behind the conflict seem to be economic interests in natural resources such as gas and wood, influencing politics and social aspects. A comparative analysis on the atrocities against women of Aceh, East-Timor, Papua, and Jakarta reveals many similarities in the violence. Another reoccurring pattern appears to entail the soothing of a population by, for example, taking measures that underline their identity in response to unrest. For example, Islamic law might be granted to a certain extent, such as relating to the use of alcohol, but at the same time human rights and control over resources may be withheld. Similarly, in distracting the attention of people, measures claimed to be based on Christian values may actually serve expansion of access to resources. [3]

Raising or maintaining conflict, both abroad and internal, can form a distraction from other issues and interests. As stated by one of the interviewees, during a status of red alert another year of Martial Law can easily be provoked. When it was voiced that it was time to end the military status in this region, 'suddenly' a big accident happened that provided the authorities with an excuse to extend the military regime. In this case, the military interest was directly connected to the presence of an international oil company, which had to pay a high price for their security considering the conflict. In addition, it is noticeable that when peace is established in one conflict area, often escalation takes place in another area.

The diversity in society – ethnic, religious and cultural – is regularly abused to provoke hatred between population groups. To start or maintain an armed conflict, use of the

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'divide-and-rule' strategy appears to have remained popular. By dividing the population, for example, (over-)exploitation of resources and confiscation of land can take place without too much consequence. Historical and present misunderstandings enable such strategies. Cases include situations in which members of one ethnic group were killed while rumours were spread that another ethnic group is responsible. Research also reveals a pattern in which, just before armed conflict takes place, groups of outsiders enter the area to stimulate polarisation and disturb existing good relations. For example, in the Philippines (Christian) militias instigated by outsiders attacked the Moro (Muslim) population at the start of the armed conflict in Mindanao in 1972. Minorities can serve as scapegoats, such as the Chinese population in Indonesia, who were the main victim of the 1998 Jakarta rapes during the downfall of Soeharto. The conflicts in the former Yugoslavia and in Rwanda played the ethnic card. According to the *Vasiljevic* Trial Judgment: 'During the Bosnian conflict, ethnicity has variedly been exploited to gain political prominence or to retain power, to justify criminal deeds, or for the purpose of obtaining moral absolution for any act coloured by the ethnic cause' [4].

### International Criminal Law

International Criminal Law (ICL) is part of international public law [5]. International humanitarian law that has become part of customary international law includes the law embodied in the Hague Convention (IV) Respecting the Laws and Customs of War on Land and the Regulations annexed thereto of 18 October 1907; the Charter of the International Military Tribunal of 8 August 1945; the Convention on the Prevention and Punishment of the Crime of Genocide of 9 December 1948; and the Geneva Conventions of 12 August 1949 for the Protection of War Victims.

Historically, humanitarian law would address the law of war between States. The laws and customs of war entailed a code of military conduct between combatant States. However, a shift has taken place toward a humanitarian-oriented view. On the state-oriented and human-oriented approaches Sands states (although not on the law of war as such) [6]:

The judgement of the House of Lords (a national court) in *Pinochet* and of the ICJ in *Yerodia* reflect, in my opinion, a struggle between two competing visions of international law. For the majority in the House of Lords, international law is treated as a set of rules the primary purpose of which is to give effect to a set of broadly shared values, including a commitment to rooting out impunity for the gravest international crimes. The other vision, that reflected in the judgement of the ICJ, sees the rules of international law as being intended principally to facilitate relations between states, which remain the principal international actors.

The international criminal tribunals seem to be more in line with the focus on 'rooting out impunity for the gravest international crimes'. The Charters and trials of the International Military Tribunals in Nuremberg and Tokyo following the end of World War II lay the foundation of individual responsibility under international law, referring to crimes against peace, war crimes, and crimes against humanity [7]. According to the IMT in Nuremberg: 'Crimes against international law are committed by men, not by abstract entities, and only by

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punishing individuals who commit such crimes can the provisions of international law be enforced' [8].

Between the end of World War II and the 1990s, the establishment of an international criminal tribunal was often regarded as unrealistic. In 1993, the International Criminal Tribunal for the former Yugoslavia (ICTY) was established under Chapter VII of the UN Charter, as a measure to maintain and restore international peace and security, and based on a UN Security Council Resolution [9]. In 1994, the UNSC adopted a resolution to establish the International Criminal Tribunal for Rwanda (ICTR) [10]. The ICTY and ICTR have turned dormant humanitarian law into a practical and speedily developing body of law.

Contrary to the ICTY and ICTR, the International Criminal Court (ICC) is a permanent court and established by treaty: the 1998 Rome Statute of the International Criminal Court that entered into force on 1 July 2002 and to which currently 108 countries are States Parties [11]. Another difference between the ICC and the *ad hoc* Tribunals can be found in Article 17 of the Rome Statute, which provides that it will only take up cases not (adequately) dealt with by national courts. The ICC has unsealed its first warrants in October 2005. The first person was surrendered to the Court in March 2006: Mr. Lubanga, a former leader of a militia group in the Democratic Republic of the Congo, who has been charged with enlisting and conscripting children under the age of 15 and using them to participate actively in hostilities. 'The ICC continues its investigations of the situations in Democratic Republic of the Congo, Uganda, Central African Republic and Darfur, the Sudan [12].

Internationalised criminal courts were also established for Sierra Leone, East Timor, Kosovo and Cambodia [13]. As stated by the ICC: 'The Court and the United Nations are each part of an emerging system of international criminal justice. Within that system, the staff and officials of the different courts and tribunals regularly meet to share lessons from their experiences' [14]. With the coming into existence of the tribunals, ICL has become a far more realistic instrument to address international crimes and to prosecute the people responsible. As formulated by Mettraux, the following purposes of sentencing individuals for international crimes can be identified from the jurisprudence of the ICTY and ICTR [15]:

- (i) *retribution*, described as punishment of an offender for his specific criminal conduct; and
- (ii) *general deterrence*, understood as deterrence of future violations of international humanitarian law. In addition to the two principal purposes of sentencing mentioned above, a number of Chambers of the Tribunals have insisted that a sentence should also serve other purposes such as 'individual and affirmative prosecution aimed at influencing the legal awareness of the accused, the victims, the relatives, the witnesses, and the general public in order to reassure them that the legal system is being implemented and enforced', the 'protection of society, stigmatisation and public reprobation of international crimes', the 'rehabilitation' of the perpetrator, or even 'reconciliation'.

The law that tribunals can apply depends on both international law and on their Statute. For example, crimes against humanity do not as such require a state of armed conflict, but the Statute adds this requirement for the ICTY. On the applicable law, Article 21 of the Rome Statute for the ICC states:

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1. The Court shall apply:
  - (a) In the first place, this Statute, Elements of Crimes and its Rules of Procedure and Evidence;
  - (b) In the second place, where appropriate, applicable treaties and the principles and rules of international law, including the established principles of the international law of armed conflict;
  - (c) Failing that, general principles of law derived by the Court from national laws of legal systems of the world including, as appropriate, the national laws of States that would normally exercise jurisdiction over the crime, provided that those principles are not inconsistent with this Statute and with international law and internationally recognised norms and standards.
2. The Court may apply principles and rules of law as interpreted in its previous decisions.
3. The application and interpretation of law pursuant to this article must be consistent with internationally recognised human rights, and be without any adverse distinction founded on grounds such as gender as defined in article 7, paragraph 3, age, race, colour, language, religion or belief, political or other opinion, national, ethnic or social origin, wealth, birth or other status.

According to Kor: '[A]s it stands now, we must not see ICL as an autonomous and closed 'system' but as a 'multipolar space', open to interactions between general international law and international human rights law, and between international and national sources' [16].

### **International crimes**

International crimes under ICL include war crimes, crimes against humanity and genocide. A shift toward a humanitarian approach also explains the currently fading difference between the applicable law, and the international crimes it entails, relating to international and internal conflicts. On the distinction between international and internal armed conflicts, the *Tadić* Appeal Chamber stated: 'that in the area of armed conflict the distinction between interstate wars and civil wars is losing its value' and 'if international law, while of course duly safeguarding the legitimate interests of States, must gradually turn to the protection of human beings, it is only natural that the aforementioned dichotomy should gradually lose its weight' [17]. For now, the distinction between international and internal armed conflict to a certain extent remains to determine the applicable body of law. 'Grave breaches' of the Geneva Conventions require the involvement of the armed forces of two states in combat, even if only on the territory of one state or with minimum intensity. These and other war crimes will be discussed first.

### *War crimes*

War crimes are serious violations of the laws or customs of war. War crimes can only take place during a state of conflict. To constitute a war crime, a crime must have been closely related to the hostilities. War crimes can be committed by and against civilians and military. Originally, war crimes could not be committed against a state's own nationals. The *Tadić*

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Appeals Chamber stated that actual allegiance and ethnicity can be determinative of 'nationality' for the purpose of the grave breaches regime of the Geneva Conventions, more so than formal bonds such as a passport [18].

War crimes include 'grave breaches' of the 1949 Geneva Conventions, which require an international armed conflict and are limited to certain categories of protected persons and properties. Grave breaches of the Geneva Conventions as laid down in Article 2 ICTY Statute are: wilful killing; torture or inhuman treatment, including biological experiments; wilfully causing great suffering or serious injury to body or health; extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly; compelling a prisoner of war or a civilian to serve in the forces of a hostile power; wilfully depriving a prisoner of war or a civilian of the rights of fair and regular trial; unlawful deportation or transfer or unlawful confinement of a civilian; and taking civilians as hostages.

Other serious violations of the laws or customs of war as laid down in Article 3 ICTY Statute include, but are not limited to: employment of poisonous weapons or other weapons calculated to cause unnecessary suffering; wanton destruction of cities, towns or villages, or devastation not justified by military necessity; attack, or bombardment, by whatever means, of undefended towns, villages, dwellings, or buildings; seizure of, destruction or willful damage done to institutions dedicated to religion, charity and education, the arts and sciences, historic monuments and works of art and science; plunder of public or private property.

#### *Crimes against humanity*

Crimes against humanity can be committed both in times of war and peace. Crimes against humanity refer to inhumane acts such as wilful killing, torture or rape, committed as part of a widespread or systematic attack against any civilian population. These crimes can only be committed against civilians.

Crimes against humanity chapeau elements are: 1. an attack (commission of acts of violence); 2. nexus between acts and attack; 3. the attack is directed against any civilian population; 4. the attack is widespread or systematic; 5. the perpetrator must know that his acts are part of an attack on the civilian population. Crimes against humanity as laid down in Article 5 of the ICTY Statute and Article 3 of the ICTR Statute are: murder; extermination; enslavement; deportation; imprisonment; torture; rape; persecutions on political, racial and religious ground; and other inhumane acts.

#### *Genocide*

The crime of genocide mainly resulted from the atrocities of World War II. This crime does not require a state of conflict. Genocide can be committed by and against civilians and military. Genocide contains acts committed with the intent to destroy, in whole or in part, a national, ethnical, racial or religious group, e.g. by killing members of the group and forcibly transferring children of the group to another group.

The chapeau elements of genocide are: 1. intent; 2. to destroy; 3. in whole or in part; 4. a protected group; 5. as such. Genocide requires a special or genocidal intent to destroy a protected group in whole or in part. Underlying offences are: killing members of the group; causing serious bodily or mental harm to members of the group; deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;

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imposing measures intended to prevent births within the group; forcibly transferring children of the group to another group. Criminal participation in genocide refers to: committing genocide; conspiracy to commit genocide; direct and public incitement to commit genocide; attempt to commit genocide; complicity in genocide.

### **Individual criminal responsibility**

The crimes as laid out above entail individual responsibility. Article 7 ICTY Statute on individual criminal responsibility, similar to Article 6 ICTR Statute, states [19]:

1. A person who planned, instigated, ordered, committed or otherwise aided and abetted in the planning, preparation or execution of a crime referred to in articles 2 to 5 of the present Statute, shall be individually responsible for the crime.
2. The official position of any accused person, whether as Head of State or Government or as a responsible Government official, shall not relieve such person of criminal responsibility nor mitigate punishment.
3. The fact that any of the acts referred to in articles 2 to 5 of the present Statute was committed by a subordinate does not relieve his superior of criminal responsibility if he knew or had reason to know that the subordinate was about to commit such acts or had done so and the superior failed to take the necessary and reasonable measures to prevent such acts or to punish the perpetrators thereof.
4. The fact that an accused person acted pursuant to an order of a Government or of a superior shall not relieve him of criminal responsibility, but may be considered in mitigation of punishment if the International Tribunal determines that justice so requires.

The reference to Articles 2-5 concerns: grave breaches of the Geneva Conventions of 1949 (Article 2), violations of the laws or customs of war (Article 3), genocide (Article 4), and crimes against humanity (Article 5).

### ***Forms of participation***

Article 7(1) ICTY Statute entails the various forms of participation. For example, publications that encourage ICL crimes can under circumstances result in instigation. The ICTR in the *Nahimana* Trial Judgment states [20]:

977A. As founder, owner and editor of *Kangura*, a publication that instigated the killing of Tutsi civilians, and for his individual acts in ordering and aiding and abetting the killing of Tutsi civilians, the Chamber finds Hassan Ngeze guilty of genocide, pursuant to Article 6(1) of its Statute.

The various forms of participation included in Article 6(1) ICTR Statute are explained in the *Semanza* Trial Judgement as follows [21]:

- (i) Planning
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380. "Planning" envisions one or more persons formulating a method of design or action, procedure, or arrangement for the accomplishment of a particular crime. The level of participation in the planning must be substantial such as actually formulating the criminal plan or endorsing a plan proposed by another.

(ii) Instigating

381. "Instigating" refers to urging, encouraging, or prompting another person to commit a crime. Instigation need not be direct and public. Proof is required of a causal connection between the instigation and the commission of the crime.

(iii) Ordering

382. "Ordering" refers to a situation where an individual has a position of authority and uses that authority to order – and thus compel – another individual, who is subject to that authority, to commit a crime. Criminal responsibility for ordering the commission of a crime under the Statute implies the existence of a superior-subordinate relationship between the individual who gives the order and the one who executes it.

(iv) Committing

383. "Committing" refers to the direct personal or physical participation of an accused in the actual acts which constitute the material elements of a crime under the Statute.

(v) Aiding and Abetting in the Planning, Preparation, or Execution

384. The terms "aiding" and "abetting" refer to distinct legal concepts. The term "aiding" means assisting or helping another to commit a crime, and the term "abetting" means encouraging, advising, or instigating the commission of a crime. However, the terms "aiding" and "abetting" are frequently employed together as a single broad legal concept, as is the case in this Tribunal.

#### *Command responsibility*

People in power positions often do not personally commit the crimes but enable or allow others to commit them. Command responsibility as formulated in Article 7(3) ICTY Statute can under conditions address their (lack of) actions in such cases. The shared Appeals Chamber of the ICTY and ICTR states on command responsibility [22]:

Thus, whether Article 3 of the Statute is referring to war crimes committed in the course of international armed conflict or to war crimes committed in the course of internal armed conflict under Article 3 common to the Geneva Conventions, it assumes that there is an organized military force. It is evident that there cannot be an organized military force save on the basis of responsible command. It is also reasonable to hold that it is responsible command which leads to command responsibility. Command responsibility is the most effective method by which international criminal law can enforce responsible command.

Criminal responsibility of a superior or commander relates to his/her own acts or failures to act to prevent or punish the acts of others. The criteria for establishing command responsibility are summarised by Mettraux as follows [23]:

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- (i) the existence of a superior-subordinate relationship between the commander or superior and the alleged principal offenders;
  - (ii) the superior knew or had reason to know that the subordinate was about to commit such acts or had done so; and
  - (iii) the superior failed to take the necessary and reasonable measures to prevent such acts or to punish the perpetrators thereof.

Jurisprudence reaffirms that command responsibility can be established for both military and civil superiors, including politicians. In the *Čelebići* case, the Appeals Chamber elaborated on the application of command responsibility to civilian superiors, and reaffirmed that such responsibility can relate to both *de jure* and *de facto* command or control [24].

195. The Trial Chamber, prior to making this statement in relation to the case of Mucic, had already considered the origin and meaning of *de facto* authority with reference to existing practice. Based on an analysis of World War II jurisprudence, the Trial Chamber also concluded that the principle of superior responsibility reflected in Article 7(3) of the Statute encompasses political leaders and other civilian superiors in positions of authority. The Appeals Chamber finds no reason to disagree with the Trial Chamber's analysis of this jurisprudence. The principle that military and other superiors may be held criminally responsible for the acts of their subordinates is well-established in conventional and customary law. The standard of control reflected in Article 87(3) of Additional Protocol I [to the 1949 Geneva Conventions] may be considered as customary in nature. In relying upon the wording of Articles 86 and 87 of Additional Protocol I to conclude that "it is clear that the term 'superior' is sufficiently broad to encompass a position of authority based on the existence of *de facto* powers of control", the Trial Chamber properly considered the issue in finding the applicable law.

196. "Command", a term which does not seem to present particular controversy in interpretation, normally means powers that attach to a military superior, whilst the term "control", which has a wider meaning, may encompass powers wielded by civilian leaders. In this respect, the Appeals Chamber does not consider that the rule is controversial that civilian leaders may incur responsibility in relation to acts committed by their subordinates or other persons under their effective control. Effective control has been accepted, including in the jurisprudence of the Tribunal, as a standard for the purposes of determining superior responsibility. The *Blaskić* Trial Chamber for instance endorsed the finding of the Trial Judgement to this effect. The showing of effective control is required in cases involving both *de jure* and *de facto* superiors. This standard has more recently been reaffirmed in the ICC Statute, Article 28 of which reads in relevant parts:

In addition to other grounds of criminal responsibility under this Statute for crimes within the jurisdiction of the Court;

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(a) A military commander or person effectively acting as a military commander shall be criminally responsible for crimes within the jurisdiction of the Court committed by forces under his or her effective command and control, or effective authority and control as the case may be, as a result of his or her failure to exercise control properly over such forces, . . .

