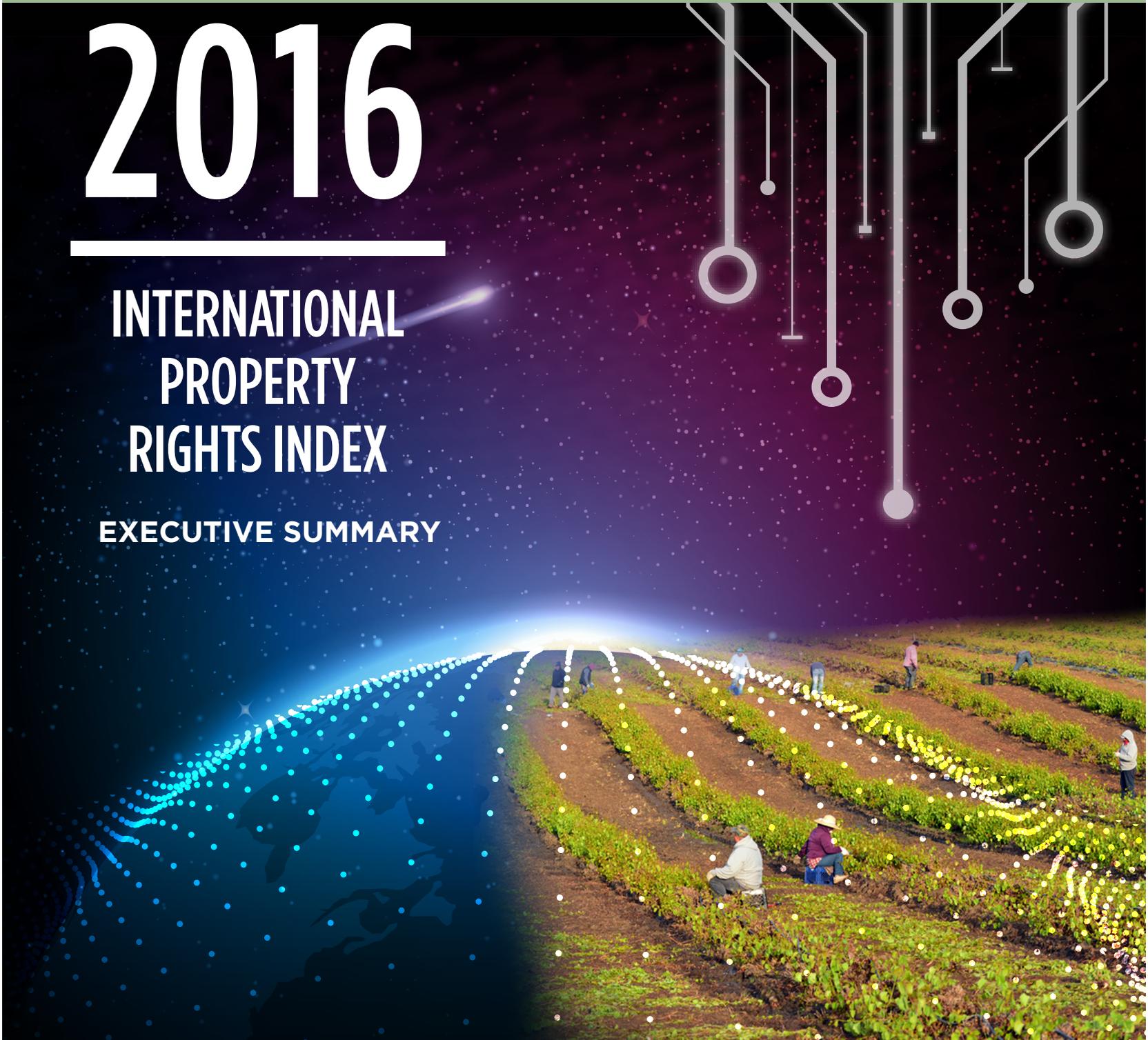


COVERING 98 PERCENT OF THE WORLD GROSS DOMESTIC PRODUCT AND 93 PERCENT OF THE WORLD POPULATION

2016

INTERNATIONAL PROPERTY RIGHTS INDEX

EXECUTIVE SUMMARY



A Project of
the Property
Rights Alliance

STUDY BY

DR. SARY LEVY-CARCIENTE

2016 Hernando de Soto Fellow

*With Contributions by: Dr. Elena Panaritis,
Jorge Constantino Colindres, Matt Regan,
Guillermo Peña Panting, Philip Stevens, Mahmoud Farouk,
Adel Elhemaily, Hizkia Respatiadi, Dr. Maszlee Malik*

