



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



UNIDO and CUBA

Together for an Inclusive and Sustainable Industrial Development



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SUSTAINABLE DEVELOPMENT GOAL 9
INDUSTRY, INNOVATION AND INFRASTRUCTURE



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**CONTRIBUTION OF UNIDO
TO THE INDUSTRIAL
DEVELOPMENT OF CUBA**





The mandate of UNIDO

The United Nations Industrial Development Organization (UNIDO) is a specialized agency of the United Nations system whose mandate is to promote Inclusive and Sustainable Industrial Development (ISID) in developing countries with economies in transition, as reflected in the Declaration of Lima, Peru, adopted by their Member States on December 2nd 2013. This mandate is based on the recognition that the eradication of poverty can only be achieved through strong and inclusive industrial growth, and the effective integration of economic, social and environmental dimensions of sustainable development.

The ISID is explicitly reflected in the Sustainable Development Goal (SDG) number 9 of the 2030 Agenda. Through this SDG 9, the Member States of the United Nations called on the international community to “build a resilient infrastructure, promote inclusive and sustainable industrialization and innovation”. The ISID, therefore, constitutes a main engine not only for employment creation and economic growth, but also of technology transfer, skills development and investment flows for the benefit of people.



«build a resilient infrastructure, promote inclusive and sustainable industrialization and innovation».
GOAL 9

FIGURE 1. CONTRIBUTION OF UNIDO TO SUSTAINABLE DEVELOPMENT GOALS (SDG).
 Source: http://www.unido.org/fileadmin/user_media_upgrade/Who_we_are/Mission/ISID_SDG_brochure_final.pdf

In this regard, the four strategic priorities in which the work of UNIDO focuses are:

- The creation of shared prosperity;
- The promotion of economic competitiveness;
- The protection of the environment and
- The strengthening of knowledge and institutions.

As part of its mandate, UNIDO is fully committed to the implementation of the SDGs in Cuba and will continue its efforts, together with its partners, to support to the country in a significant and sustainable way in their path towards the 2030 Agenda.

More than 50 years of collaboration Cuba - UNIDO



The cooperation with UNIDO has given priority to capacity building of human resources, through the introduction of advanced technologies and knowledge

Cuba is one of the founding members of UNIDO. Since its foundation in 1966, the organization has contributed to the process of Cuban industrialization, at institutional and business level. This lasting and fruitful cooperation is reflected in the more than 180 direct technical assistance of UNIDO in the Caribbean country, in which it has channeled more than \$31 million for the development of cooperation and investment activities.

During the first 20 years, most of the technical assistance provided by UNIDO for the industrial development in Cuba was covered by resources of the United Nations Development Program. The country made great efforts to diversify and develop the national industry, which in its time was based primarily on the industrial production of sugar cane. The Government of Cuba was supported by UNIDO for the provision of cutting-edge industrial knowledge that will reinforce the large investments made in partnership with many countries. Thus, the main contribution of the Organization during these early years focused on the field of chemical production, including the chemical synthesis, pharmaceutical products, paper and glass, as well as metallurgical and mining sectors, specifically mechanical products, quality control, and metrology, industrial design and maintenance.

From the 90s, UNIDO began to manage their own resources, bilateral and multilateral funds, in direct agreement with the parties concerned. In the decade of 1990 to 1999, the economy of the country took a new direction as the industrial sector. Cuba defined its new development priorities, including the impulse to international tourism, while reoriented their industries according to the new external conditions and, in general, increasing the efficiency of its productive sector. For this period, technical assistance was oriented to the sector of genetic engineering and biotechnology, the quality management systems, energy efficiency and renewable energy sources, environmental sustainability and the efficient use of resources, business development and institutional strengthening.

At the beginning of the millennium, UNIDO has modified the system of provision of technical assistance and introduced the new modality of the Integrated Program. With this initiative, the organization is proposed to concentrate all the industrial development efforts of their Member States to achieve

quick and tangible results. During this period, Cuba has set up their industrial development priorities under the so-called “Integrated Program of Support to the Industrial Competitiveness of Cuba”. Two cycles of this program will be carried out and the projects implemented in this framework included the improvement of the capacity of industrial management, the introduction of manufacturing techniques and computer aided design, and the construction of a plant for the production of oral contraceptives in collaboration with the United Nations Population Fund.

The cooperation with UNIDO has given priority to capacity building of human resources, through the introduction of advanced technologies and knowledge. This transfer has always been accompanied by the advice of international experts through training workshops and seminars, which have benefited a large number of Cuban specialists in many industrial sectors. For example, since the establishment of the National Network of Cleaner Production, from 2001 to 2007 a total of 104 sessions and training courses for 1.647 specialists from various institutions and companies from different industrial sectors; 248 were organized events, conferences and seminars with the participation of more than 5.700 specialists and high-level officials and 455 companies received technical support.



BIOMASS GASIFIER



The Country Programming Framework Cuba - UNIDO

Objectives of CPF 2016-2020

1. Increase industrial competitiveness.
2. Achieving shared prosperity for the benefit of all parties concerned
3. Prioritize the development of business initiatives;
4. Support new models of business management;
5. Increase the participation of women and young people in decision-making;
6. Promote innovation, the exchange of knowledge, technology transfer and investment promotion

In November 2014, the Government of Cuba and UNIDO agreed on the preparation of a Country Programmatic Framework (CPF) for the Inclusive and Sustainable Industrial Development 2016-2020, which aims to:

The signing of this CPF, on December 4th 2015, during the 16 session of the General Conference of UNIDO, marked the beginning of a new phase of cooperation between UNIDO and Cuba. Taking into account that the inclusive and sustainable industrialization is a long-term goal that involves multiple actors, the CPF seeks to strengthen synergies and minimize duplication of efforts, working with partners in development cooperation, government institutions and other state and non-state actors in the country. Therefore, it constitutes a useful guide to the work of UNIDO in Cuba in the coming years, since it is based on national priorities established by the country itself.

