
2. A model for good practice in budgeting for the military sector*

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I. Introduction

Sound financial management of a country's entire security sector is essential if the country is to have effective, efficient and professional security forces that are capable of protecting the state and its population against internal and external threats. Highly autonomous security forces that are able to act with impunity in the economic and political spheres are invariably professionally weak and bad value for money. This chapter provides a perspective on how good practice can be achieved. It emphasizes adherence to public expenditure management principles and various elements of defence planning and budgeting.

Section II describes good practice in military budgeting. Section III shows how the military budgetary process can be linked to the government-wide budgetary process. Section IV examines in some detail the defence planning process, which is central to the entire military budgetary process. The chapter concludes in section V with a discussion of three key characteristics of successful defence resource management: efficiency, transparency and accountability. Good practice in military procurement and acquisition is discussed in appendix 2A. Strategic defence planning is considered in appendix 2B, and appendix 2C presents a practical model for the determination of defence capabilities.

II. Good practice in the military budgetary process

From the perspectives of public policy and budgetary process, the military sector shares many of the characteristics of other sectors of government. This means that the citizens of any country will benefit from a military sector that is subject to the same broad set of rules and procedures that are applied to other sectors. It is therefore essential to give a high priority to principles such as transparency, accountability to elected civil authorities and comprehensiveness of budget coverage. In that respect, military budgeting should be no different from budgeting for other governmental sectors.

* An earlier version of parts of this chapter was published in Ball, N. and Fayemi, K. (eds), 'Managing financial resources', *Security Sector Governance in Africa: A Handbook* (Centre for Democracy and Development: Lagos, 2004), pp. 91–109.

At the same time, it is often argued that the military sector is different from other parts of the public sector in at least two ways. The first is the need for confidentiality in the area of national security. The second is the highly political nature of expenditure decisions relating to the military sector, especially arms acquisition decisions.

It is clear that some degree of confidentiality is necessary in the area of national security. However, this should not be used to justify a lower level of oversight or a lack of adherence to internationally recognized standards of public expenditure management. Different forms of oversight may be necessary for some areas relating to national security. It is also important to be clear about the distinction between confidentiality and the lack of public scrutiny. It is possible to retain a high degree of confidentiality in highly sensitive areas without compromising the principle of democratic accountability. A subject may be sensitive—off-budget activities, for example—but it should not be kept secret. War plans, on the other hand, should be confidential. Even so, holding war plans in confidence does not mean an absence of democratic accountability. It simply requires appropriate systems of clearance and procedures for consulting the legislature and other oversight bodies.

All budgeting involves political decisions and trade-offs, but it is often argued that political considerations carry greater weight in defence than in other sectors. To the extent that this is true, provided that the political system is open, it should still be possible to contest the basis on which decisions are made and, in particular, to ensure that the principles of sound financial management are not violated. Thus, the highly political nature of decisions concerning the military sector should not prevent that sector from adhering to the important principles of transparency, oversight and accountability.

What constitutes good practice in military budgeting?

In order to develop an appreciation of good practice in the military budgetary process, it is important to consider: (a) the relevance of good practice; (b) the principles of sound public expenditure management; and (c) the key principles of democratic governance in the security sector.

The relevance of good practice

Good practice is based on adherence to principles of sound public expenditure management. One might well question the relevance of somewhat abstract principles when dealing with an issue like military spending, where actual practice diverges significantly from good practice and the conditions for achieving good practice are frequently not present, as is the case throughout much of Africa.

The purpose of starting with good practice is that it provides a clear vision of the objectives of policy reform—in this case, a democratically governed military sector under civilian leadership that adheres to the principles of sound budgeting and financial management. Without such a vision, it is impossible to

Box 2.1. Ten principles of public expenditure management

1. *Comprehensiveness.* The budget must encompass all financial operations of government; off-budget expenditure and revenue are prohibited.

2. *Discipline.* Decision making must be restrained by resource realities over the medium term; the budget should absorb only those resources necessary to implement government policies; and budget allocations should be adhered to.

3. *Legitimacy.* Policy makers who can change policies during implementation must take part in the formulation of the original policy and agree with it.

4. *Flexibility.* Decisions should be made by those with access to all relevant information; this means, operationally, that managers should have authority over managerial decisions and, programmatically, that individual ministers should be given more authority over programme decisions.

5. *Predictability.* There must be stability in general and long-term policy and in the funding of existing policy.

6. *Contestability.* All sectors must compete on an equal footing for funding during budget planning and formulation.

7. *Honesty.* The budget must be derived from unbiased projections of revenue and expenditure.

8. *Information.* A medium-term aggregate expenditure baseline against which the budgetary impact of policy changes can be measured and accurate information on costs, outputs and outcomes should be available.

9. *Transparency.* Decision makers should have all relevant information before them and be aware of all relevant issues when they make decisions; these decisions and their basis should be communicated to the public.

10. *Accountability.* Decision makers are responsible for the exercise of the authority provided to them.

Source: Poverty Reduction and Economic Management Network, *Public Expenditure Management Handbook* (World Bank: Washington, DC, 1998), URL <<http://www1.worldbank.org/publicsector/pe/handbooks.htm>>, pp. 1–2.

develop either a strategy for reaching the ultimate objectives or benchmarks to measure progress along the way. It is also impossible to determine where the problems lie with existing policy and practice.

The principles of sound public expenditure management

The 10 principles of public expenditure management presented in box 2.1 are widely accepted as the basis for budgeting processes.¹ It is important to understand that these are the ideals that public officials should have in front of them as a guide. No public expenditure system anywhere in the world gets top marks on all 10 principles. The point is to progressively improve adherence to them.

There is no justification for the military sector to violate any of these principles. The way in which it implements some of them may be a little different

¹ See, e.g., United Nations Development Programme, *Human Development Report 2002: Deepening Democracy in a Fragmented World* (Oxford University Press: New York, 2002), URL <<http://www.undp.org/hdr2002/>>, box 43, p. 90.

from some other sectors, but the principles themselves must not be violated: they are all relevant to a well-managed budgetary process.

The principles most frequently cited in relation to the military sector are transparency and accountability. As the above remarks on confidentiality suggest, transparency is the cornerstone on which an accountable military budgetary process is built. Transparency and accountability are crucial issues in the allocation and management of defence resources for all levels of planning, programming and budgeting. If the allocation and management of defence resources are not transparent, the military sector will never be able to achieve public support or the cooperation and support of broader government. If it is not accountable to government and the people, the military becomes a cause unto itself and will not be aligned with national interests and priorities. It will easily be corrupted and decision making will be easily diverted towards self-interest.

Civil involvement in and control of overall budget decisions, as well as careful auditing at all levels, can help ensure that resources are actually used to accomplish policy objectives. The most effective way to achieve this is to obtain at all levels a commitment to national interests and objectives and to develop clear and transparent planning, programming and budgeting processes and systems to implement them. These processes must of necessity be aligned with the national financial management framework.

Transparency and accountability can be enhanced through a system of performance agreements. Such agreements rely on the definition of clear output objectives and performance standards and on agreement on the required resources. The system is also based on negotiation, ensuring better insight, understanding and cooperation.

Important as transparency and accountability are, it is essential not to lose sight of the other principles of public expenditure management. In particular, attention should be given to: (a) the *comprehensiveness* of the budget; (b) the *predictability* of the level of revenues backing that budget and the macro-economic policies on which those revenues depend; (c) the *contestability* of the budget process; and (d) the *honesty* with which estimates of revenue and expenditure are developed.

The key principles of democratic governance in the security sector

The 10 principles of democratic governance in the security sector listed in box 2.2 are increasingly widely accepted. They reflect the mutual obligations that civil authorities and security personnel have towards each other. Security forces have a responsibility to be accountable to civil authorities; to uphold the rule of law, including the protection of human and civil rights; and to carry out their professional duties to the best of their abilities. Civil authorities have the responsibility to avoid politicizing security bodies; to respect their professional prerogatives; and to provide them with a clear mandate and adequate resources and training to carry out that mandate. As in the case of the principles of public

Box 2.2. Ten principles of democratic governance in the security sector

1. The security forces should be accountable to elected civil authorities and civil society.
2. The security forces should adhere to international law and domestic constitutional law.
3. There should be transparency in security-related matters.
4. The security sector should adhere to the same principles of public expenditure management as the other sectors of government.
5. There should be an acceptance of the clear hierarchy of authority between civil authorities and security forces, and a clear statement of the mutual rights and obligations of civil authorities and security forces.
6. The civil authorities should have adequate capacity to exercise political control and constitutional oversight of the military sector.
7. There should be adequate capacity within civil society to monitor the security sector and to provide constructive input into political debate on security policies.
8. The political environment should be conducive to civil society playing an active role.
9. The security forces should have access to professional training consistent with the requirements of democratic societies.
10. High priority should be accorded to regional and sub-regional peace and security by policy makers.

expenditure management, there is no justification for the military sector to violate these principles.

