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## THE SOUTH AFRICAN DEFENCE INDUSTRY AND THE NEW THINKING ON SECURITY

by

Agostinho Zacarias

SAIIA



THE SOUTH AFRICAN  
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# **The South African Defence Industry and the New Thinking on Security**

by

Agostinho Zacarias

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# The South African Defence Industry and the New Thinking on Security

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The idea of adopting a new approach to the way security is thought about in the region raises a number of questions with regard to the future of the South African Defence Industry (SADI). These arise, not only because of deep-seated fears based on recent historical experiences in the region,<sup>1</sup> but also with respect to what part the industry can play given the changes in the regional and international security environment<sup>2</sup> which have encouraged the South African Development Community (SADC) member states to work towards a security community. In light of these changes, in 1994 the United Nations Development Programme (UNDP) *Development Report* expressed concern over South Africa's plans to increase its defence sales, since a large proportion of the GDP of African countries has, in the recent past, been devoted to arms purchases to the detriment of development.<sup>3</sup> The report further called on the new South African government to commit itself to avoiding conflicts in the region, since conflicts have been the major obstacle to development, especially in countries such as Angola and Mozambique which, at that time, showed the highest military expenditure in the region. The report stressed that high levels of military expenditure not only undermines development, but also undermines human security.<sup>4</sup>

The very existence of SADI raises some tough policy questions, given its inherently contradictory capacity to destabilise the region while at the same time enhancing regional security by strengthening regional defence capabilities. In addition, it plays an essential role in the South African economy, through job creation and the saving of scarce foreign exchange (by reducing the need for extra-regional defence procurement). Nevertheless, SADI can also contribute to insecurity by diverting development funds to military use and by selling arms to dissident and terrorist groups. Thus, in addition to the making of tough policy choices, the development of suitable institutional mechanisms is necessary before SADI can play a positive role in the context of the new approach to security. However, before discussing these policy options, let us look at the context and the factors that contributed most to the development of this industry.

## Background

The development of SADI took place in different stages, in response to changes in the domestic and external environment. Its roots can be traced back to the early twentieth century, when an explosives factory was

established to support the country's booming mining activity. The outbreak of World War II in 1939 was a further incentive for the expansion of the defence industry. The need for ammunition, bombs and armoured vehicles to support the Allied Forces in the war against Hitler prompted the authorities to develop an indigenous manufacturing capacity which provided employment for 12,000 people.<sup>5</sup> Although most of this capacity was dismantled in the post-war period, a few factories such as Defence Ordnance (later Lyttleton Engineering Works) and the South Africa Mint Ammunition Factory were maintained.<sup>6</sup>

Discussion of domestic production of armaments gained a new momentum when in 1951, South Africa established the Defence Production Board to liaise between the Department of Defence and the private sector. This Board was charged with providing advice to the Department of Defence on arms procurement and the development of an indigenous capacity in arms production, resulting in the establishment of new industries. However, the SADI did not expand much during this period. The only noteworthy development was the establishment of the first rifles factory in 1953. South Africa was at this time still a member of the Commonwealth, and purchased most of its military necessities from Britain, which for many years remained the Republic's main defence partner. However, South Africa was forced to abandon the Commonwealth in 1961. This led the South African defence establishment to realise the dangers inherent in its total dependence on Britain. South Africa was forced to look into the possibilities of developing an indigenous capacity for armaments production.

The decisive factors contributing to the expansion of defence industrial capacity, however, came in the 1960s. Chief among these were the technology transfers from Western countries, facilitated by South Africa's anti-communist stance<sup>7</sup> and the rapid expansion of the South African economy, in particular its manufacturing sector. This was buttressed by the increasing isolation faced by the Republic in the 1960s following the regime's violent response to the defiance campaign that started in the 1950s, which culminated in the 1961 Sharpeville massacre. Yet another major factor contributing to the development of an indigenous arms industry was the UN selective arms embargo of 1963/4, coupled with the idea that South Africa was facing a communist onslaught or the prospect of a major war against a coalition of black African states. All of these factors led the authorities to believe that self-sufficiency in arms production had to be achieved if apartheid was to be maintained. Pretoria established its domestic defence production capacity in progressive stages: from simple repairs to maintenance and overhaul work; from local assembly of licenced and imported sub-assemblies to licenced-production of sub-assembly on the basis of imported components. Later, South Africa developed a capacity to

manufacture under licence the production of components until it reached self-sufficiency based on local research and development.

The National Institute for Rocket Research was established in 1963, and began the production of ground-to-air missile systems. In 1964 the South African authorities concluded that efficiency in arms procurement could not be achieved while the body in charge continued to operate inside the civil service structure. Thus, a new institution, the Armaments Production Board, operating outside the civil service, replaced the Defence Production Board. The new institution was charged with co-ordination of the manufacture, procurement and supply of all the South African Defence Force's (SADF) requirements. By 1965 120 licences has been issued to local contractors to produce defence equipment, but South Africa continued to purchase aircraft, helicopters, and heavy artillery equipment from abroad, mainly from France, Italy and Israel.<sup>8</sup> However, in 1967 pressure mounted on South Africa's suppliers as the UN Security Council called on all states to stop supplying the Republic with arms. The Armaments Development Corporation (ARMSCOR) was established in 1968 as a parastatal, and was given powers to develop, supply, manufacture and standardise armaments.<sup>9</sup> ARMSCOR took control of the state subsidiary factories and secured close co-operation with, and control of, the private sector, and continued to acquire equipment from abroad through licences, supplies and co-production.<sup>10</sup>

The worldwide criticism and pressure that Pretoria faced following the massacre in Soweto in June 1976 led the regime to realise that military acquisitions from abroad were going to be more difficult in the years ahead. Indeed, the mandarins in Pretoria realised that apartheid could survive only through defying sanctions in order to maintain the comparative military superiority it held over its opponents in neighbouring countries. The regime was proved right because, in the following year, the UN Security Council passed Resolution 418 which introduced a mandatory arms embargo against South Africa. In that same year, the regime introduced some reforms to ARMSCOR, giving it additional powers including procurement, research, the development and production of armaments and export promotion.<sup>11</sup> Blessing for the SADI came in the following year, with the election of the former Defence Minister, PW Botha, as Prime Minister. Botha's adoption of 'total strategy' allowed the military establishment to gain an unprecedented prominence in South African politics. ARMSCOR took over many private defence companies, was allowed to form new companies, such as Kentron, and to merge others (Teclast and Atlas). Nonetheless, ARMSCOR's accounts remained secret, while its research and development sector was expanded through the subcontracting of research institutions and universities.<sup>12</sup> In April 1992, ARMSCOR was again restructured. A new state-owned industrial company, DENEL Pty (Ltd), was formed to take control of the armaments

manufacturing capabilities under the authority of the Ministry of Public Enterprises, while ARMSCOR remained under the authority of the Ministry of Defence, and was charged with procurement of armaments and related products and services to the South African National Defence Force (SANDF).