(b) With respect to superior and subordinate relationships not described in paragraph (a), a superior shall be criminally responsible for crimes within the jurisdiction of the Court committed by subordinates under his or her effective authority and control, as a result of his or her failure to exercise control properly over such subordinates . . .

Therefore, command or superior responsibility requires establishment of effective (*de jure* or *de facto*) control of a (military or civilian) superior to prevent and/or punish a war crime, crime against humanity or genocide (to be) committed by subordinates.

While effective control may be presumed in case of *de jure* control, the ability to exercise effective control is required for the establishment of *de facto* command or superior responsibility [25]. Command responsibility can be established for more than one person, as stated in the *Krnjelac* Trial Judgment [26]:

Effective control means the material ability to prevent offences or punish the principal offenders. Where a superior has effective control and fails to exercise that power he will be responsible for the crimes committed by his subordinates. Two or more superiors may be held responsible for the same crime perpetrated by the same individual if it is established that the principal offender was under the command of both superiors at the relevant time.

On superior responsibility relating to a leader of a political party, the ICTR in the *Nahimana* Trial Judgment states [27]:

976. The Chamber notes that in *Musema*, the Tribunal found that superior responsibility extended to non-military settings, in that case to the owner of a tea factory. The Chamber has considered the extent to which *Barayagwiza*, as leader of the CDR, a political party, can be held responsible pursuant to Article 6(3) of its Statute for acts committed by CDR party members and *Impuzamugambi*. The Chamber recognizes that a political party and its leadership cannot be held accountable for all acts committed by party members or others affiliated to the party. A political party is unlike a government, military or corporate structure in that its members are not bound through professional affiliation or in an employment capacity to be governed by the decision-making body of the party. Nevertheless, the Chamber considers that to the extent that members of a political party act in accordance with the dictates or instruction of that party, or otherwise under its instruction, those issuing such dictates or instruction can and should be held accountable for their implementation. In this case, CDR party members and *Impuzamugambi* were following the lead of the party, and of *Barayagwiza* himself, who was at meetings, at demonstrations, and at road-blocks, where CDR members and *Impuzamugambi* were marshalled into action by party officials, including *Barayagwiza* or under his authority as leader of the party. In these

circumstances, the Chamber holds that *Barayagwiza* was responsible for the activities of CDR members and *Impuzamugambi*, to the extent that such activities were initiated by or undertaken in accordance with his direction as leader of the CDR party.

977. The Chamber finds that *Barayagwiza* had superior responsibility over members of the CDR and its militia, the *Impuzamugambi*, as President of CDR at Gisenyi Prefecture and from February 1994 as President of CDR at the national level. He promoted the policy of CDR for the extermination of the Tutsi population and supervised his subordinates, the CDR members and *Impuzamugambi* militia, in carrying out the killings and other violent acts. For his active engagement in CDR, and his failure to take necessary and reasonable measures to prevent the killing of Tutsi civilians by CDR members and *Impuzamugambi*, the Chamber finds *Barayagwiza* guilty of genocide pursuant to Article 6(3) of its Statute.

That a superior 'knew' or 'had reason to know' needs to be established beyond reasonable doubt. The *Čelebići* Appeal Judgment refers to the Trial Chamber's statement in stating that a superior [28]:

may possess the *mens rea* for command responsibility where: (1) he had actual knowledge, established through direct or circumstantial evidence, that his subordinates were committing or about to commit crimes referred to under Articles 2 through 5 of the Statute, or (2) where he had in his possession information of a nature, which at the least, would put him on notice of the risk of such offences by indicating the need for additional investigation in order to ascertain whether such crimes were committed or were about to be committed by his subordinates.

Indicators of such knowledge include the number and type of troops allegedly involved and the nature and scope of the responsibility of the accused and his position in the hierarchy [29]. Punishment by the superior of his or her subordinates does not obsolete the duty to prevent their acts; the requirements to prevent and punish are cumulative.

The abuse of a position of authority can also constitute an aggravating circumstance in sentencing. According to Mettraux: 'An individual will not be sentenced more harshly simply because he finds himself higher up in the hierarchy, but his sentence may be aggravated if he has abused or wrongly exercised the powers and responsibilities placed upon him for the purpose of committing or facilitating crimes' [30]. In case an accused has been found guilty for both taking part in the commission of a crime and for failing to prevent the acts or punish the perpetrators, the *Blaškić* Appeal Judgment stated that the conviction will be based on the commitment of the crime while considering the superior position of the accused as an aggravating factor in sentencing [31].

## Conclusion

Military commanders and civilian superiors, including politicians, can under conditions be held liable for abusing their power position in relation to the commitment of war crimes, crimes against humanity and genocide. War crimes require a state of conflict, while crimes against

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humanity and genocide can take place in both times of peace and war. Criminal forms of participation include committing and ordering such crimes. The abuse of a position of authority can be an aggravating factor in the sentencing. Even if the superior did not get involved in the crime directly, command responsibility can be established if the superior did not prevent his or her subordinates from committing the crime. It can also be established if the superior did not punish these subordinates for committing the crime. Criteria include that the commander or superior had effective control over his or her subordinates, whether on a legal basis or in fact, and knew or had reason to know that they were committing or about to commit such crimes. Command responsibility may be hard to prove, although the jurisprudence of the ICTY and ICTR has shown that the judges will not be easily distracted by legalities such as a *de jure* command or control.

Therefore, people who abuse their position to, for example, cause or maintain a conflict situation at the cost of the human security of population groups, could find themselves accused of having committed international crimes. For example, abusing one's power position to order or allow people to be tortured, disappeared or killed during an armed conflict is likely to constitute a war crime. Instigating the prosecution of members of a certain population group as part of a widespread or systematic attack to safeguard land interests could very well constitute a crime against humanity.

Considering the development of ICL and the more than one hundred States Parties to the ICC, international criminal responsibility has become a suitable instrument to address and discourage certain forms of abuse of power, which can include power abused to serve interests such as in natural resources. The cooperation of States and international organisations is e.g. needed to arrest and transfer accused to international criminal tribunals, and to enable the gathering of evidence. Prosecution of crimes is one of many instruments to address injustice and human insecurity. The media and academic writing can, for example, assist in increasingly providing people with information that exposes the root causes of conflict and international crimes. In addition, positive measures such as peace-building efforts undertaken at the grassroots level can contribute to an environment in which people are less vulnerable to manipulation.

#### Notes

1. The interviews were undertaken on behalf of a network of development organisations and related to the work of peace-builders in conflict areas.
  2. ICC, Paper on some policy issues before the Office of the Prosecutor, September 2003, p. 3.
  3. In addition to general literature on conflict and natural resources, such patterns were pointed out and confirmed during confidential research undertaken in 2005-2006.
  4. ICTY, Vasiljevic Trial Judgment, 29 November 2002, par. 278.
  5. See on International Criminal Law: G. Mettraux, *International Crimes and the Ad Hoc Tribunals*, Oxford University Press, Oxford, 2005; A. Cassese, *International Criminal Law*, Oxford University Press, Oxford, 2003; A. Cassese, P. Gaeta and J.R.W.D. Jones (Eds.), *The Rome Statute of the International Criminal Court*, Oxford University Press, Oxford, 2002; L.C. Green, *The Contemporary Law of Armed Conflict*, Manchester
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- University Press, Manchester, 2000; V. Morris and M.P. Scharf, *The International Criminal Tribunal for Rwanda*, 1998; and R.S. Clark and M. Sann (Eds.), *The Prosecution of International Crimes: A Critical Study of the International Tribunal for the Former Yugoslavia*, Transaction Publishers, New Brunswick, 1996.
6. P. Sands, 'After Pinochet: the role of international courts', in: P. Sands (Ed.), *From Nuremberg to The Hague: The Future of International Criminal Justice*, Cambridge University Press, Cambridge, 2003, p. 103.
  7. On the Tokyo tribunal, see B.V.A. Röling and A. Cassese, *The Tokyo Trial and Beyond*, Polity Press, Cambridge, 1993.
  8. IMT, judgment of 1 October 1946, in *The Trial of German Major War Criminals: Proceedings of the International Military Tribunal Sitting at Nuremberg, Germany*, part 22, p. 447.
  9. UN Doc. S/RES/808 (22 February 1993). See ICTY website: <http://www.un.org/icty>.
  10. UN Doc. S/RES/955 (8 November 1994). See ICTR website: <http://www.un.org/icty>.
  11. See <http://www.icc-cpi.int>. See also A. Cassese, P. Gaeta and J.R.W.D. Jones (Eds.) *The Rome Statute of the International Criminal Court*, Vol. 2, Oxford University Press, Oxford, 2002; P. Saland, Chapter Seven, in: R.S. Lee (Ed.) *The International Criminal Court: The Making of the Rome Statute*, Kluwer Law International, 1999.
  12. See <http://www.icc-cpi.int>. ICC, Report of the International Criminal Court for 2005-2006, 3 August 2006, UN Doc. A/61/217.
  13. See Romano, Nollkaemper and Kleffner (Eds.), *Internationalized Criminal Courts*, Oxford University Press, Oxford, 2004. See also, for example, <http://www.sc-sl.org>: An agreement to establish the Special Court for Sierra Leone was signed by the UN and the Government of Sierra Leone on 16 January 2002. The Sierra Leone Court: 'It is mandated to try those who bear the greatest responsibility for serious violations of international humanitarian law and Sierra Leonean law committed in the territory of Sierra Leone since 30 November 1996.' Indictments include charges of war crimes, crimes against humanity, and other serious violations of international humanitarian law. 'Specifically, the charges include murder, rape, extermination, acts of terror, enslavement, looting and burning, sexual slavery, conscription of children into an armed force, and attacks on United Nations peacekeepers and humanitarian workers, among others.'
  14. See [13].
  15. Mettraux (see [5]), pp. 345-346.
  16. G. Kor (2006), discussion paper, part of his PhD research at the VU.
  17. ICTY, *Tadić* Jurisdiction Decision, 2 October 1995, par. 97.
  18. ICTY, *Tadić* Appeal Judgment, pars 164-166.
  19. See for an analysis of this Article e.g. Mettraux (see [5]), Chapters 20, 21 and 22.
  20. ICTR, *Nahimana* Trial Judgment, 3 December 2003.
  21. ICTR, *Semanza* Trial Judgement, 15 May 2003.
  22. ICTY, *Hadžihasanović* Decision of 16 July 2003 on Interlocutory Appeal Challenging Jurisdiction in Relation to Command Responsibility, par. 16.
  23. Mettraux (see [5]), p. 298.
  24. ICTY, *Čelebići* Appeal Judgment of 20 February 2001. See also ICTR *Kayishema and Ruzindana* Trial Judgment of 21 May 1999.
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25. ICTY, *Čelebići* Appeal Judgment of 20 February 2001. See also, e.g., ICTR Kayishema and Ruzindana Trial Judgment of 21 May 1999, par. 197.
  26. ICTY, *Krnjelac* Trial Judgment of 15 March 2002, par. 93.
  27. See [20].
  28. ICTY, *Čelebići* Appeal Judgment, par. 223.
  29. See Mettraux (see [5]), pp. 301-306 on the knowledge requirement.
  30. Mettraux (see [5]), pp. 353-354.
  31. ICTY, *Blaškić* Appeal Judgment of 29 July 2004, par 91.
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# African Institutes for Mathematical Sciences: Building a Knowledge Base For African Security

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In this paper we explore the role of scientific and technical education in addressing security issues on the African continent. We adopt a definition of “security” that emphasises the well-being of the citizen rather than that of the state, and that encompasses both military and non-military threats. Security and development are interlinked, and this paper will emphasise the need for an effective African technical infrastructure to address these twin issues. To this end, we argue for the establishment of a pan-African network of mathematical institutes, relying on open-source software and educational tools as well as improved communication links throughout the continent. We emphasise the crucial role played by free and open-source tools in improving communication links on the continent. As a case study, we analyse the recently founded African Institute for Mathematical Sciences in South Africa. This unique project is characterised by three main characteristics: a commitment to pan-African cooperation, innovative, project-based teaching methods, and exclusive reliance on open-source software and educational material. We analyse to what extent it can serve as a model for future capacity building initiatives. Finally, we outline the proposed African Mathematical Institute Network, or AMI-Net. This network of interconnected institutes will help to build the scientific and technical knowledge base necessary for sustained African development. We offer suggestions for the implementation of the project, and show how it can contribute to the overall security infrastructure.

It is hardly a matter of controversy that many African countries have failed to capitalise on their enormous potential in the years since independence. Sub-Saharan Africa, in particular, suffers the highest infant mortality, the highest AIDS incidence, and the severest poverty-related issues of any region in the world. Northern Africa, as well, is plagued by corruption, repressive government, and internal conflict. Therefore, the “Africa” we refer to encompasses the whole continent, not simply the area south of the Sahara. The countries of the region are linked

together by history and by the problems of the present day; it therefore makes sense that security policy for the region must address cross-continental issues.

Issues of security and development are intertwined, and it is often difficult to define them separately. Threats to security do not necessarily take a military form; AIDS, malaria, inadequate sanitation, poor access to education, and economic exclusion would be high on anyone's list of Africa's woes. Poverty has a destabilising effect, and scarce resources inevitably lead to conflict. In this paper we define "security" to mean a guarantee of protection from both internal and external threats. Citizens are not secure when states go to war; nor are they secure when diseases ravage their villages or when they are denied access to a livelihood. We see a secure continent as the responsibility of governments and of individuals, and envisage economic development and a higher regional standard of living as important steps toward achieving this goal.

The response to these security issues must necessarily be multi-faceted. The problems facing Africa are large and complex; no single solution will be adequate for the entire population. However, small, focussed projects can have a significant impact. In this paper we will discuss one such project and how it fits into the development picture. First, we will provide a brief overview of the major security threats facing the continent and show how progress in combating them may be made by an educated, well-trained science and technology workforce. Second, we will illustrate a successful example of capacity building in the mathematical sciences and technology, and finally we will discuss how it may be extended to serve a larger segment of the population. While science education cannot alone solve the continent's problems, it can help to empower those most qualified to find the solutions. For that alone, we believe it is worthy of significant, directed investment.

### **Threats to Security**

Historically, African states have faced a range of security issues since independence. Competition over resource-rich areas like the eastern Democratic Republic of Congo and the Nigerian oilfields has been intense, leading to conflicts that wreaked havoc in the newly created states and continue to simmer in the present day. These conflicts have transcended the boundaries drawn by the colonial powers, involving a range of nation-states and ethnic groups. Additionally, these arbitrary boundaries have contributed to internecine conflicts between ethnic and cultural groups, culminating most famously in the Rwandan genocide and the Biafran civil war. Matters have not been helped by incompetent or corrupt local governments too frequently characterised by "Big Men"-tyrants like Zaire's Mobutu Sese Seko and Uganda's Idi Amin [3]. Present-day Africa has inherited the aftermath of these troubles, and must bear the additional burden of competition in an increasingly globalised world.

Conflicts over resources are enhanced by poor or unsustainable management of the environment coupled with the effects of global climate change. Particularly in northern Africa, climate change and ecosystem degradation pose serious threats to regional security. Desertification and poor management of dry-land ecosystems affect approximately two billion people worldwide. Overgrazing and pollution of scarce water supplies pose a serious problem for the large proportion of desert dwellers living in poverty, and migration of populations from degraded areas can exacerbate political or ethnic conflict, as in the Darfur province of Sudan [4]. With the loss of dry-land biodiversity comes the loss of indigenous knowledge, as local

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plants and animals used in traditional healing and industry become rare or extinct. Additionally, food stocks may be catastrophically reduced as land suitable for livestock grazing and food production is depleted. It is estimated that 20 percent of dry-land in this region is degraded every year, a figure that is increasing with time. Researchers believe that such land can be restored to 50-75 percent of its previous productivity [5], but the support for locally-based research and implementation is virtually nonexistent. While hardly a panacea, reclamation of this depleted land can help to alleviate the security situation in the region.

Recently, reporting on resource-based conflicts on the African continent has been displaced in the Western media by a new focus on global health. Bolstered by donations from two of the world's richest men, Bill Gates and Warren Buffett, NGOs and public health professionals have led a new battle to eradicate deadly diseases. It is certainly true that AIDS, malaria, and other diseases have enormously devastating effects for individuals, and that massive intervention is needed to prevent the destabilisation of societies. However, as a recent article in *Science* points out, "there is no architecture for global health" [2]. Competition and poor communication between drug and vaccine distribution agencies means that often goals are not met. The lack of epidemiological models and on-the-ground data coupled with poor technological infrastructure mean that medical help often fails to reach those who need it most. The lack of well-equipped African research facilities and trained personnel leads to over-reliance on Western expertise and aid. American and European pharmaceutical companies focus on the diseases that affect those populations, often neglecting the diseases rampant on the African continent. Similarly, reliance on Western public health officials prevents African governments from setting their own priorities for treatment and vaccination. It is not surprising that this approach leads to deep distrust of imported medications. Unless indigenous research and development are supported, calls to boycott the polio vaccine and to replace anti-retroviral drugs with potatoes and garlic will gain more credence.