III. Integrating the military budgetary process into government-wide processes

There are five crucial, interrelated components of the management of expenditure in any sector: (a) strategic planning; (b) review of the previous year's performance; (c) determination of what is affordable; (d) allocation of resources both between and within sectors; and (e) efficient and effective use of resources. The linkages between these components are shown in figure 2.1 in the case of the military sector, with reference to the broader security sector.

For the budgetary process to be effective, every sector needs to follow good practices internally and to link with the broader, government-wide financial management and oversight process. All of this must occur within the framework of democratic governance and the principles of sound budgeting and financial management.

Strategic planning in the security sector

As in any other part of the public sector, military budgets should be prepared in accordance with a sectoral strategy. This involves identifying the needs and key objectives of the security sector as a whole and the specific missions that the defence forces will be asked to undertake.

As shown in figure 2.2, the starting point for developing policies and strategies for the security sector is an understanding of the causes of insecurity and the identification of the instruments that government wants to employ to enhance security. Governments have various tools for strengthening security. Key among these are diplomacy; economic and political tools to reduce economic and social inequalities and tensions; mediation to resolve conflict domestically and regionally; and, of course, the country's security bodies. Once the broad areas of responsibility for the security forces are identified, governments should agree on the tasks that will be undertaken by the different bodies: armed forces, police, gendarmerie or paramilitary forces, and intelligence bodies. Based on these assessments, governments should develop a formal defence policy framework. This policy then informs planning, programming and budgeting (see figure 2.3). The planning and programming process is described in more detail in section IV below, along with the linkages to the military budgetary process.

While it is true that 'policy is what government does, not what it says it wants to do', formal policies and plans to implement these policies are important. In the absence of well-thought-out and clearly articulated policies, it is impossible to manage the finances of the military sector in a rational manner. Budgeting becomes ad hoc. In the absence of a clear statement of which activities undertaken by the armed forces are included in the 'defence' function, it is impossible to develop adequate functional breakdowns of expenditure and to understand how much it costs to provide adequate military security. In addition, it is difficult to develop performance benchmarks and thus to assess the efficiency and effectiveness of expenditure in the military sector. In the absence of a strategic plan, countries risk not obtaining a level of military security commensurate with their financial outlays.

As the case studies in this volume illustrate, few governments in Africa have undertaken thorough, participatory strategic review processes of the sort outlined in figure 2.3. What is more, defence policy and planning processes are rarely based on a broad evaluation of a country's security environment and a detailed assessment of the specific tasks that should be undertaken by the country's various security forces. A counterexample is Uganda, which undertook a broad security assessment in 2002–2003. It identified 134 'threat agents', of which three were specific to the military.² This result underscores the importance of not attempting to undertake defence planning in a vacuum, but of linking it with planning for the police, paramilitary forces, civilian intelligence and other state security forces, as well as with the country's economic and developmental objectives.

In highly resource-constrained countries, such as those in Africa, it is extremely important for governments and societies to use resources as effi-

² Rusoke, R. (Col.), director-general of the Defence Reform Unit, Uganda Peoples' Defence Forces, 'The Uganda Defence Review', Presentation to the South–South Dialogue on Defence Transformation, Accra, 26–29 May 2003.

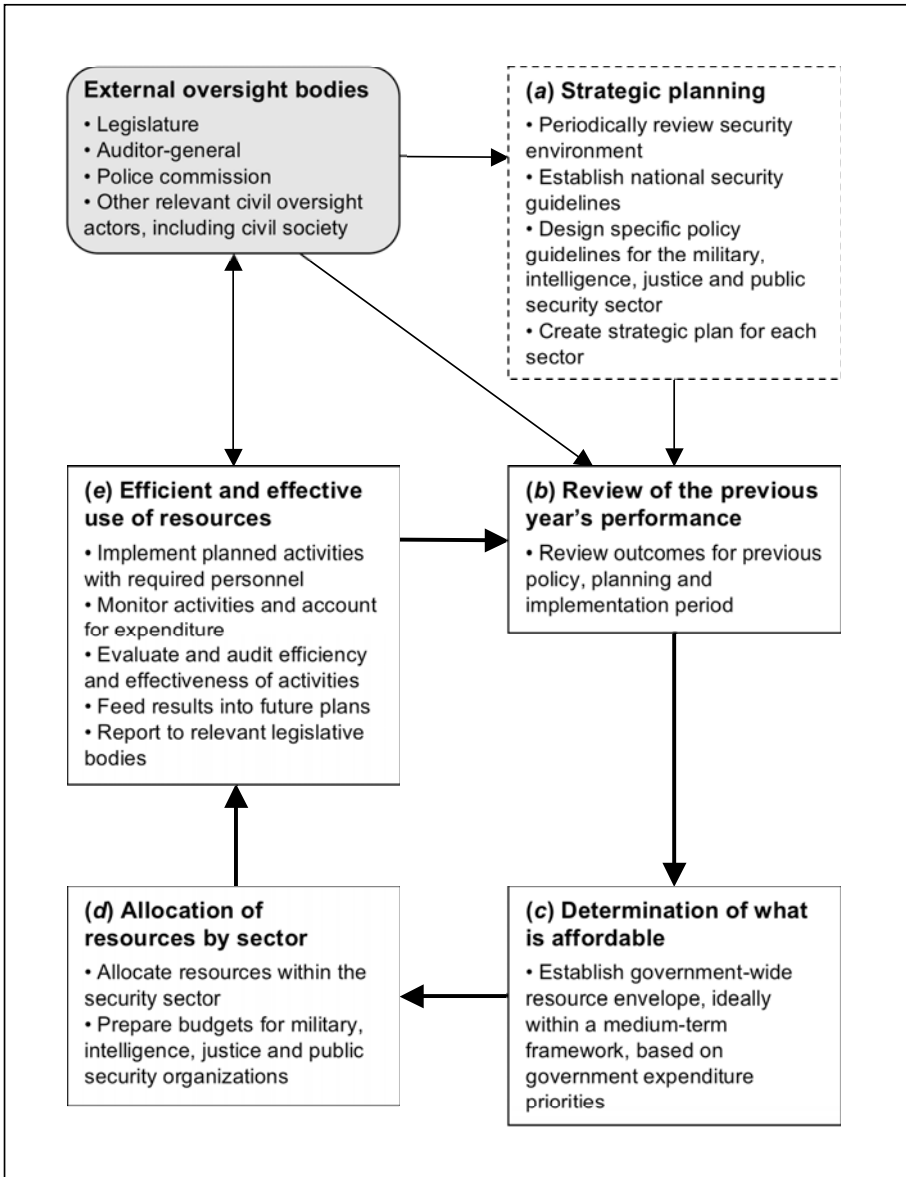


Figure 2.1. A generic financial management process for the security sector

Source: Based on the policy, planning and budgeting process as applied to the military sector in British Department for International Development (DFID), ‘Annex 3: Discussion paper no. 1, Security sector reform and the management of defence expenditure: a conceptual framework’, *Security Sector Reform and the Management of Military Expenditure: High Risks for Donors, High Returns for Development*, Report on the London Symposium on Security Sector Reform and Military Expenditure, 15–17 Feb. 2000 (DFID: London, 2000), URL <<http://www.dfid.gov.uk/pubs/files/ssrmes-report.pdf>>, pp. 41–54.

Box 2.3. Information to be captured by a financial management information system

- Approved budget allocations for both recurrent and capital outlays
- Sources of financing for programmes and projects
- Budget transfers
- Supplementary allocations
- Fund releases against budgetary allocations
- Data on commitments and actual expenditure against budgeted allocations

Source: Poverty Reduction and Economic Management Network, *Public Expenditure Management Handbook* (World Bank: Washington, DC, 1998), URL <<http://www1.worldbank.org/publicsector/pe/handbooks.htm>>, p. 65.

ciently and effectively as possible. The first step in this process is to engage in strategic planning. In doing so, it is important to ensure that the defence review process takes place in a manner consistent with the country's economic objectives and capacities. As figure 2.3 demonstrates, economic considerations need to be taken into account at the beginning, the middle and the end of the review process. A defence force costs money. A country will not be secure if it develops a defence policy for which it cannot provide resources in an open, accountable and sustained manner. Thus, part of the guidance for the review process should include the financial framework for the security sector in general and the military sector in particular. Throughout the entire process, the finance minister and other key economic managers need to be informed and consulted. Options for force structures need to be developed within the context of the financial parameters and the risks associated with buying a certain level of defence (see the discussion in appendices 2B and 2C). The final decisions must reflect economic realities.

Review of the previous year's performance in the security sector

While strategic reviews occur infrequently in African countries, it is important that the outcome of the previous year's financial planning and implementation period be reviewed at the beginning of the annual budget cycle. The efficient and effective management of resources in any sector, including the security sector, requires that information on performance be fed back into the budgeting process, as shown in figure 2.1. While defining and measuring performance for the military sector is more difficult than for many other sectors, a focus on readiness or capability has been shown to be helpful for any discussion of the role, structure, performance and resource needs of the defence forces.