2016 IPRI PARTNER ORGANIZATIONS



Afghanistan's Economic and Legal Studies Organization (AELSO), *Afghanistan* · Foundation for Economic Freedom, *Albania* · Fundación Atlas 1853, *Argentina* · Fundación Bases, *Argentina* · Fundación Libertad y Progreso, *Argentina* · Fundación Libertad, *Argentina* · Institute for Public Affairs, *Australia* · Mannkall Economic Education Foundation, *Australia* · My Choice, *Australia* · Austrian Economics Center, *Austria* · F.A. v. Hayek Institute, *Austria* · The Nassau Institute, *Bahamas* · CPA, *Bosnia and Herzegovina* · Multi, *Bosnia and Herzegovina* · Populi, *Bolivia* · Instituto Libertade, *Brazil* · Institute for Market Economics, *Bulgaria* · Centre Des Affaires Humaines (CEDAH), *Burkina Faso* · Frontier Centre for Public Policy, *Canada* · Fundación para el Progreso, *Chile* · Libertad y Desarrollo, *Chile* · Cathay Institute of Public Affairs, *China* · Unirule Institute of Economics, *China* · Instituto de Ciencia Política, *Colombia* · Asociación de Consumidores Libres, *Costa Rica* · IDEAS, *Costa Rica* · Centre de Analisis para Políticas Públicas (CAPP), *Dominican Republic* · Instituto Ecuatoriano de Economía Política, *Ecuador* · The Egyptian Center for Public Policy Studies, *Egypt* · Institute for Economic Studies Europe (IES), *France* · New Economic School, *Georgia* · Friedrich Naumann Foundation, *Germany* · Institute for Free Enterprise, *Germany* · IMANI Center for Policy and Education, *Ghana* · Greek Liberties Monitor (GLM), *Greece* · Thought 4 Action, *Greece* · CIEN, *Guatemala* · Fundación Eléutera, *Honduras* · The Lion Rock Institute, *Hong Kong* · Centre for Civil Society, *India* · Centre for Policy Research, *India* · Liberty Institute, *India* · India Institute, *India* · Center for Indonesian Policy Studies, *Indonesia* · Iraq Institute for Economic Reform, *Iraq* · Hibernia Forum, *Ireland* · Jerusalem Institute for Market Studies, *Israel* · Competere, *Italy* · Fondazione Luigi Einaudi, *Italy* · Think-in, *Italy* · Istituto Bruno Leoni, *Italy* · Institute for Development and Economic Affairs (IDEA), *Kazakhstan* · Center for Free Enterprise, *Korea* · Bishkek Business Club, *Kyrgyz Republic* · Central Asian Free Market Institute, *Kyrgyz Republic* · Lebanese Institute for Market Studies, *Lebanon* · OHRID Institute for Economic Strategies and International Affairs, *Macedonia* · Institute for Democracy and Economic Affairs (IDEAS), *Malaysia* · Southeast Asia Network for Development (SEANET), *Malaysia/ASEAN* · Center of Research and Development (CIDAC), *Mexico* · Instituto de Pensamiento Estratégico Ágora A.C. (IPEA), *Mexico* · Fundación Idea, *Mexico* · EBI Think Tank Institute, *Mongolia* · Center for Entrepreneurship and Economic Development (CEED), *Montenegro* · The Arab Center for Scientific Research and Humane Studies, *Morocco* · Samridhhi Foundation, *Nepal* · New Zealand Taxpayers' Union, *New Zealand* · Initiative for Public Policy Analysis, *Nigeria* · Civita, *Norway* · International Research Foundation (IRF), *Oman* · Alternate Solutions Institute, *Pakistan* · Policy Research Institute of Market Economy (PRIME), *Pakistan* · Pal-Think for Strategic Studies, *Palestinian Territories* · Fundación Libertad, *Panama* · Contribuyentes por Respeto, *Peru* · Institute for Liberty and Democracy, *Peru* · Instituto de Libre Empresa, *Peru* · Foundation for Economic Freedom, *Philippines* · Minimal Government Thinkers, Inc., *Philippines* · Ludwig von Mises Institute, *Poland* · Forum Obywatelskiego Rozwoju, (FOR) *Poland* · Polish-American Foundation for Economic Research and Education, *Poland* · Warsaw Enterprise Institute, *Poland* · Center for Institutional Analysis and Development (CADI), *Romania* · Libek, *Serbia* · F. A. Hayek Foundation, *Slovakia* · The Free Market Foundation, *South Africa* · Civismo, *Spain* · Advocata Institute, *Sri Lanka* · Timbro, *Sweden* · World Taxpayers Associations (WTA), *Sweden* · Liberales Institute, *Switzerland* · Institute of Future Studies for Development (IFD), *Thailand* · Association for Liberal Thinking, *Turkey* · Freedom Research Association, *Turkey* · Bow Group, *UK* · Geneva Network, *UK* · Institute for Economic Affairs, *UK* · Ukrainian Economic Freedoms Foundation, *Ukraine* · Property Rights Alliance, *USA* · Acton Institute, *USA* · Center for the Dissemination of Economic Knowledge (CEDICE), *Venezuela* · Zambia Institute for Public Policy Analysis (ZIPPA), *Zambia*

FOR MORE INFORMATION, OR TO BE PART OF THE PARTNER ORGANIZATIONS, PLEASE CONTACT LORENZO MONTANARI, EXECUTIVE DIRECTOR OF THE PROPERTY RIGHTS ALLIANCE AT LMONTANARI@PROPERTYRIGHTSALLIANCE.ORG

IPRI 2016 - EXECUTIVE SUMMARY

The International Property Rights Index (IPRI) is the flagship publication of the Property Rights Alliance (PRA). PRA, based in Washington, D.C., is dedicated to promoting property rights around the world. In this year's production of the IPRI, PRA worked to compile data for this index with 102 think tanks and policy organizations in 70 countries involved in research, policy development, education and promotion of property rights in their countries. The 2016 edition of the IPRI examines 128 countries.

The importance of property rights is related to the values and principles of individual liberty, and enforcing a strong property rights system is a key element in fostering economic growth. Property rights are the linchpin of prosperity for societies.

In 2007, PRA instituted the Hernando de Soto fellowship for the purpose of developing the International Property Rights Index. Since then, the yearly IPRI has served as a barometer of the status of property rights, ranking the strength of the protection of both physical and intellectual property rights in countries around the world. The IPRI is derived from 10 factors, grouped under three components: Legal and Political Environment (LP), Physical Property Rights (PPR), and Intellectual Property Rights (IPR).

The scope of this 2016 edition covers 98.26 percent of the world Gross Domestic Product and 92.92 percent of the world population.