To achieve a successful strategic guidance and supervision of the CPF, a Steering Committee was established chaired by senior officials of the Ministry of Foreign Trade and Foreign Investment (MINCEX) and UNIDO, and composed of representatives of the Ministries of Industry (MINDUS), Energy and Mines (MINEM), Culture (MINCULT), Transportation (MINTRANS), Agriculture (MINAG), Food Industry (MINAL), Science, Technology and Environment (CITMA), and the Economy and Planning (MEP), among others.

The estimated budget for the implementation of the measures referred to the program is 50 million euros. The Republic of Korea and the Russian Federation have been awarded a total of 4.8 million euros for three projects that were launched during the International Convention CUBAINDUSTRIA 2016. Another project underway has been managed on a regional basis with the OPEC Fund for International Development (OFID). There are also favorable negotiations in progress with other donors, such as the European Union and the Global Environment Facility (GEF).

The Programmatic Framework is structured around three main areas, identified as priorities for the industrial development by the Government of Cuba:

1. Improvement of the institutional and business environment
2. Promotion of industrial competitiveness
3. Promotion of investments

Under these priority areas have been projected seven actions to achieve the proposed objectives, in close correspondence with three of the four areas of intervention of the framework of assistance by the United Nations Development Assistance Framework (UNDAF) in force in Cuba.



In this regard, the CPF is fully articulated with the UNDAF for the country in the period 2014-2018, which has been extended until 2019 by agreement between the Cuban government and the United Nations system in Cuba and it is the result of a participatory and inclusive process that involved more than 22 national actors. This UNDAF has for aims to support the country on the development of strategies to improve the quality of life and the economy in a sustainable way. UNIDO, through CPF, is supporting the key productive sectors in Cuba in the areas of training, efficiency, productivity, competitiveness and sustainability. It seeks to contribute to the development of national value chains, the adoption and development of technologies, the diversification of the energy counterfoil, as well as the promotion of gender equality and the greater inclusion of women in productive activities.

Also, the Country Programmatic Framework of Cuba reflects the commitment of UNIDO with the promotion of the objectives about sustainable development and the implementation of 2030 Agenda in the country. The actions planned are aligned particularly with the Goal 9 (SDG-9) where the industrialization and industry are recognized as the main engines of economic growth. The CPF is also in line with the 2030 projection developed by Cuba as the main instrument of long-term planning, which incorporates the 2030 Agenda and the SDG as part of their strategic objectives.



**ONGOING
INITIATIVES**




Improvement of the institutional and business environment

It is of utter importance to improve the Cuban enterprise and institutional environment to increase productivity, efficiency, and effectiveness of domestic industries. This improvement can only be achieved through the development and implementation of various industrial and sectoral policies in the country, thus strengthening the productive linkages and increasing the value-added production.

Cuba has mechanisms for statistical monitoring of the indicators of the SDG such as methodology sheets, which represents a major step toward better statistical systems that allow you to meet the challenges of information to track the SDG. The activities in this area of the CPF seek to contribute particularly to the SDG 9 in Cuba by increasing industrial contribution to employment and the national economy; promoting access to finance for small and medium-sized enterprises; improving sustainability and the motivation to research and innovation in the industrial sectors in the country.

Project: Support to the Government of Cuba for the review and development of its industrial strategy and policy (INDCUBA)

-  **Donor**
KOICA (1.55 million US dollars)
-  **Partners**
MINDUS, ONEI, MINCEX, MEP
-  **Beneficiaries**
MINDUS, ONEI and other public agencies, Cuban industrial sector and academic and research institutions.

In recent years, Cuba has initiated a broad process of transformations to update its economic and social model with the aim to achieve a prosperous and sustainable development. One of the priorities established for this purpose is the industrial development, reflected in the guidelines of the government where it is exposed to “develop the industry, giving priority to those sectors that stimulate the economy or contribute to their structural transformation, progress in the modernization, technological development and raising their response to the demands of the economy”.

To achieve these long-term goals, the Cuban Government is working on the development of their industrial policy, from strategic development priorities identified in the Plan 2030. It is intended to achieve the reorientation of the industrial sector with greater internal integration of the productive sector and



«develop the industry, giving priority to those sectors that stimulate the economy or contribute to their structural transformation, progress in the modernization, technological development and raising their response to the demands of the economy».



UNIDO implemented alongside MINDUS and the National Office of Statistics and Information (ONEI) a project that seeks to strengthen the institutional capacity of MINDUS for analysis and establishment of the Cuban industrial strategy.

Through a process of international exchange and training will improve the capacities for analysis and use of statistical information

in line with international trends. The new industry should search for high-value added products, capable of entering into international markets on the basis of the existing business models, with state-of-the-art technologies and with an economic and environmental sustainability.

With the objective of accompanying the government of Cuba in this task, from the middle of 2016, UNIDO implemented alongside MINDUS and the National Office of Statistics and Information (ONEI) a project that seeks to strengthen the institutional capacity of MINDUS for analysis and establishment of the Cuban industrial strategy. The project aims to promote the industrial competitiveness in Cuba through the development of a strategy of industrialization, focused and based on the evidence, as well as related implementation policy.

To achieve this objective, the project works in four outputs or key areas. The first one aims to improve the capacity of the industrial statistics of Cuba, through the expansion of the capabilities of the Cuban government to generate and process industrial statistics as an input to the decision-making process of the sector. Through a process of international exchange and training will improve the capacities for analysis and use of statistical information both for suppliers (ONEI) and their potential users (MINDUS).

The second area aims to create technical capacity and managerial experts and managers of the Cuban industry, to enable them to perform a diagnosis of the current situation and propose strategic actions in the short, medium and long term. It focuses on strengthening local capacities for the use and systematic analysis of the empirical evidence on the performance of the industrial sector.