The lack of a communications infrastructure on much of the continent serves to further hinder treatment and prevention efforts. In fact, poor connections between different areas have destabilised individual countries and entire regions. With the exception of artificial, Western-mediated coalitions designed to enforce Cold War spheres of influence, the history of modern Africa has been one of conflict rather than cooperation. Put simply, circumstances have made it impossible for some groups to communicate with others. Transport links and roads between neighbouring countries are often degraded or nonexistent, and some rural areas lack any transport infrastructure at all, particularly in inclement weather. Virtual communication, as well, is often difficult or impossible. Internet bandwidth costs are prohibitively high, sometimes exceeding comparable services in the USA by a factor of ten [6]. Landline phones are poorly served, and mobile technology, while rapidly embraced by the public, still has not penetrated many rural areas. Even when computers have been brought into schools, the staff has rarely received the training necessary to make effective use of them in their lesson plans. In some cases computer labs sit unused or are sold for scrap metal. The shortage of computer scientists, as with the shortage of transport engineers, logistics experts, and telecommunications engineers severely hampers the communication situation on the continent. This, in turn, exacerbates cultural differences, hampers trade efforts, and poses a low-level but long-term threat to security.

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It is clear that the lack of trained and well-equipped African staff severely hampers development efforts on the continent. Many of the developing world's problems demand innovative solutions which cannot be imposed from outside. We argue that any serious attempt to improve the security situation must focus both on developing this knowledge base and on fostering cooperation between disparate groups. Science, by its very nature, tends to foster collaborations and improve links between nations and cultures. In the following sections we will discuss the role of science and technology in development, and outline specific measures that can be taken.

### **Role of science and technology in development**

Obviously, a stable and secure African continent requires good governance, fair trading policies, strong economic leadership, and improved relations between different ethnic and cultural groups. No single policy or donation can improve the security situation and promote sustainable development. However, science and technology underpin industrialisation and informed policy choices. An educated workforce coupled with a stable job sector can promote the development and opportunity so crucial to regional security. Technical knowledge builds roads and computer networks; it coordinates effective aid efforts and develops economic policy. While not a panacea, scientific and technical education can help to build the framework necessary for development and security.

We cannot stress enough that such expertise must be local and sustainable. Reliance on outside experts often leads to inappropriate development or waste of precious funds. Often development projects mediated by westerners take the form of prestige projects—the under-used international airports in Maseru and Lubumbashi, for example, or the hydroelectric dams built in Ghana. Additionally, aid workers ignorant of local customs may direct efforts and funding toward well-intentioned yet inappropriate projects, such as unread surveys of local wildlife. Finally, without a strong coordinating local presence, aid projects may seem arbitrary and scattershot, as with shipments of stiletto heels and American football equipment to refugee camps in southern Sudan. A highly trained local presence will help to ensure that foreign development aid maximises its effectiveness.

The importance of science and technology cuts across political and cultural borders, and is recognised at the highest levels of government. In July 2001, the African Union (formerly the Organization of African Unity) adopted a strategic framework for the development of the entire continent. The New Project for Africa's Development, or NEPAD, seeks to achieve the Millennium Development Goals through continent-wide cooperation [9]. NEPAD stresses the importance of science and technology, and has identified five main platforms, which are:

1. Biodiversity, Biotechnology and Indigenous Knowledge
2. Energy, Water and Desertification
3. Material Sciences, Manufacturing, Laser and Post-Harvest Technologies
4. Information, Communication and Space Science Technologies
5. Mathematical Sciences

The presence of the Mathematical Science platform is intended to strengthen the other areas of focus. Mathematics is the language of all science; modern technologies universally rely on algorithms and methods developed by mathematicians. Mathematical knowledge allows scientists to analyse data and to develop theories that predict future events. Capacity building

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in mathematics and science is therefore crucial to achieving security, stability and development on the continent.

We argue that specific steps can be taken to create a pan-African science infrastructure, based on the mathematical sciences, in order to address these security threats and mediate responsible development. In particular, we fully support the creation of a network of institutes characterised by an innovative teaching style, the use of free and open-source software tools, and a focus on pan-African collaboration. In the following sections we will discuss the implementation of such a network, and show its benefits for the African continent.

### **Current state of technical education**

Even the richest Western universities struggle to balance their need to support useful research with their obligations to educate their students. Many African universities face the additional obstacles of war, instability, corruption, and under-funding. In recent years, the University of Kinshasa in the Democratic Republic of Congo has been forced to shut down, sometimes for periods of up to one year. A former lecturer at a university in Angola observed, “I would have loved to keep teaching. But after a year of not being paid anything I had to take another job to support my family”. The cost of internet bandwidth is often ten times what it would be in the United States. Lack of interest and enthusiasm from students is not often an issue— it is estimated that staff numbers in Nigerian universities must increase by fifty percent in order to keep pace with swelling enrolment [6]. However, the pool of suitable lecturers and funds available to pay them has not grown at a commensurate rate.

Students we interviewed often criticized the rigid, “Victorian” teaching styles employed at many schools, colleges, and universities on the continent. “We were never allowed to ask questions,” observed one Nigerian student. A Congolese student said, “we just wrote down what the lecturer said and then memorised it.” The lack of resources, poor salaries, and inadequate training opportunities make university lecturing and research an unappealing prospect for many, and those that do choose to teach find themselves struggling with overlarge classes and poor equipment. The environment at many educational institutions does not seem to encourage questions, individual training, and creative thought-essential qualities for scientific researchers.

Additionally, unpaid salaries and the lack of security in many countries have contributed to a “brain drain”, with many bright African scientists, mathematicians, and health professionals choosing to work abroad. While initially devastating for the countries left behind, this mass migration creates a prosperous, educated diaspora and a potential pool of trained professionals to draw upon for development purposes. The creation of a stable job sector and outlets for technical expertise on the continent could effectively tap this human resource, luring many professionals home. However, until there is a stable knowledge base and a sustainable education infrastructure, this return will remain a pipe dream.

### **AIMS**

The African Institute for Mathematical Sciences (AIMS) was founded in 2003 to address these issues. Located in Muizenberg, Cape Town, South Africa, AIMS attracts postgraduate students from all over the continent. In its first year of operation, 2003-4, 30 students from 11 African countries graduated from AIMS. In 2005 41 students from 16 different countries graduated

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from the program, and last year AIMS graduated 44 students from 18 countries [8]. The number of women students continues to increase each year, from just 6 in 2004 to 15 this academic year. Students leave AIMS with superb preparation for further study or employment in the quantitative sciences. However, each AIMS alumnus we interviewed cited the friendships and scientific collaborations they made with students and faculty as the high point of the experience. As one student said, “we were taught all Muslims were suicide bombers. Now I can say Muslims from Sudan, Egypt, and Kenya are my best friends”. The intensity of the course coupled with its success at attracting the brightest mathematics students on the continent helps to build the networks which will allow African science to thrive in the future.

#### *Facilities and Physical Plant*

The AIMS building is a former hotel located in Muizenberg, a sleepy suburb of Cape Town. On the ground floor is a communal dining hall and large lecture theater. Students and teaching staff live in rooms on the top floors, fostering an extraordinarily open environment in which lecturer-student interactions are frequent, even late at night and early in the morning. Additionally, students may access a well-stocked library and computer lab on the first floor.

Numerous AIMS alumni cited the facilities as the best aspect of AIMS after the friendships and collaborations developed. The AIMS computer lab boasts state-of-the-art PCs and a broadband internet connection, allowing students access to a number of online journals, educational sites, and other resources. Most importantly, from the first day of instruction students are immersed in free and open-source software, which we will later argue is crucial to the technological development of Africa as a whole.

#### *The AIMS Course*

The year is divided into three parts. Initially, the emphasis is on fundamental problem-solving techniques. Students receive preliminary training in approximation and estimation techniques as well as an introduction to the structure of mathematical proof. These courses, in addition to providing an open environment for learning, allow students to experience methods of teaching which may differ drastically from traditional recitation-based lecture courses. Students work in groups on complex problems such as estimating the deflection of light by the sun due to general relativity or on working out proofs crucial to branches of mathematics as disparate as geometry and probability theory. During the subsequent “skills semester”, students are required to follow a series of three-week courses which run in parallel. These include core skills such as programming in Python or C, basic mathematical methods, probability and differential equations as applied to epidemiology. No traditional exams are set; instead, students work on a variety of challenging problems. By the end of the third month of the course, students who may have never seen a computer before can write data-compressing code and solve complex equations numerically. Additionally, group work builds trust and collaborations between students of different nationalities naturally form.

The second semester allows students to choose areas of specialisation or to explore more branches of the mathematical sciences. Around twenty courses are offered, of which students can choose at minimum eight. These include pure mathematics such as topology and group theory, fluid dynamics, quantum physics, financial mathematics, applications to biological sciences, and further work in computer science and programming. Again, lecturers are

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encouraged to assess students through projects and challenging assignments rather than through traditional written examinations.

The final third of the year is devoted to individual essays, supervised by faculty members at one of the three local universities or by volunteers from as far away as Oxford. Students write an essay of thirty to fifty pages, in English, on a mathematical topic proposed by a supervisor. While original research content is not necessarily expected, some students' essays have become the basis of masters and doctoral dissertations. Often the essays involve a large amount of programming or software development, allowing students an opportunity to apply skills learned throughout the year. At the bare minimum, each report must be submitted in the LATEX typesetting language, the technological lingua franca of the mathematical science community. Past topics have included mathematical modelling of effective AIDS vaccine distribution, fluid mechanics with applications to oil extraction, and calculating the optimal use of limited internet bandwidth. A complete archive of past students' essays may be found online at <http://www.aims.ac.za/resources/archive>.

Although a small institute, AIMS has ambitious goals and has been largely successful at achieving them. First, it seeks to alleviate the "brain drain" by facilitating links between African universities and the rest of the world. By creating a pool of well-trained and well-connected scientists, AIMS helps to link Africa to the global scientific community. Second, AIMS alumni are encouraged to stay in contact with each other, even as they return to their countries of origin. In time, it is hoped that this will help build a critical mass of researchers working in collaboration across many regions of the continent. Third, AIMS alumni will bring to their home countries a new appreciation of interactive teaching and collaborative learning, which will help to improve secondary and post-secondary technical instruction in their home countries. We will now turn our attention to the specifics of this teaching method.

### *Teaching Methodology*

The teaching staff at AIMS is drawn from a pool of international experts and from the finest universities in Africa. In fact, far more lecturers have volunteered to teach at AIMS than can ever be used. Each lecturer commits to spending three weeks teaching an intensive course—not to do their own research or to enjoy a South African holiday. Every teacher brings their own strengths to the course, and every lecture is unique. However, the most effective courses are characterised by some common factors.

AIMS is a unique institution and calls for a unique teaching style. Because the goal is to create world-class researchers in the span of only nine months, only the most effective methods can be used. The traditional lecture format is unsuitable because it is too passive; the diversity of the student body demands a more personalised approach. Lecturers at AIMS are therefore encouraged to adopt a more interactive style. While requiring infinitely more effort and preparation than traditional lectures, this approach is often far more rewarding [6].

Each entering class contains students of widely differing backgrounds, abilities and interests, which poses a significant challenge for the first few lecturers. The initial emphasis is therefore placed on improving and sharpening problem-solving skills. While many students are easily able to solve standard problems and recite formulae, few feel comfortable with posing their own questions and developing their own methods. To foster creativity, lecturers encourage students to work in small groups and share their ideas. This also serves to break

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down barriers between students from different cultural backgrounds. Instead of memorising proofs, students are asked to devise their own. Rather than lists of formulae, students are presented with challenging physical problems. To develop physical intuition, students estimate the number of grains of sand on Muizenberg beach and work out the diameter of the moon based on its angular size. The introductory courses emphasise intuition, educated guessing, and collaboration—essential skills in the real world of science and engineering.

Students are encouraged to break seemingly insurmountable problems down into a series of simple, logically related sub-problems. By the end of the introductory period students feel more comfortable with uncertainty and have begun to trust their own creativity. Subsequent courses build on this foundation, teaching students the essentials of the subject area while challenging them with complex assignments and projects. One former student noted, “we learned in a way quite unlike anything I’d experienced before... AIMS classes were interactive, full of questions from students, questions from lecturers.” Students are treated as peers and equals; the aim is to break down the traditional lecturer-student barrier in order to promote a more active research environment.

This interaction is helped by the “hot-house” nature of AIMS. Students, a tutoring staff of 4-6, visiting lecturers, and researchers all live together in one building, enabling teaching to happen 24 hours a day. This allows great flexibility in scheduling, particularly during the Ramadan months when the Muslim students must fast during the day. In addition, the informal nature of instruction means that it is easy to hold optional evening classes on anything from the history of the Sudan to programming tips to AIDS biology. Students are encouraged to help one another; those from Anglophone countries often help others with their English, and those who have a stronger background in one particular area will assist those new to it. Over meals and into the evening hours students and teachers discuss culture and religion as well as mathematics, enhancing the learning experience greatly. As one student said, “AIMS feels like family.”

#### *Free and Open-Source Software*

The AIMS computer lab runs exclusively on Free and Open Source Software (FOSS). Although this software is famously “free as in speech, not as in beer”, because FOS software tends to be inexpensive as well as easily modified, it fits in perfectly with the AIMS mission.

Many computer labs in Africa are dependent on expensive proprietary software which cannot be modified or updated without considerable cost to the users. Proprietary software cannot be easily customised and is usually developed exclusively to serve the needs of Western individuals and businesses.

Free software refers to “software which can be used, copied, studied, modified and redistributed without restriction”. FOSS is inexpensive and lends itself easily to customisation and innovation. It is therefore perfectly suitable to the needs of African scientists and technological innovators. Although some members of the free software community dislike the equating of this term with the label “open-source,” at AIMS and subsequently in this paper, we use the terms interchangeably. The key to the idea is to facilitate the free modification and distribution of source code in order to help create technological solutions relevant to African development.

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The flagship example of FOSS, the Linux operating system, runs on all AIMS computers. Developed by Linus Torvalds, Linux provides a stable platform on which to run countless free software applications. It is easily installed and lends itself well to networking. Ubuntu Linux, the distribution used at AIMS, was developed to be especially user-friendly, and AIMS students receive training on how to install and introduce this system to new users. Past AIMS students have then gone on to secure funding for Linux or Unix-based labs at their home universities, which they are then well-equipped to manage.

In addition to familiarity with the Linux environment, AIMS students learn to program in C, Octave, and Python, to create HTML webpages, and to use the *emacs* text editor and LATEX text processing language. These skills, in addition to being prerequisites for entry into the international mathematical community, allow students to begin to develop software for their own uses. Example projects include translating the Linux platform into various African languages, writing an equation solver for use in epidemiological modelling, and using Python's visual mode to create educational software for basic physics lessons. In a few months, students who may have never seen a computer before acquire the skills needed to customise software for their own purposes.

Recently, the popularity of such sites as *Wikipedia* and *WikiTravel* has drawn popular attention to another kind of free software, the *wiki*. These sites allow anyone to edit or contribute information. While *Wikipedia*, in particular, has struggled with several high-profile incidents of vandalism, a recent Nature study found that the accuracy and completeness of the site rivalled that of the venerable Encyclopaedia Britannica. Smaller *wikis* report little problems with vandalism, and allow experts to communicate with each other and to publicise new developments in their fields. AIMS has adopted a *wiki* approach to teaching programming, publishing editable tutorials and introductions to various FOSS applications online. These tutorials allow former students and experts to contribute to the education of current students, and are constantly monitored by the community to prevent vandalism or factually incorrect information from appearing.

So why is open source software so vital for science? In the introduction to *Voices from the Open Source Revolution*, Chris DiBona, Sam Ockman, and Mark Stone point out:

Science is ultimately an Open Source enterprise. The scientific method rests on a process of discovery, and a process of justification. For scientific results to be justified, they must be replicable. Replication is not possible unless the source is shared: the hypothesis, the test conditions, and the results. The process of discovery can follow many paths, and at times scientific discoveries do occur in isolation. But ultimately the process of discovery must be served by sharing information: enabling other scientists to go forward where one cannot; pollinating the ideas of others so that something new may grow that otherwise would not have been born [7].

Where scientists talk of replication, Open Source programmers talk of debugging. Where scientists talk of discovering, Open Source programmers talk of creating. Ultimately, the Open Source movement is an extension of the scientific method, because at the heart of the computer industry lies computer science.

This shared method benefits both the industrial and scientific communities. Science gains a ready platform for distributing its ideas, and industry gains a wellspring of freely available

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ideas and innovations from which to construct new products and services. Ultimately, the free availability of information will help Africa to become competitive in the global economy, as well as turn the focus of technological innovation towards the real problems of the continent.

A student from the Democratic Republic of the Congo summarised the importance of FOSS: “Open-source is the spirit of AIMS. It stands for cooperation and helping each other. It opened our minds”.

### **AMI-Net**

The AIMS model’s success is mostly due to the small, focused nature of the individual institute and of its ability to draw students and lecturers from all over the continent and the world. It is not initially obvious how to build upon this success. Merely enlarging the South African Institute would compromise the possibility for individual tutoring and interactions between students and faculty so integral to its success. Likewise, merely creating copies throughout the developing world would hinder each individual institute’s ability to draw students from outside its particular region. The best solution yet put forward is the African Mathematical Institutes Network, or AMI-Net [1]

The stated objectives of AMI-Net are as follows:

1. To help build a new generation of African scientists and technologists with excellent quantitative problem solving skills.
2. To strengthen the teaching of mathematics and science, especially at university level.
3. To prepare students for research across a wide range of scientific disciplines.
4. To build a critical mass of mathematical scientists, connected via the internet and working in collaboration across Africa.

