

control of their technologies, which they might want to transfer to the Indian joint ventures. From the financial point of view, total inflow of resources to the defence industry between April 2000 and May 2010 amounts to a meager US\$ 0.15 million. Moreover, of the total 62 identified sectors in which FDIs have gone into, the defence industry ranks the last, even behind the sectors such as soaps, cosmetics and toilet preparations, and timber products among others.

1.2 **Statement of the Problem**

India is amongst the top ten countries in defence expenditure in the world and is also the largest importer of defence hardware. According to estimates, nearly 70% of our defence requirements are met through imports with only 30% being met through domestic production. Worse, indigenous production is limited to low-tech items and components. Government's stated aim, as enunciated in Finance Budget 2009-10, is to reverse this trend and manufacture 70% or more of its defence needs indigenously. There is growing realization that India's march towards world eminence cannot be sustained without a Defence Industrial Base that is able to meet the strategic needs of the Armed Forces indigenously from both public as well as private sectors. It is, therefore, evident that there is need to review the existing structures and put into place, a regime for establishment of a robust defence industrial base in India.

1.3 Study Aim and Objectives

Study Aim. The aim of the research is to study the policy models of countries, which are major players in the international defence market, evaluate the state of Defence Research & Development and Defence Production in India, analyse the problem areas preventing establishment of robust Defence Industrial Base in India for the purpose of recommending changes in Government Policy to remedy the condition.

Study Objectives. The objectives of research are as under :-

- (a) To identify the best practices of major international defence market (USA, UK, Israel, China etc) players.
- (b) To evaluate the state of Defence Research & Development (R&D) in India and identify measures required to drive indigenous R&D
- (c) To evaluate the state of Defence Production in India, Examine current government policies and suggest way forward.
- (d) To suggest measures for promoting private sector contribution in Defence Industrial Base.

1.4 Rationale for the Study

Despite having one the largest public sector Defence Industrial and Research & Development infrastructure, India is dependent on foreign sources for most its defence equipment requirements. These foreign sources seek to perpetuate our present client status for enjoying financial spin-offs as well as strategic leverage. If India is to meet its tryst with destiny, the present state of affairs has to change and we have to break the shackles of old mindsets and prejudices. It is therefore proposed to analyze the problem areas existing, and identify the way forward for development of an Indigenous defence Industrial base in India.

Some of the areas where new initiatives may be needed are as under:-

- (a) Defence Industrial and Technology Strategy to be laid down.
- (b) Short, medium and long-term technologies that are essential to be imbibed in a time bound manner.
- (c) Critical technologies likely to be denied by other nations.
- (d) Coordination between R&D agencies
- (e) Measures to drive indigenous R&D.

- (f) Foreign Direct Investment (FDI) in Defence Sector.
- (g) Reforms in Defence Public Sector enterprises.
- (h) Synergy between Public & Private Sector.

While the Defence Procurement Procedure (DPP) 2013 provides stress on indigenous development, India's current manufacturing base has limited capacity to support the implementation of the improved policies and to transform noble ideas into reality. While self-reliance in defence production continues to be a pipe dream, lack of a vibrant indigenous defence industry is costing the country dear. Foreign military equipment act as crutches. Dependence on them makes a nation hostage to the policies of the exporting nations and captive to the dictates of unscrupulous foreign vendors. Over the next one decade, India is planning to buy defence equipment worth US\$ 100 billion and if the country fails to progress sufficiently enough to develop the required military hardware domestically, a large chunk of this amount would go towards import.

1.5 Research Questions

The major research questions that the study intends to address are as under:-

(a) What are the best practices for Defence Industrial Base implemented by major international Defence Market players, which are suitable for adoption by India?

(b) What measures are required to drive indigenous Defence R&D and Production in India towards establishment of a robust Defence Industrial Base?

(c) What measures are required to facilitate Indian private sector to become a major stakeholder in the Defence Industrial Base of the Nation?

1.6 Research Limitations/Delimitations

Several limitations of the research process are anticipated. These limitations include the following : -

(a) Obtaining upto date information and data on defence industrial and technological capabilities due to security issues involved.

(b) Unavailability of target groups (policy makers) for interview.

(c) Paucity of time to undertake detailed surveys and sending questionnaires.

(d) Limited availability of detailed data due to sensitivity of the subject matter

(e) Unavailability of systematic and detailed data in public domain.

1.7 LITERATURE REVIEW

Defence Industrial Base of India has received considerable coverage in most of the defence literature. Most of the writers have traced the history of the establishment of the Defence Industrial Base. The British had established a handful of ordnance factories, which were only engaged in production of a few low-technology guns and ammunition under conditions similar to today's licensed manufacture. At independence, we veered towards public sector for setting up a large infrastructure to be "self sufficient" in defence needs. We shifted to USSR for meeting our hardware requirements on friendship prices followed by licensed production. A large number of writers have brought out that, with a captive customer base, the Public Sector has shown a typical lethargy and failure to innovate. Its vast infrastructure and manufacturing facilities have primarily been employed to locally assemble foreign Semi / Completely knocked down (SKD / CKD) kits. The quick fix of licensed