The third objective is to accompany the MINDUS in the development of an industrial strategy for Cuba, starting from an analysis of the current state of development and the future potential of the Cuban industry. With the support of internationally validated analytical tools, that allow you to identify and compare the current state of the industry, strategic actions will be proposed for the industrial development tailored to the national context. The last area seeks to support the production of an industrial policy for Cuba that incorporates specific instruments and mechanisms to ensure the implementation of the strategy of industrialization.

These last two areas considered, in addition, the design of a monitoring and evaluation system for the implementation of the industrial policy, where it is defined national performance indicators and a monitoring and evaluation system specifically for industrial development and for each policy instrument.



Results achieved:

- Technical capacity building through two training sessions with experts from international institutions (INEGI - Mexico and DANE - Colombia) and two study tours to these institutions, in which they were trained more than 50 experts from the ONEI, MINDUS and institutions accompanying the project on issues of economic and industrial statistics and data processing.
- In order to give a follow up to three of the policies that are implemented and managed by this agency (Packaging, Recycling and Management of industrial maintenance), was made a proposal of indicators of impact which is currently in the process of socialization for your use. In addition, for the improvement of the statistics, has acquired equipment as part of the project to expand the storage, use and provision of information.
- One of the major outcomes of the project is the development of the Industrial Competitiveness Report (ICI). This report allows you to make a diagnosis of the sector and the factors that limit their competitive performance, making comparisons with reference countries. To learn the methodology and tools, were conducted two workshops on indicators of industrial and commercial competitiveness for the diagnosis of country, with a total of 30 trained experts. Work is currently in the review and

feedback of this document, with the purpose of achieving their official validation as a basis for the future design of strategy.

- To complement the industrial diagnostic, you will be working in the analysis of sectors through value chain diagnostics (CV) selected. A workshop of CV analysis in order to socialize methodologies and tools that allow you to identify gaps in the selected stations and design proposals of actions for the improvement of their competitiveness and integration into international markets. 15 were trained experts from institutions of the MINDUS and the Academy, along with numerous government officials of MINDUS, MEP, MINCEX who participated in the presentations of results and analysis of the proposals.
- Work is currently in the design of a system of industrial statistical information of Cuba and in the creation, institutionalization and implementation of an Intelligence Unit of Industrial Competitiveness (UICI), made up of multidisciplinary experts MINDUS, ONEI, other ministries and the Academy. This unit will be responsible for developing and/or coordinate additional studies on the Cuban industrial sector on the basis of the information system to generate statistical and other analysis of the sector; as well as other analysis tools necessary for decision-making.



Promotion of Industrial Competitiveness

No industry can be competitive, sustainable and economically viable if it is not updated regularly. The technological backwardness and the dispersal of existing facilities in Cuba affect the current performance of many of their industrial sectors. With the objective to transform that reality, the programmatic framework of the UNIDO Country works to foster industrial competitiveness in the country by implementing sustainable solutions in the short and medium-term measures to the substitution of imports and exports of goods and services. The intervention also seeks to promote the transfer of technology and energy efficiency, supporting the incorporation and use of renewable energy sources in the national territory.

Project: Technological and Enterprise Upgrading Programme focused on agro-chemical and agriculture machinery production sector (Industrial Upgrading and Modernization in Cuba).



Donor

Russian Federation (2 million US Dollars)



Partners

MINDUS, EMPREQUIN, KEDEMAH, MINAG



Beneficiaries

Companies, centers and cooperatives of the industrial sectors of fertilizers and agricultural machinery and, indirectly, end consumers.

The Cuban agricultural sector has faced a number of challenges that threaten food security. Food production has remained below the national consumption requirements and, consequently, the demand is met by imports. In recent years, production has also been affected by the growing flow of tourists that translates into a greater demand for quality food. Consequently, in order to produce more food, it is necessary to develop and modernize the production of fertilizers in Cuba - also with a high dependence on imports - and agricultural machinery.

Framed in the Industrial Upgrade and Modernization Program of UNIDO, this project aims to improve food security through the updating and modernization of the industrial sectors of fertilizers and agricultural machinery.

The initiative, implemented by the Ministry of Industries with the support of UNIDO, includes three key outputs. The first is the sectoral analysis and de-



To produce more food, it is necessary to develop and modernize the production of fertilizers in Cuba



velopment of a strategic action plan to develop the subsectors or lines of industrial products from fertilizers and agricultural machinery on the basis of the existing needs for food and agricultural development.

The second output is directed to the business diagnostic and industrial upgrading of selected pilot companies that operate in existing industrial centers, sub-sectors or product lines of fertilizers and agricultural machinery, identified as a priority by the technological modernization, the optimization of the processes and the improvement of the performance and business competitiveness.

Last but not least, the establishment and strengthening of human and technical capacities of institutions and experts from the national counterpart to offer business diagnostics in the interests of industrial modernization, the development of sectoral analysis and the promotion of competitiveness, as well as the promotion of best practices and services relating to the sectors of fertilizers and agricultural machinery.



Results achieved:

- One of the results achieved by the project has been the development and publication of the sectoral strategy for business and technological update of agrochemicals and agricultural machinery. This is a niche strategy to promote the development and implementation of “systems of production and application of liquid fertilizer in Cuba”, addressed to:
 - Respond to the demands of the food market.
 - A pragmatic and quick conversion of the opportunities presented in a realistic implementation, based on the available knowledge.
 - The substitution of imports and the costs associated with fertilizers produced in the country, based on locally available raw materials.
 - The opportunity to promote exports in the future, potentially working with a partner.
- This sectoral strategy has established a road map for the implementation of the investment of the calcium nitrate and CBFERT as liquid fertilizer.
- The development of capacities has been considered as a cross-cutting issue during the implementation of the project on the basis of the experiences, in particular, considering the technical demands and project management. Since the formulation of the sectoral strategy, the project team work together with specialists from the Plant Calcium Nitrate Company of Fertilizers and Pesticides (EMPREGUIN) Nuevitas in Camagüey, of the Center for the Development of Agricultural Machinery (CEDEMA) of the Ministry of Industries and specialists from the Ministry of Agriculture, they have increased their knowledge and expertise in the production and distribution of liquid fertilizer. Close to 15 specialists and experts have been trained, 3 of them are women.
- We have begun a process of investment for the modernization and improvement of the plant for the production of calcium nitrate of Nuevitas in Camagüey. Now we are working in the design of equipment for application of liquid fertilizer by the CEDEMA for further development and improving marketing, for an appropriate distribution of liquid fertilizers, specifically calcium nitrate and CBFERT..



