
Indo-Brazilian Defence Cooperation: Some preliminary reflections



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Characteristics suggest great potential for synergy with Indian partners, considering the fact that India is at the forefront of numerous technological processes and hosts many leading companies operating in segments considered as priorities by Brazil. Moreover, Indian exporters in the defence sector can seize the opportunities presented by the favourable import-tax structure in the Brazilian defence sector.

In recent years, the foreign policies of Brazil and India have favoured South-South relations, resulting in an unprecedented enhancement of bilateral economic ties between the two regional giants, especially in the trade of goods and services. However, cooperation within other important sectors, such as defence and security, is still incipient. Insofar as international cooperation constitutes a significant component for the development and maintenance of national defence systems, this paper provides a preliminary exploration of the potential pathways and prospects for a greater Indo-Brazilian cooperation on defence.

Some observers have identified common traits for Brazil and India and described how these traits can favour mutual collaboration and policy coordination (Alden and Vieira, 2005; Hirst, 2008; Fan et al. 2008; Roubini, 2009; Marchán, 2012; Ray, 2015). According to these interpretations, bilateral cooperation between the two countries can stem from and be facilitated by a common past of colonialism as well as similar social problems; large territories, populations and domestic markets; and democratic political systems. In the defence realm, both countries have structures that are dysfunctional and expensive, preventing the military from making optimal choices¹. According to theory and practice, such commonalities lower transaction and learning costs, and support coordination between nations (Keohane, 1984; Dolowitz and Marsh, 2000). Thus, through collaboration, states may obtain greater benefits than they would when acting unilaterally.

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This paper also argues that even the differences between Brazil and India, especially in terms of defence, provide ample scope for cooperation under the logic of complementarity, in which bilateral relations may result in the mutual supply of resources that each side lacks, thus enhancing the value of both nations (Kreps et al., 1982; Yao, 2011). Arms deals comprise one area in which this logic can be used. Although India has been the world's biggest arms importer for nearly a decade (Blanchfield et al., 2017) as well as a respectable arms exporter (Banerjee, 2018), bilateral defence trade with Brazil is insignificant (Wezeman et al., 2018). In this case, the difference between the countries could actually be a catalyst for enhanced bilateral relations based on complementary needs.

Perhaps no other area displays greater prospects for mutual benefits and potential for enhanced Indo-Brazilian cooperation in defence matters than industry. In this area, both countries can coordinate industrial policies, enhance bilateral trade of military equipment and systems, and make joint investments in company formation, research, development, and sales. India has a sizeable defence budget and purchasing power; by contrast, Brazil must modernize its defence industry and improve the sales of its defence products. Being the world's largest arms importer in recent times, India is in a privileged position to favour Brazilian products and co-finance bilateral initiatives. In addition, Brazilian defence companies and agencies can team up with Indian counterparts for the development of new products, acting as a gateway for Indian defence products in Latin America.

India's favourable position in the global defence marketplace contrasts with the numerous obstacles faced by Brazil. To understand the challenges of modernizing Brazil's military and to identify priority policy areas suitable for bilateral policy coordination, it is important to examine the history of the Brazilian defence industry. This history can be divided into four periods: 1822-1945; 1945-1964; 1964-1990; and 1990-2018. The developments observed in these periods have occurred *vis-à-vis* a number of strategic, political, social, and economic changes that have defined contemporary Brazil.

The beginning of first period corresponds to the Brazilian Independence from Portugal and, more specifically, to the aftermath of Brazil's participation in the Paraguayan War, the deadliest and bloodiest interstate conflict in Latin America's history (Whigham and Potthast, 1999). According to Amarante (2004), this period contained the 'cycle of military factories', in which the country sought to create a domestic web of firms responsible for the production of essential military goods (e.g., ammunition) to supply the armed forces. This was done to allow the military to promptly defend the country from external and internal threats (especially separatist movements). Nonetheless, the indigenous production of military goods was unable to supply the needs of the military; thus, the country kept on being dependent on foreign suppliers (Andrade, 2016). This period also encompassed the so-called French Mission (1919), which stimulated Brazil to purchase French military equipment, and Brazilian participation in the Second World War fought in Italy alongside the United States, which led the country to

acquire military equipment from its North American ally.

The second period begins at the end of the Second World War, when the Brazilian government, in line with domestic macro- and microeconomic policies, decided to invest in technological development to encourage the indigenous defence production (ABDI/IPEA, 2016). In this period, government policies in the defence sector created a number of state-owned defence enterprises as well as institutions of higher education and technological centres² under each armed force. This resulted in the formation and training of managerial leaders and specialized technical staff and in the development of complete industrial cycles – from conception to selling – for defence products (Amarante, 2004; IPEA/ABDI, 2016).

The third period coincided with the military regime in Brazil, in which the defence industry expanded through the emergence of new state-owned defence enterprises, reaping the benefits of the structural developments occurred in the previous period (Andrade *et al.*, 2016). This period was marked by an unprecedented growth in the Brazilian defence industry, enabling the country, which had an insignificant presence in the international arms markets in the 1970s (Pim, 2007), to become the world's fifth largest exporter of defence products by the 1980s (CREDEN, 2015).