However performance is defined, the review of the previous year's budgetary performance will be facilitated by a well-functioning financial management information system (FMIS). The types of information that should be captured by the FMIS are shown in box 2.3.

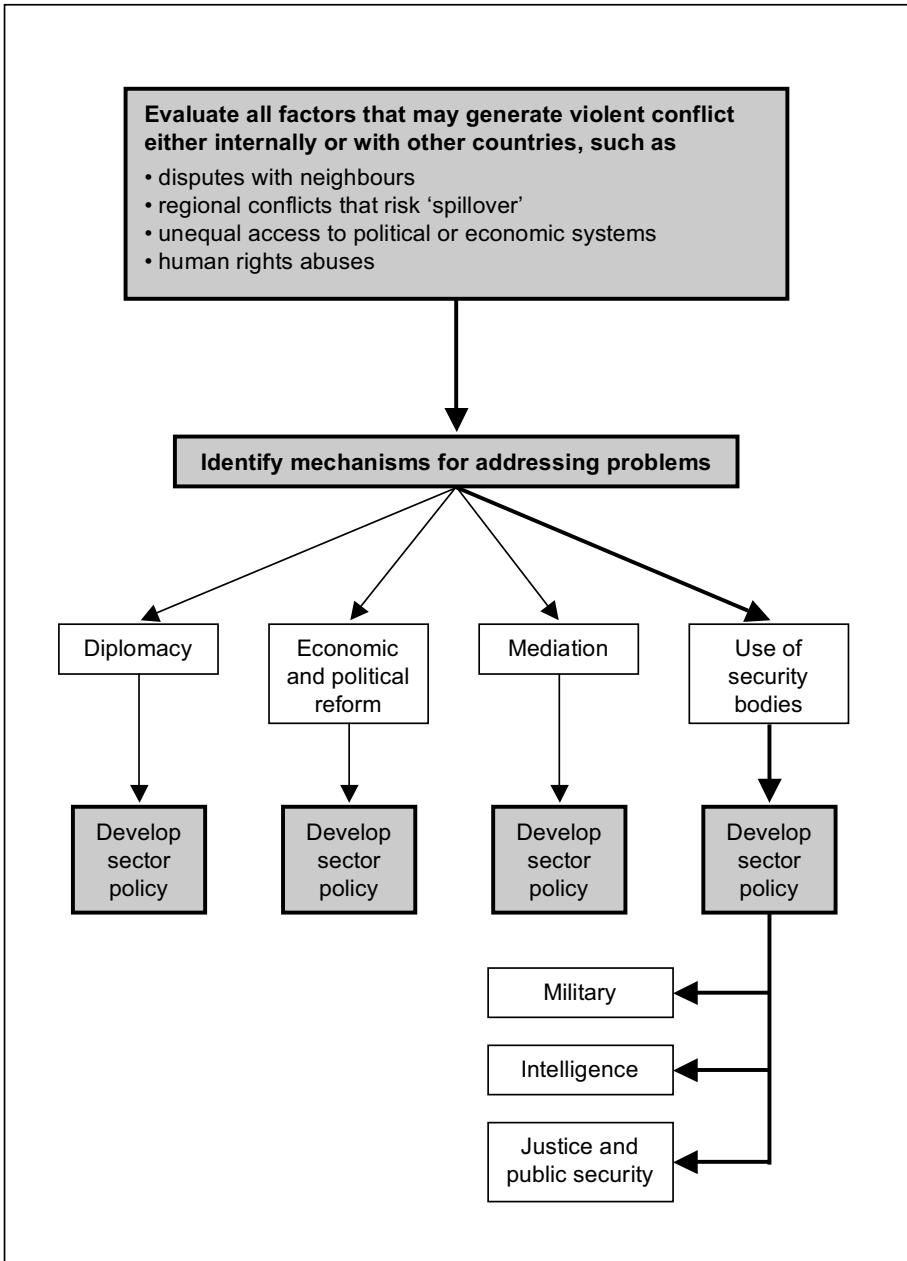


Figure 2.2. Security environment assessment

Source: Ball, N., 'Managing the defense budgeting process', Paper prepared for the conference on Security Sector Reform: Moving the Agenda Forward, Lancaster House, London, Mar. 2003, URL <<http://www.eldis.org/static/DOC16685.htm>>, figure 2, p. 9.

Determination of what is affordable in the security sector

Government policies, whether in the security or any other sector, must be affordable. Affordable policies require a sustainable macroeconomic balance, which is critical to the long-term economic health of a country. To attain a sustainable macroeconomic balance, governments must give a high priority to exercising discipline over public expenditure.

Overall financial discipline is also critical because a ceiling on funding that can be easily raised allows governments to avoid firm decisions on priorities. At the other end of the spectrum, without a solid floor to the budget, resources become unpredictable and operational performance suffers. It is therefore extremely important to have in place institutions that can achieve long-term macroeconomic stability, determine the overall resource envelope for public expenditure and enforce government decisions on expenditure priorities and levels.

Financial discipline is weak in many African countries. While the military is by no means the only body that exceeds the agreed limits of the financial allocation in the course of the financial year, it frequently enjoys a privileged position. Government officials, military officers, and heads of state and government have intervened in the resource-allocation process with flagrant disregard for established procedures and predetermined spending priorities. Military officers have presented the treasury with invoices for expenses incurred outside the budget framework. Defence ministers have refused to share the details of defence spending with finance ministers and parliament. The full financial implications of arms-acquisition decisions, including debt incurred for military purposes, are often not reflected in budgets, which may eventually destabilize financial policy. This sort of behaviour contributes to the widespread problem in Africa of military budgets that cannot fully fund the defence function.

As far as the failure to respect lower limits on expenditure, the armed forces are less likely to have their allocations reduced during the course of a financial year than other security forces, such as the police or gendarmerie. Nonetheless, it is important to develop clear rules for any reallocation of resources during the financial year—including those occasioned by shortfalls in revenue—and to apply them across the board.

Medium-term expenditure frameworks (MTEFs) are one mechanism that can help reduce incentives to evade financial discipline. MTEFs have become popular with the development assistance agencies because they can help: (a) improve the linkage between policies and objectives and between inputs and outputs; (b) make the budgetary process more transparent, especially by improving monitoring; (c) focus on outputs and service delivery; and (d) increase ownership by sectoral ministries.

As several of the case studies in this book demonstrate, it can be difficult for African governments to develop realistic multi-year plans, given the lack of predictability in government revenues and the reliance on a strong institutional base. However, something like an MTEF is important because the military

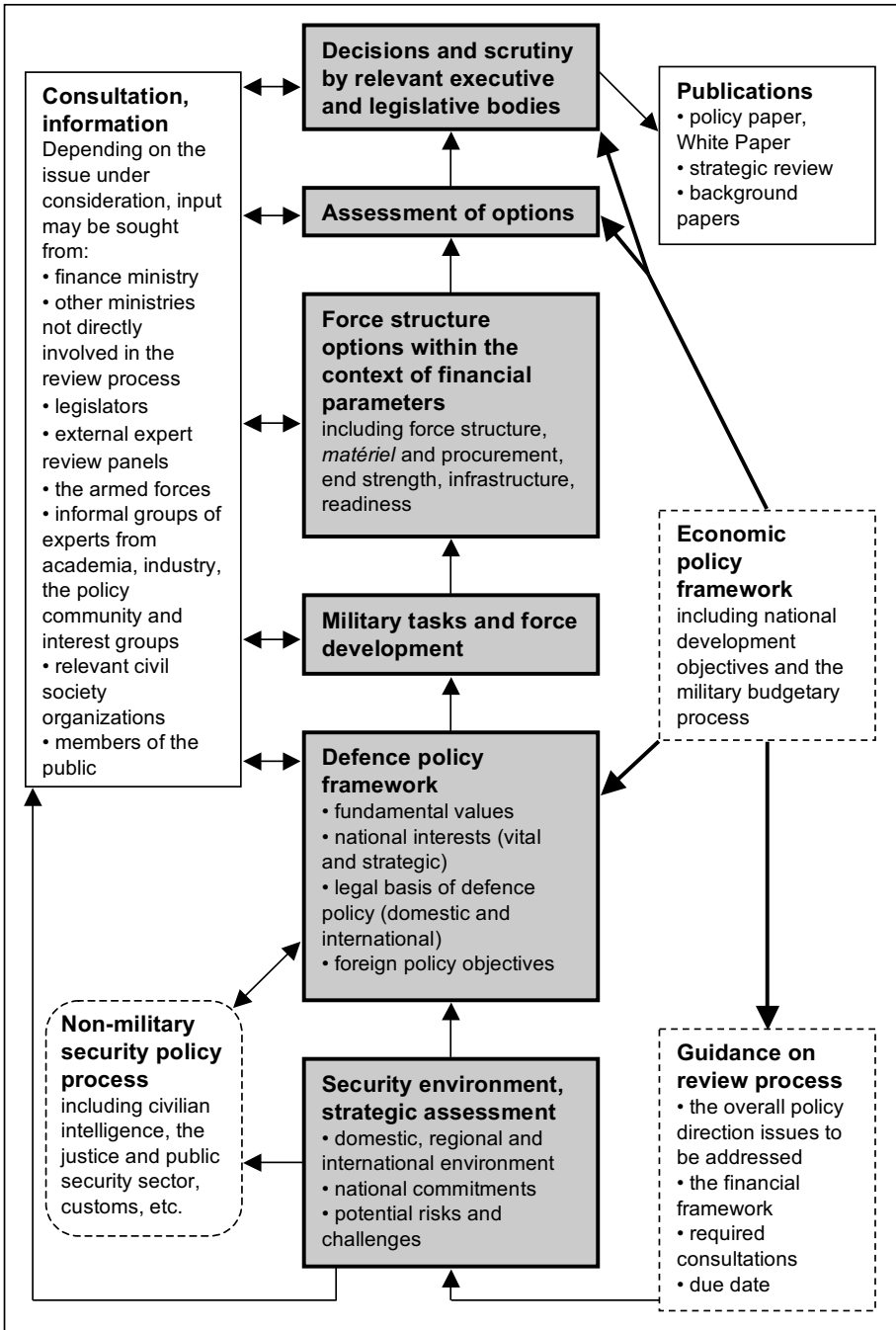


Figure 2.3. The process for conducting defence reviews and developing defence policy frameworks