Development and publication of the sectoral strategy for business and technological update of agrochemicals and agricultural machinery.

Project: Strengthening the Competitiveness, Organizational Performance and Export Capacity of the Cuban Music Industry

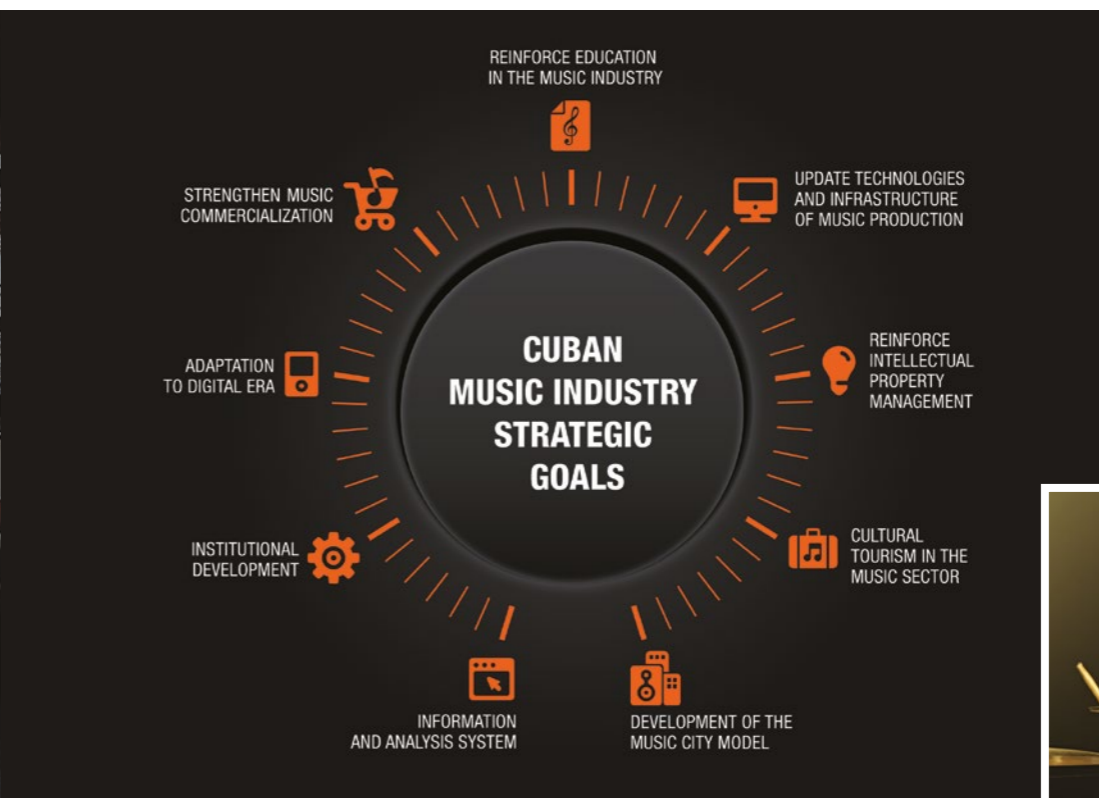
- \$ **Donor**
KOICA (1.3 million US dollars)

- ⚙️ **Partners**
MINCULT, ICM, Abdala, BISMUSIC, Hummingbird, EGREM, ACDAM, CENDA, CIDMUC, CUBARTE, ARTEX, CREART

- ★ **Beneficiaries**
Artists and specialists of the sector, record companies, research centers, copyright societies, distributors, among others.

and economic diversification in Cuba. The initiative promotes the music industry as a path to sustainable and inclusive development. The project aim is to implement a demonstrative case in order to increase the competitiveness of the industry, promote the business management and increase the value of exports of Cuban music through the improvement in the coordination, articulation and synergies between all links in the chain value the music industry, technological upgrading and promotion of partnerships and alliances; as well as the development of marketing and distribution strategies.

To achieve this goal, the project focuses on three key outputs. The first aimed at strengthening the economic organization of the value chain through the design of a strategy for the development of the music industry based on integrated diagnostics. To this end, it has supported the MINCULT and institutions of culture in the development of new business models, training of managers, professionals, musicians, as well as promoting property rights.



In the current scenario of the industrial economy, cultural production is a relevant sector of GDP at the global level and it is estimated that their contribution to this has reached 3% in recent years. The expansion of trade and the growth of digital streaming services are some of the main trends that today characterize this market. Contrary to this trend, in Cuba, only 6% of music is sold in digital format. Technological obsolescence, limitations on the internet or the economic blockade are some of the main barriers that facilitate this behavior. You need a strategy to suit the online digital trade and promote streaming services and subscription, as well as live shows and festivals, in order to increase the added value generated by the Cuban music and its greater access to international markets.

In this context, UNIDO and the Ministry of Culture develop this project in order to strengthen the music industry as a means of generating employment

The second area of intervention is focused on creating new technical capabilities for the production of music, through the introduction of new equipment in the recording studios and to facilitate access to the same training and exchanges with specialist. This technology and knowledge acquired as part of the project will enable the MINCULT a great part of the musical material not published, currently in obsolete formats.

