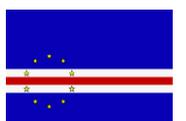


STRATEGIC STUDY DRAFT EXECUTIVE SUMMARY

**QUALIFY AND PRODUCE KNOWLEDGE IN
CABO VERDE**



The Centro de Políticas Estratégicas produced this strategic study technical note. This is the Executive Summary of the draft version of the Technical Note for comments and to be used for Forum Events. Please share comments at luci.fonseca@palgov.gov.cv.



Table of Contents

Executive Summary

- I. Introduction**
- II. The higher learning system and the R&D system**
 - II.1. Institutions of Higher Learning and Research and Development Institutions
 - II.2. Reforms under way in Higher Learning
 - II.3. Qualification of faculty and researchers
 - II.4. Research, development and innovation projects (RDI)
- III. Strategic areas for the development of Cabo Verde**
 - III.1. The 2011-2016 Government Program
 - III.2. The 3rd GPRSP 2012-2016
 - III.3. Strategic areas considered
 - III.4. Cabo Verde – The Road Ahead
 - III.5. Training and knowledge export strategy
- IV. Advanced training and production of knowledge for strategic areas**
 - IV.1. Core and enabling areas of knowledge
 - IV.2. Strategic areas and areas of knowledge
 - IV.3. Summary of priority areas of knowledge for development
- V. Knowledge qualification and production models**
 - V.1. Advanced training in country: masters and doctorates
 - V.2. Advanced training abroad and in mixed local/international programs: doctorates
 - V.3. Domestic RDI units and partners
 - V.4. Strategic partnerships with foreign institutions
- VI. Advanced training and RDI financing**
 - VI.1. Advanced training financing
 - VI.2. Interaction between advanced training and RDI projects
 - VI.3. Project financing
 - VI.4. Core funding of units and partnerships
 - VI.5. Financing of international partnerships
- VII. Coordination of advanced training and RDI as priority areas**
 - VII.1. Principles and objectives
 - VII.2. The case of the Sea Cluster
- VIII. Scenarios and recommendations**
 - VIII.1. Scenarios
 - VIII.2. Recommendations
- IX. Conclusion**

Annexes



Executive Summary

The present report was commissioned by the Strategic Policy Center as part of the preparations for the 2nd National Transformation Forum – Cabo Verde 2030. The study focuses on the construction of the national capacity for the production and application of knowledge through advanced qualification aimed at building the capacity of faculty and researchers, as well as through the development of the conditions necessary for the production of knowledge needed to support the next phase of Cabo Verde's development.

Cabo Verde's higher learning system has seen extremely rapid growth, particularly since the beginning of the current century with the creation of its first university, a private initiative. Currently there are 10 institutions of higher learning in the country, eight of which are private and two of which are public. A reform of the higher learning system is currently under way, and has proven necessary in order to deal with the growth the system has experienced over the past several years.

Already at the turn of the century, there existed institutions whose statutes included research as one of their missions, alongside other missions such as intervention alongside given related economic or socioeconomic sectors.

This report is the result of a partial survey on the qualification of the faculty and researchers in Cabo Verdean institutions of higher learning and research and development. The data demonstrates the existence of a dynamic of qualification, namely at UniCV, although doctors and doctoral students predominate in the areas of Human and Social Sciences and Mathematics.

The Cabo Verde's vision for the development is outlined in policy papers such as the *Government Program for the 8th Legislature, 2011-2016*, and the *Growth and Poverty Reduction Strategy Paper 2012-2016 (GPRSP III)*. Although these documents have a five-year horizon, they include the formulation of a vision of Cabo Verde's development that goes beyond this period. Based on these documents, the following strategic areas are to be considered: Tourism; Agribusiness; the Sea; ICTs; the Creative Economy; Finances; Aero-business; and Technological Development (energy and telecommunications).

The development of the strategic areas presupposes the availability of advanced training to qualify human resources, associated with the endogenous capacity for the appropriation and production of knowledge that can ensure the sustainability of the country's research, development and innovation system. Nevertheless, qualifying human resources is not, in itself, enough – it is also necessary to create an organizational framework conducive to and that lends potential to the capacities represented by individual skills.

The creation of this organizational framework implies significant investments, without which the nature of Cabo Verde's development is unlikely to be able to be altered. Even so, while acknowledging that resources do have their limits, it is essential to identify a series of areas of knowledge to be given priority in order to sustain the development that is sought and explore the possibilities of developing the country's endogenous capacity with markets beyond the domestic horizon in mind.