I. RESULTS

The 2016 IPRI ranks a total of 128 countries from around the world (Fig. 1). The selection of countries was determined solely by the availability of sufficient data.

On average, the complete sample of 128 countries yielded this year an IPRI score of 5.45, the Legal and Political Environment (LP) being the weakest component with a score of 5.13, followed by the Intellectual Property Rights (IPR) component with a score of 5.33 and Physical Property Rights (PPR) as the strongest component with a score of 5.87. This year we found an overall improvement of IPRI scores (in averages, maximum, and minimum levels).

Finland remains in first place in the 2016 IPRI (8.38), followed by New Zealand (8.27), Luxemburg (8.26), Norway (8.25) and Switzerland (8.16). New Zealand shows the highest LP score (9.01), followed by Finland (8.87) and Norway (8.75); while Qatar (8.21), Singapore (8.16) and Norway head the PPR scores, and USA (8.63), Japan (8.62) and Finland (8.59) the IPR ones. Most of the top countries had a high LP score as the strongest IPRI component (though not the case for the U.K. or the U.S.) while the PPR score was less determinative. Top countries' positions vary only slightly from the previous IPRI edition, but the group of countries remains the same and their scores differ slightly from the prior edition (Fig. 2)

At the bottom is the Bolivarian Republic of Venezuela (2.73) followed by Myanmar (2.76), Bangladesh (2.77), Haiti (2.84), Zimbabwe (3.40), Burundi (3.44), Nigeria (3.56), Pakistan (3.68), Moldova (3.72), Mauritania (3.73), Chad (3.74), Lebanon (3.83), Madagascar (3.84), Ukraine (3.93) and Nicaragua (3.98). Most of the bottom ranking countries have a stronger PPR component (with the exception of Haiti and Bangladesh), while the weakest component is LP. This situation is just the opposite of that of the top ranking countries and seems to hint at the ability of LP to pull the rest of the components in an advantageous direction.