The third output is directed to adopt innovative strategies for the marketing and distribution of music, supporting Cuban musicians with exchange of experiences and the distributors with best practices for increased sales. It also seeks to develop a brand strategy and marketing for Cuban music as well as a digital platform for the distribution of Cuban music online.

Supporting Cuban musicians with training and exchange of experiences.

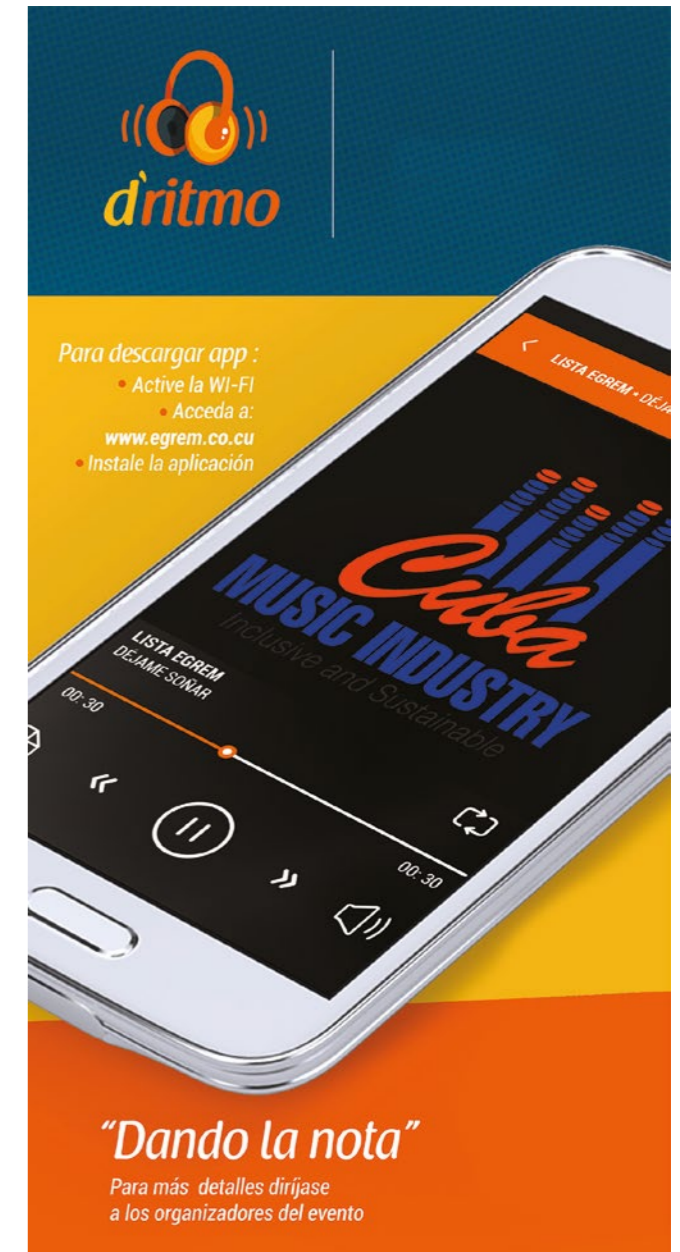
Results achieved:

- There have been seven training workshops and technical consultancies to 10 companies, in which they have been trained 335 specialists and managers of 6 provinces of the country, of which 54.9% are women and 21.8 % young people.
- It was developed and published a Development Strategy for the Cuban Music Industry, based on the research and projected from an integral vision of value chain. This strategy has been used for the discussion of cultural policy in the major areas of decisions of the country. In addition, it works on a System of Information and Analysis for the diagnosis and decision-making in the sector in the music industry that will be used as input for the update of the Strategy and the Program of Development of the music of the Cuban Music Institute (ICM).
- It has created a multidisciplinary team in an integrated works in the strategic projection of the Cuban music industry, led by the MINCULT and



the ICM and integrated by the record companies, research centers, institutions of copyright, among other actors were representatives of the industry. This space allows for integrated planning and decision-making of the value chain of the Cuban music industry.

- They have acquired new technologies for the modernization of the recording studios with the aim to increase the level of domestic production and to achieve global standards for the production of digital music. In this same line, they have been projected technical training workshops for the use of the new equipment and the development of applications or software intended for the promotion and marketing of Cuban music.
- In addition, an official mission to Korea was held with the main partners of the project, which allowed to create opportunities for exchange with Korean counterparts institutions as well as participation in one of the major music festivals MU:CON. The visit to the platform, Changdong 61 provided various elements to take advantage of the potential of music in local development.
- International festivals have been supported Cuban, how are the Cubadisco and Primera Linea, with the aim of fostering the commercialization of Cuban music in national and international markets. It also has encouraged the participation of musicians and Cuban specialists at international events.
- It works in the design and implementation of a brand strategy and marketing of Cuban music that allows increasing the competitiveness of the music and inserted into international markets with equitable benefits for all actors in the chain.
- There has been agreement to use the single application of existing discharge, belonging to the EGREM Studios, and extend it to the rest of the Cuban record labels as part of the platform for the distribution of digital music. In addition, progress is being made in the design of a business model for this platform.
- It works with national and local authorities, in the proposal for a plan of action for the development of the model of musical cities in Santiago de Cuba, in order to take advantage of the potential of local development that generates the music industry.



Extend of d'ritmo App to the rest of the Cuban record labels as part of the platform for the distribution of digital music.

Project: Improving productivity and competitiveness of fishery value chains in LAC region

Donor
 OFID (265.000 US DOLLARS) and the Trust Fund of UNIDO for LAC (433.000 Euros)

Counterpart in Cuba
 GEIA

Beneficiaries
 Workers in the industry, farms, as well as other actors in the sector of the fishery.



To increase the productivity and efficiency in the production and processing of shrimp.

The shrimp is one of the main commodities in world trade of fish and fishery products, representing 10.2% of the total value. Given the abundant supplies that currently exist, the shrimp farming has been transformed from a product of elite, a product of wide consumption, in which gravitates to the economic circumstances, especially the price factor, making it is very sensitive and vulnerable.