sector needs a time frame for planning and budgeting of longer than one year. As the case of South Africa demonstrates, adopting a multi-year framework is not impossible in the African context.

A specific benefit to the military sector of adopting a medium-term framework is that it encourages full costing of defence programmes, particularly outlays on arms acquisition and major construction projects. Irrespective of the difficulty in implementing an MTEF, it is still important to have a full costing of the different components of the defence programme. Full costing will help make the case for a particular level of funding. It will also clarify the sustainability of individual programmes and it will help maximize efficiency and effectiveness in those cases where budget cuts become necessary. Full costing is therefore critically necessary for the operational effectiveness of the defence forces.

Allocation of resources for the military sector

Once the overall resource envelope is agreed, resources must be allocated according to priorities both within the military sector and between the military sector and other sectors. Sectoral strategies and information on performance (outputs and outcomes) are critical components of the allocation process. It is important that assessments of past performance be fed into planning for the coming year (or years in the case of multi-year budgeting cycles). The key financial and economic managers plus the legislature must have the capacity to be fully involved in the resource-allocation process and the process must include all relevant actors. The central budget office should assess the appropriateness of the defence ministry's budget. The armed forces must compete fully with other sectors for funding. The legislature must have adequate time to review and comment on the proposed defence budget before the beginning of the financial year. Methods of incorporating public input into the allocation process can help build public support for the final budget.

In many African countries the conditions required for the effective allocation of resources are not present. Institutional capacity for military budgeting is weak in both the executive and legislative branches of government. Financial management and oversight within the armed forces are correspondingly inadequate. The military sector holds a highly privileged position compared with other sectors when the overall resource envelope is divided among sectors. Arms acquisition requests include neither justification nor full costing. The legislature frequently receives even less information on the defence budget than on budgets for non-security activities, and input from the public on spending priorities is actively discouraged or ignored. Box 2.4 describes the challenges facing legislative oversight of the armed forces in West Africa.

While the military often enjoys a privileged position in terms of resource allocation, financial constraints have led some African governments to fail to provide the armed forces with adequate resources to carry out their assigned

Box 2.4. The legislative capacity to oversee the military sector in West Africa

In April 1999, the National Democratic Institute (Washington, DC) sponsored a seminar in Dakar aimed at encouraging a more active role for legislatures in overseeing the military sector in West African countries. The challenges facing West African legislatures were summarized in the seminar report in the following way.

Legislatures in the region face many challenges as they seek to exercise their oversight functions. These include: a dearth of technical expertise in military issues; lack of communication with their military counterparts; inefficient use of the committee system; and inexperience with drafting legislation on defense issues. Prior to the advent of political pluralism and competitive politics in the region, defense policy and legislation drafting were traditionally the domain of a strong executive branch that also monopolized interactions with the military. Legislatures, where they existed, simply 'rubber-stamped' initiatives forwarded to them by the executive.

Most of these challenges remain in 2005.

Source: National Democratic Institute, 'The role of the legislature in defense and national security issues', Report of a seminar held in Dakar, 19–22 Apr. 1999, URL <http://www.accessdemocracy.org/library/048_sn_roleoflegis.pdf>, p. 3.

missions. This not only places at risk the safe and secure environment that is necessary for both economic and political development, but also creates frustration and resentment within the armed forces. Participants in a workshop on democratic governance in the security sector held in Dakar in October 2001 argued that adequate transparency in the military sector is critical so that the serious underfunding that afflicts armed forces throughout the region is clear for all to see.³ They suggested that there is both disdain for the military among civilians and a belief that military security is a comparatively low priority among those who control their countries' financial resources. In their view, this not only leads to inadequate defence budgets and thus inadequate external security but can also heighten internal insecurity through a threat of coups.

For reasons of both financial and political stability, it is important that the military sector competes on an equal footing with other sectors and that the process of allocating resources among sectors takes place in a transparent and accountable manner.

Efficient and effective use of resources in the military sector

Once a budget has been approved by the legislature and monies have been appropriated, the goal is to ensure the efficient use of resources to implement sectoral priorities. This requires careful monitoring and evaluation of operational performance both within the armed forces and by civil servants. As the case studies in this volume demonstrate, there are often significant deviations between the approved budget and actual expenditure in African countries.

³ See Ball, N. and Fayemi, K. (eds), *Security Sector Governance in Africa: A Handbook* (Centre for Democracy and Development: Lagos, 2004), appendix 1.

Box 2.5. Causes of deviations between budgeted and actual expenditure

There are a number of factors that can explain why actual expenditure deviates from the levels approved at the beginning of the financial year in any sector. It is important to be explicit about which factors produce expenditure deviations in order to make the budgetary process more predictable. The reasons for deviations may vary over time. Some of the more common causes are:

- deviation in aggregate expenditure;
- reallocation of fund during budget implementation;
- policy changes during the year;
- an inability to implement policies, programmes and projects;
- donor funds not being available; and
- a lack of financial discipline.

Source: World Bank, 'Toolkit for assessing public expenditure institutional arrangements', Microsoft Excel spreadsheet, URL <<http://www1.worldbank.org/publicsector/toolkitspe.htm>>, sheet 'L2 Performance', heading 2.6.

Box 2.5 lists some of the reasons why such deviations may occur in any part of the public sector.

A well-functioning FMIS is critical if decision makers and public-sector managers are to obtain the financial data they require to control aggregate expenditure, prioritize among and within sectors, and operate in a cost-effective manner. Additionally, it is extremely important that irregularities identified in the course of monitoring are addressed, lest a climate of non-compliance be created or reinforced. Particular attention should be given to ensuring the transparency of procurement and acquisition processes and their conformity to good practices (see appendix 2A for a brief description of good procurement and acquisition practices).

Accounting standards in the military sector should not deviate from those in other sectors. Defence ministries should have their own internal audit offices and the government's auditor-general should audit defence accounts on a regular basis. The results of the auditor-general's audits should be reported to the legislature in a timely fashion and irregularities addressed expeditiously. Cash flow and expenditures should be monitored closely. Methods of verifying the number of individuals employed in the armed forces and the defence ministry and of linking salary and wage payments to individual employees facilitate this monitoring process. Expenditure tracking studies can help determine whether resources are being spent as intended. Value-for-money audits by the auditor-general or other oversight bodies will help determine if resources are being spent efficiently. As in any other sector, the results of monitoring and evaluation work need to be fed back into strategic planning. Some of the specific issues that need particular attention in terms of strengthening the efficiency of resource use in the military sector are elaborated in box 2.6.

The case studies in this volume demonstrate that the capacity for financial management in the military sector is weak in Africa. In part this is because

Box 2.6. Components of the efficient use of resources

In order to strengthen the efficient use of financial resources in the military sector, it is important to give attention to the following four factors. These factors are not unique to the military sector. They are, however, of particular importance in that sector.

Sustainability

If the defence plan and programmes are not sustainable over time, this will lead to capabilities not being maintainable and becoming ineffective. Sustainability will only be achieved if government commits itself to the approved defence plan, all planning is done on the basis of a full life-cycle costing and the defence budget is spent in the most efficient manner possible. Care must also be taken in planning to accurately evaluate the effect of currency fluctuations on the life-cycle cost of capital equipment.

Funding of operations

It is not possible or desirable to budget for the execution of military operations other than routine operations that can be foreseen and accurately planned well ahead of time. Most military operations come at short notice and during a financial year for which the budget has been developed and approved many months previously. Examples of short-notice operations are peace-support missions, major disaster relief missions and even limited war. Trying to budget for the unforeseeable will result in a misappropriation of funds. The only way to handle this problem is through a central contingency fund managed by the finance ministry. For large-scale contingencies that exceed the capacity of such a contingency fund, the government will have to revise the total budget with regard to both departmental allocations and income.