## Endnotes

1. Here I refer to the role that the South African Defence Industry played in the oppression of South African nationals and in planting terror in the region.
2. The most notable changes in the international security environment have been the end of the Cold War and the end of the spirit of confrontation.
3. See *UNDP Development Report 1994*. Oxford: Oxford University Press, 1994, p.50.
4. *Ibid.*, p.51.
5. Simpson G, 'The Politics and Economics of the Armaments in South Africa' in Cock J & L Nathan (eds.), *War and Society: The Militarisation of South Africa*. Cape Town: David Philip, 1989, p.220.
6. See for example, Landgren S, *Embargo Disimplemented, South Africa's Military Industry*. London: Oxford University Press, 1989, p.38.
7. Spence JE, *Foreign Investment in South Africa: The Political and Military Framework*, p.8.
8. Coker C, *South African Security Dilemmas*, *op.cit.*, pp.52-53.
9. Batchelor P, *South Africa's Armament Industry*. Paper Prepared for Economic Research Group Meeting, Centre for African Studies, University of Cape Town, 27-29 November, 1992, p.12.
10. Landgren S, *op.cit.*, p.45.
11. *Ibid.*, p.48.
12. *Ibid.*, p.52.

# The South African Defence Industry and its Dilemmas

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When the Government of National Unity came to power in 1994, ARMSCOR/DENEL remained the main military industrial structure in South Africa. In addition, the core of the defence industry included three other groups REUNERT, ALTECH, and GRINTEK, all of which were constituted as public holding companies with divisions specialising in defence and commercial equipment. ARMSCOR issued contracts and subcontracted as much as 80% of its work to over 800 private firms specialising in defence components systems and accessories. The chairman of ARMSCOR was also a member of the Defence Planning Committee chaired by the Deputy Minister of Defence.

In 1996 the SADI consumed about 50% of the annual defence budget, that is, approximately US\$1.7 billion. Most of this money went into capital investment necessities, services and consumables, and a lesser amount was spent on operating costs. The defence budget also subsidised research and development, export incentives and arms export infrastructure.<sup>1</sup>

The end of both apartheid and the Cold War brought some benefits as well as new concerns with regard to the SADI's future. On 25 May 1994, the UN lifted the arms embargo against South Africa by revoking UN Security Council Resolution 558. This prompted ARMSCOR to plan an increase in its global market share of arms production, from its then level of 0.4% to two percent, over a period of five years. The plan implied market expansion, particularly to the Third World. However, ARMSCOR's new plans precipitated a fervent reaction among those who felt that it might achieve this at the expense of development funds, and that the corporation might increase its profits through obscure deals that contravened existing policy guidelines. The example of the scandal involving an arms consignment allegedly sent via various other destinations to Yemen - a country blacklisted by South Africa for its involvement in terrorist activities - fuelled heated debate in South Africa. The proposal that the Defence Industry should be phased out began to gain currency, especially among proponents of 'new security', who believed that funds resulting from defence cuts should be re-oriented to finance economic development and social needs such as health and education.<sup>2</sup>

The opinion of the new security thinkers regarding the future of the Defence Industry was in line with the African National Congress' (ANC) security policy guidelines. Joe Modise, the commander of the Umkhonto we Sizwe (MK), commented in early 1994:<sup>3</sup>

A fundamental flaw in the prevalent definitions of security is that the issue is confined to a purely military problem, which unavoidably leads to military solutions being sought. In reality, however, the really critical issue currently facing the developing world and indeed the entire human race is to find solutions to economic underdevelopment, a safe environment, a reduction of arms and to ensure the well-being of the population.

Modise's observation echoed the 1992 ANC policy statement on security, which argued that:<sup>4</sup>

As a result of Total Strategy the whole of South African state and society became militarised. National Security was pursued through military and paramilitary means ... the challenge was to address not only security institutions and their composition but also to go deeper and address the very nature of security policy itself. The basic principles underpinning such a policy should be based on a realistic assessment of threats to peace, territorial integrity and personal security.

This policy was easier to announce than to implement. Not surprisingly, when the ANC team of Modise and Kasrils took over the Ministry of Defence, and a number of former MK members were integrated into the SANDF structure, they were exposed to a new situation. The team not only faced difficulties in translating into practice the new security ideas, but the actual conditions in which it functioned led it to become a staunch defender of the interests of the military establishment. The team soon understood that the new ideas had to coexist within old structures.

The Defence Industry built up around apartheid security ideas had far-reaching implications for South African society. The SADI gave South Africa an international status, a basis for an independent foreign policy,<sup>5</sup> and a platform that allowed the Republic to be seen by big powers as a potential partner in policing international security, particularly in Africa. These facts compelled the ANC to change from its pre-election stance and argue in favour of promoting the arms trade on grounds of positive economic gains - a victory for economic pragmatism over pre-election idealism.<sup>6</sup> The ANC team in the Ministry of Defence joined those who argued that the post-Cold War security environment required South Africa to possess a modern, well-equipped and technologically advanced defence force.<sup>7</sup> Strategically, the new ANC posture was justified in terms of the instability surrounding South Africa, that is, the existence of poorer and less stable neighbours.<sup>8</sup>

Internally, the defence industry appeared, for most observers, to be an asset for job and wealth creation and an important factor in achieving a positive balance of trade. All of these factors strengthened the case for maintaining the industry.