In Cuba, shrimp farming is one of the exportable items and therefore the country works on a strategy to increase production with quality and export. To achieve this result, UNIDO implemented this project with a regional scope, financed by the OPEC Fund for International Development (OFID) and has as their national counterpart, the Business Group of the Food Industry (GEIA) of the Ministry of Food Industry. The objective of the initiative is to improve the competitiveness and income generated and regional integration in the sector of the shrimp culture industry.

More specifically, the project seeks to strengthen the articulation of the actors in the different segments of the shrimp value chains in Cuba, Dominican Republic, Ecuador, Mexico, Nicaragua and Colombia; to support devel-

oping countries in the exploration of new strategies to ensure the sustainable and inclusive industrial development; to establish the exchange of knowledge and technologies for the cultivation, processing and marketing of shrimp; to improve the income of all the actors involved; and finally, to promote regional integration.

In the case of Cuba, as well as working on improving regional coordination by National Committees and regional collaboration, technical activities in the country have been directed to increase the productivity and efficiency in the production and processing of shrimp.

Results achieved by Cuba:

- During the implementation of the project was created in the National Technical Committee for the development of the chain of the Shrimp Culture Industry in Cuba, which has been meeting regularly to share experiences and good practices, as well as address current issues and relevance to the sector as integrated management systems or disease management.
- 4 training workshops and exchange of semi-intensive, intensive and super-intensive shrimp farming in Cuban shrimp farms, where there was a large presence of international experts on culture were performed. In total 197 people were trained between managers, technicians and workers, 86 men and 51 women.
- There was an increase in the productivity and efficiency of the production and processing of shrimp in a 25 %, which was higher than the planned in the project (20%). In this sense, the Company for Shrimp Culture (EC-CAM) belonging to the GEIA has overfulfilled the capture plan in 224.8 tons of shrimp, making harvest for the first time since shrimp is grown in Cuba, 1.325 tons in the first quarter of the year. Giving continuity to the productive results achieved in the year 2017 where production record was implanted with 5,589t.
- The project technology and laboratory introduced for the first time in the automatic feeders country solar for shrimp feed, equipment which not only contributes to increased production and performance but also prevents the use of fossil fuels impacts were acquired positive for the environment. In the pilot test in the shrimp farm Guajaca, yields increased per hectare in intensive culture over 7.500 kg of shrimp per hectare.





Investment Promotion

Productive activities in the Cuban industrial sector have had a positive impact on job creation, generating export earnings and import substitution and generally in the competitiveness of domestic industry. The technological upgrading through direct investment supports this transformation of the existing industry in the country.

The Programmatic Framework of Country of UNIDO aims to help realize investment projects in Cuba and implement programs and actions aimed at promoting business opportunities, as well as other activities that are part of the interest to domestic and foreign investors that are in line with the priority sectors.

In this way, the UNIDO contributes to the goals of the SDG 9, particularly the development of reliable infrastructure, sustainable, resilient and quality, including regional and cross-border infrastructures, to support economic development and human welfare, with special emphasis on affordable and equitable access for all.



As part of the program, we have developed three business forums in the Cuban capital with satisfactory results.

1 Cuba Business Forum - Slovakia (December 5th to 8th , 2016), organized by UNIDO with the support of the Chamber of Commerce of the Republic of Cuba (CCRC), the MINCEX, MINDUS and the National Institute of Hydraulic Resources (INRH). The event was attended by 43 specialists from various Cuban companies and representatives of five Slovak companies linked to the sectors of packaging; water (treatment of clean water and wastewater); and management of municipal solid waste (MSW); as well as the representation of the Slovak Investment and Trade Development Agency.

The forum helped to strengthen the bilateral dialogue and the creation of networks between the two countries. As a result of the event, a Memorandum of Understanding was signed between the Chamber of Commerce of the Republic of Cuba and the Slovak Agency for Trade and Investment, which will allow for a better use of opportunities for investment and export promotion, as well as the exchange of information of markets in both countries, their priorities, legal, technological and forms of financing.



2 Business Forum of Cuba - Germany (May 15th and 16th 2017), attended by 51 specialists from 22 Cuban companies, three of the Chamber of Commerce of Cuba, three staff members from MINCEX and five from UNIDO. By the German delegation, they were attended by 19 specialists from 15 companies related to the renewable energy, agro-industry, biomedicine and pharmaceutical industries.

As a result, common materialize interests between the Electronics Business Group (GELECT) of MINDUS and the German company ECO MONDIA Green Technology GmbH for the manufacture of photovoltaic modules in Cuba. This initiative will be implemented through the modernization and expansion of existing production capacity or building new plants. The German firm is also discussing with the Electric Union (UNE) MINEM two investment projects related to the construction of photovoltaic plants for electricity generation and stabilization of networks and the integration of renewable energies with decentralized storage batteries.



3 Business Forum of Cuba - Italy (From October 16th to 19th 2017), focused on biopharmaceutical and health, maritime and timber sectors. The Forum was attended by 37 representatives: 13 Cuban from maritime companies, pharmaceutical and construction. Also from Italy participated 11 representatives from different companies.

The entrepreneurs of the Region Friuli Venezia Giulia, negotiations are continuing to invest in the maritime sector. There is an installed capacity of ship repair in more than 40 installations of shipbuilding and dry docks throughout the country, although they must be modernized, it is an important starting point for taking advantage of existing opportunities for this service. This is complemented by the existence of the International Classification of quality "Cuban Registry of Ships", which it has more than thirty years of experience in this sector. Moreover, as a result of the exchange maintained by Italian Government will support the Cuban Government through the strengthening of capacities for the investment promotion and technology transfer



**THE WAY
FORWARD**





As part of the fund mobilization strategy reflected in the Country Programmatic Framework, work is in progress for finding potential funding for initiatives planned in line with national priorities and intervention areas of UNIDO in Cuba. They have been prioritized strategic sectors to provide stakeholders with technical expertise and management tools taxing to inclusive and sustainable economic and industrial development.