Tooth-to-tail ratios

All possible effort must be made to ensure the optimal tooth-to-tail ratio of the defence force and the defence ministry; that is, to increase the proportion of deployable soldiers and reduce the number of soldiers undertaking staff work. Supporting structures are often bloated at the cost of operational capabilities. Determination of the size and capacity of support structures can only be done once the force design has been determined. Modern 'business process re-engineering' techniques can assist in the solution of this problem but will only be effective if top management is committed to this cause and ruthless in its application.

Direct client–supplier relationships

In many defence forces certain organizations and structures exist for historic reasons only. The client (e.g., a combat service) is forced by organizational culture or other interests to make use of the services of such an organization and is not allowed to shop around. This is bad practice and entrenches inefficiency. Accordingly, clients for services should be allowed freedom of choice and freedom to establish direct client–supplier relationships.

Other potential solutions for the improvement of efficiency are indicated in appendix 2C. These include: (a) outsourcing and public–private partnerships; (b) improved coordination between services; (c) improved management information through the use of better information technology; (d) use of reserves; (e) the better use of civilians in defence ministries; and (f) improved management and leadership through education, training and development. Of these, the improvement of management information through the use of better information technology might be the most crucial aspect of the improvement of efficiency in defence organizations.

overall financial management capacity is weak. At the same time, different standards are frequently applied to the military sector. The degree of transparency and accountability is often considerably lower in the military sector than in the government as a whole. Efforts are rarely made to identify deviations between approved and actual resource use; where such deviations are identified, problems are rarely corrected. If the defence forces are to be capable of fulfilling their mandated duties in a professional manner, however, it is important to use resources allocated to the military sector as effectively and efficiently as possible.

IV. Defence planning, programming and budgeting

No meaningful programming or budgeting can be done without the existence of a long-term or strategic defence plan, just as no meaningful plan can exist in the absence of a guiding policy. The development of both policies and plans in the military sector as part of the government-wide and sectoral budgetary processes was outlined above. This section discusses the planning and programming process in more detail and then links it back to the budgetary process.

The defence plan

Essentially, the defence plan is the document that specifies the measurable outputs that the military sector will produce in pursuit of the government's objectives, measured against the identified financial allocation within the medium-term expenditure framework of three to five years. The defence plan incorporates the strategic plan, the defence programmes and the budget. The plan should also cover longer periods (up to 30 years) for matters such as capital acquisition, infrastructure and personnel planning. The key elements of the defence plan are summarized in box 2.7.

The nature of the protective functions of government—which include intelligence, policing, justice and correctional services (or prisons) as well as defence—means that planning is always contingent. Requirements are driven by unpredictable factors such as internal crime levels and external instability. In the case of defence, planning must be done for a very uncertain future environment. This is complicated by the long period required to build and prepare defence capabilities, which implies the maintenance of certain capacities purely for possible future eventualities (i.e., defence contingencies).

The defence plan provides the framework for the performance agreement between the defence minister, the political leader of the ministry, and the permanent secretary, who heads the ministry and is its chief accounting officer. The performance agreement should be a written document that clearly specifies the outputs required from the ministry, the associated resource allocations and the performance measurements that will be employed. This serves as the con-

Box 2.7. Key elements of the defence plan

The defence plan, which should be a stable but flexible document over time, should include the following elements:

- the strategic profile of the defence force, consisting of its mission, vision, critical success factors and value system;
- the analysis and critical assumptions underlying the strategic plan;
- a clear statement of the required defence capabilities (i.e., the force design and state of readiness) of the armed forces;
- a clear statement of the required structure of the support force;
- the supportive capital acquisition plan, the facilities plan and the personnel plan;
- the administrative outputs required for the management of the defence function, including the provision of defence policy, strategy, plans, programmes and budgets; and
- the identified short- to medium-term tasks of the armed forces that will require operational force employment.

tract between the minister and the permanent secretary. It must of necessity be a product of negotiation between these two individuals.

There are three primary outputs that must be specified in the defence plan.

1. *Defence administration.* This covers the top-level administrative outputs required for the management of the defence function. It includes the provision of defence policy, strategy, plans, programmes and budgets.

2. *Defence commitments.* These are the identified short- to medium-term operational force-employment tasks and objectives.

3. *Defence capabilities.* These include the force design, with the required readiness states as well as the supporting force structure. Defence capabilities are the main cost-drivers of defence.

The determination of the first two outputs is relatively simple, being based mostly on current and short- to medium-term future requirements. The determination of defence capabilities is, however, much more complex and long-term in nature.

Defence administration

Defence administration outputs are determined by an analysis of the legislative, policy and management framework within which the military must function. This analysis will be strongly influenced by the demands and requirements of government, specifically those emanating from the defence ministry and other national ministries such as the finance ministry and the public service and administration ministry. This programming function will identify specific objectives to be reached within a one- to three-year timescale. Examples of such objectives are listed in box 2.8.

These objectives are mostly determined, managed and coordinated by the policy and planning, finance and other staff divisions at the defence ministry or

Box 2.8. Examples of defence administration objectives

- Revise the defence act to be in line with the constitution for presentation to parliament by (date).
- Do a complete defence review for presentation to parliament by (date).
- Develop an updated personnel policy for the defence force for presentation to the defence minister by (date).
- Develop the defence plan for financial years (X) to (Y) for presentation to the defence minister by (date).
- Develop the defence budget for financial years (X) to (Y) for presentation to the finance ministry by (date).

defence headquarters. The resources allocated to these activities are relatively small and are mostly associated with the personnel costs of the associated staff divisions, administrative costs and the costs for professional services.

Defence commitments

Short- to medium-term defence commitments or operational outputs are determined through a military operational assessment. This process will rest heavily on the intelligence forecasts of the internal and external security environment for the short to medium term. It will also be strongly influenced by the objectives of the foreign affairs ministry and the internal safety and security ministry. This programming function will identify specific objectives to be reached within a one- to three-year timescale. Some examples of such objectives are given in box 2.9.

These activities are mostly determined and managed by the joint operations division at defence headquarters. The resources allocated to these activities are dependent on their scale, duration and intensity. These should include all employment costs, such as increased maintenance, fuel, ammunition, rations and operational allowances among others.

Defence capabilities

The determination of defence capabilities is discussed in detail in appendices 2B and 2C. The establishment, development and maintenance of defence capabilities constitute the main cost element of defence. The determination of the force design and structure is thus the prime area of debate between defence planners and political decision makers, including those responsible for financial management. In the defence plan the determined force design and the structure of the defence force must be clearly stated in terms of quantity (number of units) and quality (readiness states and preparedness). The development and maintenance of this force design and structure constitute a specific objective for the ministry. The staff work for the determination of this objective is primarily undertaken and coordinated by the policy and planning and joint operations divisions at the defence ministry or defence headquarters.

Box 2.9. Examples of defence commitments objectives

- Provide a force of battalion strength with tactical air transport and medical support to the peace mission in (X) from (date) to (date).
- Support the police in crime prevention in (area) from (date) to (date).
- Conduct border control operations in (area) in support of the police from (date) to (date).
- Conduct maritime patrols to monitor infringements of territorial waters in (area) from (date) to (date).

The defence programmes

As defence ministries and forces are large organizations, the management of the top-level objectives is largely delegated to subordinates at the second level of management. These are typically service chiefs and chiefs of staff divisions at the ministry or defence headquarters. Each of these delegated managers will be responsible for a specific defence programme. These defence programmes essentially convert the strategic defence plan into a format where clear responsibility and accountability of the programme managers—who are also referred to as the principal budget holders—are established. Typical defence programmes are shown in box 2.10 and are discussed below.

Defence administration programme

The defence administration programme will identify those activities that are essential for the professional, efficient, transparent and accountable management of the defence function and will be coordinated at defence headquarters by the chief of staff responsible for the integrated functioning of all headquarters staff divisions. This programme should include, among others, sub-programmes for political direction (in the office of the defence minister), day-to-day running of the ministry (in the office of the permanent secretary), policy development, corporate departmental planning, strategic intelligence, defence foreign relations, financial management, corporate communication (public relations and internal communication), and internal auditing and inspection.

Objectives for this programme are derived from the top-level administration objectives in one of three ways. First, a top-level objective can be directly delegated to a programme manager at the second level. For example, the objective to ‘develop the defence budget for financial years (X) to (Y) for presentation to the finance ministry by (date)’ can be delegated to the chief of staff for finance.

Second, a top-level objective may lead to secondary objectives that can be divided among two or more programme managers at the second level while overall responsibility is maintained by the permanent secretary. For example, the objective to ‘do a complete defence review for presentation to parliament by (date)’ can be subdivided and delegated to the chief of staff for intelligence (‘do a strategic intelligence assessment’), the chief of staff for policy and planning

Box 2.10. Examples of typical defence programmes

<i>Programme</i>	<i>Programme manager (principal budget holder)</i>
Defence administration programme	Chief of staff for policy, planning and finance
Force-employment programme	Chief of staff for joint operations
Force-provision programme (army)	Chief of staff for the army
Force-provision programme (air force)	Chief of staff for the air force
Force-provision programme (navy)	Chief of staff for the navy
Joint force-support programme	Chief of staff for joint support

(‘do a strategic defence assessment’) and the chief of staff for joint operations (‘do an operational assessment of short- to medium-term defence commitments’).

