Discussion Paper

252

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EXECUTIVE SUMMARY

BRAZILIAN NUCLEAR-POWERED SUBMARINE: NATIONAL DEFENSE AND TECHNOLOGICAL EXTERNALITIES

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Through its strategic programs, the Brazilian Navy (MB) seeks to develop the adequate means of carrying out its main tasks – sea denial, control of maritime areas, and power projection in a limited way. In this regard, the MB aims to provide the surveillance and security of the Brazilian jurisdictional waters (AJB), ensuring national sovereignty and foreign policy support in addition to exercising deterrence and contributing to society's welfare and progress. A significant component of these efforts is the Submarine Development Program (PROSUB), that has the ultimate purpose of developing the first Brazilian nuclear-powered submarine, or abbreviated as SN-BR in Portuguese.

The PROSUB aims to meet important goals of Brazilian "National Defense Policy", such as having a large naval submarine force composed of both conventional and nuclear-powered submarines. This strategic program, due to the emphasis on the nationalization of components, has become the largest scientific-technological training program of the Brazilian defense industry. Although its main objective is related to national defense, it should be noted that the investments made within the PROSUB produce benefits of various kinds for the Brazilian society, while also bringing substantive returns in terms of dual-use technologies (civil and military use).

The objective of this paper is to demonstrate the importance of the PROSUB, especially concerning the nuclear-powered submarine, highlighting the positive externalities of this program and the need to maintain and reinforce it.

The analysis presented in this study shows that the development of the SN-BR under the PROSUB context meets at least two key objectives. The first one, which is more prominent and noticeable, is to increase the Brazilian Navy's operational capabilities and thereby enhance its ability to deter vested interests and to protect national waters, as well as enable a more effective presence in the South Atlantic. The second one, which is more implicit, is the technological spillovers provided by the development and improvement of technologies embedded in the submarine and its systems, raising the level of Science, Technology and Innovation (ST&I) in the country. It should also be emphasized that, among all national defense's strategic programs and projects, this one is of the highest level in the industrial and technological areas.

Thus, the need to maintain and enhance the PROSUB becomes evident, despite the fiscal adjustment context faced by Brazil. Although the importance of controlling public spending, it must be ensured that any budgetary adjustments promoted within the federal government shall not cause the stagnation of this program. It should be noticed that budgetary constraints regarding the PROSUB would ultimately affect the country's industrial and scientific-technological advance. Therefore, the conclusion is that the PROSUB proves to be relevant for the strengthening of Brazilian naval power, for the purpose of national defense, for the promotion of the country in the international scenario, and for the development of the scientific, technological, and industrial base, generating significant benefits for the Brazilian society and contributing directly to ensure the country's sovereignty.

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