The purpose of AMI-Net is to build upon and enrich existing resources. In order to support the NEPAD Science and Technology platforms, it is essential to develop a knowledge base on the continent. AMI-Net will use the Internet and Free/Open Source software to link several mathematical centres, or “Nodes”. Each selected Node of the Net will be equipped with at least 40 fast PCs, a firewall, a server, printing and copying facilities, and a generator to ensure availability of electricity. To securely manage this, at least one dedicated computer officer must be on staff. Additionally, each Node will be equipped with a library and a lecture theatre. Initially, AIMS will serve as the hub for this activity, and will help to facilitate the exchange of students and lecturers among the nodes.

Eventually, it is hoped that AMI-Net will consist of 15-20 nodes which each serve a local region. We intend that the governing Board of each node will include representatives from all corners of the region it serves. Each node will be autonomous, but will be connected to the others and share resources freely. In particular, collaborations, facilitated perhaps by internet videoconferencing, will be encouraged in order to strengthen the network. Visiting lecturers from overseas will be encouraged to visit more than one Node, and student exchange programs will encourage inter-region collaboration.

The process of selecting the Nodes is already in progress. Expressions of interest have been put forward by institutions in Benin, Botswana, Cameroon, DRC, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Rwanda, Senegal, Sudan, Tanzania, Uganda, Zambia, and Zimbabwe. In December 2006 the AMI-Net Board, consisting of representatives from five regions of Africa, will begin site visits to select the initial Nodes. It is

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expected that the initial network will consist of AIMS and three to five nodes, with additional nodes added on a yearly basis. Each selected node will receive a substantial grant to cover start-up costs, but will be encouraged to seek steady sources of funding from the public or private sectors in the future.

In short, the AMI-Net model replicates the success of AIMS while allowing each regional institute to retain a unique character. It is, we believe, an important step toward building the knowledge base so crucial to Africa's sustainable development. Through excellent teaching, free exchange of ideas, and access to modern computer technology, AMI-Net should help Africa to utilise its human resources in order to realise its potential.

## Conclusion

The African Mathematical Institute Network provides a viable framework for improving science and technology in Africa by focusing on the basic building block— mathematical and quantitative skills development. It is our hope that within twenty years the alumni of these institutes will constitute a large body of highly qualified, innovative scientists, university professors, entrepreneurs, and inventors. The graduates of AIMS, and those they teach, will be catalysts for changes in the African economy and security infrastructure. They will provide the knowledge and skills to develop creative solutions to the continent's problems, and will be able to rely on a strongly connected community of other researchers that stretches beyond the boundaries of their countries. These benefits will come from a comparatively small investment financially, but will lay the foundation for a highly improved education and technology sector continent-wide. No single program will provide the people of Africa with security and stability, but it is our hope that AMI-Net will enable those with great ability to contribute greatly to their continent's well-being.

## Notes

1. Groenewald, J. and N. Turok, "AMI-NET: African Mathematical Institutes Network," [www.aims.ac.za/docs/AMI-Net2005.ps](http://www.aims.ac.za/docs/AMI-Net2005.ps)
2. Cohen, J, "The New World of Global Health," *Science*, 311, (13 January 2006): 162-167.
3. Meredith, M., *The State of Africa: A History of Fifty Years of Independence* (London: The Free Press, 2005).
4. Lemons, John "Conserving dry-land biodiversity: Science and policy",
5. Hebden, Sophie, "Africa's land degradation 'can be reversed'. (SciDev.net).
6. Ferreira, P.G. and M. Pickles, "A new model for Postgraduate education in Africa? – The African Institute for Mathematical Sciences (Unpublished, 2006).
7. DiBona, C. S. Ockman, and M. Stone, *Voices from the Open Source Revolution*
8. African Institute for Mathematical Sciences. [www.aims.ac.za](http://www.aims.ac.za)
9. Africa's Science and Technology Consolidated Plan of Action, [www.nepadst.org/doclibrary/ast\\_plan\\_of\\_action.pdf](http://www.nepadst.org/doclibrary/ast_plan_of_action.pdf) (published August 2005).
10. Beardon, Toni, AIMSSEC director (private conversation).
11. ICTY, *Blaškić* Appeal Judgment of 29 July 2004, par 91.

# Crucial recommendations in the report of the Commission on Weapons of Mass Destruction: A view from the South

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In a world fraught with security threats ranging from terrorism to global warming, nothing poses a more catastrophic and imminent threat to humanity than the proliferation of weapons of mass destruction. It was this realisation that led to the establishment of the Commission on Weapons of Mass Destruction which recently brought to the fore a comprehensive list of recommendations to free the world of biological, nuclear and chemical arms under four main areas of action, namely agreement on principles of action; reduction of the danger of present arsenals; prevention of proliferation and working towards the outlawing of weapons of mass destruction once and for all. With such a consummate framework in place, it is the responsibility and obligation of states to actively engage with and support the recommendations of the Commission on Weapons of Mass Destruction and reverse the current trend to move away from cooperative multilateralism observed by the Commission's Chairperson, Hans Blix [1].

With this in mind, in order to ensure their own security whilst concurrently securing the global environment, African governments and specifically, the South African government, should work to actively support the Commission's recommendations. South Africa's advocacy for a nuclear weapons-free world was seen by its choice to willingly disarm upon ratification of the Non-Proliferation Treaty in 1991 but has, in recent times, been undermined by its dogmatic support of Iran's 'right to enrich'. The country's possession of Africa's only nuclear power station and the contentious nature of its nuclear policy confirm its need and responsibility to critically engage with the recommendations set out in the Commission's report. The recommendations which are most important for South Africa to support lie within the considerations of Africa's weaknesses, the institutionalisation of non-proliferation and the need for complete disarmament. These shall be analysed in detail before examining how these recommendations can be supported within the United Nations. Brief remarks on the use of incentives will precede conclusive statements on the subject, framing the Commission's Recommendations to the African perspective.

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**Most important recommendations for South Africa to follow and why**

In light of pertinence and relevance of each of the sixty recommendations brought forward by the Commission, South Africa's choice of which recommendations to endorse must be based on an awareness of the uniquely African context.

***Africa's weaknesses***

South Africa must support the recommendations that will most show Africa to be the global weak link in freeing the world from nuclear, biological and chemical weapons. The first of these is:

14. States must prevent terrorists from gaining access to nuclear weapons or fissile material.

Since the events of September 11 2001, terrorism has become the greatest common threat to human security on the planet. The African Union believes that 'this unfortunate development and all its evil manifestations around the world and particularly in Africa, undermine the most cherished values and fundamental principles of the 21st century including development, democracy, human rights, and freedoms' [2]. As non-state actors, terrorist organisations operate outside the bounds of international law making the indiscriminate wielding of nuclear weapons highly likely; Mutually Assured Destruction ceases to be a factor when permanent geographical bounds cannot be delineated. This recommendation to prevent terrorists from gaining access to nuclear weapons must be supported by South Africa due to the fact that the capacity to achieve this goal by the use of methods such as the maintenance of fully effective accounting and control of all stocks of fissile material is absent in Africa. This can be seen by the International Community's growing concern over the terrorist-harboursing potential of weak African states in light of the relative ease of unmonitored movement of people due to the porous nature of Africa's borders. The existence of the forces such as the A.Q. Khan network whose supply-chain extends into North Africa and the numerous terrorist acts such as the US Embassy bombings in Nairobi, Kenya as well as the existence of dormant terrorist cells in failed African states such as Somalia are key points of note to justify this rising unease. The continent's ability to prevent terrorists from gaining access to nuclear weapons is undoubtedly particularly limited and warrants further investigation and bolstering for the benefit of global security and as such, South Africa should support the Commission's recommendation to prevent terrorists from gaining access to nuclear weapons.

Africa's second area of weakness is in the biological weapons sphere where it has been recommended that

35. Governments should pursue public health surveillance to ensure effective monitoring of unusual outbreaks of disease and develop practical methods of coordinating international responses to any major event that might involve bioweapons.
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The African continent is particularly vulnerable to the threat of bioweapons given the fact that should these weapons be unleashed on the continent, Africa has little to no capacity to identify, monitor and contain these weapons and has climate conditions conducive to the rapid spread and accumulation of viral and other infections. Currently, the governments in sub-Saharan Africa are in a state of panic over the potential Southern Migration of Bird Flu, which would pose a serious health risk to the poorly-equipped continent. In South Africa, the Department of Health has recently been put on high alert due to the outbreak of a deadly mutated strain of drug-resistant tuberculosis. The fact that a considerably large number of Africans are immuno-compromised also facilitates the rapid spread of bioweapons. The existence of such a weak link extends the threat of bioweapons to the global community at large given the airborne nature of these weapons and the increasing mobility of peoples across continental divides. In this way, South Africa needs to support this recommendation by starting to increase its biosafety standards within the framework of the new International Health Regulations of the World Health Organisation.

#### *Need for administrative and institutional frameworks*

The Commission's report places great emphasis and value on cooperative action in which treaties and international organisations are indispensable tools in achieving our common goal of outlawing all weapons of mass destruction. In the African context, given the relative weakness of African states in the global political structure, African countries have no option but to rely on multi-national frameworks to address issues of mutual concern. South Africa's engagement with the international community has often been within a multi-lateral framework and as such, like the Commission, the country has placed great value on the institutional framework within which global decision-making takes place. This is in light of the fact that in an increasingly globalising world, effective and binding decisions to contain common threats cannot take place outside a multilateral setting, indeed, as the Commission suggests, Global responses to the threat of proliferation have been the most effective. The country should therefore support the Commission's recommendations which place high premium on the use of multi-lateral institutions to arbitrate and discuss modalities for mutually beneficial cooperation. These recommendations are;

8. States should make active use of the IAEA as a forum for exploring various ways to reduce proliferation risks connected with the nuclear fuel cycle.
  
  42. States parties to the Chemical Weapons Convention should use the Organization for the Prohibition of Chemical Weapons as a coordinating center in the development of global standards for a chemical industry security culture.
  
  4. The states party to the Non-Proliferation Treaty should establish a standing secretariat to handle administrative matters for the parties to the treaty.
  
  60. The United Nations Security Council should make greater use of its potential to reduce and eliminate threat of weapons of mass destruction.
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*Towards complete disarmament*

The final category of recommendations that South Africa must support are those recommendations which lead towards complete nuclear disarmament;

20. All states possessing nuclear weapons must address the issue of their continued possession of such weapons.

This recommendation should be at the heart of South Africa's nuclear policy as the country has demonstrated that security can still be maintained without the possession of nuclear arms. Indeed, as the Commission projects:

30. All states possessing nuclear weapons should commence planning for security without nuclear weapons. They should start preparing for the outlawing of nuclear weapons through joint practical and incremental measures that included definitions, benchmarks and transparency requirements for nuclear disarmament.

These two recommendations are at the very core of what the Commission on Weapons of Mass Destruction stands for and embody the commission's ultimate vision. For this reason alone, all countries including South Africa, must work to actively endorse these steps towards the complete nuclear disarmament of the world. This is particularly true of volatile regions such as the Middle East where the threat of nuclear proliferation is particularly eminent given the historical animosity between Israel and the Arab bloc as well as the persistent displays of violence exhibited in the region. However, insistence on a nuclear-free Middle East for example cannot be morally or legally enforced as long as nuclear weapons continue to be present elsewhere. The presence of double-standards within the global community strikes at the heart of Africa's concerns with the current global system and the deep sense of moral justice embodied in the religious tensions within the Middle East nuance the conflict to an elevated state of volatility. Conclusively, wherever they are housed, the world cannot be truly free from threat as long as nuclear, chemical and biological weapons still exist and as long as a single state is in possession of these weapons, the world can never be safe.

**Methods to promote these recommendations within the United Nations**

As the premier institution for international cooperation and engagement, the United Nations has a great role to play as a forum for the discussion and arbitration of matters of global concern, including the threat of nuclear proliferation. There are various methods through which South Africa can promote support for the above-mentioned recommendations within the United Nations. This is in light of the fact that the country has recently been awarded a two year non-permanent seat on the influential United Nations Security Council starting in January 2007. In this capacity, South Africa can work to push the agenda of the Commission on Weapons of Mass Destruction using its moral weight as a state which willingly gave up its own nuclear program to sway public opinion. The existence of specialised subsidiary bodies within the Security Council, including the UN monitoring, verification and inspection commission are also areas in which South Africa can actively endorse the recommendations of the commission within the United Nations.

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Other methods to sway policy and lobby within the United Nations are available. These include active debates within the General Assembly that bring the issue of non-proliferation to the fore. South Africa can also use its South-South cooperation networks to help set a collective agenda for the developing world geared towards the support of the above-mentioned recommendations within the United Nations. The decision-making structure and modus-operandus of the United Nations has a wide scope of avenues for the tabling and critical engagement of issues of global concern. However, the most pertinent channel to address and promote the recommendations of the Commission is the International Atomic Energy Agency (IAEA) which deals specifically with matters of nuclear proliferation. The concert of agencies, subsidiary bodies, programs and funds, specialised agencies and departments within the secretariat of the United Nations can each be a pertinent forum for specific recommendations to be endorsed and championed.

#### **On the use of incentives**

A key area of concern is on the use of incentives as a deterrent against nuclear enrichment. Recommendation 38 for example, mentions that 'state parties should continue to offer states positive incentives, including technical assistance, to join and implement the Chemical Weapons Convention'. I am alarmed that such a practice will set a dangerous precedent especially considering the rise in terrorism and the nature of 'rogue states'. An illustrative case in point here would be the Iranian debacle. In June 2006 the United States, China, Russia, France, Germany and Britain offered Iran a comprehensive set of political and economic incentives to cease its enrichment of uranium [3]. Iran's recent response issued in September 2006 shows how the use of incentives in this manner neutralises the deterrent effects of the threat of sanctions by giving Iran an alternative cause for ceasing enrichment. Should the incentives be taken up by Iran, the country, through effectively wielding the threat of nuclear proliferation, will come out of the incident having gained more than it would have had it not contemplated uranium enrichment in the first place. The precedent set in this case will be highly alarming as the threat of uranium enrichment can consequently be indiscriminately used by rogue states for the advancement of their own agendas in a manner akin to holding the world at ransom. I would therefore propose that incentives be removed from any negotiation package with states that pose a nuclear threat to send a clear message that such behaviour will not be rewarded or condoned in any manner and that the international community will always consistently take a firm stance on any attempts towards nuclear enrichment by any state in the future.

#### **Conclusion**

The greatest travesty in human history has been the manner in which over 128 million innocent lives were taken in the previous World Wars. These wars displayed man's destructive capability and how this defies the considerations of constraint, reason and common humanity. This capability and the continued presence of sources of conflict amongst peoples dispels the myth of 'democratic peace' and nullifies the notion that nuclear arms merely serve as a disincentive for attack; these weapons have been wielded before and could once again be unleashed upon the world in the future. The potentially cataclysmic effects of such an action should be a driving force for the peoples of the world to unite against the continued existence

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of nuclear arsenals in any shape or form. The Commission on Weapons of Mass Destruction provides an analytical framework within which states can engage in order to rid the world of the sceptre of nuclear arms. As Hans Blix states, 'the commission has not aimed at utopian goals but has ardently and jointly sought to exercise judgment and point to constructive avenues out of difficulties, which are still with us' [1]. It is for these reasons that people from all walks of life must support the recommendations put forward by the commission to leave future generations with a legacy of peace, security and constructive engagement in the resolution global challenges.

**Notes**

1. H. Blix, Chairman's prefix, in: Weapons of Mass Destruction Commission, final report, Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms, Stockholm, Sweden, 1 June 2006. (<http://www.wmdcommission.org>).
  2. A. Konare, Preventing and Combating Terrorism in Africa, Commission of the African Union, 2005. (<http://www.africa-union.org/Terrorism/terrorism2.htm>).
  3. J. Anderson, Iran offers talks on nuclear issue, Washington Post Foreign Service, Wednesday September 13, 2006 Page A12.
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# The Indo-US nuclear deal

An impact analysis

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During President's George Bush's visit to India in February 2006, the two countries finally inked the much-debated civilian nuclear energy cooperation pact [1]. The deal is the first of its kind, and given India's defiance to become a member of the NPT, has caused a stir among the non-proliferation lobby. Notwithstanding, both the US and Indian leaderships have remained steadfast and continue to maintain that the deal is not only beneficial for their relationship, but is also a positive development for the broader non-proliferation agenda.

Since the deal, a number of aspects of the development have been analysed by various quarters both within and outside South Asia. However, much of the debate seems to have ignored the sheer breadth of the implications of this deal. Analyses thus far have tended to focus predominantly on most immediate concerns. In order to force the realisation of the broad ranging impact of this development, there is a need to undertake a holistic analysis. There are three points that remain key: First, how will this deal impact the major stakeholders and issues of international concern (non-proliferation, etc)? Second, how is Pakistan likely to respond to the development? Third, what does the Indo-US deal signify in its terms of the make-up of the geo-strategic alliances in the South Asian region over the medium term? All these questions are tackled briefly below. However, they are prefaced with a succinct overview of the deal itself.

## Elements of the Indo-US nuclear deal

The Indo-US nuclear deal is a landmark achievement for both countries as the two leaderships have managed to defy heavy odds to push it through. The deal is far reaching in that it required changes in a number of US and international laws (these issues are discussed later).

In essence, the deal allows the US to provide civilian nuclear technology to India, while India agrees to a number of stipulations designed to ensure that the technology or nuclear material is not siphoned off to its weapons program. On India's part, the major obligations include separating its civilian and military nuclear programs and opening the civilian programs to the international monitoring agencies. The military program as well as stockpiles of nuclear fuels that India possessed at the time of the deal are exempt from any of these stipulations.