More specifically, if one takes into account the firms sub-contracting with ARMSCOR/DENEL, the Defence Industry is both a major employer in South Africa and a major foreign exchange earner. The Defence Industry has allowed South Africa to reduce its defence imports drastically. (The country imports only about five percent of its military needs.)<sup>9</sup> Some officials, such as the Deputy Minister of Defence, Ronnie Kasrils, see the Defence Industry as a technological leader, offering a potential for developing and expanding the national technology base.<sup>10</sup> Kasrils further argues that the Defence Industry has played an important role in the Reconstruction and Development Programme (RDP), not only through increasing export products but also through providing mass transportation systems, medical care systems, mobile services, information management systems, communication services, water purification equipment, low-cost-housing, bridge building and other, similar, construction.<sup>11</sup>

Conflict concerning the role of the Defence Industry soon emerged in the new ANC cabinet, particularly between the military and those holding civilian portfolios. Jay Naidoo, the Minister responsible for the RDP, was among those who favoured deeper defence cuts and the re-allocation of money to fund his programme. He was among those who viewed the new South African security priorities as lying particularly in internal problems such as ethnic tensions, economic refugees, environmental degradation, small arms proliferation and the perpetuation of inequality as the legacy of apartheid. These new sources of insecurity do not justify large defence expenditures; nor do they require the preservation of a large defence industry.<sup>12</sup> The civilians further argued that security should not be equated with defence, and that, under the new political dispensation, funds should be re-oriented to other socio-economic sectors (such as health care, education, housing, water and electricity supplies), which are also important in enhancing the security of people.<sup>13</sup>

To bridge the gap between this view and the one dominant in the military establishment, Parliament decided to introduce substantial defence cuts. There was yet another factor motivating this decision - the unfavourable external environment that led to a global decline in defence spending, and shrunk the market for South African defence products. The cuts resulted in a scaling down of SANDF units, the reduction of Air Force bases from 12 to seven, the disbanding of many Naval units, and cuts in Naval spending. National Service was reduced from two years to one year, while the number of people employed by the parastatal sector of SADI fell from 160,000 in 1989 to 70,000 in 1994. In the same period, defence expenditure declined in real terms by over 40%; and if one examines the capital budget for renewal and development of new equipment, the picture becomes very gloomy for the Defence Industry. In the 1989 national defence budget, the

capital budget was 44% of the total budget, but by 1994 this had fallen to only 20% of the total defence budget. These figures mean that there cannot be real growth in the sector, since 80% of funds are used in maintenance, consumables, services and operations. This trend is contrary to the tendency in the developed world, where, despite the defence cuts, research and development has not suffered as much. Defence cuts, especially in capital expenditure, have resulted in significant job losses, which contribute to political instability in the country.<sup>14</sup>

Defence cuts have thus become a matter of great concern both within and outside the defence community. Those with a direct interest in the Defence Industry and those in the military establishment argue that cuts have reached their maximum limits. They argue that further cuts, especially in capital expenditure, will harm the development of skills and technological bases and cause losses in expertise that are difficult to replace. For example, the former commander of the South African Air Force (SAAF) Lieut-General James Kriel, reported in early 1996 that, in the course of that year alone, 116 former fighter-pilots, who had cost R3 million each to train, were being forced to seek jobs in the private sector because the Air Force had failed to convince the state that they should be kept in the Force.<sup>15</sup> The military also argue that further cuts will prevent the SANDF from meeting its obligations, and threaten the livelihood of defence-dependant communities such as Simonstown and Pretoria.<sup>16</sup>

The other dilemma facing SADI results from the country's adoption of a highly moral foreign policy implying international responsibilities. South Africa's principled foreign policy started in the early 1990s, with the dismantling of its nuclear capabilities. Since 1994, the Republic has adhered to international conventions such as the Non-Proliferation Treaty, the Chemical Weapons Convention, and the Missile Control Technology Convention. South Africa is also signatory to the Declaration making Africa a nuclear-free zone, and in the course of 1997, the Republic joined the international campaign to ban the production of land mines. South Africa is also expected by its African and overseas partners to behave responsibly at international levels, by not exporting arms to countries fomenting terrorism or to places riven by conflict and strife. A demonstration of these expectations is the succession of rows that arose in Parliament, first in 1996 following findings that the country had been exporting arms to the Rwanda/Burundi region,<sup>17</sup> and in January 1997, over the proposed arms sales to Syria, which prompted the US to threaten to cut aid to South Africa.<sup>18</sup> These factors reduce the prospects for increasing export earnings through defence sales, and curtail the industry's potential to expand into new areas of armament development and production. Adjustment costs should be allocated to compensate for the negative impact resulting from

shrinking of markets for armaments exports as well as domestic cuts in defence spending.

However, before examining the problems particular to SADI, it is worth examining the strategies which have been proposed for balancing the civilian and military needs of the country.

## Endnotes

1. See *Some Statistics of the SADIA Members of the Defence Industry*. A survey conducted by the South African Defence Industry Association, 30 January 1996.
2. See Zacarias A, *The State and Security in Southern Africa, Concept and the Post-Apartheid Era*. London: IB Tauris, 1998, Chapter 6.
3. *Military Technology*, 1, 3, 1994, p.15.
4. *ANC Policy Statement: Ready to Govern*, 1992, p.75.
5. See for example, Romer-Heitman H, *The South African Defence Industry, Present and Future Prospects*. Paper presented at a conference on Changing Dynamics: Military Strategic Issues For Future South Africa, sponsored by Institute for Defence Policy and Hans Seidel Foundation, Pretoria, 6 August 1992.
6. Jakkie Cilliers, quoted in *Sunday Times*, Johannesburg, 12 July 1994.
7. Joe Modise, quoted in *Jane's Defence Weekly*, 6 August 1994.
8. *Ibid.*
9. *South Africa: Country Profile*, The Economist Intelligence Unit, 1998, p.14.
10. Kasrils R, 'The Future of South Africa's Defence Industry: The Government's Perspective' in Gutteridge W (ed.) *South Africa's Defence and Security into the 21st Century*. Aldershot: Dartmouth, 1996, pp.123-4.
11. *Ibid.*
12. Joe Modise, quoted in *Jane's Defence Weekly*, August 1994.
13. See for example, Nathan L, *Security and Military Machinery in Democratic South Africa*. Paper presented at Workshop on Democracy Peace and Security, SADC, Windhoek, pp.14-15.
14. See for example, Batchelor P, *op.cit.*
15. Chandler N, 'A Wrong Move in the Guns or Butter Debate Means Vulnerability', *The Star*, Johannesburg, 30 April 1996.
16. *Business Day*, Johannesburg, 21 March 1991.

17. Mills G, 'South African Foreign Policy: Issues, Problems and Machinery', *Discussion Papers in International Relations*, 1, 3. University of the Witwatersrand: Department of International Relations, July 1997.
18. Romer-Heitman H, *op.cit.*, pp.5-8.