The fourth period coincided with the redemocratization of the country after the military regime and is still developing to date. Insofar as there have been relevant institutional developments³ in the defence sector recently, this period has been characterized by a decline of the national defence industry caused

by internal and, to an extent, external factors. Internally, serious successive economic and fiscal crises and a wave of privatizations of domestic companies have led the government to reduce defence purchases from its native suppliers. Moreover, according to Flandes and Vaz (2011), 'the absence of immediate conventional threats to its security from within the region brought about an acute questioning of the *raison d'être* of its armed forces and provided no incentives for defense spending' (p. 12). These developments have caused adverse effects in the financing and development of products and assembly lines, harming the entry of goods and services 'made in Brazil' into the global defence marketplace. Externally, the end of the Cold War led to an immediate decrease in arms sales globally as well as the cheap global supply of defence products from the former Soviet Union (Sandler and Hartley, 2007).

More recently, the Brazilian defence industry benefited from the growth of military expenditure in numerous countries in the first decade of the 2000s, which provided a boost following the decline in the 1990s (IPEA/ABDI 2016). Brazilian arms exports in this period were dominated by the sale of military aircraft, notably EMBRAER's Super Tucano, which accounted for approximately 80 per cent of Brazilian military exports between 2005 and 2011 (Andrade, 2016). Amongst other Brazilian defence products that have had relative success in the global arms marketplace, the most notable are missiles, armoured vehicles, ground systems and radars (Brick, 2014). The main buyers of Brazilian products are other South American nations, which account for a little over half of the sector's

exports (IPEA/ABDI, 2016). A recent study showed that the sector is formed by 40 exporting firms that had a turnover of approximately US\$ 4 billion in 2013, generating approximately 30,000 direct and 120,000 indirect jobs (Gambôa, 2013).

Correspondingly, the main characteristics of contemporary Brazilian defence industry (Brick, 2013; Schmidt et al., 2013; Andrade, 2016; IPEA/ABDI, 2016) are as follows:

- Partial technological autonomy – apart from rare exceptions⁴, the more complex the product, system, or component made by the Brazilian defence industry is, the more dependent the product is on the purchase and adaptation of foreign technology in the production process;
- Incomplete productive structure – key defence industrial sectors exist in which indigenous productive structures are practically non-existent, such as the case of weapons and ammunition electronic systems and command and control systems as well as military ground platforms;
- Few national leading firms – only a few industrial segments of the Brazilian defence industry have so-called ‘anchor firms’ that exhibit a sustainable business scale (productive and financial) compatible with international standards or that are sufficiently independent from foreign input.
- Tax deficiencies – the amount by which the firm’s correct tax liability exceeds the amount reported on the tax return. In fact, tax asymmetry favours imports in all sectors of the Brazilian defence industry. In addition, the sectors with the highest export coefficient present

an accumulation of tax credits that has a negative impact on the profitability and costs of large exporting companies.

- Discrepancies of the national productive structure – although some defence products directly benefit from the high degree of international competitiveness of some Brazilian industrial sectors (e.g., metalworking and mechanics), the deficiencies of other sectors (e.g., information technology) impairs product development that relies on the deficient sectors.

These characteristics suggest great potential for synergy with Indian partners, considering the fact that India is at the forefront of numerous technological processes and hosts many leading companies operating in segments considered as priorities by Brazil. Moreover, Indian exporters in the defence sector can seize the opportunities presented by the favourable import-tax structure in the Brazilian defence sector. Furthermore, a cursory examination of both countries defence policies (or statutes) and legal frameworks indicates that India and Brazil seem to have convergent goals and complementary defence needs. For example, Brazil has set its defence production priorities in eight industrial segments that could be of interest of Indian partners (IPEA/ABDI, 2016: MD, 2012c): 1) light weapons; 2) ammunition and explosives; 3) nonlethal weapons; 4) weapons and ammunition electronic systems and command and control systems; 5) military ground platforms; 6) military aerospace platforms; 7) military naval platforms; and 8) nuclear propulsion. As outlined in Brazil’s National Defence Strategy, these eight segments involve the three fundamental strategic programmes

of the defence sector: 1) the nuclear programme led by the navy; 2) the cybernetic programme coordinated by the army; and 3) the space programme managed by the air force (MD, 2012a; MD, 2012b).

As a concluding remark, cooperation between Brazil and India in defence matters should explore possibilities and synergic needs beyond the industrial realm. At the strategic level, both countries should engage in a consistent process of defence policy coordination, taking onboard each other's strategic policies, programmes and projects. At the operational level, India and Brazil should intensify and expand initiatives such as military education exchanges; joint training, exercises and simulations; sharing of best practices; high-level visits; joint research and development; and establishment of defence technology-related partnerships.