This is followed up by the requirement to sign an additional protocol to allow IAEA intrusive inspections of its civilian program. In principal, India has also agreed to negotiate possibilities for a Fissile Material Cut-Off Treaty with the US. Moreover, India is to continue its nuclear testing moratorium, tighten its nuclear arsenal's security and continue its 'exceptional' track record in non-proliferation. What India gets in return is dual-use technology, both know-how and equipment, which potentially could provide India with enriched uranium to be used in the nuclear weapons program [2]. However, as mentioned, under the spirit of the deal, the technology ought be used only to complement the civilian program.

The key question that held the deal back at one time with rumours that the entire development may unfold is the extent to which the US was willing to give in on its original stance with regard to the actual terms of the deal. The central issue was the separation of the Indian civilian and military nuclear programs. The Indians were bent upon having the choice to determine which part of the program would be declared as 'military' and thus kept outside the purview of the deal. Of course, if the list was large enough, virtually the entire program could have remained secretive. Apart from the natural desire to maintain secrecy over a large chunk of the program, India was concerned that opening up dual-use apparatus to intrusions could expose its weapons program as well. This was a well-founded concern since India has never had any real separation between its civilian and nuclear programs. In the final outcome, however, India managed a minor coup by having its fast breeder reactors designated as military. This was the deal clincher for many Indian strategists who argued that had the fast breeder program been brought under the deal's transparency element, India would have lost an important source of plutonium for its military program [3]. As it stands, the terms of the deal are highly favourable to India.

#### **A cost-benefit analysis of the deal in terms of key actors and issues**

There is little doubt that the deal could potentially have far reaching consequences on a number of actors in the international arena. While some 'winners' can be identified, there are a number of actors and existing regimes that fall on the 'losers' side of the equation as well. Let us begin by underscoring the 'winners'. The discussion is only limited to the most important beneficiaries.

##### *The winners*

##### **India**

India is the principal beneficiary of this deal. While there are a number of factors that make this a significant achievement for the Indian government, perhaps the greatest short-term benefit is the legitimacy that India would acquire for its nuclear program. By concluding this deal, the US has moved away from self-imposed restraints on transferring nuclear technology, treating India as an exception and thus acknowledging the country as a de-facto nuclear power. The deal makes India the only country in the world that has a recognised (de facto) nuclear status without having entered the global non-proliferation regime. The agreement is both a sign of the acknowledgement of India's responsible nature as a state and recognition of its stature to enter the nuclear club.

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While some Indian analysts were wary of the deal on the grounds that it adds little to India's already declared nuclear status, the fact is that nuclear 'gate crashers' like India and Pakistan acquire tremendous diplomatic leverage by gaining legitimacy of their nuclear status. Consider that both Pakistan and India have been longing to enter the nuclear club through a 5+2 formula in the NPT. Moreover, in India's case, another compelling reason to legitimise its nuclear status was its aspirations of becoming a global power. The current administration in New Delhi seems to have realised that toying with the grey areas of established international norms for too long is likely to be a hindrance in the country's quest to enter the prestigious club. That the legitimacy came without having to come under formal legal obligations to adhere by all non-proliferation norms is an added bonus.

As the deal has turned out, there is substantial room for India to manipulate the benefits from the US cooperation to gain in the military sphere. After all, the US would be providing technology, hardware and raw materials with direct applicability to the weapons program. In an extreme scenario, over the long run, the deal gives India the opportunity to significantly strengthen its nuclear weapons program by building higher capacity reactors and enhancing the targeting efficiency of its nuclear arsenal. Furthermore, the de facto legitimacy would also allow India to proceed with its controversial nuclear programs under the cover of legitimacy with relative ease.

#### United States

One question that seems to have puzzled many is the US interest in pushing this deal through. Indeed, there seem to be little short-term gains for Washington. Moreover, there are hardly any tangible deal-specific gains one can identify even in the medium to long term. Through this deal, the US is solely looking to cement India into its alliance club to satisfy its strategic interests in the region. Predominantly, the Indo-US strategic partnership satisfies three US objectives: it allows the US to have a reliable ally in South Asia, a long standing interest it has failed to achieve with Pakistan; it props up India economically as well as militarily as a counterweight to China over the long run; and it satisfies the massive economic interests the US sees for itself in India. In essence, the current deal can be seen as an initial signal of Washington's sincerity towards making the Indo-US relationship a lasting one.

#### States with nuclear technology know-how

A key aspect of the debate on the nuclear deal is its impact on the global non-proliferation regime. While the non-proliferation regime is a clear loser (we will discuss the adverse implications separately), it opens up tremendous avenues for other aspirants looking to share nuclear technology know-how for economic gains. Notwithstanding the Bush administration's claims that this deal would prevent further spread of nuclear weapons, the development would end up opening avenues for other states to find their own markets.

On the supply side, the immense economic interest for countries with nuclear technological know-how to share dual use technologies is sure to play a role in future decision making. On the demand side, the Bush administration's policy of targeted intervention against perceived adversaries and its handling of nuclear versus non-nuclear states (North Korea versus Iran for example) has only incentivised the need for developing countries to get their hands on dual use technology [4]. The interplay is sure to allow future deals to go through,

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whether through official exchanges in line with global norms (as the potential Russia-Iran deal is shaping up) or through developments, which take advantage of the loopholes in existing global regimes.

One only needs to look back at the history of proliferation in South Asia to predict the impact of this deal on future nuclear technology exchange. Despite stringent checks and disapproval by the entire international community, both Pakistan and India managed to acquire nuclear technological know-how, the required inputs, and eventually a nuclear weapons capability. We have already seen nuclear capable countries other than the US (France, Russia) showing interest in sharing nuclear technology know-how with India. In the wake of the deal, New Delhi made an official request to Australia to relax rules for uranium exports. The incidence of such interactions is sure to increase in the future.

### *The losers*

#### **Non-proliferation**

By far the greatest implications from this deal are bound to be for the global non-proliferation regime. Since 9/11, courtesy of the Bush administration's policy of pre-emption and varying attitudes towards nuclear versus non-nuclear states, controls over the 'demand' side of nuclear non-proliferation had already been compromised. The real hope for global non-proliferation to remain effective was resting on the 'supply' side constraints to acquiring nuclear technology. The Indo-US nuclear deal has ensured an unravelling of these constraints and consequently pushed the global non-proliferation regime even closer to its ultimate demise.

Consider that the 'supply' side of proliferation was functioning at the behest of various legally binding protocols. The current nuclear deal necessitates exceptions in all relevant international protocols. The US Atomic Energy Act that regulates trade of nuclear material does not allow technology transfer to any country not accepting full safeguards. The Congress thus had to make an exception for India for the deal to go through. The Nuclear Suppliers Group's multilateral export controls also do not permit such technology transfer. However, the NSG, in many ways the key institution responsible for supply controls has now fallen victim to the power play within the set-up. The stringency on export controls from the NSG is sure to give way in the future. Finally, the deal defies the NPT, the single most important non-proliferation protocol. The very rationale of the NPT, which allowed peaceful nuclear technology in exchange for foregoing nuclear weapons, has been undermined.

Given the above, it is no surprise that the principal opposition to the deal came from non-proliferationists around the world (including US and Indian non-proliferation lobbies). The opposition camp is correct: once such regimes start to be moulded to benefit a few, others are sure to take advantage of the situation. US' own non-proliferation interests in Iran and North Korea are likely to be undermined as they clash with other nuclear suppliers who now sense a window of opportunity.

The key question then becomes if the terms of the deal could have been altered to reverse the impact on non-proliferation. Indeed, an analysis of the technical aspects of the deal suggests that the non-proliferation concern was deliberately compromised in a quest to cement the alliance through this flagship deal. Key non-proliferation attributes could have been included in a more transparent deal. First, rather than leaving the need to negotiate on the

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FMCT open-ended, India should have been asked to cap its fissile material, even if it were through a bilateral arrangement. With the current arrangement, India's indigenous uranium stocks will now be freed up for the weapons program. Moreover, the deal could easily have separated technologies and hardware that was permissible for sharing and that which could not be transferred. Specifically, India could have been given nuclear reactors, uranium and enriched fuel but not materials and technology that are more relevant to enrichment, reprocessing, and other sensitive fuel-cycles. The current arrangement is one of 'full cooperation'. Finally, rather than creating frameworks which are exceptions to the norm, the non-proliferation community should think of altering legal protocols like the NSG and US regulations to allow non-sensitive technologies to be transferred to countries genuinely in need of civilian nuclear technology, whether members of the NPT or not [5]. Notwithstanding the fact that the entire deal might have collapsed if such stipulations were included, the overall impact of the deal might have been viewed favourably by non-proliferationists.

#### Pakistan

Pakistan is another major loser from the deal. The legitimacy provided by this deal to India's nuclear program and the resultant diplomatic leverage it has acquired has made Pakistan's long-standing quest to avoid becoming a satellite state much harder. Clearly, the deal is a tremendous boost for India's ambitions of becoming a global power. While to date, its conflict with Pakistan and its poor track record in Kashmir had evaded the recognition of its status, the deal has overhauled the entire scenario in India's favour. Pakistan, already increasingly seen as a troublemaker in the region since Kargil, will find it even harder to sell its view vis-à-vis India. The relationship certainly provides added leverage to India on issues such as terrorism and extremism where the US, and by extension all Western powers are sure to side with New Delhi even more candidly in the future.

Moreover, stances on certain issues where Pakistan and India previously held converging interests will now be altered. NPT is a case in point. While India's need for a 5+2 formula still remains alive, it would now have subsided considerably, at least for the time being. This leaves Pakistan alone in the hunt to find a legitimate way into the nuclear club. New Delhi now has little incentive to stand on the same platform as Pakistan on the issue.

#### Military disparity and nuclear stabilisation

Strictly within the military context, there is little cause for concern for Islamabad in the short run. Over the long run however, the probable scenario will benefit India. The military spin off from the nuclear deal (presuming it takes place) will allow India to develop new categories of sophisticated weapon systems. The key concern for Pakistan will be the potential acquisition of a counter-force capability by India, which would put the former's military assets at stake in case of a conflict. Pakistan, as the weaker adversary, will look to revise its force disparity and recalculate its force structure to counter this development. Judging by Pakistan's traditional reaction to such Indian moves, it may attempt to maintain a robust second strike capability, be it through quantitative increase in delivery systems and warheads, or through a sea-based capability (the latter is by far the preferred though costlier option). In addition, the desire to maintain acceptable ratios of conventional force strength will remain.

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While Pakistan would ideally like to match India, whether it would be able to do so is debatable. The more probable outcome is that Pakistan might, despite its utmost efforts, fail to maintain the current ratios of asymmetry in its capabilities vis-à-vis India (we will revisit this scenario in the next section). Under this scenario, the relationship could become highly unstable with India asserting its influence upon a resentful Pakistan [6]. The other possible outcome is that both sides continue to upgrade their conventional and nuclear military capabilities at an accelerated pace. Under this scenario, the implications would become broader than the Indo-Pakistan context. The Indian upgrade will force China to revisit its upgrade plans (although China is moving in an aggressive manner on this front regardless), which then brings Taiwan and the Asia-Pacific into the picture. Afghanistan and Iran are new entrants into the South Asian strategic equation and will also react to these developments.

### **The Indo-Pakistan equation**

Having discussed the implications for various actors/issues as a result of the Indo-US nuclear deal, we now look at the specific impact the deal is likely to have on Indo-Pak relations. We build on the discussion on Pakistan and the military balance above. First, one needs to realise that the Indo-US deal is not a stand-alone initiative; it reflects a permanent change in Washington's outlook towards India. The US relationship with India and Pakistan has seesawed over the years as Washington has sought to protect and advance its interests in the region. Throughout the Cold War, and especially in the 1980s, Pakistan was a frontline US ally. The 1990s saw a gradual tilt towards India, which climaxed with the Vajpayee-Clinton Joint Vision Statement, and Clinton's subsequent visit to India in 2000. September 11 brought another U-turn as Washington again co-opted Pakistan as a frontline ally in its War on Terror, much to India's dismay. Now, while the US foreign policy has sought to get rid of the zero-sum relationship with India and Pakistan, it has cemented what is potentially a permanent tilt in its policy.

The new Indo-US alliance holds more significance than any previous US policy overture in South Asia. The very scope of the Indo-US alliance suggests that cooperation is likely to extend in all spheres over the long-term. Acting as a counterweight to China implies that the US is willing to augment India's military as well as economic capabilities. The US has already offered a comprehensive defence assistance pact to India. The nuclear technology transfer deal (apart from the option of dual use) would provide India respite from its projected energy shortage. The Indo-US trade relations are already strong and growing tremendously.

Contrary to the make up of Indo-US relations, the permanence of the US relationship with Pakistan is questionable. In fact, the majority view suggests that while a repeat of the post-Afghan scenario, where the US completely exited the scene, is unlikely for several reasons, there certainly are no structural integration patterns that would force the US to engage Pakistan at the same level as India. Skeptics suggest that the real meat in the Pak-US relationship will disappear once Pakistan's importance in the war on terror decreases in the medium term. Others point to a fundamental weakness in the relationship, the so-called one-man (Musharraf) policy as evidence of the short-lived utility of the alliance [7].

While much in this analysis is debatable, one fact is hard to challenge: with India, there are long-term strategic reasons that compel the US to move closer to New Delhi. The US has clearly taken India on a new platform in its relations. As already discussed, in due course this is

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likely to allow India to create an overwhelming disparity with Pakistan, be it military or economic. The resulting equation would be an unstable one.

Some analysts challenge the above premise by arguing that US determination to transform India into a global power will leave Pakistan with little choice but to continue on the path of reconciliation with India. This is so because they see Pakistan's capability to stand up to a US-backed India as virtually nil. The outcome would be a Pakistan willing to live in peace with its neighbor. This argument is flawed. First it ignores the fact that outstanding issues in larger conflicts are a result of structural anomalies in the Pakistan-India relationship and certain domestic policy formulations. They are not solvable at will. Second, one needs to consider that while in a bilateral hostility a state's policies are affected by disparity in strength, it principally remains a function of the level of disparity. A weaker party, which faces overwhelming disparity in its relations with a hostile neighbor, will only succumb if it has no other recourse. But if it has the space to bolster their strength, it will tend to explore those rather than accept hegemony.

Granted, Pakistan will seek to compromise under the new scenario. However, it will still not be able to give in on its principal positions on thorny issues. That requires altering various fundamental underpinnings of Indo-Pak relations, be they political, strategic, or cultural. Consider that for the past two years the two sides have been sincerely working towards rapprochement. Yet there has been virtually no progress on the contentious issues: Kashmir, Sir Creek, Siachen, Wullar barrage, and even concerns such as trade. These will still need to be addressed to satisfy both sides under the "overwhelming-disparity scenario" brought about by the Indo-US alliance, in the same way as they need to be addressed today. Increased disparity vis-à-vis India will not automatically force Pakistan to concede on these issues.

The situation is compounded if one predicts India's reaction to the increased disparity. India is likely to see the US backing as an assurance of a long-term quantitative shift in Indo-Pak relations. As mentioned, to date, India is believed to have been held back from realising its true potential due to its conflict with Pakistan. The recent Indo-US alliance removes the compulsion for India to normalise with Pakistan. This is not to say peace with Pakistan will not remain in India's interest. However, since India has now been accepted as a US ally without having to settle the Indo-Pak equation, the conflict with Pakistan at best becomes a minor irritant, which still needs to be tackled, but will not affect India diplomatically as it did earlier. Under such a situation, India would be more likely to adopt a tougher stance on key outstanding issues.

The biggest shortcoming of the US move towards New Delhi is that it seems to have been conceived in a vacuum. Washington has ignored all collateral benefits that were possible from such a US offer. For instance, with an offer of this magnitude, the US could easily have pushed India harder to hasten the Indo-Pak peace process. Ignoring all conditionalities that were earlier imposed on India means that the potential benefit of ensuring South Asian stability as a by-product has now disappeared altogether. The US-Indo alliance and the US role in Pak-Indo rapprochement have unfortunately been divorced from each other. What was needed was for the US to find a middle ground between a zero-sum relationship with Pakistan and India, and a complete divorce between Indo-US and Pak-US relations. The pattern followed by the new Indo-US alliance suggests that Washington has moved from one extreme to the other. For the long-term, this spells trouble for the region as a whole.

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### **The South Asian alliance structure: examining the future**

An analysis of the Indo-US deal's impact would remain limited if the wider South Asian region is not studied. In this section, we consider other South Asian countries, primarily China in the equation. In a broader regional context, South Asia is likely to fall prey to global power politics. The changing structure of alliances in the region will peg regional countries against one another in support of their allies. The Sino-Indian-Pakistan triad holds the key in this regard.

The nuclear deal and other military assistance programs from Washington are set to buffer China in the years to come. At the same time, the year 2006 has been declared the year of Sino-Indian friendship. China and India have managed to move away from their territorial differences and are focusing on economic cooperation to advance their ties. The Sino-India model of cooperation is now perceived to have developed enough economic stake for the two sides to endure a long-term alliance.

The current trend in Sino-Indian relations has tended to obscure one important factor. While the two sides have tremendous economic stakes, their geo-strategic interests and global alliances are bound to clash over the long run [8]. The economic stakes may well keep them away from outright confrontation, but a clash of strategic interests is sure to force them to continue employing various coercive diplomatic tactics against one another. The bottom line is that India and China are both looking to create hegemony over overlapping (if not the same) regions. While China's stature has already started to peg the world's super power against it, India has chosen to play on this rivalry to develop its own stake in a relationship with the US.

The Indo-US deal clearly spells trouble for China. While the official Chinese reaction to the deal was mellow, it is certainly in Beijing's interest to undermine the development. China is as worried as anyone on the possibility of the nuclear deal benefiting India in its military program and would look to avoid any such possibility, even if it is not an immediate threat. China's interest in this case complements Pakistan's. The latter is as adamant as China to dampen the deal for reasons explained in the previous section. Pakistan has done well since 9/11 to ferment ties with the US without allowing its relationship with Beijing to be compromised substantially. It therefore presents itself as an open option for Beijing to collaborate on the attempt.