# The Proposed Solution

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## Reformed Industry

The various solutions which have been proposed to enable SADI to meet the demands of the new security environment and domestic needs in South Africa include:

- (i) the development of maintenance-run industry for the Army's heavy equipment;
- (ii) the retention of the industry to refurbish existing equipment;
- (iii) the maintenance of the industry to upgrade the existing equipment; or
- (iv) total conversion of the Defence Industry to commercial use.<sup>1</sup>

The argument in support of a maintenance-run industry is essentially advanced to keep the existing major Air Force, Navy and heavy artillery equipment in good condition and the technical personnel in industry usefully occupied. This proposal envisages reductions in defence spending and the re-channelling of funds into other economic and social sectors. The advantage of this proposal is that defence spending would be kept at low levels, that would, however, be sufficient to keep major equipment in good condition. The social and economic sectors would gain more resources, thus striking a good balance between the military and non-military aspects of security. However, this proposal implies that the reformed industrial capacity would depend solely upon the defence budget, whose income would be derived from the other sectors. It also implies that no spending would be allocated to research and development of new armaments, which would curtail the possibilities of defence exports. Under these circumstances it becomes difficult to see how the existing capacity and the know-how accumulated during the years can be utilised optimally. Furthermore, a maintenance-run industry does not necessarily guarantee a modern, well-equipped and technologically up-to-date force.

The refurbishment concept implies bringing every component in defence equipment to the highest state-of-the-art standard. As in the maintenance-run industry, the objective of a refurbishment industry is to reduce defence spending by adjusting the industry to servicing major equipment, and developing systems and components where necessary, aiming at improving the quality of such equipment. This exercise would reduce the costs of

developing and expanding military capabilities drastically and allow for the re-channelling of money to the economic and social sectors. There can be no doubt that the concept of a refurbishment industry offers advantages over the concept of a maintenance-run industry, in so far as it enhances the combat performance, maintenance and support of equipment by standardising sub-systems and components.<sup>2</sup> Nonetheless, it does not keep overall technological developments current, since this is only achieved with regard to very specific components. The refurbishment concept offers the advantage that the industry would not simply depend on domestic defence spending, but also on the size of the external market, that is, the amount of equipment already sold to foreign countries. In this case, the survival of an industry based on refurbishment would be determined largely by the willingness of such countries to refurbish South African-made equipment. However, in the long run, South Africa would lose the external markets in favour of those countries that could produce more modern and technologically advanced equipment.

Similarly, the concept of an upgrading industry also raises the prospect of enhancing income from exports in addition to securing existing jobs. Its advantage is that defence spending could be contained without much sacrifice of the existing expertise, since South Africa would concentrate on upgrading the equipment selectively and with high competitiveness. However, this reduced diversification in defence production may bring economic disadvantages in the long run, since one cannot always guarantee that a market can be found for a narrow range of upgraded equipment.

The advocates of maintenance-run, refurbishment, or upgrading-based industries all hold one thing in common: that defence cuts should not be made in the area of research and development, since research and development are the basis from which technological spin-offs are generated. Instead, cuts should be made only in the area of procurement. This same argument is supported by those favouring conversion of the defence industry into civilian use, which will be examined in the next section. However, the latter group insist that research and development should place an emphasis on the production of commercial equipment.

### **Conversion and its Problems**

Conversion in SADI is not a new phenomenon. Several military factories underwent conversion soon after World War II,<sup>3</sup> and in recent years defence groups such as DENEL, GRINTEK and ALTECH have developed a commercial capacity. However, conversion from defence to civilian production poses economic and political challenges, since civilian and

defence production have diverged to such an extent that conversion is likely to be an expensive business. Nonetheless, conversion is seen by writers such as Dunne as an opportunity or lever for effecting long-term economic reforms.<sup>4</sup> Indeed, the debate in the Post-Cold War period has focused more on strategies for conversion than on whether or not conversion is needed.

Some of the proposed strategies for conversion have argued in favour of *macro-economic* conversion, which essentially focuses on the reduction of defence spending and the transfer of public funds to investment in the civilian sector. This transfer, it is argued, will bring benefits to the overall economy because the civilian sector is more dynamic and less capital intensive than the military sector. Thus, more jobs are likely to be created with the same amount of money.<sup>5</sup> In the long run this type of conversion would ultimately lead to the closure of most military installations.

The other scheme of conversion, namely *micro-economic* conversion, implies the use of existing military companies or plants for civilian production. The advocates of micro-economic conversion, however, assume that firms and plants are able to convert and that the re-training of personnel can always be achieved at low economic and political cost.<sup>6</sup> This is not always the case, however. Micro-economic conversion in Russia, for example, has brought about hardship, because some defence plants could not be converted, while in others conversion would only be achieved at enormous cost. This fact has led many defence companies to choose diversification as an alternative strategy, because it lowers the costs of transformation.

Plant-based diversification and company-based conversion is the path that has been chosen by the three largest defence groups in South Africa, DENEL, GRINTEK and ALTECH. The government seems to be largely satisfied with the results of this approach. For example, the Deputy Minister of Defence, Ronnie Kasrils, in his address to the ERIC Defence Industry Conference in October 1994, noted that, in a two year period, DENEL has managed to increase its civilian business from virtually nothing to over 25%.<sup>7</sup>

Authors such as Dunne and Willet identify yet another type of conversion, namely *community-based* conversion, which responds to pressures exerted by local communities, and uses strategies and policies identified by local authorities to reduce the vulnerability of local economies.<sup>8</sup> This type of conversion has centred on training-schemes and the transfer of technology and funds to local authorities. It is often used in projects to regenerate local economies, thus reducing the impact of defence cuts. Although success stories resulting from the community-based approach can be shown in a

number of European countries and the USA, these cannot be taken for granted. Success in community-based conversion is largely dependent on both a high degree of political and financial autonomy for the local authorities and the existence of natural resources and infrastructure that allow these communities to develop alternative strategies.

The last type of conversion which has been suggested for South Africa is *political* conversion. This is a much broader concept, concerned much more with the long-term socio-political impact of the Defence Industry than its immediate economic effects. It thus involves measures of de-militarisation and disarmament and a complete re-orientation of technical and scientific resources towards the development of civil industry and an infrastructure based on social needs.<sup>9</sup> This argument is founded on the analysis of the present strategic environment in Southern Africa. Threat perception analysis of the present regional theatre does not suggest any military force in the region, capable of challenging South Africa. It is thus suggested that South Africa could reduce its current threats to security - including increased crime, social and economic vulnerabilities, and political instability - by re-channelling most of its defence spending into investments in civilian industry and the development of the South African region.

Batchelor's study on the economics of the arms trade indicates that South Africa has derived few benefits from maintaining the Defence Industry. He points out that while South Africa's import ratio over 30 years has declined from nearly 100 % to 40%, South Africa still imports arms components to satisfy its procurement needs. Despite this fall, South Africa's import ratio continues to be high, and reduces the benefits that can be extracted from the defence sales.<sup>10</sup> Batchelor further notes that South Africa continues to import capital goods and intermediate components for the production of weapons, and that the expansion of defence sales will necessarily require further imports of capital goods. These imports are made at the expense of other economic and social sectors, while the contribution made by the defence sector to total South African macro-economic performance is minimal.<sup>11</sup> There is, however, a strong reason to suggest that the data made available to Batchelor errs on the side of pessimism. Indeed, ARMSCOR interviewees may have acted in accordance with the unscrapped 1968 Arms Development and Production Act 57 and Special Defence Account of 1974, which prohibit the disclosure of the information regarding defence production and arms procurement. The author takes Batchelor's findings, in this regard, to be inconclusive, since it would not make much sense for the government to continue to support the Defence Industry, at high political cost and minimal economic benefits, if his argument were correct.