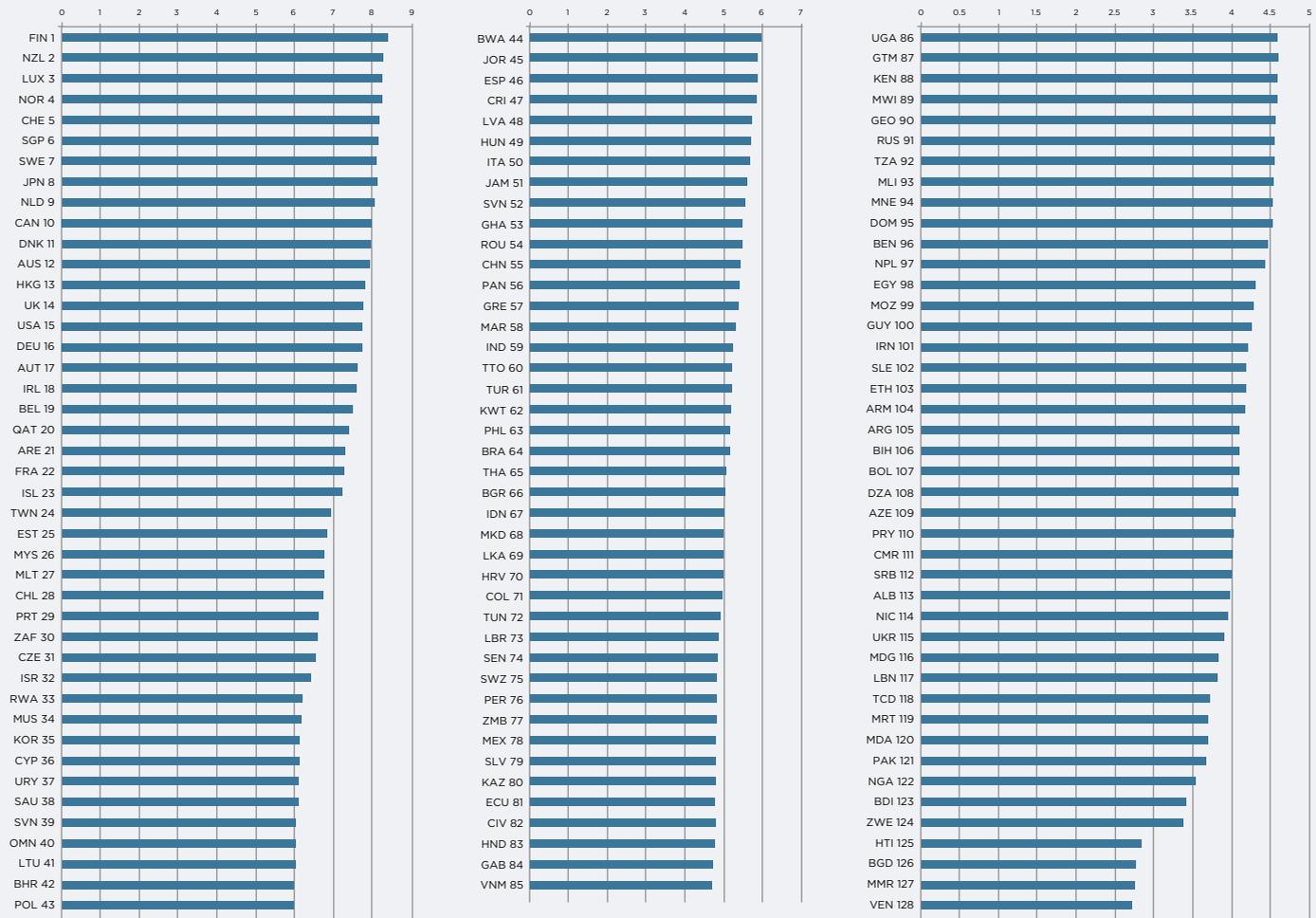


FIGURE 1 - IPRI 2016: SCORES AND RANKINGS

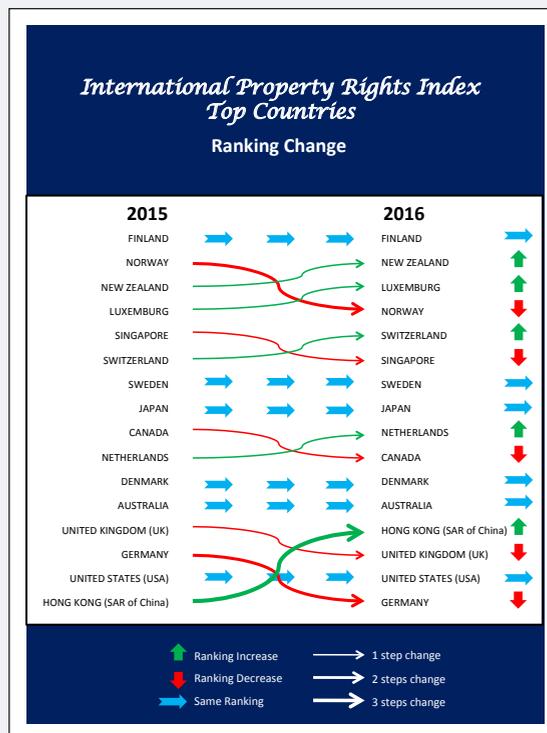


FIGURE 2 - RANKING CHANGE 2015-2016, TOP COUNTRIES.

II. GROUP RESULTS

In addition, countries were grouped according to sets of criteria (geographical regions, income levels, degree of development, and participation in economics and regional integration agreements), with these resulting groups themselves being evaluated.

All the regions improved their scores compared to those of 2015. North America and Western Europe maintain the top positions with scores of 7.88 and 7.36 respectively, while the highest improvements occurred in the Middle East, North Africa and Pakistan group, with that group rising 0.341 (7%) to 5.32 in its cumulative IPRI score.

The IPRI also evaluated the groups established by the World Bank criteria according to countries' income. The Low Income group scores lowest

(4.275), followed by Lower Middle Income (4.393) Upper Middle Income (4.981) and High Income (6.704), scoring highest.

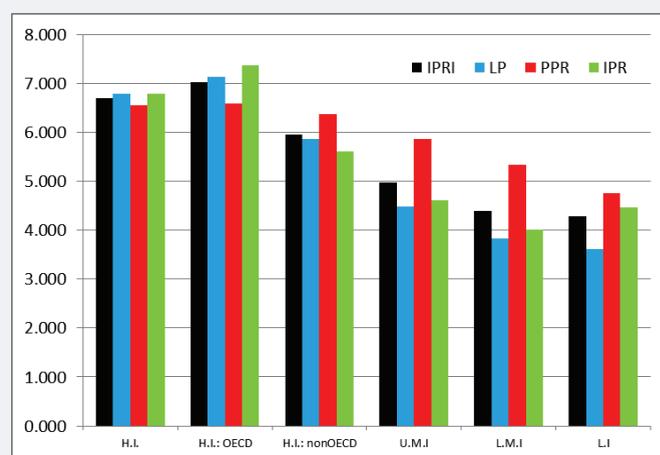


FIGURE 3 - IPRI 2016 AND COMPONENTS. INCOME GROUPS SCORE

III. IPRI-POPULATION

While the 2016 IPRI average score is 5.45, when weighted by population it drops to 5.28 (Table 1). Although, this is still higher than the 2015 score of 5.17 by two percent. The entire sample of 128 countries has a total population of 6.83 billion (thousand million). Sixty-three percent live in 44 countries with an IPRI between 4.5 and 5.4. Nineteen percent of the population enjoys higher levels of property rights protections in 53 other countries (5.5-8.4). Though this represents an improvement from previous years, there is still much room to upgrade property rights systems in the most populated countries.

TABLE 1: IPRI AND POPULATION

| IPRI 2015 (Score Ranges) | Number of Countries | Population (millions) | Population (%) | IPRI Incidence in Total Score (%) | IPRI Population Incidence in Total Score (%) |
|--------------------------|---------------------|-----------------------|----------------|-----------------------------------|--|
| 2.5 - 3.4 | 6 | 283,493.62 | 4.15 | 2.575 | 2.226 |
| 3.5 - 4.4 | 25 | 931,619.97 | 13.64 | 14.420 | 10.176 |
| 4.5 - 5.4 | 44 | 4,316,612.40 | 63.21 | 30.771 | 61.745 |
| 5.5 - 6.4 | 22 | 324,842.36 | 4.76 | 18.671 | 5.302 |
| 6.5 - 7.4 | 12 | 224,695.11 | 3.29 | 11.876 | 4.290 |
| 7.5 - 8.4 | 19 | 747,566.49 | 10.95 | 21.686 | 16.260 |
| | 128 | 6,828,829.95 | 100 | 100 | 100 |

IV. IPRI-GENDER

The Gender Equality (GE) score measures the equality of rights, responsibilities and opportunities for women and men. Being an issue of basic human rights and social justice, fostering gender equality is a goal in itself. Simultaneously, it has been demonstrated that gender equality has relevance to the fostering of development, being especially evident in areas such as health, education, agriculture and equitable access to credit.

We calculated the GE score on a scale from 1 to 10, using five indicators: women’s access to land, women’s access to credit, women’s access to property other than land, inheritance practices and women’s social rights. This measure allowed us to extend the standard IPRI index, giving rise to the IPRI-GE, on a scale from 0 to 12.

