

## **Committee on Development and Intellectual Property (CDIP)**

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### **SUMMARY OF THE STUDY ON THE USE OF THE INTELLECTUAL PROPERTY SYSTEM IN CENTRAL AMERICA AND THE DOMINICAN REPUBLIC**

*prepared by the Secretariat*

1. The Annex to this document contains a summary of the study on the use of the intellectual property system in Central America and the Dominican Republic undertaken under the project on Intellectual Property and Socio Economic Development - Phase II (CDIP/14/7).
2. This study ([http://www.wipo.int/econ\\_stat/en/economics/studies/](http://www.wipo.int/econ_stat/en/economics/studies/)), originally in Spanish, has been prepared under the coordination of the WIPO Secretariat in collaboration with the governments of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic.
3. *The CDIP is invited to take note of the information contained in the Annex to the present document.*

[Annex follows]

## **USE OF THE INTELLECTUAL PROPERTY SYSTEM IN CENTRAL AMERICA AND THE DOMINICAN REPUBLIC**

In 2015, the Central American countries and the Dominican Republic requested the World Intellectual Property Organization (WIPO) to be part of the Project Intellectual Property and Socioeconomic Development – Phase II (CDIP/14/7) implemented under the Committee on Development and Intellectual Property (CDIP).

By way of background, governments in the region have for decades pursued policies seeking greater regional integration. These include the regional economic integration of trade flows of goods and services and, more recently, the joint negotiation of trade agreements with major trading partners. The region has also increased the integration and harmonization of intellectual property (IP) related matters, including the formulation of national IP strategies and the participation in international IP treaties. In this context, the ministers in charge of IP matters of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and the Dominican Republic declared in the Fourth Central American Ministerial Meeting on IP, their decision to support the initiation economic analysis work on the relationship between IP use and commercial flows in the regional economic area.

From July, 2015 to July, 2017, WIPO conducted a regional study in collaboration with the governments of the Central American countries and the Dominican Republic. This document summarizes the implementation and main outcomes of the study.

### **OBJECTIVES**

The study's main objective was to support evidence-based intellectual property (IP) policymaking in the Central American region. It attempted to answer two main questions:

1. What characterizes the use of the IP system in the region?
2. How does this use relate to patterns of international trade?

The empirical study was based on the development and analysis of a novel IP unit record database linked to available trade and other economic data from the region.

The study responded also to the specific technical demand for the development of economic and statistical tools to continuously monitor and assess the impact of IP, innovation and trade policies in general, and the recently formulated national IP strategies in particular.

### **COORDINATION AND EXECUTION**

The study implementation required coordination between government agencies in each of the seven countries in the region and WIPO. Within WIPO, the Economics and Statistics Division (ESD) was the technical focal point, supported by the Regional Bureau for Latin America and the Caribbean (LAC). The Central American countries and Dominican Republic were represented in Geneva by their Missions and in each country by their national IP offices.

## METHODOLOGICAL DESIGN

The implementation of the study was divided into three main components: (i) the creation of a comprehensive IP and trade database for statistical use; (ii) statistical analysis of the use of IP; and (iii) an empirical analysis of IP use and trade integration.

The three components were reviewed at several stages during study implementation. In particular, national officials from the Geneva missions and the national IP offices reviewed the study work on several occasions. Additionally, national focal points consulted other government agencies during the implementation of the study. Finally, a regional expert from the World Trade Organization (WTO) performed an external review of the final study report.

### Creation of IP and trade database for statistical use

In collaboration with the national focal points, WIPO-ESD developed the first IP database for statistical use in Central America and the Dominican Republic. The novel statistical database is a compilation of unit-record bibliographical information for patents, utility models, industrial designs, trademarks and copyright registrations.

It enables in-depth analysis of the use of IP in the region. The next two components describe two analyses performed with these new data. But the database can be used for future investigations and for continuously monitoring and assessing the impact of IP, innovation and trade policies, beyond the research work performed in the current study.

### Statistical analysis of the use of IP

WIPO-ESD drafted the first report on the use of IP in the Central American countries and the Dominican Republic. The main source for the analysis was the database specially created for the regional study.

The report relies on descriptive statistics to analyze the use of IP in the region. This approach follows the one used in similar publications such as the World Intellectual Property Indicators (WIPI) or the country studies Brazil and Chile from the first phase of the same CDIP project (CDIP/5/7).

### Assessment of IP use and trade integration

WIPO-ESD conducted the first analysis of the use of IP and trade flows in the region. The main source for the analysis was the database specially created for the regional study and international trade data from the UN COMTRADE database.

The methodology consisted of linking IP data from each country in the region to bilateral trade data using concordances of IP classifications to trade one. The consolidations of these two sources allowed the calculation of a set of key indicators on IP use and trade in the region. In particular, these indicators permitted the traceability of intra and extra regional IP and trade flows by industries over time.

## IMPLEMENTATION TIMELINE AND MAIN ACTIVITIES

The region's governments requested the country study in July 2015. Following a feasibility assessment and further consultations with the concerned governments, WIPO-ESD agreed to undertake the regional study.

The study work formally started in October 2015 in a kick-off meeting held in Geneva with representatives of the Geneva based missions and the national IP offices. The meeting served to discuss and agree upon the main milestones of the study.

Following the launch of the study, the main activities were to coordinate access to the IP data with each focal national point in the relevant government agencies, gather the trade data and conduct the empirical analysis. The study work's progress was jointly reviewed in a second meeting held in Geneva in October, 2016. The meeting served to review the methodology and preliminary results for the trade data. It was also instrumental to raise awareness about the importance of sharing missing IP data.