A clearer picture of the space occupied by the Defence Industry and its implications for the South African economy and society can only be obtained if all data is publicised, particularly sales based on contract production orders from South East Asian and Middle Eastern states, from which South Africa seems to derive most of its defence dividends.

## Endnotes

1. Kasrils R, 'The Future of South Africa's Defence Industry: The Government's Perspective' in Gutteridge W (ed.) *South Africa's Defence and Security into the 21st Century*. Aldershot: Dartmouth, 1996, pp.123-4.
2. *Ibid.*, p.6.
3. Batchelor P, *Conversion of the South African Arms Industry, Prospects and Problems*. Unpublished paper prepared for the Centre of African Studies UTC, 1993.
4. See for example Dunne P & S Willet, *The Economics of Conversion in the UK*. Paper presented to UN Conference on Conversion, Durtmund, February, 1992.
5. Willet S, 'Conversion Policy in the UK', *Cambridge Journal of Economics*, 14, 4, p.472.
6. *Ibid.*.
7. See Kasrils R, *op.cit.*, p.123.
8. See Dunne P & S Willet, *op.cit.*, p.19.
9. *Ibid.*; see also Renner M, 'Conversion to Peaceful Economy: Criteria, Objectives and Constituencies', *Bulletin of Peace Proposals*, 19, 1, 1988.
10. Batchelor P, 'The Economics of South Africa's Arms Trade' in Harcker J (ed), *Collaborative Security in South Africa*. Ottawa: Canadian Council For International Peace and Security, Aurora Papers, May 1996, p.105.
11. *Ibid.*, pp.104-105.

## Problems Facing the Industry

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There is no doubt that SADI has been successful in providing the SANDF with most of its equipment needs. SADI has also managed to guarantee the security of supplies to SANDF, even in moments of crisis. As Matthews recognises, some of its products, such as G-5 and G-6 howitzers and frequency-hopping radios, are highly competitive in international markets. SADI has also been successful in rationalising, integrating and standardizing its range of products. For example, the infantry vehicle RATEL and general utility BULDOGG trucks are derived from the same basic design.<sup>1</sup> As mentioned elsewhere, arms are the principal manufactured export in South Africa, and the industry has contributed to the country's economic welfare, job creation, skill formation and technological spin-offs, especially in the electronics, steel and metal industries.

There are a number of difficulties however. One such difficulty is that SADI, to a considerable degree, continues to rely on foreign expertise and technology for the development of new equipment. This implies that, even though the Republic has managed to develop some domestic capacity in arms manufacturing, South Africa continues to incur costs related to importing technology, components, systems, accessories and experts for its defence industry. The lack of technological self-sufficiency is most noticeable in areas such as the Air Force and Navy, where the country continues to be entirely dependent on foreign technology and expertise.<sup>2</sup> South Africa's technological base is, beyond doubt, stronger at redesigning and integrating various components from foreign weapons into new locally developed systems than at developing an indigenous capability to design and produce equipment. Although South Africa lacks a solid and autonomous base from which to develop and deepen an indigenous technology, it has nonetheless managed to widen its technological base.

However, these transfers cannot be taken for granted. Indeed, Deger and Sen observe that technological spin-offs from the military industry to the rest of the economy have failed completely in most developing countries, because they are enormously costly, which developing states often cannot afford.<sup>3</sup> The result is often that innovation and skills transfers are either limited in nature, or transferred in an inadequate manner, or are not transferable at all. Evidence from South Africa corroborates this view. For example, many engineers who lost their jobs as a result of defence cuts and retrenchments implemented since 1990 have remained without jobs.<sup>4</sup>

The other problem facing SADI is that its production exceeds the demands

of internal markets. In the past this did not matter, because the Defence Industry survived on large subsidies from successive apartheid governments, whose primary intention was to secure supplies of armaments from domestic sources rather than guaranteeing the existence of an economically viable arms industry. It is clear that in the past the Defence Industry was developed at the expense of education, health care and housing for the black population, which nowadays becomes very hard to justify or sustain. It is thus beyond doubt that decisions on defence spending in a democratic South Africa need to take into account the resources requirements of civilian sectors.

The question of what strategy should be followed in this regard is an important one: the conventional view that a reduction in military spending will automatically lead to a peace dividend and the reallocation of resources to other users has not been proved to be entirely true in developing countries, especially where the participation of civil society in economic decisions is not guaranteed.<sup>5</sup> Reduction of military spending can indeed lead, as Dunne suggests, to 'a peace penalty' because of the adjustment costs involved in converting plants, retraining skills and giving assistance to the displaced defence workers and communities.<sup>6</sup> This implies that defence cuts require a strategy reflecting, on the one hand, the needs of the private sector, government and the communities affected, and policies that can aid structural adjustment on the other.<sup>7</sup>

However, rather than drawing conclusions on the future of SADI simply on the basis of its economics or its domestic role, it is worthwhile to explore the role that this industry can play in the wider regional context, especially its contribution to enhancing security. This is the objective of the following section.

## Endnotes

1. Matthews R, *The Development of South African Military-Industrial Complex*. Cape Town: University of Cape Town Press, 1987, p.31.
2. Cobbet W, 'Apartheid's Arms and Arms Embargo' in Cock J & L Nathan (eds.), *op.cit.*, p.240.
3. Deger & Sen, *Military Expenditure in Third World Countries*. London: Routledge and Paul Keagan, 1987.
4. See *Race Relations Survey*. Johannesburg: Institute of Race Relations, 1992, p.461.
5. Dunne JP, 'The Economic Effects of Military Expenditure in Developing Countries: A Survey' in Gleditsch NP et al (eds), *The Peace Dividend*. Amsterdam: Elsevier, 1996, p.2.

6. *Ibid.*
7. See for example, Dunne JP & S Willet, 'Disarming the UK: The Economics of Conversion', *Discussion Paper N-3*. University of Leeds: Centre for Industrial Policy and Performance, 1992; see also UNIDIR, *Economic Aspects of Disarmament: Disarmament as An Investment Process*, UNIDIR/92/94 UN-A/47/150. New York: United Nations Institute for Disarmament Research, 1993.