The IPRI-GE was determined for 124 of the 128 countries included in the IPRI-2016 (there was no available information for Guyana, Malta, Montenegro or Taiwan). On average, these 124 countries have a GE of 7.47 (out of 10) and an IPRI-GE of 6.93 (out of 12). This represents an improvement from 2015, when these countries averaged a GE of 7.39 (out of 10) and an IPRI-GE of 6.76 (out of 12).

Finland tops the IPRI-GE (10.371/12), followed by New Zealand (10.261/12), Luxemburg (10.256/12), Norway (10.248/12), Sweden (10.001/12), Japan (10.082/12), Switzerland (10.051/12), The Netherlands (10.022/12) and Canada (10.009/12). This group scored quite similarly, each over 10. On the other extreme of the IPRI-GE we find Bangladesh (3.565/12), Myanmar (3.693/12), Nigeria (4.186/12), Haiti (4.409/12), Chad (4.48/12) Mauritania (4.501/12), Burundi (4.64/12), Pakistan (4.683/12) and Lebanon (4.7/125).

The top three geographical groups ranked by IPRI-GE (Fig. 4) are Oceania, North America, and the European Union, while at the bottom we find Africa and the MENA countries. In this bottom group, the GE component is particularly low, pushing down the IPRI-GE score. Just the opposite is the case in Latin America, the Caribbean, and part of Europe, where high GE scores pull up the IPRI-GE. Looking at income classification (Fig. 5), the GE and the IPRI-GE follow the same pattern as the IPRI. At the top we find the high income OECD countries (GE of 9.63, IPRI-GE of 8.95/12), followed by high income non-OECD (GE of 7.36, IPRI-GE of 7.58/12), Upper Middle Income (GE of 6.45, IPRI-GE of 7.25/12), Low Middle Income (GE of 5.58, IPRI-GE of 5.93/12) and Low Income countries (GE=5.44, IPRI-GE=5.82/12).

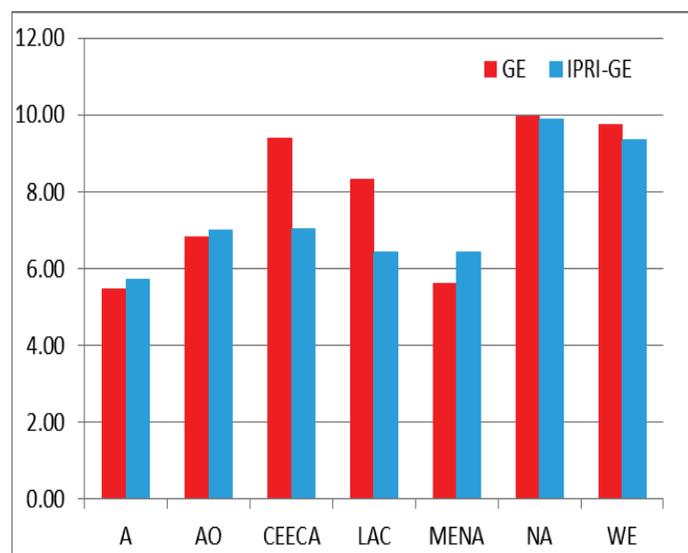


FIGURE 4
IPRI-GE. GEOGRAPHICAL REGIONS

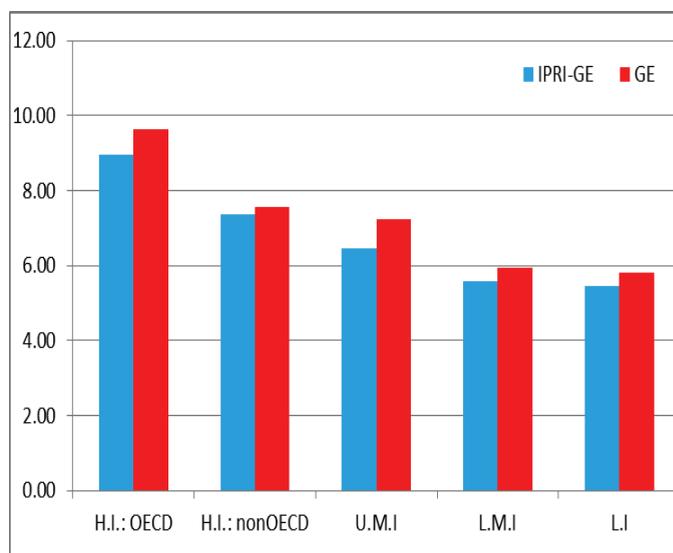


FIGURE 5
IPRI-GE. INCOME CLASSIFICATION

V. IPRI AND DEVELOPMENT

The IPRI defines Development as a multidimensional concept embracing economic, political, social, cultural, technological and ecological spheres with an eye to the well-being of present and future generations. The IPRI analyzes the relationships of several different aspects of development through its individual components: Economic Outcomes; Human Capabilities; Social Capital, Research and Innovation, and Ecological Performance.

IPRI and Economic Outcomes: Within Economic Outcomes, four elements were evaluated: Production, Domestic Investment, Production Composition, and the Entrepreneurship Ecosystem. Most of the correlations found were significant and positively strong (Table 2).