That Pakistan and China attempted to stall the deal before it was approved should thus come as no surprise. Prior to the finalisation of the Indo-US deal, Pakistan and China leaked reports of a deal that allowed Pakistan to purchase six to eight nuclear reactors from China. The real value of the news of Sino-Pakistani collaboration in this sphere was its timing. Clearly, this was not a coincidence. The two sides were looking to see if such a stance could compel the Bush administration to rethink the deal.

Equally logical is the fact that the two sides are currently strategising on how to minimise the impact of the Indo-US relationship. In this regard, the Gwadar port represents the new 'Great Game' in the region [9]. Pakistan has accorded China sovereign rights at the Gwadar port, which implies Chinese naval presence will be used to undermine the Indo-US goal of complete supremacy of the Arabian Sea and Persian Gulf regions. Beijing and Islamabad are also extending the Karakoram Highway to connect both countries directly with Central Asia. In short, while the deal cannot be undercut any longer, Beijing and Islamabad seem to have decided that a strategic alliance to check the Indo-US predominance in the region is the best recourse if the two are to be denied added influence in the region [10].

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Currently, China is not willing to pull back on its upturn in relations with India. But if India gets to the point where it can threaten China, militarily as well as economically, China's interest surely will prompt it to continue propping up Pakistan, at least militarily. This might lead to a situation under which the renewed arms build up cum chain reaction scenario discussed above would become a reality. The resulting strategic balance would be unstable.

As for the rest of South Asia, the additional leverage provided to India by this new relationship will likely harden its stance further against smaller South Asian countries in contentious security and economic issues. Given that mutual suspicion of SAARC members towards India is a key factor in South Asia's dismal integration record, the goal of regional integration is likely to remain elusive for the foreseeable future.

So what does the 'alliance maze' mean for the future? The most likely scenario is as follows. On a bilateral level, the Sino-Indian relationship will remain cordial in the short to medium term. However, China will continue to build stronger ties with Pakistan and signal to New Delhi as well as Washington of Islamabad's supreme importance from time to time [11]. The future of the Pakistan-US relationship is a big question mark but in all likelihood the two will continue to collaborate, albeit in an increasingly disparate framework. However, Islamabad would draw its lines clearly, ensuring that US pressure does not lead to the undermining of the Sino-Pak relationship. The overarching alliance structure will not conform to the bilateral arrangements. Within the next decade, the strategic balance of power in South Asia is likely to be defined by an Indo-US versus Sino-Pak alliance.

### **Conclusions**

This paper does little more than simply putting the Indo-US nuclear deal in a broader perspective. The deal in itself is unique and is a testimony to the potential for a lasting Indo-US relationship. Given its wide-ranging implications, it is likely to affect various actors/issues differently. While a number of individual states are sure to gain from the development, the sheer weight of the harm caused to the global non-proliferation regime due to the deal tilts the balance of the cost-benefit equation in favor of the 'cost' side. In essence, the non-proliferation goal has been compromised to benefit the national interests of two powerful states, one being the leader of a unipolar world.

Interesting dynamics are likely to emerge out of this deal in terms of regional relations. The Indo-Pak relationship might undergo a significant reassessment over the long run, especially in Islamabad, which is a clear loser from this deal. The most obvious recourse for Pakistan would be to further strengthen the Sino-Pakistan relationship, which is likely to be welcome by Beijing given its uneasiness with the Indo-US deal. Overall, the regional scenario will see states involved in counter-alliances, virtually quashing the South Asian dream of regional integration. The next decade is likely to be marked by considerable strengthening of the Indian military and economic might, partly driven at the behest of US assistance, and a growing Sino-Pakistan relationship to act as a counter balance. At the same time, the US-Pakistan and Sino-Indian relations are unlikely to come to a head.

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**Notes**

1. This paper builds upon a string of articles written by the author in *The Friday Times*, Pakistan during 2005-2006.
  2. See Esther Pan, 'The US-India Nuclear Deal', *Council on Foreign Relations*, February 2006.
  3. Praful Bidwai, 'Snags Surface in India-US Nuclear Deal', *Antinwar Online*, February 2006.
  4. See Moeed Yusuf, 'Washington's Non-Proliferation Focus is Misplaced', *The Friday Times*, October 2004.
  5. See Robert Einhorn, 'Should the US Sell Nuclear Technology to India? – Part I', *Yale Global Online*, November 2005.
  6. The Pakistan-India relationship is discussed in detail in the next section.
  7. A number of prominent analysts in Pakistan have started taking this line. The author agrees with the point of view and has argued along these lines since 2003.
  8. For an apt argument in support of this thesis, see Ejaz Hadier, 'Enter the Dragon', *The Friday Times*, December 1, 2006.
  9. 'Gwadar' is a port city on Pakistan's south-west coast. Modern port facilities, which also carries immense strategic importance given its geographical proximity to the Persian Gulf and Strait of Hormuz, is currently under construction in Gwadar.
  10. For an extensive discussion of Pak-China relations, see Urvashi Aneja, 'Pakistan-China Relations: Recent Developments (Jan-May 2006)', *Institute of Peace and Conflict Studies*, Special Report No. 26, June 2006.
  11. The Chinese president took this diplomatic stance during his State visits to India and Pakistan in late-November 2006.
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# Turkey's non-nuclear weapon status

A theoretical assessment

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Turkey's security policy upholds nuclear (and WMD) nonproliferation and commitment to the regimes concerned. In the post-Cold War and post-9/11 world, military threats to Turkey's security emanate mainly from the Middle East, where security is still defined in a Realist world. Turkey has several issues with its neighbours and maintains strategic balance with superiority or rough equality in its military power, its alliances, and to a lesser extent, economic ties. This paper analyses Turkey's policy as a non-nuclear weapon state amid uneasy neighbours, which have had WMD and/or nuclear programs, through the lenses of several International Relations theories that explain proliferation dynamics: Realism, Liberalism, Constructivism, and other theories explaining state behaviour by opening the 'black box'. The analysis reveals the pillars that make up the policy including motivations and constraints. The post-9/11 US security and foreign policy and Iran's nuclear program are independent variables that introduce intervening variables (like the effects on the regime and norms) which have impacts on these motivations and restraints. The paper distinguishes between (i) the presence of motivations to pursue a nuclear weapons capability, (ii) working to keep the 'nuclear option' open and (iii) the actual decision to go nuclear. The main argument is that the independent variables have challenged the maintenance of the policy as a security asset, and Turkey may consider a 'nuclear option' when this asset converges into a security deficiency. The paper concludes with recommendations to keep Turkey on the current track.

## **Turkey's security policy and non-nuclear weapon state status**

Since the establishment of the Republic, Turkey has sought alliances to maintain its security. At the onset of the Cold War, Turkey joined the Western camp, and became a member of the Atlantic Alliance in 1952. NATO membership formed the cornerstone of Turkish security policy by solidifying its ties to the West and by providing a nuclear umbrella. In 1979, Turkey signed the Nuclear Non-Proliferation Treaty (NPT) as a non-nuclear weapon state, and became member to other agreements regarding the nonproliferation of weapons of mass destruction (WMD) and their delivery systems.

This study analyses Turkey's policy as a non-nuclear-weapon state (NNWS) amid WMD-capable neighbours in the Middle East. In the post-Cold War and post-September 11 (9/11) periods, military threats to Turkey's national security mainly emanate from the Middle East, where security is still defined in Realist terms. Throughout the Cold War, Turkey pursued a policy of nonintervention and indifference regarding the Middle East [1]. The end of the Cold War, and particularly the Gulf War of 1991, demonstrated that Turkey had to revise this policy: while NATO did not disintegrate, its collective defence commitment was questioned during this period. Turkey started to engage in bilateral and trilateral strategic cooperation with the United States and Israel in the 1990s [2]. While earlier Turkey and the United States (US) were less than strategic partners, Turkish-American relations boomed in military, political and economic aspects as Turkey's strategic importance for the United States increased in this period in terms of its regional role geographically, politically and culturally.

Turkey's security policy is shaped on the basis of the strategy of deterrence in the first place. Defence comes second [3]. Cold War and post-Cold War period security policy rested on the nuclear deterrent of NATO and Turkey's military power, which is the second biggest army in NATO. Turkey is located at the intersection of conflict regions, namely, the Balkans, Caucasus and the Middle East, and that of strategic routes for trade, commerce, energy, etcetera. After the end of the Cold War, military threats mainly emanated from the Middle East, especially after the Gulf War. Relations with Syria, Iran and Iraq have been uneasy due to a number of issues ranging from water disputes, border issues, terrorism, mutual threat perceptions of regimes, Turkey's alliances with the West, the United States and Israel, etcetera. All three possessed ballistic missiles that could reach strategic targets and main cities. The mass destruction weapons capabilities were also a cause of concern: Syria possessed chemical weapons, Iraq had chemical and biological weapons (CBW), and was working on a nuclear program before the war. Iran was suspected of having CBW capability and of working on a nuclear program. The absence of conflict was mainly because of Turkey's military deterrent that was bolstered in Eastern and Southeastern Turkey after the Cold War [4], and the NATO defence commitment. Economic relations played a minor role.

Why Turkey did not aspire to have a nuclear weapons capability was not just because of its deterrent capabilities, and later of its strategic relations with the United States and Israel in military matters. There were other elements that sustained this policy as a security asset. Next section will give a theoretical explanation of how Turkey's non-nuclear weapon status was formed and the factors that sustained it.

### **Main pillars of Turkey's nuclear nonproliferation policy: a theoretical assessment**

Theories that explain nuclear proliferation and nonproliferation are numerous. They provide explanations at international, state, domestic and ideational levels [5]. Turkey's non-nuclear weapon state status can be understood in the framework of these theories, and this study uses Realism, Liberalism, Constructivism as different lenses to look at the domestic level. I distinguish between motivations, that is, factors that trigger states to seek nuclear weapons; keeping a 'nuclear option' open, that is, acquiring civilian nuclear technology and keeping it in a way that would allow diversion to military use; and the actual decision to go nuclear, that is, a government decision to have an operational nuclear weapons program. The following

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explanation is more relevant to the motivational aspect of proliferation. The next two aspects are discussed for the Turkish case later in the analysis.

During the Cold War, nuclear proliferation was tackled mainly from the Realist and Neo-Realist viewpoints that considered nuclear weapons as the ultimate means of military capability given the bipolar international structure [6]. Realist theories have a pessimistic view of international politics, in which main actors are states seeking power to ensure security for their survival. The ultimate national interest is power, which is understood in a military sense. States are in constant struggle to increase their military capabilities for security and defence, which creates a 'security dilemma' and which fuels an arms race. As a result, states either balance or bandwagon: they form balances of power to avoid war, and lesser powers bandwagon to ensure their survival. Realist theories argue that nuclear proliferation will spread as a chain reaction, because the acquisition of nuclear weapons by one state will initiate a security dilemma. Therefore, as a result of national security concerns, the acquisition by a regional adversary of nuclear arms or the possibility of such acquisition triggers proliferation drives, and states would either go nuclear to balance power, or join alliances with a nuclear power.

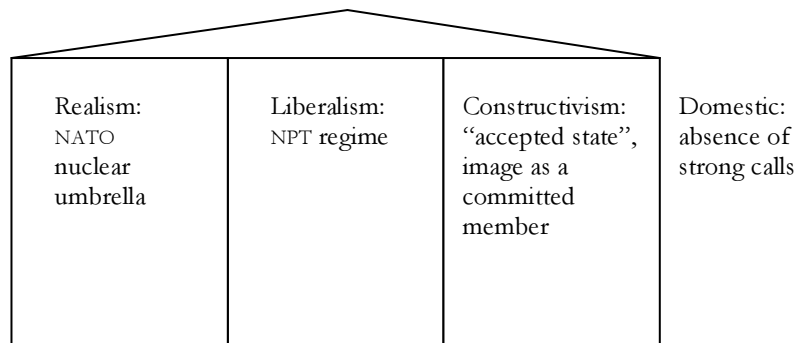
In this framework, against the Soviet expansionist and nuclear threat, NATO's nuclear umbrella and relations with the United States had provided Turkey with sufficient reason not to seek a nuclear weapons capability. The end of the Cold War did not significantly alter NATO's nuclear posture. Doubts about NATO's commitment during the Gulf War, and the ballistic missile and WMD programs of its neighbours challenged Turkey's position, however, but there were other variables that either constrained Turkey to revise its policy, or that maintained it as a security asset.

Among those factors, one can immediately notice that Turkey is a signatory to the NPT and all other nonproliferation WMD regimes; so first and foremost, Turkey is legally and politically committed to keep its NNWS status. Turkey's international commitments go beyond legal constraints, and build an image of a dedicated member of the regime, and confirm the country's status as an 'accepted' state among the community of nations. The nuclear nonproliferation regime was bolstered after the Cold War by the extension of the NPT, the denouncement of nuclear weapons by a number of states and their NPT memberships, the success of the UN inspections in Iraq, and cooperation between the United States and Russia to prevent proliferation, etcetera. Being an NNWS thus became the accepted norm of the international community, as opposed to the past decades, during which possession of nuclear weapons was a sign of prestige and status. The constructivist approach to the study of international relations explains the construction of identity and the evolution of norms as a result of social interaction [7]. In this sense, Turkey's status was contemplated as an asset rather than a deficiency.

Liberal theories are powerful in explaining why states choose not to go nuclear with their emphasis on cooperation, institutions and regimes. States start to cooperate for a common goal. Out of cooperation, they develop common rules and procedures for decisionmaking and resolving problems without having recourse to arms. They establish institutions and institutionalise these procedures; therefore they would want to continue cooperation. Neo-Realist concern about cheating is met by the Neo-Liberal answer that state behaviour in institutions is a reiterated game, and not one-for-all, hence states would refrain from cheating to avoid punishment. Therefore, gains from cooperation override those from conflict and institutions are sustained [8]. Altogether, these institutions, codes of conduct, rules and norms

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form regimes [9]. Liberal theories explain Turkey's membership to the NPT and other nonproliferation regimes: the NPT aims at the total and eventual elimination of all nuclear weapons, and forms the cornerstone of the regime. Non-nuclear-weapon states benefit from negative security assurances and international cooperation to deal with proliferation risks. In terms of security, Turkey's ties to the West, particularly its European Union (EU) perspective constitutes a political constraint, because Turkey is within a liberal zone of security with the West (that is, based on cooperation), and a 'nuclear Turkey' would be disadvantageous to Turkey's EU membership bid.



**Figure 1.** The pillars that make up Turkey's NNWS status

Motivations and constraints with regard to proliferation should also be understood by opening the black box. Decisionmaking theories and organisational theories are helpful in this respect. Bureaucracies and organisations within the state can be effective in motivating or constraining policymakers, because eventually the proliferation decision is taken by governments [10]. In Turkey, the parameters of security policy is basically shaped by the military, and is subject to approval by the National Security Council which has both civilian and military members (chaired by the President, and composed of the Prime Minister, Deputy Prime Ministers of National Defence, Justice, Foreign Affairs and Internal Affairs, the Chief of the General Staff, Commanders of the Army, Air Force, Navy and the General Commander of the Gendarmerie). Governments are sensitive to the public opinion, especially regarding national security issues. Turkey has attempted several times to transfer civilian nuclear technology in order to be able to generate nuclear power, but it was unsuccessful mainly due to international concerns and economic constraints [11]. There has not been a passionate call from the military, politicians or the public for Turkey to acquire nuclear weapons. However, the picture is transforming since 9/11. The next section looks at the effects of independent variables on Turkey's NNWS status. Overall, Turkey's NNWS policy is depicted schematically in figure 1.

### **Turkey's position in the post-9/11 world: what has changed?**

9/11 is a turning point for the international nuclear nonproliferation regime as a result of the dramatic shift in US foreign and security policy and its impacts on international politics, and on the definition of war and peace. The new security strategy of the United States has a new



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definition of threat and response: the new threat is terrorism operating transnationally, seeking WMDs and getting support from states of concern or failed states, mainly through illicit trade of arms and drugs. Terrorists are regarded to wage an apocalyptic war against the United States and the West. Therefore, the United States and its allies aim to prevent these attacks by means that are not limited to military, and can bypass Cold War institutions for swift and effective action. Nuclear weapons are not weapons of last resort in this war against terrorism [12]. Beginning from the Iraq War of 2003, this new strategy deteriorated relations with allies and adversely affected nonproliferation efforts and regimes, for which multilateralism and legitimacy is essential. The Bush administration drew clear lines between 'good and bad', and called Iran, Iraq and North Korea the 'Axis of Evil' [13]. The US stance before the Iraq War adversely affected relations with the allies, and challenged the functioning of international institutions [14]. Iran's nuclear program has been worrisome, and the American position did not help to address the issue. North Korea carried out a successful nuclear test on the grounds of national security reasons. Furthermore, the United States initiated nuclear cooperation with India.