Third, the permanent secretary should determine his or her own developmental objectives to ensure the continued improvement of the performance of the ministry. These could include objectives to improve the management processes of the ministry (delegated to the chief of staff for policy and planning), to improve information technology systems (delegated to the chief of staff for joint support), and to improve the command and leadership practices of the ministry (delegated to the chief of staff for joint support).

Force-employment programme

The force-employment programme will derive its objectives directly from the top-level defence commitments in the plan and will be coordinated at defence headquarters by the chief of staff for joint operations. This programme should also include sub-programmes for operational intelligence and counter-intelligence, joint force preparation, and command and control. Objectives for these sub-programmes are developed by the chief of staff for joint operations.

Other than those objectives derived directly from defence commitments in the top-level plan, typical force-employment objectives may include objectives to develop command-and-control skills through war gaming and exercises, objectives to prepare and exercise joint formations through military exercises, and objectives to ensure the intelligence for and security of operations.

The force-provision programmes

The force-provision programmes are the domain of the chiefs of the combat services (the army, the air force and the navy), who are responsible for the establishment, development and maintenance of combat-ready forces as agreed in the approved force design. These programmes derive their objectives directly from the approved force design and structure and will include sub-programmes for each of the capability areas as defined in the approved force design as well as for service-specific training and force preparation. Examples of these capability areas are: infantry, armour, artillery, anti-aircraft, engineering,

Box 2.11. Examples of typical joint force-support objectives

- Manage and execute the capital acquisition plan in support of the combat services.
- Manage and execute the departmental facilities plan.
- Provide and manage a personnel administration system for the department.
- Provide military health services in support of the combat services and defence commitments.

special forces, fighter aircraft, air reconnaissance, helicopters, air transport, submarines, surface combat ships and sea mine-warfare vessels.

Joint force-support programme

The joint force-support programme will identify those joint activities that are essential for the support of the defence administration, the force-employment programmes and, most importantly, the force-provision programmes of the services. The joint force-support programme will be coordinated at defence headquarters by the chief of staff responsible for the coordination of the supporting functions.

Most of the objectives for this programme will be derived through service agreements between the chief of staff for joint support and the other programme managers. This implies that, as certain functions can be executed more efficiently in a centralized manner, such functions should be identified and contracted to joint support by the service chiefs and other divisional chiefs by means of service agreements specifying the level and the cost of services required. This programme should include sub-programmes for personnel management, logistic services, including acquisition and procurement, and military health services. Some typical joint force-support objectives are shown in box 2.11.

Resource allocation to the defence programmes

The defence programmes provide the basis for performance agreements between the permanent secretary and the chiefs of staff of the combat services and headquarters staff divisions.

Performance agreements basically consist of the objectives to be achieved along with the time frame, the expected standards, the associated level of resource allocation and the required delegations of powers. In addition, these programmes include the service agreements negotiated directly between programme managers. These service agreements also consist of the objectives to be achieved with the time frame, the expected standards, the associated level of resource allocation and, where applicable, the required delegations of powers. As such, these programmes are the product of negotiations between the permanent secretary and subordinate chiefs as well as directly between programme managers.

This process of negotiation is iterative in that each objective must be evaluated for cost and then be either agreed or changed, as required. A change could be an increase in resources or a downscaling of an objective. In order to ensure efficiency, the permanent secretary (and other clients) must demand that programme managers accurately determine the cost of achieving set objectives and provide proof that all efficiency improvements have been considered. The cost of all activities should be regularly compared against a benchmark. The permanent secretary should consider increasing resources or downscaling the requirement only when convinced that the objective is being pursued in the most efficient way possible.

The defence programmes, in the final instance, provide the starting point for the detailed development of the defence budget down to unit level.

The budget

The strategic defence plan specifies the required outputs of the military sector at the highest level as well as the broad level of resource allocation envisaged over an extended period. The defence programmes, in turn, specify outputs in the form of objectives at the next lower level as well as planned allocations to the programme managers for producing these outputs. These must now be converted into business plans where specific activities for reaching these objectives are specified and accurately costed. These business plans are made at unit level (including directorates or sections at defence headquarters) and are in turn the basis for the performance agreements between the programme managers and unit commanders or section chiefs as well as for directly negotiated service agreements. The same considerations raised in the above discussion of performance and service agreements at the next higher level are valid for these agreements.

These business plans are written annually for the next financial year as well as for the subsequent years covered by the MTEF. The defence budget is the total of the business plans expressed in financial terms. It is the ministry's income and spending plan for a set period of time. It is a quantitative expression of the proposed plan of action for the reaching of defence objectives for that time period.

Budgeting is done at unit level, where all inputs that are required to execute the delegated activities must be accurately determined and costed. These input costs (budget items) will include: (a) personnel expenditure, such as salaries, allowances, bonuses and gratuities; (b) administrative expenses, such as subsistence and travel, transport, membership fees and registration, study expenses, and communications; (c) stores, including ammunition and explosives, spares and components for normal maintenance, construction and building material, office supplies, fuel and clothing, among many others; (d) equipment, such as vehicles, weapons, machinery and furniture; (e) rental of land and buildings;

Table 2.1. The typical annual budget cycle

Time period	Activity
Ongoing	Strategic planning and development of the defence plan (negotiations between the defence minister on behalf of the government and the permanent secretary, supported by strategic planners)
Month 1	Development of defence programmes (negotiations between the permanent secretary and programme managers and the drawing up of draft top-level performance agreements as well as direct client–supplier negotiations between programme managers for the determination of service agreements)
Months 2 to 4	Preparation of business plans (development of draft lower-level performance and service agreements through negotiation and the full costing from zero of all activities)
Month 5	Submission of draft business plans to programme managers for checking, evaluation and consolidation into a single budget for each programme; necessary amendments negotiated and agreed
Months 6 and 7	Consolidated budgets for each programme submitted to the ministerial budgeting committee (chaired by the ministry’s permanent secretary) for evaluation, approval and consolidation of a single ministerial budget; necessary amendments identified, negotiated and agreed; on completion, the budget, signed by the minister and the permanent secretary, submitted to the finance ministry
Month 8	The government’s medium-term expenditure committee evaluates ministerial budgets against government guidelines, priorities and available funds; required amendments are identified against governmental priorities
Month 9	The finance ministry provides final guidelines on the expected allocation to the defence ministry; the defence ministry amends plan, programmes and budget and prepares the defence minister’s submission of the defence budget vote to parliament; the performance and service agreements are finalized
Month 10	The finance minister submits the national budget to parliament; parliament approves budget.
Ongoing	Expenditure according to budget; regular expenditure control exercised by the permanent secretary

and (f) professional and specialist services, such as consultation, outsourced services, and research and development.

Summary

It should be clear that the defence planning, programming and budgeting process is an iterative process involving negotiation between all levels of defence management. Planning is largely top-down, based on an analysis of requirements and environmental factors as well as an estimate of available resources.

As it moves down the organization, through performance agreements between superiors and their subordinates, more and more accurate costing is done until, at unit level, accurate zero-base budgeting can be done. These unit budgets, in turn, are added from the bottom up to constitute the total defence budget. This obviously entails many iterations to 'make ends meet resources'. The typical annual budget cycle is described in table 2.1.

V. Conclusions

The planning, programming and budgeting process is the central feature of defence management for providing resources to the defence force to ensure the defence and protection of the state, of its territorial integrity and of its people in alignment with national security and defence policy. The process rests on the rationale that defence budgets should be the result of good short-, medium- and long-term plans that are based on open and clear defence and national security policy. All plans, programmes and budgets should be driven by clearly defined and agreed outputs.

The defence planning, programming and budgeting process should clearly be aligned and integrated with the national public expenditure management process and, therefore, the principles applied to defence management should not differ markedly from those applicable to other activities of government.

The quality of these processes is crucial for ensuring national defence and security while not making the cost of defence too high relative to other social and developmental priorities. Inefficiency and imprudent use of scarce resources will undermine security and the broader national interest.

In the final instance, the process of defence planning, programming and budgeting must be based on modern management practices, principles and procedures and on accurate research, analysis and strategic assumptions. It must have a long-term focus and be the product of an inclusive process. It must be innovative and ensure permanent efficiency improvements in order to make defence affordable. While the nature of planning, programming and budgeting systems may vary widely internationally, the basic processes, techniques and principles advocated in this chapter should assist in ensuring the effectiveness and efficiency of defence as well as greater transparency and accountability in the allocation and management of defence resources.

Appendix 2A. Good practice in military procurement and acquisition

There should be little difference between public expenditure management in general and public expenditure management in the military sector. Defence procurement and acquisition should accordingly be carried out according to the same principles that guide public sector procurement in non-military areas: fairness, impartiality, transparency, cost-effectiveness and efficiency, and openness to competition.¹ In addition, it is essential that there be high-level consultation and evaluation of all major projects for all forms of public sector procurement and acquisition. Box 2A.1 presents a generic procurement process, applicable to all sectors of government.