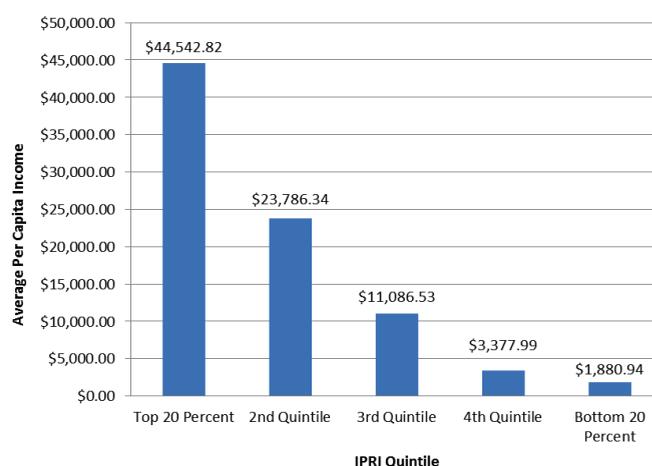
Of note, the GDP per capita correlations increased when adjusted by the Gini Coefficient, which is a measure of dispersion (or inequality). The entrepreneurial environment presented the strongest correlation with the IPRI (0.855), followed by LP (0.845), IPR (0.845) and the PPR (0.725) component. This is a very important finding, as entrepreneurship is the building block of innovation, investment, production and economic growth.

TABLE 2 - PEARSON CORRELATION INDEXES

| | ECONOMIC OUTCOMES | | | | |
|------|--|---|--|---------------------------------|-----------------------------------|
| | GDP per capita (constant 2005 USD) | GDP per capita (constant 2005 USD) * Gini | Gross capital formation (current USD per capita) | Economic Complexity | Global Entrepreneurship |
| IPRI | 0.836 | 0.851 | 0.778 | 0.722 | 0.855 |
| LP | 0.829 | 0.834 | 0.761 | 0.691 | 0.845 |
| PPR | 0.653 | 0.619 | 0.667 | 0.558 | 0.725 |
| IPR | 0.807 | 0.844 | 0.722 | 0.737 | 0.800 |
| | HUMAN CAPABILITIES | | RESEARCH & INNOVATION | | ECOLOGICAL |
| | Global Index on Freedom of Education | Human Development Index | Full time researches (per 10 ⁶) | R&D expenditure (% GDP) | EPI-Yale |
| IPRI | 0.591 | 0.720 | 0.764 | 0.677 | 0.638 |
| LP | 0.579 | 0.734 | 0.751 | 0.638 | 0.644 |
| PPR | 0.424 | 0.616 | 0.540 | 0.426 | 0.553 |
| IPR | 0.605 | 0.638 | 0.786 | 0.743 | 0.568 |
| | SOCIAL CAPITAL | | | | |
| | Inclusion | Civic Activism | Intergroup Cohesion | Interpersonal Safety & Trust | Social Capital Comp. (Legatum) |
| IPRI | 0.698 | 0.824 | 0.608 | 0.667 | 0.770 |
| LP | 0.732 | 0.801 | 0.649 | 0.702 | 0.729 |
| PPR | 0.507 | 0.656 | 0.493 | 0.579 | 0.675 |
| IPR | 0.664 | 0.813 | 0.527 | 0.570 | 0.738 |

Results also show that, on average, countries in the top quintile of IPRI scores show a per capita income (Fig. 6) almost 21 times that of the countries in the bottom quintile (in 2015 that disparity was 24 times).

FIGURE 6 - AVERAGE PER CAPITA INCOME BY IPRI QUINTILE



IPRI and Human Capabilities: Two indices were considered to analyze this dimension: the Human Development Index (HDI) and the Global Index on Freedom of Education (GIFE). Correlations with both were significant and positive, though the HDI showed higher correlations than the GIFE. While the HDI is higher for LP (0.734) and the overall IPRI (0.720), the GIFE is higher for IPR (0.605), as creative capabilities will be enhanced by the enjoyment of freedoms and for guarantees on intellectual property rights (Table 2).

IPRI and Social Capital: Given the importance of having people as the axis around which the development concept and policies should rotate, we sought to grasp the social capital of the countries using a group of variables (Table 2). The strongest correlations were found between Civic Activism and IPRI (0.824) followed by IPR (0.813) and LP (0.801). Inclusion, Intergroup Cohesion and Interpersonal Safety & Trust were highly correlated, especially with IPRI and LP.

IPRI and Research and Innovation: Confirming the importance of innovation in a knowledge society, we found correlations with three (3) items (Table 2): Researches, R&D expenditure and Number of articles. The highest correlation was found between numbers of full time researches and IPR (0.786), followed by the IPRI (0.764) and LP (0.751). We found additional correlation between R&D expenditure and the IPR (0.743), followed by the IPRI (0.677) and LP (0.638). Even positive PPR showed moderate correlations. The number of published scientific papers showed positive but weak to moderate correlations.

IPRI and Ecological Performance: The ecological environment (Table 2) is critical for sustainable development. For this component we looked at the IPRI and the EPI-Yale, finding positive correlations between the EPI and the IPRI, as well as among its components.

VI. IPRI CLUSTER ANALYSIS

Cluster analysis (Fig. 7) aims to group similar entities into clusters. It classifies individuals into groups as homogeneous as possible based on observed variables. This cluster analysis was performed for all 128 countries according to their values in LP, PPR, IPR and additional illustrative variables. We found that each cluster represents more than a grouping by variables directly associated with property rights; they are groups with common characteristics within them and with different features between clusters, which confirms the consistency of the IPRI and the relevance of property right systems influencing societies.