# An Alternative Role for The South African Defence Industry

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The author has argued elsewhere that security should be understood within the philosophical considerations pertaining to the good life.<sup>1</sup> In the same work he examined the practical difficulties of creating a security community out of the existing security system, and suggested as a solution that the region should instead concentrate in this phase on the idea of building a security society. The idea of a security society entails the need for shared principles and values, and also implies the existence of rules and a common power able to act formally on behalf of the common interest should crises occur, touching one or more participants in that society. However, common power, translated as a capacity to back political decisions by military action, does not currently exist in Southern Africa. One of the consequences of this is that conflicts have often been exacerbated by the lack of formal arrangements and mechanisms to act in a prompt and effective manner. Indeed, if a lesson is to be drawn from the way the 1994 Lesotho crisis and 1994 Mozambican pre-elections crisis were handled,<sup>2</sup> it concerns the need for better organisation and institutional mechanisms to handle crises in the region. Indeed, while the *ad hoc* arrangements of the combined South African, Zimbabwean and Batswana powers were sufficient to dissuade the coup organisers in Lesotho and to persuade Mr. Dlhakama in Mozambique to continue to respect the Rome General Peace Accord, a combined power representing the same group of countries would be insufficient to apply pressure to belligerents in Angola. In fact, this is the very reason why the three countries did not apply the same tactics in Angola. *União Nacional para a Independência Total d'Angola* (UNITA) is a much more powerful and experienced force than *Resistência Nacional Moçambicana* (RENAMO), and has an independent financial base. Only a significantly stronger force, with substantial political legitimacy, could exert sufficient pressure on UNITA to make it yield. It is noteworthy that, as the Angolan experience and that of many others in the region have shown, diplomacy without power to back it up is unlikely to produce substantive results. There are many experiences which show that, even if big powers are involved in certain diplomatic deals and negotiations, when the capacity or power to act is lacking, the desired goals often are either not achieved or put into jeopardy.<sup>3</sup>

To remedy this lack of power to act, the region has relied upon *ad hoc* arrangements for extra-regional capacity to resolve their conflicts. However, experiences elsewhere have shown that this capacity is not always readily available, and consequently conflicts have deteriorated further. There is yet another factor to consider. As seen above, the new approach to security

requires the development of pro-active measures, mechanisms and institutions. To be effective, pro-active institutions need to develop a capacity to act. This implies that pro-active institutions need to co-exist with reactive institutions to allow timely and proper crisis management in the event of such a crisis.

It is within the framework of developing a capacity to act and strengthening reactive institutions in the region that the SADI can play a role. SADI offers a good base on which common power to act in the region can be built. Apartheid and the Cold War legacies of confrontation left the region with weak, poorly trained and ill-equipped defence forces, weak state institutions and faltering economies. These states have difficulties on the one hand in maintaining law and order, and providing welfare to their citizens, and on the other, finding sufficient resources to re-build their instruments of order. Nevertheless, an orderly and peaceful environment is fundamental to their economic recovery and security.

The paradox, however, is that despite the apparent decline in international defence spending in recent years, states in the region, including those riven by internal strife, continue to show large defence expenditures.<sup>4</sup> One reason for this is the lack of national capacity to maintain major equipment such as aircraft, helicopters, corvettes, patrol vessels, battle-tanks and motor vehicles, together with a dearth of skills to negotiate good deals in procurement. Most SADC members also lack the capacity to manufacture other, non-lethal, equipment such as uniforms, tentage, electrical equipment, and so on. If one compares, for example, the life cycle of major equipment such as aircraft and helicopters in South Africa, Zimbabwe and Mozambique, the results are telling. Any of these will have a longer life cycle in South Africa, a medium life cycle in Zimbabwe and a short life cycle in Mozambique.<sup>5</sup> The main reason for this difference is the relatively low capacity to service equipment, and to manufacture the components and the accessories necessary for the major weapons systems in the latter two countries.

Although most equipment purchased overseas includes maintenance contracts, free of charge during the period of guarantee, once this guarantee expires, such contracts end and Southern African states must depend on suppliers to service the bulk of their military equipment. This dependency has certain disadvantages for the functioning of security structures in the region. First, it does not guarantee security of supplies; second, regional resources are drained by the cost of flying maintenance experts in and out and to purchase accessories. Also, because in most cases suppliers do not provide the needed service promptly, the equipment suffers greater damage, thus raising the maintenance costs. Meanwhile, because the maintenance costs of severely damaged equipment are enormous, and states need to

maintain the combat-readiness of their forces, they opt for new purchases instead.<sup>6</sup> This option, however, will inevitably result in increases in defence spending. In the final analysis, the lack of both national capabilities to maintain military hardware purchased overseas, and skills to negotiate good contracts, is ultimately responsible for high defence spending and contributes to the inefficiency of the defence forces.

The problem of equipment maintenance in SADC is aggravated by the purchase of a large variety of equipment from different sources (many of these states lack domestic standardisation of imports). In countries such as Angola and Mozambique, for example, imports of major weapon systems have been made without careful planning or an intention to establish continuity between old and new orders. This is perhaps due to the fact that these two states have undergone prolonged periods of war and, indeed, the pressure of war does not allow procurement to be carefully planned. One should also add that economies wrecked by war find it difficult to sustain skilled labour or professionals in the military to maintain equipment. This practice leads SADC countries to spend more, since they have to start training new teams of users and technicians to service equipment from scratch whenever new purchases are made and new equipment is introduced.

SADI could help to minimise excessive defence spending in SADC states by transferring technology that can prolong the life cycle of military equipment. Maintenance-run industries, for example, would help to maintain equipment in far better condition than is currently the case, and this would improve the preparedness of armed forces. Setting up maintenance-run industries in the rest of Southern African states would not necessarily imply raising the present levels of defence spending in the region. Instead, it would mean a switch from the current highly diversified range to imports that are available in the region and can be serviced by SADI. This shift, by its nature, and given the realities in the region, needs to be gradual and carefully planned. To keep the costs down, technology transfers should first respond to the areas most in need and where skills are available in the region, as well as those that can be easily assimilated, that is, those that can allow other states in the region to accumulate the capacity to generate technological spin-offs and provide incentives for further transfers. The shift also implies that SADC states should transcend the scepticism and unnecessary secrecy of the past, to share military information and technology. This sharing is essential for the region, to consolidate its sense of community and enhance both its defence performance and its security environment.