At the same time, with the exception of procurement of works and commodities (such as construction, clothing, food, fuel, office equipment, general vehicles and consultancy services), defence procurement does exhibit some distinctive characteristics: (a) the relative importance of cost in determining which bid is accepted; (b) the confidentiality associated with national security considerations; (c) the time frame for major weapons procurement; (d) the complexity of defence procurement; and (e) the existence of international arms control treaty regimes and national legislation governing arms procurement. These distinctive characteristics are deviations in scale rather than principle. For example, as explained in chapter 2, adequate levels of confidentiality can be maintained without violating basic public expenditure management principles. There certainly should be scepticism about any claims that procurement of relatively standard works, services and commodities for the military should be subject to different rules.

These five distinctive characteristics are considered below.

Cost considerations in bidding

While standard procurement practice in non-military sectors is giving increasing emphasis to value for money, defence analysts argue that factors other than cost are more frequently the major factors in accepting a bid for weapon procurement projects in the military sector. They point out, however, that national legislation can play an important role in regulating the part that cost plays in weapon procurement processes in the military sector. In South Africa, for example, the 1998 Defence Review and the 1999 White Paper on defence-related industries spell out which technologies are considered 'strategically essential capabilities' and thus exempt from lowest-cost considerations.² The South African Parliament has approved both policy documents.

¹ Some countries distinguish between the 'procurement' of commercial goods and services and the 'acquisition' of armaments. Others use the term 'procurement' for both commercial goods and services and weapons or weapon systems. This appendix will follow the latter practice.

² South African Department of Defence, 'Defence in a democracy: South African Defence Review 1998', Pretoria, 1998, URL <<http://www.mil.za/Articles&Papers/Frame/Frame.htm>>; and South African

Confidentiality

Transparency in defence procurement must be limited by national security interests. Confidentiality clauses will be required in the arms procurement process. This, too, can be regulated by national legislation. The South African Defence Review lists a number of reasons for confidentiality in defence procurement. These include: the protection of third-party commercial information, the national security of South Africa, prevention of harm to South Africa's ability to conduct international relations, and the protection of South Africa's economic interests and the commercial activities of government bodies.³

The time frame for major weapons procurement

From inception to final acceptance of the product, procurement of major weapon systems may take as long as 15 years. Some flexibility needs to be built into the procurement process to take account of contingencies such as fluctuations in currency exchange rates. This long time frame also makes it essential that quality control takes place throughout the procurement process, rather than when the product is ready for delivery. Arms procurement projects should also take into account full life-cycle costs and support for the acquired systems. The long time frame also makes it essential to attempt to forecast spending farther into the future than in non-defence sectors. The UK, for example, has a 10-year 'long-term costing' system for defence.⁴

The complexity of arms procurement

Because of the complexity of arms procurement, sound management of the procurement process requires interdisciplinary project teams. Such teams should have expertise on engineering, resource management, contracting, quality assurance and design assurance.

In addition, because of the particular complexity of the procurement of major weapon systems, which can involve a substantial number of subcontractors, opportunities for corruption are great. These projects therefore require the highest level of management and scrutiny by governmental accountability mechanisms. For example, South Africa has three levels of approval for major arms procurement projects within its Department of Defence. For major projects, parliamentary approval may also be required.

International arms control treaty regimes and national legislation governing arms procurement

Procurement in the military sector is distinct from general government procurement in being subject to international treaties and specific national legislation. Some defence

National Conventional Arms Control Committee, 'White Paper on the South African defence related industries', Pretoria, Dec. 1999, URL <<http://www.info.gov.za/documents/whitepapers/>>.

³ South African Department of Defence (note 2), paragraph 68.

⁴ See, e.g., British Army, *Design for Military Operations: The British Military Doctrine* (Ministry of Defence: London, 1996), URL <<http://www.army.mod.uk/doctrine/branches/doc.htm>>, pp. 22–23.

Box 2A.1. A generic procurement process

A generic procurement process involves:

- a clear definition of the requirement;
- clear technical quality specifications and standards;
- an open request for proposals and tenders;
- tender adjudication according to set criteria;
- selection of a preferred bidder;
- drawing up of a contract;
- placing the contract or order;
- monitoring progress;
- reception of goods;
- quality assurance checks on goods received;
- acceptance of goods or rejection of goods not up to specifications;
- payment;
- distribution of goods.

budgeting specialists suggest that the oversight mechanisms associated with this national and international regulation increase transparency.

Appendix 2B. Strategic defence planning

Too often the defence debate is dominated by short-term perceptions of security, based on snapshot views of the world and the cost of defence. The argument is ‘there is no threat, so why spend?’. As noted in chapter 2, strategic situations change rapidly, but the building of defence capabilities and expertise takes time. All strategic defence planning must therefore be done with a long-term view. To do so it is necessary to understand the major variables in defence planning: the ends, ways and means of defence. Government and defence planners share the responsibility for the determination of these ends, ways and means.

Figure 2B.1 presents these variables schematically. The scales show that what government requires from defence (the ends), taking into consideration the approved defence posture (the ways), must be balanced by defence capabilities (the means) and that this requires a determined amount of resources. The scales can be brought into balance by either reducing ends, adapting the defence posture (moving the pivot to the left) or increasing means and thus resources. If there is an imbalance or inconsistency between ends, ways and means, this will result in a strategic gap between what needs to be done and what can be done. This strategic gap must be managed as a risk by government. These three variables are discussed below.

The ends of defence

Defence ends are the required defence outputs in support of the government’s goals and objectives, which include peace, security, stability and public safety. The primary responsibility for determining the ends of defence rests with the government (the parliament and cabinet).

Examples of defence outputs (ends) are: (a) provision of deterrence through the existence of mission-ready forces; (b) the meeting of international obligations such as search-and-rescue and disaster relief; (c) participation in peace missions; (d) peacetime border control and protection against non-military threats; (e) support to the police; and (f) support to civil authorities.

Ways of defence

The ways of defence are military strategic and operational concepts and are influenced by the government’s national security and foreign policy as well as its strategic defence posture. The responsibility for determining the ways of defence is a dual responsibility of the government and the military, with the military primarily responsible for providing expert advice to the government.

Examples of strategic and operational defence postures (ways) are: (a) non-offensive defence or forward mobile defence postures; (b) a strategic defensive or offensive posture; (c) defence through regional defence cooperation and alliances or through self-defence.

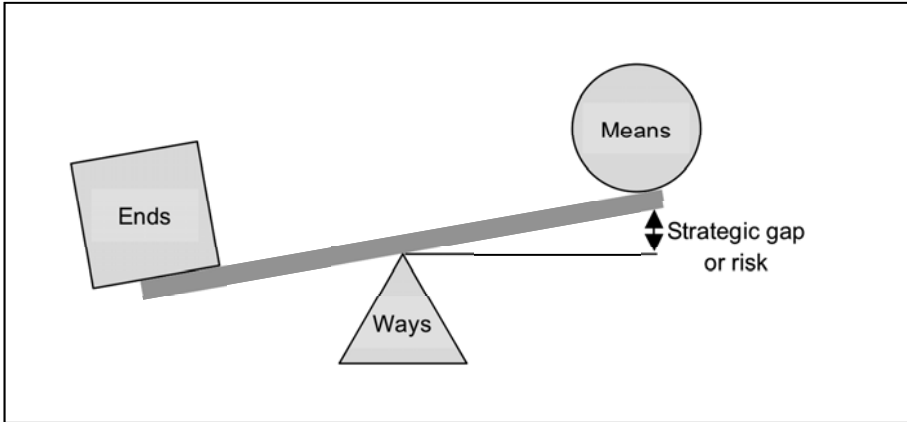


Figure 2B.1. Defence variables: the ends, ways and means of defence

Means of defence

The means of defence are essentially the operational capabilities of the defence force, as expressed in the force design. The determination of the force design is primarily the responsibility of defence planners and must be in alignment with the ends and ways as prescribed by policy.

Examples of force design elements are: infantry units, armour units, artillery units, naval surface combatants, naval sub-surface combatants, air force fighter squadrons, air force transport squadrons, air force helicopter squadrons, operational medical units and military attachés.

These defence means are the real cost-drivers of defence. The creation, maintenance and development of these capabilities are the primary consumers of defence resources.

Appendix 2C. A practical model for the determination of optimal defence capabilities

The determination of optimal defence capabilities to be developed and maintained,¹ along with the associated states of readiness, is the major challenge to the defence planner. This is because defence planning is premised on an uncertain future, is severely constrained by the availability of resources, will always be contested by sectional interests within the defence establishment and is extremely difficult to justify to a populace concerned with more immediate social and personal security issues. Furthermore, the potential consequences of being wrong are enormous in their implications for the future security and well-being of the state.