Renewable sources of energy and the efficient use of energy

One of the problems Cuba currently faces is the high dependency of imported fossil fuels and that imposes the need for a greater use of Renewable Energy Sources, which today only represent 4.5% of the electricity production in the country.

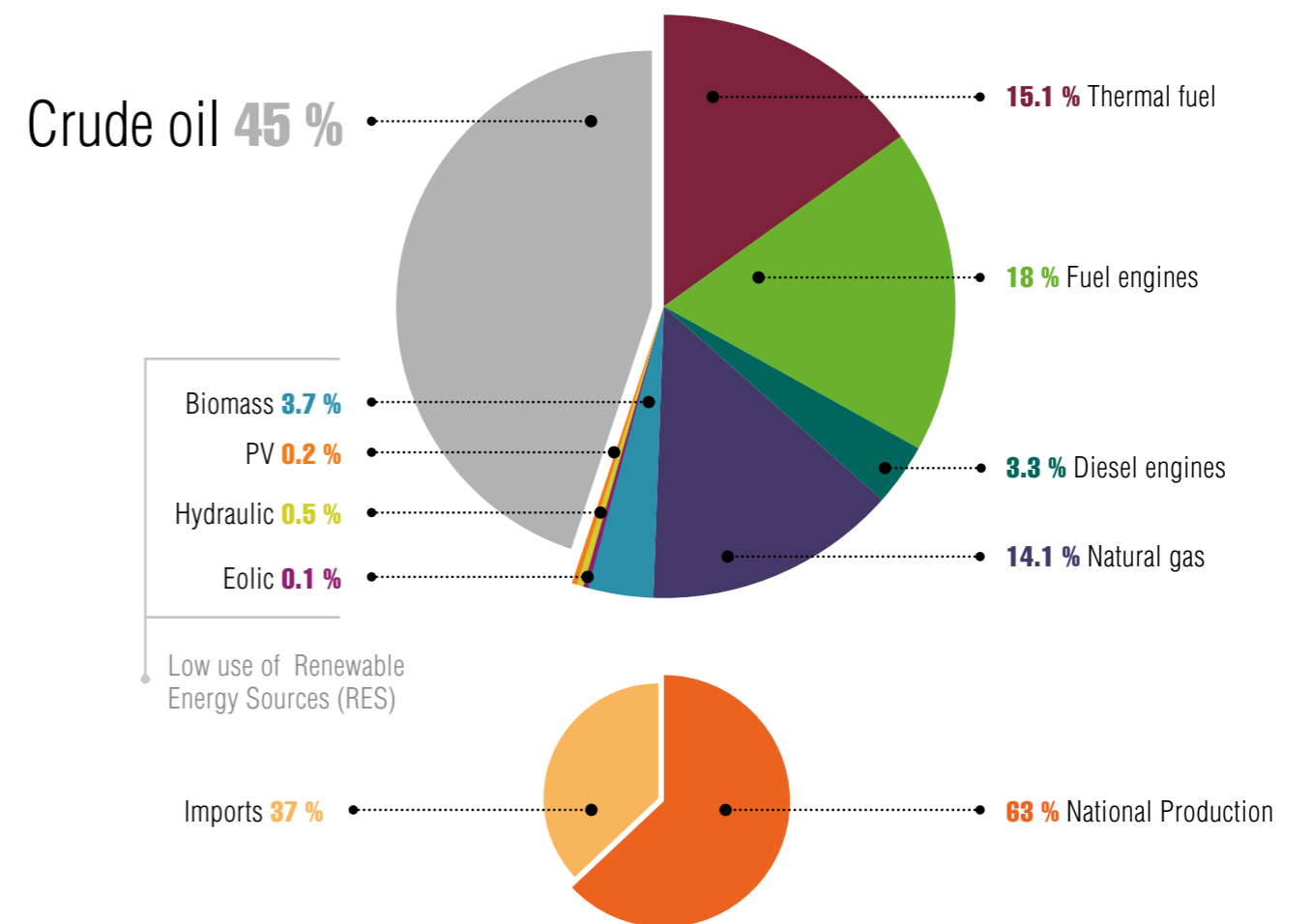


FIGURE 2 ELECTRIC GENERATION BY TYPE OF FUEL
Source: UNE



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As part of the transformation process experienced by Cuba, the government approved the “Policy for Perspective Development of Renewable Energy Sources (RES) and efficient use of energy for the period 2014 to 2030” on June 21st, 2014. One of the main objectives of this policy is to increase the share of RES in electricity generation to 24% in 2030. In order to support this objective, UNIDO and the electricity Union (UNE) of MINEM, work in two joint initiatives for fund mobilization.

The first proposal, entitled “Strengthening national capacities for the development of photovoltaic solar energy projects in Cuba”, has been submitted for approval to the GEF and aims to “reduce the emissions of Greenhouse Gases (GHGs) by improving the capacity, skills and knowledge to implement and sustain successfully investments of solar photovoltaic (PV) in Cuba”, to reach the 700 MW planned in power generation from solar photovoltaic panels.

The second initiative, “to support the Energy Policy of Cuba”, is part of the Cooperation Framework with the European Union (EU) and it is developed in conjunction with the United Nations Development Program (UNDP).

The proposal aims to:

- 1 Support the effective implementation of the “Policy for the prospect of development of renewable sources and the Efficient Use of Energy” and its regulatory framework;
- 2 Facilitate foreign investment in the sectors of Renewable Energy and Energy Efficiency, as well as access to international cooperation funds.
- 3 Support the implementation of the management Program and energy conservation, including efficiency energy.
- 4 Support local development, enhancing access of rural communities to renewable energies, while promoting efficient energy consumption.