One area of technology development that is morally justifiable and likely to make an immediate impact in improving the security environment, concerns mine-clearing and mine detecting systems. Angola and Mozambique are

states with large areas of their territories covered by land-mines. Zimbabwe, Namibia, Zambia, Swaziland and Malawi have also reported land-mine incidents and the existence of mine fields, especially on their borders with Angola, Mozambique and South Africa respectively.<sup>7</sup> The nature of insecurity arising from land-mines has been widely recorded,<sup>8</sup> and includes the physical suffering mines continue to cause to many civilians long after conflicts have been settled. Women and children are the major victims of anti-personnel mines, and they fall prey to these in their day-to-day activities of looking for food, collecting wood or playing in areas near their homes. Injuries sustained by key members of families have a devastating impact on each family's survival, since often these are the only bread winners in the family. In addition, land-mine injuries often require amputations, surgeries, prostheses, medicines, follow-up treatments and rehabilitation, which lie beyond the victims' capabilities. Thus, land-mines place an additional strain on the already scarce medical facilities and resources of the country.<sup>9</sup> They also have far-reaching socio-economic consequences, since they deprive communities of access to land, water resources and fisheries.<sup>10</sup> At the present pace de-mining is likely to take several decades.

South Africa is the only country in the region with the skills and technology to manufacture mechanical mine-clearing systems. It is beyond doubt that quicker de-mining could be achieved if some of the skills and technology to manufacture and service surveying mine-detecting and clearing equipment were transferred to other SADC states. In many SADC states mine-clearing is being conducted through the use of obsolete metal detectors, while surveying is often based on personal or anecdotal accounts of mines having been laid, which does not help to speed up the process. Technology transfers would require SADC states to pool resources and create adequate structures and mechanisms that can facilitate defence technology transfers.<sup>11</sup> Rapid de-mining would not only enhance the physical security of individuals, but would allow greater access to agricultural and grazing land, water resources and fisheries, in addition to facilitating free circulation of goods and labour.

The second area where the transfer of defence technology can make an impact is civilian equipment. South Africa possesses defence-related technologies such as bridge-building, electronics, avionics, electrical and other engineering equipment. The transfer of these technologies would facilitate the process of building infrastructure, improving the system of communications and the quality of services in SADC states, making them more attractive to investors. These transfers also raise the prospects for employment, which in turn would make possible a better quality of life in the region, and enhance both the potential for building technological bases and the indigenous know-how.

Since the UN arms embargo was lifted in May 1994, South Africa has concluded over 160 joint-venture defence agreements with other countries for the development and improvement of its arms system.<sup>12</sup> Most of these agreements include training and technological exchanges. However, South Africa has made little effort to conclude or encourage similar agreements with its Southern African partners. Within SADC, particularly in Angola and Mozambique, South Africa's efforts have been restricted either to concluding arms deals through its private security firms, to bidding for externally funded tenders for mine-clearing,<sup>13</sup> or to providing bilateral aid in de-mining programs. Tenders such as the one won by Mechem in Mozambique, in July 1997, involve no technology transfers, while the training envisaged in this program is not sufficient to allow for the transfer of skills to build a sustainable technological base either for the maintenance of equipment or the creation of technological innovations.<sup>14</sup>

The argument often used to justify South Africa's reluctance to transfer technologies is the lack of financial resources, infrastructure, skills and prospects for good markets in SADC states, given the state of the latter's economies. What appears to be the real motive, however, is the legacy of old thinking which still dominates South Africa's foreign policy toward Africa. South Africa continues to regard itself as a Western country that finds itself in Africa by mere historic coincidence. This outlook makes the Republic assume attitudes similar to those of European and North American countries, viewing the region and indeed the continent with a certain distance and indifference. It also makes the RSA reluctant to assume the posture of a country that is part and parcel of the continent and which is engaged in relations of mutual dependence. As a result of this, the Republic has relied on trade with extra-regional partners for its development and sees its security as depending on this. Nonetheless, the view that South Africa can prosper in the middle of misery is hard to sustain given the present conditions in Southern Africa.

One good reason for South Africa to engage in defence technology transfers and to strengthen defence co-operation with its SADC partners is the role that this could play in improving the regional security environment, which in the final analysis would bring benefits for South Africa. Strengthening the technological base of SADC states, in addition to improving the conditions for physical protection, could generate more employment, increase trade relations and bolster the SADC project of building a regional security community.

With respect to fortifying the SADC project, there are lessons to be learnt from other parts of the world. There is sufficient evidence to show that the security of Europe would have been hard to maintain if, after World War II,

Western European states and the United States of America had quickly dismantled or fully converted their defence industry following the defeat of Nazi Germany in 1945. The evidence also suggests that the North Atlantic Treaty Organisation (NATO) would not have worked had there not been technology and financial resources transfers from the United States to Western Europe. Indeed, European powers such as Britain, France and Germany, not to mention the Benelux countries, were economically bankrupt at the end of the war in 1945, and experienced a level of destruction comparable to, if not worse than, states in Southern Africa in 1994. The combination of economic support through the Marshall plan on the one hand, and defence support, which included financial resources and technology transfers from the United States, on the other made a significant impact in enhancing the security of Europe.<sup>15</sup>

The potential for South Africa to play a similar role in SADC (that is by transferring expertise, technology and some resources) is unique. It could be argued, however, that at NATO's inception, Western European states found themselves in a different context and level of development than that seen in the SADC states. Western European states possessed an industrial base, skills, infrastructure and functioning management institutions which facilitated technology transfers. To these one can add the potential Soviet communist expansion, which was perceived as the major threat by the Western countries. All of these provided the rationale for the US to devote energy and resources to European defence and security. None of these circumstances are, however, found in present-day Southern Africa.

Nonetheless, it is pertinent to point out that none of these arguments are entirely convincing. First, there is a level of infrastructure and a critical mass in the rest of SADC states, capable of sustaining technological transfers from South Africa, albeit in varying degrees. Second, the level of technology necessary to enhance regional security is not the same as that which was needed by Western Europe at the end of World War II. As argued elsewhere, the transfer of simple technologies, such as those aimed at maintenance of equipment, is likely to make a great impact. Thirdly, the creation of NATO was not prompted only by the Cold War. It was concerned to protect shared values, the Western way of life and trade links, issues that still occupy NATO's agenda long after the end of Cold War.<sup>16</sup> Furthermore, the discussion in NATO at the end of the Cold War focused on expansion to poorer and less developed countries rather than contraction and retrenchment.<sup>17</sup> The expansion was driven by politico-strategic issues rather than economic factors. Thus, it makes sense for SADC to think of using SADI to develop capacity to act in support of its political decisions, and to develop a strong technological base in the region.