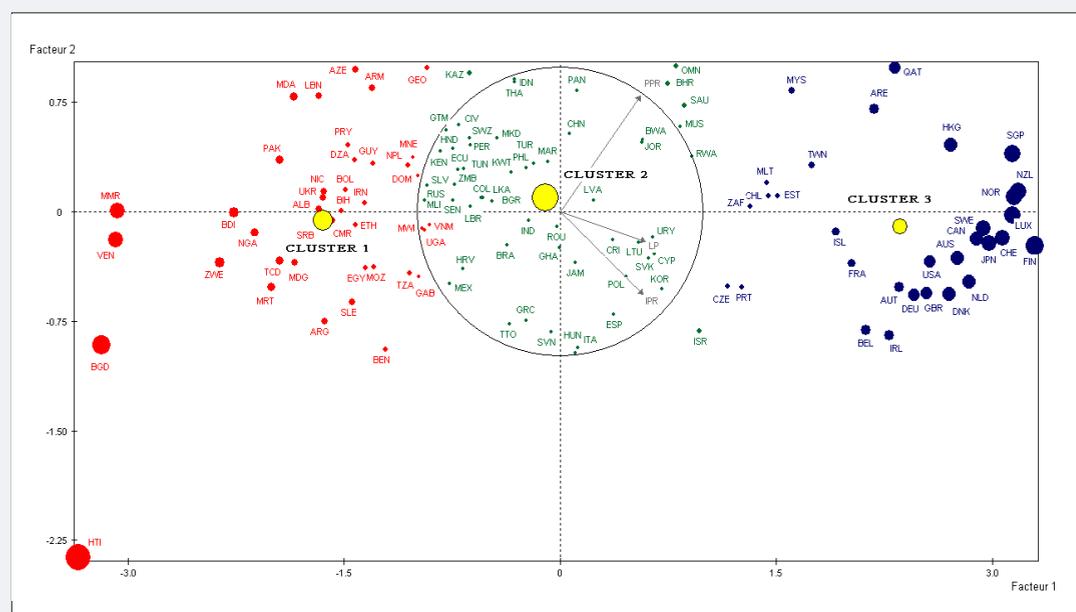


FIGURE 7
CLUSTER'S
MEMBERS &
CENTROIDS

2016 CASE STUDY ABSTRACTS

A Toolbox for Today's Visionary Leaders: How to Transform Property Rights for a Robust Formal Economy

by Dr. Elena Panaritis, Thought For Action

The purpose of this case study is to provide a brief step-by-step guide for political leaders who are concerned about the extent of the informal sector in their country and are searching for the right solutions. Since the necessary reform can be overwhelming, often deemed impossible with no quick wins, this study will address the five major concerns shared by most leaders. One starting question is why property rights are necessary to transform informality. The answer is that property rights (ownership, usage etc.) constitute the cornerstone of all the other attributes of the society we want to create. Providing stability and predictability in social relationships, property rights are the anchor of the middle class, the sanctuary for children, the backbone of small business investment and the catalyst for community growth. The study will outline the main socioeconomic benefits of property rights developed in some of the most unlikely places. What are the implications for political leaders who introduce a property rights-based transformation in their country? By planting the seeds of transformation based on property rights, political leaders can reap an abundance of rewards and benefits. This study will draw on the experience in Latin America and elsewhere. What's needed to apply the reform and what is the key for a successful outcome? This study will be a user's guide for transformation, outlining the principles and analysis that point the way forward, increasing the possibilities of success. Ultimately, success hinges on the quality of the advice provided for such non-traditional reforms. How can one identify the effective advisers? The study will

examine some rather unfortunate situations in which there is 'all talk and no result,' and which need to be avoided. Such a predicament creates undue confusion in the market and reduces the leverage of the leader. The case study will provide the skill tips to steer political leaders off this dangerous path. The final section of the case study will provide examples of countries where property rights reforms have worked versus other countries where they have failed. In this review, experiences in Albania, Bulgaria, Egypt, Peru and Haiti will provide a handy point of reference.

Using Blockchain to Secure Honduran Land Titles

by Jorge Constantino Colindres, Matt Regan & Guillermo Peña Panting, Fundación Eléutera

Evidence has consistently showed that the delimitation and protection of property rights, properly recognized by the legal system, constitutes an essential element in relation to the availability of capital and credit and, as a result, in economic growth and better standards of living. According to the Global Competitiveness Report, Honduras ranks 63rd in the world for protection of property rights, and 88th for ease of registering a property according to the World Bank. Recent research, both by the Honduran government and civil society groups backed by Transparency International, has consistently revealed widespread corruption within the Property Institute's land registry; evidencing how politicians have been using land titles to buy votes from impoverished citizens, for legalizing squats, and installing an institutionalized bribe culture. Fundación Eléutera has been working on the implementation of a Zona de Empleo y Desarrollo Económico (ZEDE, Zone for

Employment and Economic Development), and an important part of this project is creating an internal land registry. The organization began looking for a low cost, secure, trust-creating technology to implement to this purpose, and began to contact Blockchain service providers that could help solve the property problem. This is how Factom came into the picture. The Factom technology and operations framework lower implementation and operational costs while providing the highest level of data integrity and transparency, which goes directly to work on solving the Land registry problem in Honduras. A reliable, secure asset base would increase lender confidence and lower the cost of borrowing, opening economic growth opportunities for Hondurans. An immutable register would lower the number of property disputes moving forward, while providing respite to a region's judicial system to work through the backlog of disputes. A pilot project with Factom/Epigraph is to begin in the second semester of 2016. In the long term, a robust land and property rights system backed with the proper blockchain technology will allow communities to flourish socially and economically—which can later serve as a foundation for building voting systems, shared property transactions, co-housing initiatives, peer to peer dispute resolution, and much more.