These developments had implications on all three main pillars that sustain Turkey's NNWS position. First – regarding realist explanations which focus on Turkey's NATO deterrent and military power along with the post-Cold War strategic cooperation with the United States and Israel –, the 2003 operation in Iraq demonstrated that the NATO collective defence guarantee would not come automatically, because Turkey's request to bolster its defences in case of an Iraqi aggression was turned down [15]. In addition, the change in the US post-9/11 foreign and security policy affected relations with Turkey severely as a result of a series of misperceptions: Turkey refused to let the US troops use Turkish land for the Iraq Operation on March 1, 2003. On July 4, 2003, Turkish 'Special Forces' in Iraq's north were detained by US counterparts, reportedly due to false intelligence from Kurdish groups [16]. This event (called the 'Hood Event' since the Turkish soldiers were detained and transported with hoods on their heads) caused outrage in the Turkish public because of the significance of the army in the Turkish security culture and that of the Special Forces, which are a special group of soldiers in the Turkish General Staff. Above all, Turkey has been fighting with separatist terrorism by the PKK since the early 1980s, which finds shelter and support in the same region. The war in Iraq led to a power vacuum and terrorist attacks resumed. Turkey's expectations from the United States to address terrorist infiltration from Iraq's north in order to put an end to these attacks were not met for at least four years. This increased resentment and anti-Americanism among the Turkish public. The reports that Israel is also conducting activities in Iraq's north and supporting the Kurdish groups were not well received in Turkey [17]. Last but not least, the public opinion turned very low after the Israeli attacks on Lebanese civilians. All these developments resulted in questioning the reliability of the Atlantic Alliance, the United States and Israel. Anti-Americanism and anti-EU positions sentiments rose among the Turkish public following the tension in Turkish-American and Turkish-EU relations.

Second, in 2003, it was revealed that Iran had made important failures in meeting the requirements of the safeguards agreement with the IAEA, and that the United States could not prevent North Korea to produce nuclear weapons and to withdraw from NPT membership. Turkey feels very strongly about the nuclear nonproliferation regime and the NPT, but these developments undermine the effective functioning of the regime and of the Treaty. Therefore, non-nuclear-weapon states started to question the effectiveness and meaning of the Treaty,

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and that of the UN to deal with such cases. Iran and Turkey have had tough relations, and the absence of conflict owes to the rough strategic balance. If the international community cannot prevent Iran from acquiring a nuclear weapons capability, it will create strong proliferation dynamics in the Middle East.

Third, Iran's nuclear program and North Korea's withdrawal relate to the significance of nuclear weapons for the status of a state, and the international norms that evolved through the regime. Although they were included in the 'Axis of Evil' as the states of concern, if the international community would sink into acquiescence after the acquisition of nuclear weapons and withdrawal from the Treaty, that would affect the norms of the regime: possession of nuclear weapons would be considered as an act that could go with impunity, and non-possession as a security deficiency.

As a result, Turkish nonproliferation experts point to the possibility that Turkey may want to have the basic infrastructure to have a nuclear option, and may choose to go nuclear when needed and not be constrained by an ineffective Treaty [18]. However, it should be underlined that proliferation is a political decision, and that Turkish policymakers would need to go through a cost-benefit analysis – which is addressed in the next section.

### **Prospects and recommendations**

Turkey has recently announced its decision to transfer civilian nuclear technology for energy purposes – the latest attempt in the past four decades. There are views supporting and opposing such transfer from energy and security viewpoints. What is relevant to this study is that there are those in several circles that view this transfer as a technological capability that would give Turkey a nuclear option in case its current policy converges to a security deficiency as a result of international and regional developments [19]. The assessment of such a view is the subject of another study, but it should be underlined that post-9/11 developments, that is, deteriorating relations with the United States and Israel, doubts about NATO, growing anti-Americanism and anti-EU sentiments, Iran's nuclear program and North Korea's recent test, resulted in questions over Turkey's non-nuclear-weapon state status particularly in terms of the effectiveness of the nuclear nonproliferation regime, and the reliability of Turkey's alliances vis-à-vis the rising proliferation of WMD in the region.

On the other hand, a decision for Turkey's acquisition of nuclear weapons would not be a rational choice: if Turkey would decide to go nuclear, international pressure would be intense. Turkey is already a candidate to the EU, and has a membership perspective, which ties Turkey firmly to the West and the Western liberal zone. Becoming an EU/EC member has been a state policy, based on the modernisation process dating back to the Ottoman times. Turkey's nuclear aspirations would jeopardise this process and would have high political costs. Likewise, it would have adverse effects on relations with the United States, which is an indispensable ally despite all the tensions. Economic sanctions would be applied to the already sensitive Turkish economy, which would impair micro and macro balances. Condemnation and isolation from the international community would be unbearable militarily, politically and economically. What is more, the place of nuclear weapons in the military strategy is doubtful, that is, against which country would Turkey use it or threaten to use it? If it were Iran, there are other more powerful international and regional actors. Turkey has other leverages that it could use against Iran in diplomatic relations. Last but not least, it would make Turkey a target [20].

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What would draw Turkey into making a choice would not only be questions on its alliances and threat perceptions. Turkey's difference from the other states in the Middle East, which are concerned about Iran's nuclear program, is its EU perspective. Turkey is materially and ideationally between the East and the West. Its EU prospects keep the country in cooperative mechanisms to address security issues. If this perspective is lost, it is highly likely that it will be drawn into the Realist zone of international security in the East, and could base its security policy on material capabilities. Considering the status of relations with the United States and the instability in the region, the country could be motivated to seek self-sufficiency, and perhaps to seek a nuclear weapons capability. Most of the issues that are brought forward in the United States and the EU accession negotiations touch upon Turkey's national security referents, basically social and territorial integrity, which lead the country to take a defensive position and to prioritise its security interests over political goals. Thus, it is integral to understand Turkey's security concerns, and to keep it in the Western liberal zone of security.

The cases of Iran and North Korea and the way they have been tackled are not promising for a vigorous nuclear nonproliferation regime. The US policy after 9/11 has not been very helpful: the new strategy does not rule out the use of nuclear weapons, hence it legitimises them as an instrument of statecraft. On the other hand, there were proposals to revise the NPT in a way that would prevent proliferation by denying the transfer of sensitive technologies (which were also endorsed by the Director General of the IAEA [21]), but the proposed amendments are likely to be opposed on the grounds that it would not strengthen the Treaty, and rather lead to rifts, mainly due to economic concerns [22]. Multilateralism is pivotal in keeping a strong regime. As the United States gave up working by consensus following 9/11, relations with allies soured, leading to a tendency to shift from the neo-liberal bases of international politics to a more realist one, in which states would be inclined to provide self-help and turn inwards, as it is the case with Iran and North Korea. Nuclear weapons have been those of deterrence, and to keep it stable, the United States and the Soviet Union had spent great effort. New nuclear powers will be inexperienced in crisis management, which would increase risks of misuse or accident.

#### Notes

1. Ali L. Karaosmanoğlu, The evolution of the national security culture and the military in Turkey, *Journal of International Affairs* 54 (1) (2000) 200-208.
2. For details, see Şebnem Udum, Missile proliferation and missile defense: Turkey and missile defenses, *Turkish Studies* 4 (3) (2003) 71-102.
3. Turkish Ministry of Defence, Turkey's National Defense Policy and Military Strategy, White Paper, Part IV, Section I, 2000.
4. See Ali Karaosmanoğlu and Mustafa Kibaroglu, Defense reform in Turkey, in: Işvan Gyarmati and Theodor Winkler (Eds.), *Post-Cold War Defense Reform: Lessons Learned in Europe and the United States*, Brassey's, Washington, DC, 2002, pp. 135-164.
5. For an analysis of theories explaining nuclear proliferation, see Tanya Ogilvie-White, Is there a theory of nuclear proliferation? An analysis of the contemporary debate, *The Nonproliferation Review* (Fall 1996), 43-60; Scott Sagan, Why do states build nuclear weapons? Three models in search of a bomb, *International Security* 21 (3) (Winter 1996/1997), 54-86.

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6. Daniel Deudney, Dividing realism: structural realism versus security materialism on nuclear security and proliferation, in: Z.S. Davis and B. Frankel (Eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread and What Results*, Frank Cass, London, 1993, pp. 20-21; Benjamin Frankel, The brooding shadow: systemic incentives and nuclear weapons proliferation, in *ibid.*, pp. 37-78; John M. Deutsch, The new nuclear threat, *Foreign Affairs* 71 (1992) 120-134; George Schultz, Preventing the proliferation of nuclear weapons, *Department of State Bulletin* 84 (December 1984) 17-21; Michael M. May, Nuclear weapons supply and demand, *American Scientist* 82 (6) (1994) 526-537; Bradley A. Thayer, The causes of nuclear proliferation and the nonproliferation regime, *Security Studies* 4 (3) (1995) 463-519; Richard Betts, Paranoids, pygmies, pariahs, and nonproliferation revisited, in: Z.S. Davis and B. Frankel (Eds.), *The Proliferation Puzzle: Why Nuclear Weapons Spread and What Results*, Frank Cass, London, 1993, pp. 100-124; David Gompert, Kenneth Watman and Dean Wilkening, Nuclear first-use revisited, *Survival* 37 (3) (1995) 27-44.
  7. Alexander Wendt, Anarchy is what states make of it: the social construction of power politics, *International Organization* 46 (2) (1992) 391-425; Bill McSweeney, *Security, Identity and Interests: A Sociology of International Relations*, Cambridge University Press, Cambridge, 1999.
  8. David Baldwin (Ed.), *Neo-Realism and Neo-Liberalism: The Contemporary Debate*, Columbia University Press, New York, 1993.
  9. Robert Jervis, Cooperation under the security dilemma, *World Politics* 30 (1978) 167-214; Robert Jervis, Security regimes, in: Stephen Krasner (Ed.), *International Regimes*, Cornell University Press, Ithaca, NY, 1983, pp. 173-194.
  10. Scott Sagan, The perils of proliferation: organization theory, deterrence theory and the spread of nuclear weapons, *International Security* 18 (Spring 1994) 66-107; Stephen M. Meyer, *The Dynamics of Nuclear Proliferation*, University of Chicago Press, Chicago, 1984.
  11. See Mustafa Kibaroglu, Turkey's quest for peaceful nuclear power, *Nonproliferation Review* 4 (3) (1997) 33-44.
  12. The National Security Strategy of the United States of America, The White House, Washington, DC, September 2002. (<http://www.whitehouse.gov/nsc/nss.pdf>).
  13. President Bush's Remarks, Address to a Joint Session of the Congress and the American People, United States Capitol, Washington, DC, September 20, 2001. (<http://www.whitehouse.gov/news/releases/2001/09/20010920-8.html>).
  14. When the European countries and the members of the UN Security Council considered to discuss an operation in Iraq, the United States, which was seeking swift action, saw the UN as a 'forum of discussion', and some European countries as 'the old Europe'. See 'Post-War Iraq and Beyond: The UN's Role, United States Institute of Peace', June 17, 2003 ([http://www.usip.org/pubs/usipeace\\_briefings/2003/0617\\_ESun.html](http://www.usip.org/pubs/usipeace_briefings/2003/0617_ESun.html)); 'Rumsfeld: France, Germany are 'problems' in Iraqi Conflict', CNN, January 23, 2003 (<http://edition.cnn.com/2003/>
  15. <http://www.washingtonpost.com/archive/local/2003/01/22/> (WORLD/meast/01/22/sprj.irq.wrap). Although the NATO Article V is invoked after meetings in NATO, and the NATO support arrived, the deliberations before the Iraq
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- War in 2003 created doubts about commitment of the Alliance to Turkey's security.
16. Although this happened because of the conflict of interest among members about the Iraq Operation itself, it was recognised that rifts in NATO would jeopardise Turkey's security.
  17. Çuval Olayı'nın Kilit İsmi Konuştu (The Key Name of the 'Hood Event' Talked), *Hürriyet*, December 18, 2006 (<http://www.hurriyet.com.tr/gundem/5632219.asp?m=1>).
  18. Magdi Abdelhadi, Israelis 'train Kurdish forces', *BBC News*, September 20, 2006 ([http://news.bbc.co.uk/2/hi/middle\\_east/5364982.stm](http://news.bbc.co.uk/2/hi/middle_east/5364982.stm)); İsraili Kuzey Irak Turunda (Israelis in Northern Iraq Tour), *Radikal*, December 30, 2005 (<http://www.radikal.com.tr/haber.php?haberno=174406>); İsrail Kuzey Irak'a Askeri Kamp Kurmuş! (Israel Establishes Military Camp in Northern Iraq), *Platform Dergisi*, June 23, 2006 (<http://www.platformdergisi.net/news/detail.php?id=1519>).
  19. Mustafa Kibaroglu, Iran's Nuclear Program May Trigger Young Turks to Think Nuclear, *Carnegie Endowment for International Peace*, December 20, 2004.
  20. The author's interviews with some retired military personnel, the remarks by former ministers from the Nationalist Action Party (MHP), views of Mr. Ali Külebi, Chairman of TUSAM (Turkish National Security Strategies Research Center) and articles by Mr. Doğan Heper, a columnist in the *Milliyet* daily, suggest that the threats to Turkey's national security in the region and beyond may necessitate Turkey to seek self-sufficiency, hence it may be wise to have the technological infrastructure.
  21. Mustafa Kibaroglu, Kitle İmha Silahlarının Yayılması Sorunu ve Türkiye (The Issue of Proliferation of Weapons of Mass Destruction and Turkey), *Doğu-Batı* (August-October 2003) 134-142.
  22. See the remarks of the Director General, Mr. Mohammad El Baradei, 'Nuclear Nonproliferation: Responding to a Changing Landscape', 18 May 2006. (<http://www.iaea.org/NewsCenter/Statements/2006/ebsp2006n007.html>).
  23. Considering the nuclear suppliers and the potential clients, like Russia and Iran, there are likely to be differences of interest between the United States and Russia regarding amendments to the Treaty.
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# The de-nuclearisation of Israel and some steps forward in the Israeli–Palestinian conflict: Pugwash in the Middle East

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Nuclear weapons should no longer be considered by those who possess them as assets, but as liabilities. They certainly constitute a negative factor in the Middle East conflict. It is a public secret that Israel possesses nuclear weapons. Israel decided about 1955 to start a programme of building nuclear weapons in contacts of the Israeli prime minister Ben Gurion with nuclear physicists (private information HT) – understandable because of the threat of its neighbours (see also the books by Seymour Hersch [1] and Avner Cohen [2]). A long time the development, production, and storage of Israeli nuclear weapons in Dimona (near Beerseva) was a so-called ‘secret’ (a ‘public secret’) and its official negation was an obvious lie. Israel has not become a party to the Nuclear Non-Proliferation Treaty (NPT).

In contrast, Iran does not possess nuclear weapons, according to International Atomic Energy Agency (IAEA), and ratified the NPT in 1970. Still, there is significant worry within the international community that the civilian nuclear fuel cycle that Iran is currently erecting may be diverted into military programmes. The fact that Israel has such weapons may indeed induce in other countries in the region a desire to acquire nuclear weapons too. Therefore the time now really has come to seriously start working on a Nuclear Weapons Free Zone in the Middle East [3].

We should implement all possible means to de-escalate the risk of a ‘clash of civilisations’. It would be better to have a Nuclear Weapons Free Zone in the Middle East, if not only for decreasing the risk that terrorist groups obtain nuclear weapons or the capability to produce them. There are many reasons that make a Nuclear Weapons Free Zone in the Middle East desirable. Particularly at this moment in time it could catalyse the peace process instead of waiting for the peace process to achieve results first. Israel should take the lead, is our claim. If Israel would decide to de-nuclearise, this would provide a great impetus to the Middle East peace process. Since the establishment of a Nuclear Weapons Free Zone in the Middle East is part of a wider political setting, we also offer a few ideas for the Israeli–Palestinian peace process. Finally, some remarks are made about the Israel–Lebanon conflict and about the role of Pugwash in the Middle East in general.

### **The responsibility for Israel to de-nuclearise**

Just before the NPT regime came into being in 1970, Israeli Prime Minister Golda Meir and US President Richard Nixon reached an agreement in September 1969 that Israel would not declare its nuclear status, would not test its weapons, and would not use its nuclear capability for diplomatic gains. In return, the US stopped pushing Israel to give up its nuclear weapon, which it had developed with the help of French engineers in the 1950s and 1960s [2]. Thus Israel could continue its doctrine of 'nuclear opacity', defined by Cohen as 'a situation in which a state's nuclear capability has not been acknowledged, but is recognized in a way that influences other nations' perceptions and actions' [2, p. 2].

By keeping a low profile, Israel managed to keep the Arab countries at bay. It was believed that if the Arabs became convinced that Israel was developing nuclear weapons, they would launch a pre-emptive attack on its nuclear installations at Dimona [2, p. 5]. It was only in recent years, since the first Gulf War, that the Arabs 'have stopped playing their roles in the game of opacity' [2, p. 346]. For instance, Egypt now publicly considers Israel a nuclear-weapon state and has given new life to the discussions on a Nuclear Weapons Free Zone. Egypt has insisted that 'tangible progress in the nuclear discussions be achieved in parallel to progress in the peace negotiations' [2, p. 346]. Currently, it seems, however, that 'Israeli leaders consider nuclear weapons indispensable to Israeli security and to the architecture of peace' [2, p. 346].

The fact that there is censorship on these issues within Israel does not make it possible for Israelis to reach democratic decisions on the issue of nuclear weapons. In the current situation, the Israeli leaders should come to realise that nuclear weapons do not deter the groups that threaten their country. Nuclear weapons are not even of practical military use for Israel.

But how should the de-nuclearisation of Israel start? A first step could be to bring Israel, Pakistan and India (and possibly North Korea) into the international non-proliferation regime by way of a 'form of associate membership under a separate, free-standing agreement or protocol' [4, p. 44]. This would be a way of acknowledging the current nuclear status without amending the NPT itself, which is considered to be politically impossible. And this would make it possible for Israel to de-nuclearise *under international control*. We thus envisage that Israel's formal status as a nuclear-weapon state would be temporary until a Nuclear Weapons Free Zone becomes effective in the Middle East. These thoughts are offered here as a mere suggestion. Much work needs to be invested before such a scenario might become reality.