The third area in which SADI could make a contribution is in peace-support operations. SADC states, and indeed most states on the African continent, have till recently relied upon extra-continental capacity for peace-keeping and emergency aid following natural disasters. However, recent experiences in Somalia, Liberia, Rwanda, Burundi and Democratic Republic of Congo (formerly Zaire), to mention but a few, indicate that non-African states are increasingly reluctant to participate in peace-keeping operations on the continent.

States such as Botswana, Namibia, South Africa, Zambia and Zimbabwe have participated increasingly in peace-keeping operations, or been called upon to support humanitarian relief operations in neighbouring countries in the 1990s. However, most of these countries are not well equipped to participate in these peace-support and relief operations (especially those operations taking place in an environment of non-consent, where the risks are higher), without straining their domestic capabilities.

This situation leads one to argue that in order to avoid straining national capacity and in order to increase efficiency in responding to crises, better structures and institutional mechanisms, which would allow all SADC states to share the costs of operations need to be put in place. SADI can help to strengthen these institutional mechanisms, especially in setting up, equipping and supplying training centres for peace-keepers or crisis-response forces. SADI can also play a role in organising logistics, equipping and supplying stand-by units ear-marked for peace-support operations.

Training for peace and crisis response requires both lethal and non-lethal equipment, keeping most of which is produced or assembled by SADI. Articles such as armoured vehicles, rifles and ammunitions, motor vehicles, generators, tentage, sleeping bags, mosquito nets and pharmaceuticals, to mention only a few, are products that can be obtained relatively easily and cheaply in South Africa. The use of equipment manufactured in the region brings several advantages. First, it would cut transportation costs, and would save time as well as the cost of flying experts from overseas to maintain equipment. The use of equipment available in the region would facilitate standardisation of the peace-keeping or crisis response force. By allowing units in various countries to have the same level of training and access to the same type of equipment, this would improve the coherence of the units, allowing them to act as a single locus of power. The use of regionally available equipment would also guarantee the security of supplies, and the standardisation of logistics systems of communications, which are key to peace-support and relief operations. Regional equipment acquisitions would not only facilitate the stocking of spare parts, accessories and components systems, but would also facilitate the training and preparation of mobile maintenance teams.

However, none of the above policy options are likely to work without a regional institution to co-ordinate and mediate interests and to help those involved to overcome their fears. A regional forum to discuss defence and security co-operation in SADC states - the Organ for Defence Security Diplomacy and International Relations - was established in 1996. Although this body does not function under the aegis of the SADC Secretariat, it is charged with co-ordinating defence and security co-operation in the region and it involves meetings of various security agencies, such as intelligence, the military, and the police and defence forces. What is still lacking, however, is political will to go beyond the traditional agenda to initiate an environment allowing creative thinking, in which the future of SADI can be discussed freely.

The appointment of a regional commission to study the possible contribution of SADI in strengthening regional defence and security and monitor SADI's activities in the region might be of help in overcoming the fears and taboos of the past and in building confidence amongst SADC member states. The truth of the matter is that SADC member states are not yet enjoying the level of discussion concerning defence and security issues that Western European states and the United States of America engaged in the 1940s following the end of World War II. However, to get anything substantial done in the field of security and defence, it is essential to attain a sufficiently high level of discussion to tackle real issues without reservations.

## Endnotes

1. Zacarias A, *The State and Security in Southern Africa, Concept and the Post-Apartheid Era*, *op.cit.*, Chapter 6 and 7.
2. See for example, Mills G, 'The History of Regional Integrative Attempts: The Way Forward' in Mills G, Begg A & A Van Nieuwkerk (eds.), *South Africa in the Global Economy*. Johannesburg: South African Institute of International Affairs, 1995, p.235.
3. The conflict in Rwanda deteriorated to the extent that genocide became possible because the size of the peacekeeping force deployed was insufficient for the nature of the mission. Civil conflicts in Zaire and in Congo Brazzaville deteriorated, because of the lack of common power to act, into civil war, and terminated in military victories.
4. See *The Military Balance*. London: The International Institute of Strategic Studies, 1996, pp.234-259.
5. Interviews conducted with ARMSCOR officials 14 May 1997, Zimbabwean Department of Defence, June 1997 and Mozambican Department of Defence August 1997.
6. Interview with various officials dealing with logistics in the Mozambican Ministry of Defence.

7. Boulden LH, 'Landmines in Southern Africa', *South African Institute of International Affairs Review*, 5, 1. Johannesburg, June 1997.
8. See for example, Africa Watch, *Landmines in Angola*. New York: Human Rights Watch, 1993; see also Human Rights Watch, *Landmines in Mozambique*. New York: Human Rights Watch, 1994; and McGath R, *Landmines: Legacy of Conflict*. Oxford: Oxfam Press, 1994.
9. Boulden LH, 'Landmines and Demining in Southern Africa' in *South African Yearbook of International Affairs 1997*. Johannesburg: South African Institute of International Affairs, 1997.
10. *Ibid.*.
11. See Zacarias A, *The State and Security in Southern Africa, Concept and the Post-Apartheid Era*. London: IB Tauris, 1998, Chapter 7, for a referral of some of these structures.
12. See Thiar G, 'Open for Business', *SALUT*, 4, 1. Johannesburg, January 1997.
13. Mills G, 'South Africa's Future Military Role' in Gutteridge W (ed), *op.cit.*, p.154.
14. *Business Day*, Johannesburg, 29 July 1997.
15. Ireland TP, *Creating the Entangling Alliance: The Origins of the North Atlantic Treaty Organisation*. London, Adwyck Press, 1981, pp.119-140.
16. Gordon P, 'Recasting the Atlantic Alliance', *Survival*, 38, 1, 1996, pp.32-55.
17. Hungary, The Czech Republic and Poland were the first countries to benefit from NATO's expansion.

# Glossary

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ANC	African National Congress
ARMSCOR	Armaments Development Corporation
MK	Umkhonto we Sizwe
NATO	North Atlantic Treaty Organisation
RENAMO	Resistência Nacional Moçambicana
RDP	Reconstruction and Development Programme
SAAF	South African Air Force
SADC	Southern African Development Community
SADF	South African Defence Force
SADI	South African Defence Industry
SAIIA	South African Institute of International Affairs
SANDEF	South African National Defence Force
UNDP	United Nations Development Programme
UNITA	União Nacional para a Independência Total d'Angola

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1. *India and South Africa: The Search for Partnership* by G Mills (1997)
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11. *Taking Southern Africa into the 21st Century* by A Handley & B Thoka (1998)
12. *The Foreign Relations of South Africa's Provinces* by D Geldenhuys (1998)
13. *The South African Defence Industry and New Thinking on Security* by A Zacarias (1998)

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