The development and maintenance of defence capabilities are also the main cost-drivers of defence. The solution of the defence capabilities equation, therefore, requires the major effort in the defence planning process. It is also the prime area of debate between the defence planner and political decision makers. Political decision makers cannot be expected to simply decide on the ends and ways of defence without major inputs regarding the implications of their decisions, especially the implications for the security of the state and the financial implications.

This poses the challenge to the defence planner of finding a rationale for the determination of defence capability requirements that will elicit the understanding and support of political decision makers and civil society. Obviously, such a rationale must be based on the need for efficiency in defence expenditure.

Defence value

If it is accepted that the primary objective of the defence force is to defend and protect the state, its territorial integrity and its people through the provision of contingency-ready military forces and that this is to be done within given financial restrictions, then, as stated in chapter 2, the most efficient solution must be sought. Efficiency implies the optimal output for any given input; that is, the best value for money. This raises the question of how to determine defence value. As defence is concerned with possible future events or threats (defence contingencies), each of which carries an implied risk to the state, *defence value is proportional to risk reduction*. Each defence contingency carries with it an associated risk. If the value of the relative risk of such contingencies can be determined, then this will allow for the development of a system for determining relative defence value.

¹ The word optimal in this context is intended to mean the greatest defence output for any given input or, simply put, the best defence value for money.

Box 2C.1. Optimizing force designs

Step 1. Determine the list of possible defence contingencies.

Step 2. Determine the defence value (risk reduction) of each contingency through probability and impact calculations.

Step 3. Determine the best operational concepts and the associated required mini-force design for each contingency.

Step 4. Determine the full sustainable cost for each mini-force design.

Step 5. Draw up a table or graph of all contingencies, indicating the defence value and associated cost for each.

Step 6. Evaluate the design and engage with decision makers.

Defence contingencies

The first step in the defence planning process is the determination of defence contingencies. This entails describing in some detail the possible future events that the defence force might have to deal with. In this process there are no limits and the more contingencies that are accurately described the better. This list should not be restricted to probable events, as these will be determined in the next step; instead, it should contain as many possible defence contingencies as can be imagined. Examples include: (a) invasion of the national territory by a foreign power; (b) punitive military action against the state; (c) coercive military action against the state; (d) disruption of national maritime lines of communication and trade; (e) military naval, air and land blockades; (f) border violations and cross-border crime; (g) natural and other disasters that defeat the means of civil society; and (h) peace missions in alignment with international and regional obligations.

Risk

Defence primarily concerns possible future events (defence contingencies) and the preparation to successfully counter them when they occur. For each such contingency a statistical probability of occurrence can be determined as well as the potential impact that the occurrence of such a contingency might have on the country. Obviously, contingencies of high probability and major impact carry more risk to the state than contingencies of low probability and minor impact: *risk is proportional to probability and impact*. High-risk contingencies have a high probability of occurrence and the potential for grave impact and vice versa.

The determination of probability

The determination of probability is the most difficult exercise in defence planning, as it is the most subjective and is somewhat like crystal ball gazing. It cannot be an exact science as it deals with an uncertain and ever-changing future. However, without considering probability it is extremely difficult to plan for the future and to determine priorities for defence capabilities to be maintained and developed. This appendix does not provide an exact formula for determining probability, but it does give guidance regarding some factors to be considered. In ‘real life’ the determination of the prob-

ability of occurrence of a contingency is mostly a task of the intelligence community, consisting of national intelligence, foreign affairs, and military intelligence and strategists. There are three guides to the determination of probability.

1. Evaluate the historic frequency of occurrence (both internationally and nationally) over a very long period.
2. Use a wide spread of probability over a range that is nearer 0.001 to 1 than 0.1 to 1. This ensures greater discrimination in the calculation of probability. As an example, the probability of an invasion could be nearer 0.001 than 0.1.
3. Since absolute probability is all but impossible to calculate, effort should concentrate on the determination of relative probabilities between various contingencies. The involvement of politicians, academics and civil society organizations in this exercise will greatly enhance the quality of the resulting product.

The determination of impact

The determination of impact is less subjective than that of probability. Nonetheless, this is not an easy exercise and the involvement of civil society and, in particular, academics in this endeavour is strongly recommended. The potential impact of a contingency that cannot be successfully countered can be calculated using the following parameters: (a) the potential loss of life; (b) the potential loss of infrastructure; (c) the potential loss of economic production and trade; (d) the relative loss of sovereignty; (e) the relative loss of national image and prestige; (f) the relative loss of international confidence; and (g) the effect on national morale.

Once the list of contingencies and their relative risk value (probability and impact) have been determined, the value part of the 'value for money' formula has been established. What remains to be done is to calculate the cost of dealing with these potential contingencies. This is another complex exercise.

Concepts of operations and force design

For each of the defined contingencies, the best operational concept to counter such an eventuality and the corresponding required capabilities (the 'mini-force design') must be determined. War gaming or simulation processes are the best tools for doing this. Once this has been done, each mini-force design must be costed accurately. This is a major exercise that requires the full and honest participation of the combat services and units down to the lowest level as well as of financial experts. If this is not accurately done, the basis for decision making is seriously undermined.

Costing

Each element of the mini-force design must be fully costed over its life cycle in order to be able to determine cost/benefit ratios for optimization. This cost consists of: (a) the annual personnel cost, (b) the annual operating cost and (c) the annualized capital cost.

The annual personnel cost is the full cost of all personnel-related expenses such as salaries, allowances, bonuses and gratuities. The annual operating cost is the full cost of the normal day-to-day running of the unit. This includes administrative expenses,

Table 2C.1. Selected practical challenges facing defence planning processes

Challenge	Potential solution
<p><i>Accurate costing data</i></p> <p>The answers obtained will be accurate only if based on reliable costing data for each capability area for all personnel, operating and life-cycle capital costs.</p>	<p>This is a large, complex task and requires ongoing improvement and updating. The use of auditors within the defence ministry and from outside will enhance the accuracy of answers. The ultimate solution requires modern information technology systems.</p>
<p><i>Tooth-to-tail ratios</i></p> <p>The logic of the process provides a model for the optimization of the ‘sharp end’, or ‘teeth’, of the force. The process does not address the support structures, or ‘tail’, of the organization.</p>	<p>Determination of support structures can only be done once the force design has been determined. Modern business process re-engineering techniques can assist in the solution of this problem.</p>
<p><i>Service versus corporate interests</i></p> <p>One of the main challenges to the determination of real defence requirements remains inter-service rivalry. This leads to trade-offs and sub-optimal solutions.</p>	<p>This challenge requires dynamic leadership at the permanent secretary level and the use of professional staff in the joint planning and operations divisions. The use of modelling, simulation and war gaming will also help to alleviate this problem.</p>
<p><i>Efficiency improvements</i></p> <p>Money spent on defence must be spent in the most efficient and economical way possible. This means that innovative solutions must be found to reduce the cost of defence.</p>	<p>Some potential solutions for the improvement of efficiency are:</p> <ul style="list-style-type: none"> (a) outsourcing and public–private partnerships; (b) improved coordination of services; (c) improved management of information through the use of better information technology; (d) use of reserves; (e) better use of civilians in defence ministries; (f) improved management and leadership through education, training and development.

transport, subsistence and travel, provisioning, day-to-day maintenance, fuel, and professional and specialist services. The annualized capital cost is calculated by adding the full procurement cost and the mid-life upgrade cost of capital equipment and dividing it by the expected number of years of operational life of the equipment.

The emphasis on full life-cycle cost is to ensure sustainability of the end result. If this factor is ignored, decisions will be taken that will prove to be unaffordable in the future. This is the cause of many militaries in the developing world having large inventories of unserviceable, unspareable and unusable equipment.

Optimizing

Once the list of contingencies, the defence value calculations (relative risk-reduction values) and the cost of the elements of the force design are available, calculation of the best value for money can be done. The process for determining optimized force designs is shown in box 2C.1.

It must be emphasized that this process will not provide precise, scientifically accurate answers, but it will provide insight into the problems of defence planning and a good basis for discussion with decision makers. It removes the subjectivity of arguments by the individual combat services that their requirements be prioritized. It provides a menu for decision making in which the services that can be ordered can be compared against cost and from which the implications of decisions can be seen. It should be emphasized that the more inclusive the participation in this process is (by political decision makers, other government departments, academics and civil society organizations together with defence experts), the better and more credible the results will be.

Force design and supportive planning

The above process must culminate in the approval by government of the force design of the armed forces. This also implies a clear commitment by the government to provide funds to the defence ministry for the development, preparation and maintenance of such forces. Without this, no meaningful long-term planning or medium-term programming and budgeting can be done. The force design, together with the required support structures, will form the basis for the development of other long-term plans such as a capital acquisition plan, a facilities or infrastructure plan and the personnel plan. These are long-term plans providing for the procurement of weapon systems, facilities and personnel and the development, preparation, maintenance and eventual disposal of such assets. All of these plans should have a long-term horizon commensurate with the life cycles of these assets.

There are, of course, many practical challenges to this planning process. The most prominent of these are listed in table 2C.1.