It has been concluded that there are areas of knowledge in which knowledge production capacity must be developed. With this in mind, master's- and doctorate-level training and the installation of RDI teams have been planned. In other areas, master's-level knowledge will, in an initial approach, suffice for the development of the respective strategic area, or, depending on its importance for the development of the strategic areas, it may be desirable to have PhD holders available to be a part of RDI teams.

With the areas of knowledge duly identified, it is important to reflect upon the models of organization for the qualification and production of knowledge. Here, we consider the alternatives of advanced training in Cabo Verde itself – in the case of master's programs – and in a mixed format (in-country and abroad) – in the case of doctorates. Master's and doctorate courses held entirely abroad may be justified in specific areas, in some cases.

Also discussed is the organization of research, development and innovation and the establishment of domestic partnerships between institutions of higher learning and research and development able to take advantage of existing or future resources, as well as the establishment of partnerships with foreign institutions with a proven track record, with the aim of developing or lending further potential to local RDI capacity.



The financing of R&D activities poses major challenges to countries that, like Cabo Verde, wish to make a qualitative leap in their development and in the incorporation of knowledge into their economies. This is the case firstly because businesses' financing capacity is still relatively weak; secondly because external financing has experienced a downturn, namely with Cabo Verde's graduation to the status of middle-income country; and thirdly because the public financing needed implies a proportionally greater effort on the part of the State. Added to this is the fact that the return on R&D investments, even when well guided and judicious, takes time to bear fruit. Nevertheless, without public financing, the qualitative leap desired is unlikely to be achieved. This financing includes the funding of advanced training and RDI projects in a concerted manner, that of RDI units and the establishment of domestic and international partnerships.

One of the important challenges of this new phase in Cabo Verde's development, in addition to the capacity to qualify its professionals and produce knowledge, is being able to articulate advanced training and RDI with the development of the clusters – in other words, channel ever-scarce resources into qualification and knowledge that will contribute to the development of the strategic areas. This contribution takes on various different forms that, in addition to feeding the related cluster with professionals and know-how, may include the incubation and development of entrepreneurial activities.

The creation of a Cabo Verdean Board of Science, Technology and Innovation, as is planned, can play an important role in guiding Science, Technology and Innovation policy and, in particular, Cabo Verde's strategic areas of development, alongside the availability of sustainable and continued funding for RDI activities.

The scenarios for the development of advanced training and knowledge production are largely dependent, on the one hand, on the general perspectives of the development of Cabo Verde and its international contextualization and, on the other, on the capacity to invest in the higher learning and RDI system. The point of departure considered was the vision contained in the country's documents as a basis for reflection. The baseline scenario was considered as that resulting from putting into practice the measures currently intended to be implemented, although this baseline scenario of the consolidation and regulation of these systems still involves taking certain measures.

In addition to the baseline scenario, we also consider elements from the additional scenario of the development of the clusters, the exportation of knowledge services and the international supply of training/education. In the development of the present work, the baseline scenario and the additional scenario elements, the following recommendations have been made:

- Considering the assessment of the conditions of development of the scenarios:
 - Completing the survey of existing capacities and their regular renovation;
 - Expanding the identification of core and enabling scientific areas, in dialogue with institutes of higher learning and research and development, as well as other entities associated with each of the individual clusters;
 - The identification of potential markets on the mid and long term, for both the provision of knowledge services and educational offerings on the international level.
- The baseline scenario has the objective of:
 - Completing the higher learning legislative package;
 - Implementing the higher learning quality assurance system;
 - The creation of the regulatory agency for higher learning;
 - The establishment of program contracts with public institutions of higher learning;
 - The creation of the Cabo Verdean Board of Science, Technology and Innovation;
 - The creation of a fund to finance Science, Technology and Innovation.
- For the development of the clusters:
 - The definition of strategic areas of knowledge for the development of the clusters;
 - The constitution of platforms involving Cabo Verdean institutions of higher learning and/or research and development;
 - Support for the development of strategic partnerships with recognized international institutions;
 - Promotion of connections between businesses from the sector or cluster;
 - Support for the establishment of other partnerships and the development of international projects.



- For internationalization:
 - The definition of an internationalization strategy integrated with the development of the clusters.

The present report was elaborated with the objective of contributing to the discussions on the development of Cabo Verde in the perspective of the 2nd National Transformation Forum – Cabo Verde 2030, and on the role of advanced education and research, development and innovation in this development.