Following the mid-study review, the remaining activities consisted of coordinating access missing IP data, finalize the research work and draft the first full version of the study report. The draft study was presented in a workshop with representatives of all national IP offices held in April, 2017 in San Salvador, El Salvador; and, subsequently, in a meeting in Geneva with the representatives of the Geneva based missions. These meetings provided valuable feedback on the research work and helped improve the policy reach of its findings.

A final review meeting took place in June, 2017 in Geneva where the countries approved the presentation of the final study during the Fifth Central American Ministerial Meeting on IP, held in Panamá in July, 2017. An external expert of the WTO reviewed the final report.

## LESSONS LEARNED

The regional study was generally implemented according to the initial scope and timeline established during its design. However, there were challenges faced during its implementation from which lessons can be extracted for future studies. The challenges and takeaways are discussed along the study's three components.

During the creation of a comprehensive IP and trade database for statistical use, WIPO-ESD faced two main challenges. The first challenge concerns the detailed coverage of bilateral trade. Data coverage is fair for flows of traded goods, but data are significantly sparser for services trade flows. A second challenge concerns the different states of IP collections across national IP offices. The data structure and completeness varied, reflecting differences in procedures and infrastructure. National collections of trademarks showed greater harmony, followed by patents and then industrial designs and utility models. The most incompatible collections pertained to copyright registrations, for which less collections were obtained and the data structures differed the most. The differences in data structure slowed the processing and harmonization of the data, but in the end most technical obstacles could be resolved.

The difference in coverage and scope of the data also affected the other two components: the statistical analysis of the use of IP and the assessment of IP use and trade integration. Resulting challenges were mitigated by varying the level and scope of analysis in accordance to available data. However, any future study on the topic is likely to face the same difficulties.

Finally, another set of challenges materialized in the empirical assessment of IP use and trade integration. The concordance between IP collections and trade data had methodological differences across type of IP. Trademark data – based on the Nice classification – was more

easily linked to trade data, while patent and utility model data – based on the IPC classification – was less easily linked to such data. For industrial designs – based on the Locarno classification – and copyright registrations, no off-the-shelf concordances with trade data existed. For these IP forms, the relationship between IP use and trade could only be performed at the aggregate level.

## SUMMARY OF THE REGIONAL STUDY ECONOMIC AND STATISTICAL RESULTS<sup>1</sup>

Over the second half of the past century, Central American countries have made significant regulatory efforts to seek greater economic integration. The relevance of the regional market increased as a direct consequence of regional integration. The region represents the second largest import origin and export destination, only below the trade with the United States of America (USA).

The economies of the region have a relatively small size that urges them to integrate with the external market. The concentration of trade in a single trading partner implies a macroeconomic interdependence not without risks and asymmetries. The relative specialization in primary or low value added products exposes the economies of the region to the volatility of international prices.

Thus, public policies aimed at expanding the regional market, diversifying trading partners and increasing the technological content of trade should be a priority for the joint actions in the region. IP related policies that support free trade agreements, protect the intangible value of exported goods and services, and stimulate the technological transfer fall within these. It is important to analyze all forms of IP in order to assess all the economic activities and industries involved in the region's international trade.

### USE OF IP

The study explores in detail all forms of IP for which unit record data was available. Copyright data is also included in the study, but results are inconclusive due to less complete data coverage.

- (a) *Patents*: Foreigners have been the main users of patents seeking protection in the region (95%), particularly from USA origin (50%). The inventors of the region have made little use of the patent system. The few times they did, they have sought protection domestically or outside the region (mainly in the USA), but very little in other countries of the region.
- (b) *Utility Models*: Utility models have been an alternative for the region's inventors, who filed 61% of total utility model applications. But in 85% of the cases the protection remained domestic, with little regional and international use.
- (c) *Industrial Designs*: Foreigners have been the main users of industrial design protection in the region (81%). However, they have used it in a much lower volume than patents.

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<sup>1</sup> The full study can be found in [http://www.wipo.int/econ\\_stat/en/economics/studies](http://www.wipo.int/econ_stat/en/economics/studies)

(d) *Trademarks*: Trademark protection is the most broadly used form of IP in the region, where domestic use (42%) is at a similar level as the use by foreigners (51%). The USA is the main foreign origin of trademarks registered in the region (33%). The region (excluding domestic use) is the second most important foreign origin of trademarks registered in the region (12%). On the contrary, the region makes low use of trademark protection in the USA (<2%). From the trademarks originating from the region the ratio of those that seek protection in the USA to those that seek protection in the region (excluding domestic ones) is 1 to 9 (or <10%).

## TRADE AND IP

The growing participation of the region in the international trade corresponds with an increase in the use of trademark, patent and industrial design protection by nationals and foreigners. However, industrialized countries – particularly the USA – have increased their use of IP much faster than countries in the region, particularly for patents and industrial designs.

The region's total volume of regional trade and the specialization in goods with higher added value contrast with the little use of patent and industrial design protection within the region. As utility models are used mainly domestically, they do not seem to have been effective for the commercial strategies of foreigners, including those within the region.

On the contrary, the use of trademarks in the region has evolved similarly to trend in international trade. An increase in trade correlates with a proportional increase in the use of trademarks in the region. The link between the use of trademarks and trade within the region is even more pronounced than the link observed for the imports from outside of the region.

## CONCLUDING REMARKS

The analysis of the use of IP and trade shows that there is potential in the region for the design of policies that stimulate a better use of the IP system in support of commercial strategies.

Each IP instrument has been used by different trade partners in a very different way and intensity. Why the region makes little use of patents and designs to protect innovation and how the region can leverage the use of trademarks to deepen commercial ties within in the region are relevant questions to be addressed in the future.

However, it is important to keep in mind that IP is only one of many tools in the policy-maker's toolbox. In particular, the design of IP policies must be consistent with the design of innovation, competitiveness and trade promotion policies.

[End of Annex and of document]