Endnotes

- ¹ Timo Brito, C., Jhan, V. and Sohal, A. (2018). Long-Lost Brothers in Arms? Forthcoming.
- ² Throughout the last Century, the Brazilian armed forces have established a broad set of institutions related to research and development, as well as formation and training of human resources at the strategic, technical and operational levels. These, in turn, have supported the creation, expansion and consolidation of diverse segments of the Brazilian defence industry. The Brazilian Air Force has the Technological Centre of the Air Force (CTA), an umbrella organization that has several institutes - especially the Technological Institute of the Air Force (ITA). Under the Brazilian Army, the Technological Institute of the Army (CTEx) and the Military Institute of Engineering (IME), Research and Development Institute (IPD) and Institute of Special Projects (IPE) stand out. The Brazilian Navy has the

Institute of Navy Research (IPqM) and the Navy Technological Centre in São Paulo (CTMSP).

- ³ The 1988 Federal Constitution is the main legal instrument that dictates the organization of the defence sector in Brazil, which is also regulated by a number of laws and other statutes. Under the Federal Constitution, the *National Defence Policy*, the *National Defence Strategy* and the *National Defence White Paper* are an essential part of an ample legal framework that guide the organization and modernization of the Brazilian military.

The National Defence Policy is the country's highest-level document on defense matters and defines the so-called National Fundamental Objectives for the sector. The National Defense Strategy, in turn, is the plan of action to be taken by the country in order to achieve such Objectives, determining the bases on which the defence of the country must be structured. The National Defense White Paper is in line with the best democratic practices encouraged by the United Nations, especially public transparency, being the main document through which the Brazilian government shares information with citizens and foreigners about national defence.

In this context, the National Defence White Paper offers the public (national and international) information about the context of the current international strategic environment according to the Brazilian state, describing a) the existing military sector of Brazil; b) the relationship between the defence sector and the Brazilian society at large; c) the pathways for the modernization of the Armed Forces; and d) the relevance of the defence industry. According to the Constitution, the President of the Republic is the commander-in-chief of the Armed Forces, which are formed by the Brazilian Army (*Exército Brasileiro*), Brazilian Navy (*Marinha do Brasil*, including the Navy Air Force and the Marines), and Brazilian Air Force (*Força Aérea Brasileira*). They are permanent and regular national institutions and organized on the basis of hierarchy and discipline.

Their mission involves the defence of

the motherland, the protection of the constitutional branches of power and, by order of any of these branches, the protection of law and order, with the aim of preserving state sovereignty and federal union.

Additionally, the Armed Forces also cooperate with national development and civil defence. In specific cases, in the light of particular legal provisions, the Armed Forces may also act, in partnership with the country's police forces and specific government agencies, in crime fighting and law enforcement within the country's territory, including its borderlands, airspace, sea and rivers. All three institutions are under the Ministry of Defence, which guides, supervises and coordinates all actions of the Armed Forces. The creation of the Ministry of Defence in 1999 is arguably the most important institutional development in the defence sector since the end of the military regime in 1985.

The Ministry of Defence is a government body of the federal public administration under the Executive branch and is responsible for coordinating joint defence efforts; protecting the national sovereignty; safeguarding the constitutional branches of powers, law and order, national assets and interests; and contributing to Brazil's participation in international security efforts (such as peacekeeping missions). Moreover, the Ministry of Defence has authority over various matters, which include joint military operations; defence budget; military policies and strategies; strategic intelligence; science, technology and innovation; health; national mobilization; and military service, among other issues.

For a comprehensive online list of Defence sector-related legislation in Brazil (in Portuguese only), please access <https://www.defesa.gov.br/index.php/institucional/iv-base-juridica-para-atuacao-do-md>

⁴ There are three main exceptions to this characteristic. The first is the technological capability being built autonomously in the nuclear propulsion sector, even though it

is the sector with the highest technological intensity. The second is EMBRAER's competence in the development, production and marketing of some categories of military aircraft. Finally, there is the case of technological efforts carried out by Brazil's Atech Foundation in developing integrated surveillance and intelligence systems (IPEA/ABDI, 2016).

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GERMANY–NAMIBIA NOTCH UP DEVELOPMENT COOPERATION EFFORTS.

The inking of the Financial Grant and a Technical Cooperation Agreement follows the 2017 Governmental Negotiations on Development Cooperation between Germany and Namibia. To date, German development cooperation with Namibia – governmental and non-governmental programmes taken together amounts to more than 1 billion Euros, approximately N\$15 billion. In per-capita terms, Namibia is thus the largest recipient of German development cooperation in Africa. The two agreements inked cover programmes to the value of roughly N\$1.1 billion, financing among others projects on Bush Control and Biomass Utilisation, Promotion of Vocational Education and Training, Promotion of Business Advisory and Transformational Services, Support to Management of Public Enterprises, Integrated Wildlife Protection Management and Integrated National Park Management. These agreements are complemented by a Financial Cooperation Agreement on interest-subsidized loans, to be concluded with the Ministry of Finance. Namibia and Germany have agreed on three focal areas of the partnership, namely: Natural Resources Management, Sustainable Economic Development Transport/Logistics. Furthermore to bilateral government cooperation, there are a large number of programmes run by non-governmental players such as churches, political foundations, NGOs or private initiatives.

Source: <https://economist.com.na/37299/general-news/namibia-the-largest-recipient-of-german-development-cooperation-in-africa-per-capita/>