This Thesis on Resource Allocation for Defence in India sought to introduce a relatively new perspective to the understanding of defence expenditures in the analysis of defence expenditures with special reference to India.

Traditionally defence expenditure analysis has to date to restrict itself to expenditure on military per se which would imply that analysis of defence budget would provide an adequate amount of data for the understanding problems of resource allocations for defence in any country by and large.

This study begins with the realisation that it is necessary to redefine the approach to defence expenditure. This re-definition would be based on two important considerations. One is the nature of threat perceptions that has changed over the period and secondly the approach to tackling these threats also has changed over the same period of time.

The argument made in this Thesis has been over the years the critical threats to internal security have shifted from problems of border wars/traditional conflicts or conventional wars. This shift indicates
that approaches to tackling the problems of security have also to be modified, implicitly the modification would include the ways and means of tackling these threats. Another dimension of change in the threat perception is the overall modernisation especially in the area of science and technology. These are taking place in the nature or approaches. Weapon systems are becoming increasingly more and more sophisticated, technologically. Therefore, the ways and means of tackling problems of threats would not only include change in the policy perceptions but that would also include the change in hardware of tackling these threats.

This Thesis therefore starts with redefinition of defence expenditure. This redefinition seeks to include expenditures related to internal security and expenditures related to science and technology in the understanding or the comprehension of defence expenditure. The central argument here is:

a) Given the growth of problem of internal security, the forces/means used to tackle the problems of internal security must be accounted. In the Indian case this forces would include para military, police, intelligence etc.
b) Given the technological changes and increasing incorporation of new technologies in defence, it is necessary to identify such areas of technology which relate to defence and which at the same time have basically been civilian technologies. It is in that context this redefinition of defence expenditure incorporates dual purpose technologies specifically nuclear, space, telecommunication, electronics etc. into this study. And the consideration of this expenditure was made to comprehend the problem of defence resource allocations. Given this central argument the Thesis presents following main points:

i) India's defence expenditure would be dependent upon nature of Internal and External Security threats on the one hand and economic capability on the other hand. In the Indian context it is seen that in 1980s internal security threats become more dominant and important. The thrust of modernisation also begins in 1980s in the areas of Science & Technology and these both are reflected in the expenditure patterns in
these two sectors. The growth in the expenditures on internal security and also the growth in the expenditures in dual purpose technology areas need to be understood in this changing security environment of 1980s. The rate of growth of internal security expenditure was 6.57 percent per annum at (1980-81) prices and in the dual purpose technology areas it ranges from 5.32 percent per annum to 13.96 percent per annum at (1980-81) prices. The growth rate in these areas has been in chapter 8. India has developed dual purpose technology areas especially from 1980s.

ii) The study of the expenditure charts in the chapter 9 show that the share of Army in total defence expenditure declined continuously, the share of Navy and Air Force are increasing during the period of study. This can be understood in the context of two things:

a) The shift from external threat to internal threats made it necessary for security expenditure to divert
more towards internal security and the role of Army remained almost constant without any new problems of conventional war/border war.

b) The Navy and Air Force on the other hand were traditionally not given the due share in defence expenditure. Further both these saw rapid change in technology and incorporation of new technologies in these areas required additional expenditures and therefore they started getting more share than before in defence expenditure.

iii) India's defence expenditure in current prices started rising at a faster rate from 1982-83 onwards. The higher rate of growth was in the year 1986-87 when defence expenditure grew by a record 31.17 percent in one year as compared to previous year. Then onwards, the annual rate of growth in defence expenditure has been coming down.
iv) Analysis of itemwise defence expenditure indicates that 'stores' gets the maximum share followed by 'pay and allowances.'

v) In the period 1984-85 to 1988-89 defence expenditure showed the highest exponential growth rate. Simultaneously the nuclear, space, science and technology as dual purpose technology areas marked the highest exponential growth rate at constant prices. i.e. (1980-81) prices in this period. It shows that India strengthened defence and dual purpose technology areas simultaneously in 1980s. But after 1987-88 it is possibly experiencing a 'resource crunch.'

vi) One finds that annual defence budget do not sometimes reflect a realistic picture of military operations which take place within the country and across the border. eg. the IPKF operations expenditure is not reflected in the defence budgets of those years. Therefore, Defence Service Estimates need to be more transparent more
standardised, more realistic and methodological. But of course not sacrificing the secrecy and confidentiality. The confidentiality should not lead to illogic on obscurity.

vii) Defence expenditure and Interest payments are two main items of non-development expenditure in India. During the study period the interest payments are increasing at the faster rate than the defence expenditure.

viii) GDP growth rate and defence expenditure have correlation. The increase in defence expenditure seems to have coincided with higher GDP growth rates.

ix) There is a decline in the share of defence expenditure as a part of the Central Government Expenditure and Total Govt. Expenditure (Central+States+Union Territories Govt. expenditure) during the study period. This has been explained with the help of determinants of defence budget especially the indicators of internal and external security parameters.
In the 1990s several changes took place at global level which eventually had impact on India's economic policy. The process of economic liberalisation began in India in 1990s and has had an impact on defence sector. This impact has been seen mainly in the reduction in the real resources for defence which is known as 'resource crunch.' This impact has also been seen mainly in the areas of Science & Technology expenditures and actual defence expenditure. Given the fact that some of the crucial developments in the area of Science and Technology especially in the sectors of nuclear, space and electronics have taken place in the civil sectors/civil laboratories and not in the defence DRDO laboratories, the liberalisation process would have a certain impact on this civilian sectors. Over the last few years the defence sector in India is opening up to this facet of liberalisation and seeking to incorporate the developments from the civilian sector into the defence sector.
Hence an expenditure analysis of resource allocation might be an insufficient indicator to understand this growing interaction. It would suffice to say that changing allocations in this sector do not indicate the growing interaction between defence and civilian sector especially in the context of modernisation of defence forces. It is may perhaps be necessary to add in this context that the decisions to open up in the areas of defence export and decision to export weapon and weapon system by India is also indicative of the impact of process of liberalisation. The civil military interactions in near future are bound to increase considerably taking into account private sector initiative in defence related production industries India needs a more professional and realistic approach for this.

This study on resource allocation for defence in India that analysis threat perceptions, decision making processes and economics of defence is essentially the
beginning in the direction for rethinking on the approaches to defence expenditure. It would definitely be worthwhile to take up each of dual purpose technology areas especially nuclear, space, electronics and para military and study them individually to find that the degree to which these areas constitute an input into National Security.

This Thesis attempts only a beginning in the Indian context. It attempts to layout a framework for analysis of defence expenditure which is border than traditional framework and as such, it follows some of the new definitions of defence expenditure which are being articulated at the international level especially by international organisations like United Nations Organisation, SIPRI, IMF etc.

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