### **The larger context: some ideas for the Israeli–Palestinian–Lebanon peace process**

The creation of a Nuclear Weapons Free Zone in the Middle East should be considered as a part of a larger peace process. Of pivotal importance is a reconciliation between Israelis and the Palestinians, including Hamas, as well as between Israelis and Lebanese. Although we do not attempt to extensively analyse the situation in Lebanon, we would like to cite some passages from a letter by Professor Muhsin Harakeh, director of the Netherlands Nuclear Physics Accelerator Institute (KVI) in Groningen, who was born in Lebanon (Beirut). In his letter to one of us (HT), he writes:

This aggression of Israel on Lebanon had made the chances for peace in the Middle East again smaller. However, it is not only Israel which should be blamed. The

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American Administration has more blood on their hands. They could have stopped the hostilities immediately, but they have chosen to provide Israel with heavier bombs, thinking that they could administer a deadly blow to Hezbollah in this way. This has not succeeded, the opposite has happened: Hezbollah has become stronger and obtains more support than before this war. . . .

The damage which was caused to the infrastructure in Lebanon is enormous, but I find much worse the large number of innocent victims (mostly children and elderly people) who were killed as a consequence of the bombardments on civil targets. The use of 'cluster bombs' by Israel still causes victims every day, and again mostly children because they cannot realise that these bombs are so dangerous.

It is heartbreaking to have watched how in the summer of 2006 the war between Israel and Hezbollah in Lebanon escalated to a humanly unacceptable level. It was right for Pugwash to protest. The Pugwash Council statement of 21 July 2006 called on all parties to arrive at a ceasefire. The Cairo Conference in November 2006 provided an opportunity to jointly define further actions that Pugwash should take vis-à-vis the problematique in the Middle East.

The violent conflict since 1948 between the Jews in Israel and the Palestinians is a shame for both the Jews in Israel as well as for their semitic brothers, the Palestinians. Both parties should strive for shalom=salam (peace). The recent escalations of the conflict are most regrettable causes of much misery for the affected populations. An analogous statement should be made about the conflict in Lebanon.

The United Nations, its Security Council and the highest authorities in the political and religious world should make an unprecedented effort to avoid further escalation of both these conflicts. A possibility would be the creation of a UN organisation for peace in Israel–Palestine. We advocate that those Pugwashites who are most competent in these matters participate in this effort. We think also that the top figures of the Christian, Jewish and Muslim religions should participate as well as Nobel Peace prize winners. The aim should be a two-state solution: Israel and a state for the Palestinians, with democratic parliaments, full memberships of the UN, and well-defined frontiers. The only exception might be Jerusalem; this city (with part of its surroundings) might become an international Peace region not belonging to either state.

In order to reach this goal and have permanent peace in the Middle East one should accomplish the enormously difficult process of reconciliation between Jews, Palestinians and Lebanese. This might be started by the proposed Pugwash–UN efforts. Possibilities to promote this process could consist, e.g., in mixed (Jewish–Palestinian) organisations to further this crucial goal. One might think of town-relationships between Jewish and Palestinian towns, etc. Most important would be mixed organisations for the problems of water and energy (oil, solar energy, etc.) in the Middle East.

#### Notes

1. Seymour M. Hersch, *The Samson Option: Israel's Nuclear Arsenal and American Foreign Policy*, Random House, New York, 1991.
  2. Avner Cohen, *Israel and the Bomb*, Columbia University Press, New York, 1998.
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3. Cf. the work on 'Nuclear Free Zones in Europe' carried out in Pugwash from 1960 onwards under the guidance of K.D. Lapter (Poland) and H.A. Tolhoek (Netherlands), the results of which were presented at Annual Pugwash Conferences in the mid-1960s. See also Arthur Petersen, Weapons of Mass Destruction (WMD) in the Middle East and the Establishment of a WMD-Free Zone, Report on Working Group 2, 56th Pugwash Conference on Science and World Affairs, 'A Region in Transition: Peace and Reform in the Middle East', Cairo, Egypt, 11-15 November 2006.
  4. Avner Cohen and Thomas Graham, Jr., An NPT for non-members, *Bulletin of the Atomic Scientists* 60 (3) (May/June 2004) 40-44.
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# Dialogue between Islam and the West from the Islamic perspective

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In the aftermath of September 11, 2001 confrontation between Islam and the West was brought to the forefront of international relations. According to Samuel Huntington, author of *Clash of Civilizations*, the roots of the antagonism between those civilizations lie in the significant growth of the Islamic population, belief in uniqueness and superiority of Islam over the Western culture and disapproval caused among Muslims by aspirations of the West to give to their values universal dimension.

This dispute does not necessarily regard territorial problems, but it concentrates on issues such as WMD proliferation, human rights, democracy, supervision over oil and gas fields and terrorism. According to Huntington, Muslims accuse the West of hypocrisy and of using double standards, and consider the Western culture to be materialistic, imperialistic, decadent and corrupt. American leaders presume that Muslims who take part in and are responsible for acts of violence against the West, represent the minority, and the majority of them is opposed and condemn that sham-war. This view seems to hold, but it runs counter to Huntington's idea of a clash of civilizations – according to which one would expect neither protests in Muslim countries nor leaders who strongly condemn anti-western acts of violence.

Actually, one of the first world leaders who publicly condemned the terrorist attacks of the 11th September and offered condolences to the victims' families and to the whole American nation, was the then President of the Islamic Republic of Iran – Sayed Mohammad Khatami. That man also, in 1998 (the first year of his presidency), had presented to the UN General Assembly his idea of Dialogue among Civilizations and had appealed for establishing the year 2001 as the year of that dialogue. A year later, Mr. Khatami held his first state visit to Europe, to Rome, where he met not only with the Italian President and the representatives of the Italian government, but also met with Pope John Paul II in the Vatican, to whom he presented the idea of Dialogue among Civilizations. That meeting, according to observers, in a symbolic way identified Khatami as a leader of the Islamic world, welcomed by the 'head' of the Catholic Church, the biggest Christian community. In the report on the role of the leadership in the Dialogue among Civilizations prepared during the United National University workshops on the topic in 2001, international experts stated that the progressive world of inter-civilizational dialogue will witness many efforts of promoting mutual understanding and

understanding among cultures, for which John Paul II and Mohammad Khatami will be recognised as precursors [1].

According to Mohammad Khatami, the Dialogue among Civilizations would be an accomplishment of the principles of the universal justice and freedom, promotion of the cultural, economic and political understanding and refusal to use force. It would strengthen the foundations of justice, freedom and human rights. Due to Iranian president there are two conceptions of Dialogue among Civilizations.

One of these presumes mutual interaction and leakage of cultures and civilizations, which comes out of the diversity of elements that comprise them. This way of interaction is unintentional, spontaneous and mainly dominated by social events, geographical situations and historical development.

Dialogue among Civilizations may also, according to Khatami, mean serious discourse among representative members such as scholars, artists and intellectuals from different civilizations. In that second meaning, dialogue is an intentional process that aims at mutual agreement and cautious debates. Meta-historical discussion on everlasting human questions like fundamental meaning of life and death or good and evil should be specified and should brighten political and social problems. This discussion cannot disguise authentic, urgent and essential issues, but should be conducive to mutual understanding in fundamental and true issues.

President Khatami in his statements reiterated that as a Muslim he strongly believes that the importance of religion has its roots in the value of justice; it was justice that was the main basis of all divine religions. Khatami argues that dialogue among civilizations is definitely dialogue among believers, thus is a dialogue among religions.

The idea of the former president of the Islamic Republic of Iran can be also found in the Tehran Declaration adopted in 1999 by members of the Organisation of the Islamic Conference. According to its signatories the main principles of Dialogue among Civilizations are *inter alia*.

- Respect for the dignity and equality of all human beings without distinctions of any kind and of any nations large and small;
  - Genuine acceptance of cultural diversity as a permanent element of human society and a cherished asset for the advancement and welfare of humanity at large;
  - Mutual respect and tolerance for the views and values of various cultures and civilizations, as well as the right of members of all civilizations to preserve their cultural heritage and values, and rejection of desecration of moral, religious or cultural values, sanctities and sanctuaries;
  - Rejection of attempts for cultural domination and imposition as well as doctrines and practices promoting confrontation and clash between civilizations;
  - Search for common grounds between and within various civilizations in order to face common global challenges;
  - Acceptance of cooperation and search for understanding as the appropriate mechanism for the promotion of common universal values as well as for the suppression of global threats;
  - Compliance with principles of justice, equity, peace and solidarity as well as fundamental principles of international law and the United Nations Charter.
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Areas of Dialogue among civilizations are:

- Enhancement of mutual understanding and knowledge about various civilizations;
- Cooperation and mutual enrichment in various fields of human endeavour and achievements: scientific, technological, cultural, social, political, economic, security...
- Promotion of the culture of tolerance and respect of diversity;
- Cooperation to arrest threats to global peace, security and well being: environmental degradation, conflicts, arms, drugs, terrorism, et cetera
- Confidence-building at regional and global levels;
- Promotion and protection of human rights and human responsibility, including the rights of minorities and migrants to maintain their cultural identity and observe their values and traditions;
- Promotion and protection of the rights and dignity of women, safeguarding the institution of the family, and protection of the vulnerable segments of the human populations: the children, the youth and the elderly [2].

Participants in dialogue are, among others, representatives of contemporary civilizations, scholars, thinkers, intellectuals, scientists, economists, people of arts and culture, representatives of governments, civil society, international and organizations.

In accordance with the principles presented above, conferences and symposia designed to encourage dialogue and promote mutual understanding and tolerance among contemporary civilizations should be sponsored. Various cultural products, such as books, articles, documentaries and audio-visual products, projecting the true message of Islam and depicting from the numerous historical instances of constructive interaction between Islamic and other civilizations should be produced. Inter-cultural studies and exchanges at institutions of higher learning should be enhanced and historical and cultural tourism should be utilised as an instrument of dialogue and understanding among civilizations.

Not only Islamic organizations like OIC or Islamic Educational, Scientific and Cultural Organization (ISESCO) in their activities have referred to the idea of Dialogue among Civilizations. Through adopting the resolution in 1998 and establishing the year 2001 as a year of Dialogue among Civilizations, the UN General Assembly rejected the idea of a Clash of Civilizations which was based on the thesis that understanding among civilizations is not possible. The UN General Assembly expressed its strong determination to commence such a dialogue to promote the active exchange of ideas, views and aspirations, and to raise understanding and tolerance among people of various cultures.

For the representatives of the UN General Assembly, the idea of Dialogue among Civilizations became a new paradigm in international relations that is based, *inter alia*, on:

- Reciprocal relations based on equality;
  - Dispersion of power
  - Individual responsibility in international relations;
  - Partnership [3].
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Dialogue seems to be vital for supporting these aspirations. Its condition is the maintenance of diversity, which will preserve the human face of globalisation.

The subject of the Clash of Civilizations, and particularly relations between Islamic world and the West, has also been discussed by AbdolKarim Soroush, a well-known and influential Iranian philosopher. Referring to Huntington's conception, Soroush maintains that there are two kinds of Islam. The first kind, known as the Islam of identity, is a guise for cultural identity and a response to what is defined as a 'crisis of identity'. The second kind, called the Islam of truth, is a repository of truths that direct believers toward the path of worldly and outwardly salvation. Soroush expresses his concern that Muslims in 'their confrontation with the Western civilization wish to turn to Islam understood as an identity'. His concern arises out of the fact that he deems the identity-based Islam as one of the greatest theoretical plagues of the Islamic world. In response to this plague, Soroush proposes that 'Islam of identity should yield to the Islam of truth', because Islam as a truth can co-exist with other truths, while Islam as identity is by its very nature aggressive. Soroush argues that two identities would fight each other, while two truths would cooperate. The problem is that Islam has generated a civilization which has different shades in different parts of the world. So it is very hard to find one effective solution [4].

AbdolKarim Soroush believes that Islam should engage in a constructive cultural exchange with the West instead of adopting Western culture uncritically as a means to development and progress. The Iranian philosopher argues that there is no shame in choosing to maintain or abandon certain elements of one's culture on the basis of investigation or critical inquiry. Blind imitation, in his opinion, should be rejected for the rational search for truth. We can also find in Soroush's texts a call for a dialogue that aims to prevent conflict within the Muslim world. Extremist forces in that world can only be defeated if progressive forces both in the West and in the Islamic world cooperate to tackle the issue through dialogue and constructive engagement.

Kaveh L. Afrasiabi, scholar from the California University in Berkeley, believes that in today's world – wrought with severe challenges for peace and prosperity, wherein the integrationist forces of globalisation coexist with the polarising forces of global poverty, ethnic cleansing and other forms of intolerance – Khatami's idea of Dialogue among Civilizations could be an antidote to the violence of its antinomy – the Clash of Civilizations thesis. In the latter's source, we can find theses about western superiority, domineering, arrogance and cultural hostility. The theory on Clash of Civilizations is a low-level vision cementing the global fragmentations. According to Afrasiabi, Khatami's antithesis represents a high-level vision addressing our global need to rebound intellectually and otherwise. Afrasiabi reckons that the idea of Dialogue among Civilizations invokes the notions of interfaith dialogue and religious hope, thus setting a unique precedent for the re-enchantment of the United Nations, which had previously ejected religion and spirituality outside its policy domains.

The Dialogue among Civilizations has not been suppressed in the aftermath of the September 11th attacks. Global and regional undertakings such as Sana'a conference in Yemen in 2004 (resulting in 'The Sana'a Call for Dialogue among Civilizations'), the International Conference on Environment, Peace and Dialogue among Civilizations (Tehran, 2005), the Conference on Fostering Dialogue among Civilizations through Concrete and Sustained Actions (Morocco, 2005) or the 'White book on Dialogue among Civilizations' [5] (which

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consists of almost all official documents, reports from conferences relating to Dialogue among Civilizations) can testify to this.

Two European examples may also illustrate this point. In 2002, Germany presented a project on Dialogue with the Islamic world. Its aim was to undertake the discussion on values, opinions and views, without attempting to avoid controversial issues. One of the priorities of that project was the dialogue at schools and, more broadly in the educational sphere, with youths. That Dialogue had been constructed in a way such that exchange among cultures could be recognised as an opportunity that enriches both sides. Dialogue with the Muslim world ought to be one of the pillars of a long-term strategy for the fight against terrorism and the prevention of crises. And in 2003, within the framework of the Barcelona Process (Euro-Mediterranean Partnership), the Euro Mediterranean Anna Lindh Foundation for the Dialogue between Cultures was brought into existence. This Foundation is the first common institution established by all 35 members of the Partnership and aims to bring people from south and east coasts of the Mediterranean Sea closer to each other and to transform the Euro Mediterranean region into a region of peace, stability and prosperity.

Sayed Mohammad Khatami with presenting his idea of Dialogue among Civilizations strove for reinforcing not only his own position, but also the position of Iran in the global arena. He wanted to help his country to come out of the international isolation. Of course almost all of his guidelines remain in the theory. But they do play a role in discussions, considerations and challenges. They are acknowledged and supported by politicians and world leaders. They give aims, to which citizens of all civilizations should aspire, that is, aspire to the dialogue, not to the confrontation.

What seems to be very important is that the idea of Dialogue among Civilizations, opposite to the Clash of Civilizations, was put forward by a Muslim man that represents the civilization which is considered by the West as an aggressive, fundamentalist civilization, not eager for dialogue and compromises. A man from the East, cradle of civilizations, place where prophets of the three monotheistic religions – Abraham, Moses, Jesus and Mahomet – were born.

The problem is that there is no will for real understanding of the Islamic world by the West. Proposals for dialogue, mainly from Europe, remain largely in theory. There is a lack of realisation of the aims. Western countries seem to perfectly know all about the other side in the dialogue. So they do not need to listen and be interested in problems of the Muslim world. For establishing true dialogue there is a need for a western charismatic leader, who, like Mohammad Khatami, would make an effort to promote the idea of Dialogue among Civilizations all over the world, to adjust it to the new challenges. However in Europe there is no possibility for a clergyman to become head of a country, which may hinder the possibility of a western alter ego of a man like Khatami to rise to power. Furthermore, when Mohammad Khatami desisted from being the President of the Islamic Republic of Iran, the cogency of his message became weak. He is invited, like many other former presidents, to universities all over the world, even to the United States, to give lectures on Dialogue among Civilizations, but it does not have the might of interaction.

In the opinion of many observers, scholars and intellectuals, dialogue between Islam and the West, in today's socio-political circumstances, both in the Middle East and in Europe, is impossible. Is the path of a dialogue possible to be continued, to be developed? What should be done to make it possible? Is it possible to create a platform of cooperation between

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nongovernmental organisations from both sides? What should be done for putting the assumptions of the initiatives by Khatami, the OIC, and ISESCO into practice? Should we talk only to moderate Islamists, who are usually in opposition to rulers in some Muslim countries? Or should we talk to representatives of all Islamic fractions? Is practical implementation of the assumptions behind the dialogue possible? These questions need urgent answers.

#### **Notes**

1. UNU Workshop on The Role of Leadership in Dialogue Among Civilisations, 17-18 June 2001. (<http://www.unu.edu/dialogue/workshops/leadership.doc>).
  2. For more see <http://www.isesco.org.ma/publ>.
  3. See <http://www.un.org/documents/dialogue.htm>.
  4. Hassan Abbas, Islam versus the West and the Political Thought of AbdolKarim Soroush. (<http://www.drSORoush.com>).
  5. Islamic Educational, Scientific and Cultural Organization (ISESCO), White book on Dialogue among Civilizations. (<http://www.isesco.org.ma/pub/Eng/dlg/Menu.htm>).
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