In addition, the European Union has decided that UNIDO in coordination with the National Office of the Rational Use of Energy (ONURE, MINEM), contribute their expertise in the implementation of the Program of management and conservation of energy, including energy efficiency, as a sustainable development engine.

Investment promotion and capacity-building

As part of the support from UNIDO to Cuba in promoting investments and strategic partnerships for strengthening industrial capacities and competitiveness alliance, the project entitled “Support for the Cuban government through the strengthening of the capacities for the promotion of investment and technology transfer”. This project, funded by the Italian Government with a total of 500.000 euros, will aim:

- 1 Support to the Cuban government in the improvement of the abilities and capabilities of the different government experts involved in the implementation and support of investment projects in the country.
- 2 To promote the transfer of appropriate technologies in selected sectors, with emphasis on agro-industry, to support local development and job opportunities.



The Investment and Technology Promotion Office from UNIDO ITPO in Italy (for its acronym in English) will develop the capacity of entrepreneurs and local institutions by providing accurate and up-to-date inventors information and technical assistance. At the same time, the project will promote innovation and efficient technologies to increase local production and quality in some selected sectors, such as the agro-industry with focus on the sub-sector of packaging. One of the major outcomes of the project will be the improvement of local capacities of the National Center of containers and packaging to test different materials and packaging technologies, in order to meet with national and international standards.

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Food Industry

Next to the business Group Food Industry MINAL, UNIDO has formulated the initiative of the project “Promotion of innovation for sustainable and inclusive development of the shrimp value chain”.

This project will take as a basis the results achieved in the implementation of regional project “Improving the productivity and competitiveness of the value chains of fisheries in the region of Latin America and the Caribbean” and it will aim to improve the socio-economic benefits of actors involved in the value chain of shrimp farming in Cuba. In this way, you can increase the competitiveness of the sector and to expand their exports by controlling innovation in production and processing units in the provinces of Cienfuegos, Camagüey, Granma, Holguin and Manzanillo.



The project proposes an intervention strategy focused on three key areas:

- 1 Organizational and economic management, through which will improve the coordination of the value chain and the organizational and financial management of the production units will be improved.
- 2 Productivity, Efficiency, and marketing of production through the improved provision of inputs (pro-biotic), in productive infrastructure of the precias, by transferring new technologies.
- 3 Quality management systems and environmental programs to ensure compliance with the requirements of national and international legislation in the field of safety, quality and export standards required by the markets.



Sustainable Development of Industrial Parks

Cuba, in an effort to ensure the continuity of the economic development and raise the standard of living of population from updating their economic model, it has drawn lines of action to promote and increase the national industrial sector, while continuing to enhance the environmental care.

This is the case of the initiative “**Strengthening national capacities for the development of a Model of Sustainable Industrial Areas in Cuba**” developed between UNIDO and the Center of Metallurgical Investigations (ICEM). The project is highly consistent with the commitment and the strategies of Cuba to address industrial pollution and it has strong backing from the government.

The objectives are to support the development of policy, instruments that will allow the Government of Cuba to develop Sustainable Areas in Cuba; enable national institutions to improve industrial processes and technologies; as well as, increase productivity and reduce the use of water, materials and energy.

The project is to be implemented in the municipality of Cotorro, belonging to the country’s capital, Havana, and seated on the Almendares River Basin - Vento, which it supplies water to most of the capital population. Within the municipality there is a group of entities belonging to MINDUS, which play an important role in the economy of the country, either because to their productions metalworkers’ federation, tire and derivative, parts and motors vehicles, industrial gases; or because their residual solids, liquids and gases can affect or compromise the environment surrounding the territory.

UNIDO commitments in Cuba in the new scenario of the 2030 Agenda

The Members States of the United Nations recognizes the role played by their agencies to achieve the Millennium Sustainable Development and propose further integration of these objectives together with governments. To this end, the United Nations system is undergoing a reform process globally to meet 2030 Agenda, where countries will be the protagonist in the definition of intervention sector.

UNIDO in Cuba works, in conjunction with other system agencies, in order to achieve this integration and participates in the implementation of a joint work plan 2018 - 2019 and the formulation of the new UNDAF cycle 2020 -2024. Concentrated in incidence from their participation in the development of alternative energy sources; industrial diversification and openness to cultural and creative industries; the recovery and development of the industrial establishment; promote the innovation, technology transfer and investment promotion in productive sectors; the contribution to food and nutrition security; and the strengthening food production.

The new 2030 Agenda and the strategic projection of Cuba, provide an opportunity to UNIDO to continue facilitating South-South cooperation and implementing their mandate to promote Inclusive and Sustainable Industrial Development.



Abbreviations

CCRC: Chamber of Commerce of the Republic of Cuba

CIGB: Center for Genetic Engineering and Biotechnology

CITMA: Ministry of Science, Technology and the Environment

ECCAM: Company for Shrimp Culture

GEF: Global Environment Facility

GEIA: Corporate group in the Food Industry

ICM: Cuban Institute of Music

NIHR: National Institute of Hydraulic Resources

ISID: Sustainable Industrial Development and Inclusive

KOICA: Agency for International Collaboration of Korea

LAC: Latin America and the Caribbean

UNDAF: Framework of the United Nations Development Assistance

MEP: Ministry of Economy and Planning

MINAG: Ministry of Agriculture

MINAL: Ministry of Food Industry

MINCEX: Ministry of Foreign Trade and Foreign Investment

MINCULT: Ministry of Culture

MINDUS: Ministry of Industry

MINEM: Ministry of Energy and Mines

MOU: Memorandum of Understanding

CPF: Country Program Framework

SDG: Sustainable Development Goals

OFID: OPEC Fund for International Development

ONEI: National Office of Statistics and Information

UNIDO: Organization of the United Nations Industrial Development Organization

RSU: Solid Urban Waste

SARIO: Slovak Investment and Trade Development Agency

EU: European Union

UN: United Nations

UNE: Electrical connection



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