**Intellectual Property Drives
Biopharmaceutical Innovation in
Emerging Markets**

by Philip Stevens, Geneva Network

After decades of simply reverse engineering and copying medicines invented mainly in western countries and Japan, pharmaceutical companies in emerging markets—particularly China and

India—are now becoming more innovative. This welcome shift is partly due to the creation of more hospitable regulatory and policy environments, as governments recognise that innovation is the key to long-term sustainable development. Stronger domestic intellectual property protection is also key. While China's pharmaceutical sector is still dominated by generic manufacturing, there are signs of the emergence of an innovative biotech sector, with a number of firms innovating around recombinant DNA, gene therapy and Traditional Chinese Knowledge. India is also dominated by generics but is becoming a serious player in vaccine innovation. The country is showing promise in R&D involving monoclonal antibodies, active therapeutic proteins, protein and antibody production and fabrication of diagnostic protein chips. In other middle-income countries, there are pockets of innovation, but largely unsupported by national policy. Brazil and South Africa, for instance, are fixed on import-substitution and reducing healthcare costs, meaning their innovative biopharmaceutical sectors remain undeveloped. Both countries are spending more than ever on R&D and registering more pharmaceutical and biotech patents via WIPO's international Patent Cooperation Treaty. In India and China, the shift towards innovation has been driven by their adoption of higher standards of domestic intellectual property protection through compliance with the World Trade Organization's TRIPS Agreement. This more predictable domestic IP environment has allowed local companies to collaborate more with multinational companies, allowing them to import skills, capital, knowledge and technical know-how. Challenges remain though: domestic IP laws such as India's Section 3d on patentability requirements, and China's

problems with IP enforcement could yet put the brakes on emerging market innovation.

The Role in the Egyptian Economy of the Relationship between Land Ownership and the Informal and Private Sectors

*by Mahmoud Farouk & Adel Elhemaily,
Egyptian Center for public Policy Studies*

Land ownership, informal housing and the private sector: a relationship among these can affect the ranking of any country in terms of growth indicators. Affordability of land, ease of the registration process in terms of time and cost, and moderate prices can affect the rate of land ownership by investors and real estate growth. Absence of one of the previously mentioned points would cause disruption to a smooth process of land ownership, and hence people would flee to illegal residences and slums which would spread over the following years. In addition, investors' real estate projects, including offices and residences, would be hindered by the difficulty of access to land, leading to a gap between the supply and demand of real estate. In Egypt there is a shortage of affordable land, since the government owns 96 percent of the land area and 90 million Egyptians live on only four percent of the land area. This creates a gap between supply and demand for residential units which is estimated to be 75 percent, while the demand within that gap is skewed towards low and middle class residential units. Informal housing in Egypt constitutes between 40 percent and 60 percent of the economy, and slums about 1 percent. In addition to the shortage of available land, problems include the long and costly process of registration of land and buildings, high prices of construction tools and land, and policies of land supply and ownership. The private sector role in providing real estate for variant classes is hindered as land

ownership policies are inefficient and restrict full ownership of land to big investors. The National Center for the Planning of Land Use is the formal entity responsible for planning land use and policies of ownership, and clarifying them to the public. However, policies and practices are nonetheless unclear, which creates investor confusion around lands available for their projects. This case study focuses on the relation between these points and how can the cycle be developed towards a better economy.

Property Rights and Deforestation in Indonesia

by Hizkia Respatiadi, Center for Indonesian Policy Studies

Since the Indonesian constitution states that all strategic natural resources including forests are under governmental control, full private property rights of forests are impossible in the country. However, partial property rights have been offered to individuals after a 2015 announcement that the government planned to concede 12.7 million hectares of forests to 33,000 villages across Indonesia. These concessions bestow usufructuary rights to the villagers who must maintain the forests. These partial property rights have economic and environmental advantages. Since the local community can supplement their income with forest resources such as honey, berries, herbs, and tourism they have a smaller incentive to log illegally. This case study will compare two villages, Buntu and Sembungan, located in the mountainous Kejajar District, Wonosobo Regency, Central Java. The villages received the same partial property rights yet the outcomes differed. Buntu villagers have not begun exercising their rights due to their internal disagreements on how to proceed. Just 10 km away, Sembungan village

managed to utilize its partial property rights to form a strong ecotourism business which adds nearly US\$190 of income to each family per month. Represented by an entity called Pokdarwis Cebong Sikunir, the local community has arranged a mutually beneficial relationship with Perum Perhutani, the state-owned forestry enterprise. Combined with the management from Pokdarwis that outlined a transparent plan to distribute profits, the separation of duties for villagers including tourist accommodation, food and beverages, tour guide services, souvenirs, and local arts and crafts has been crucial to Sembungan's success. The purpose of this study is to compare the cases of Buntu and Sembungan to provide recommendations to the national government and local villages on how to successfully replicate property rights and maximize proceeds.

A Special Case Study on Religion & Property Rights: Property Rights from an Islamic Perspective

by Dr. Maszlee Malik, Institute for Democracy and Economic Affairs & Istanbul Network for Liberty

Amongst the cardinal principles of the “free market” is the individual's right to own private property. There will be no freedom if individuals do not have a property to sell or exchange. Similarly, it is the right of individuals to own, use, sell or dispose their private property in any other way they wish. Rationally, without private property rights, there will be little motivation for individuals to work, produce, or invest. By the same token, Islam emphasizes heavily the right of individuals to private ownership. This principle has been clearly enumerated in the epistemological sources of Islam, i.e., the al-Quran and Prophet Muhammad's traditions, as well as the opinions of the jurists. The

appreciation of market and private property in Muslims' lives can be seen in the life of Prophet Muhammad himself, the companions and in the practice of Muslims throughout Muslim history. This article analytically examines the issue of private property from the Islamic perspective by inductively investigating the Islamic epistemological sources related to private property within the framework of the Maqasid al-Shari'ah (highest objectives of Shari'ah).