International Property Rights Index 2019

Study by
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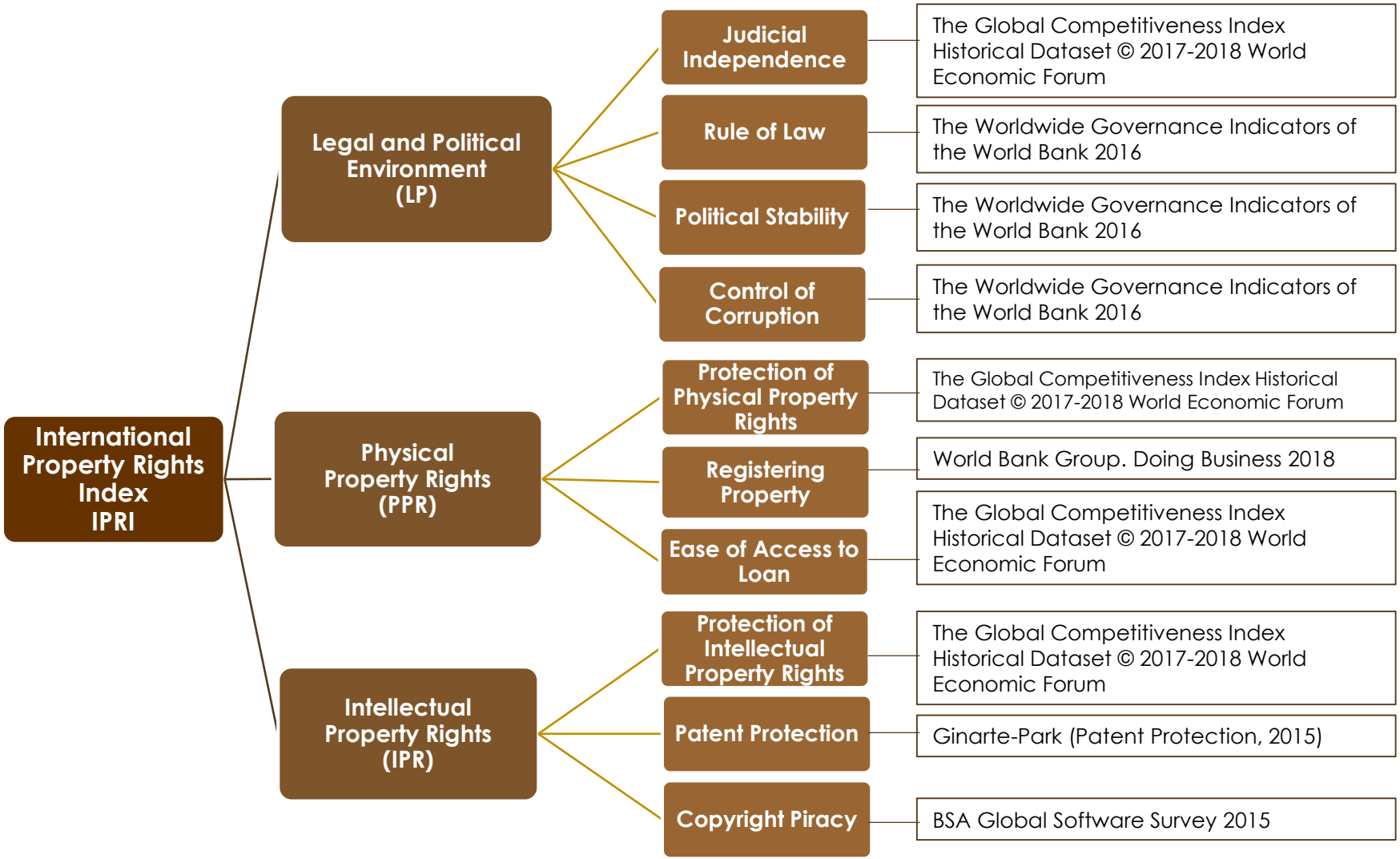
2019 Hernando de Soto Fellow

PROPERTY RIGHTS ALLIANCE

MEASURING PROPERTY RIGHTS



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METHODOLOGY

- **Simple Average:** equal importance of components

$$IPRI = \frac{LP + PPR + IPR}{3}$$

- **Scale:** 0 - 10 (worst – best)

  Different sources and scales => Rescaling process

- **Ranking specification:** calculation were made using IPRI scores with all decimals

METHODOLOGY (cont.)

IPRI-2019

129 Countries

93.83% World Population

97.72% World GDP

+ 5 countries

Angola

Bolivia

Burkina Faso

Cote D'Ivoire

Macedonia

- 1 country

Madagascar

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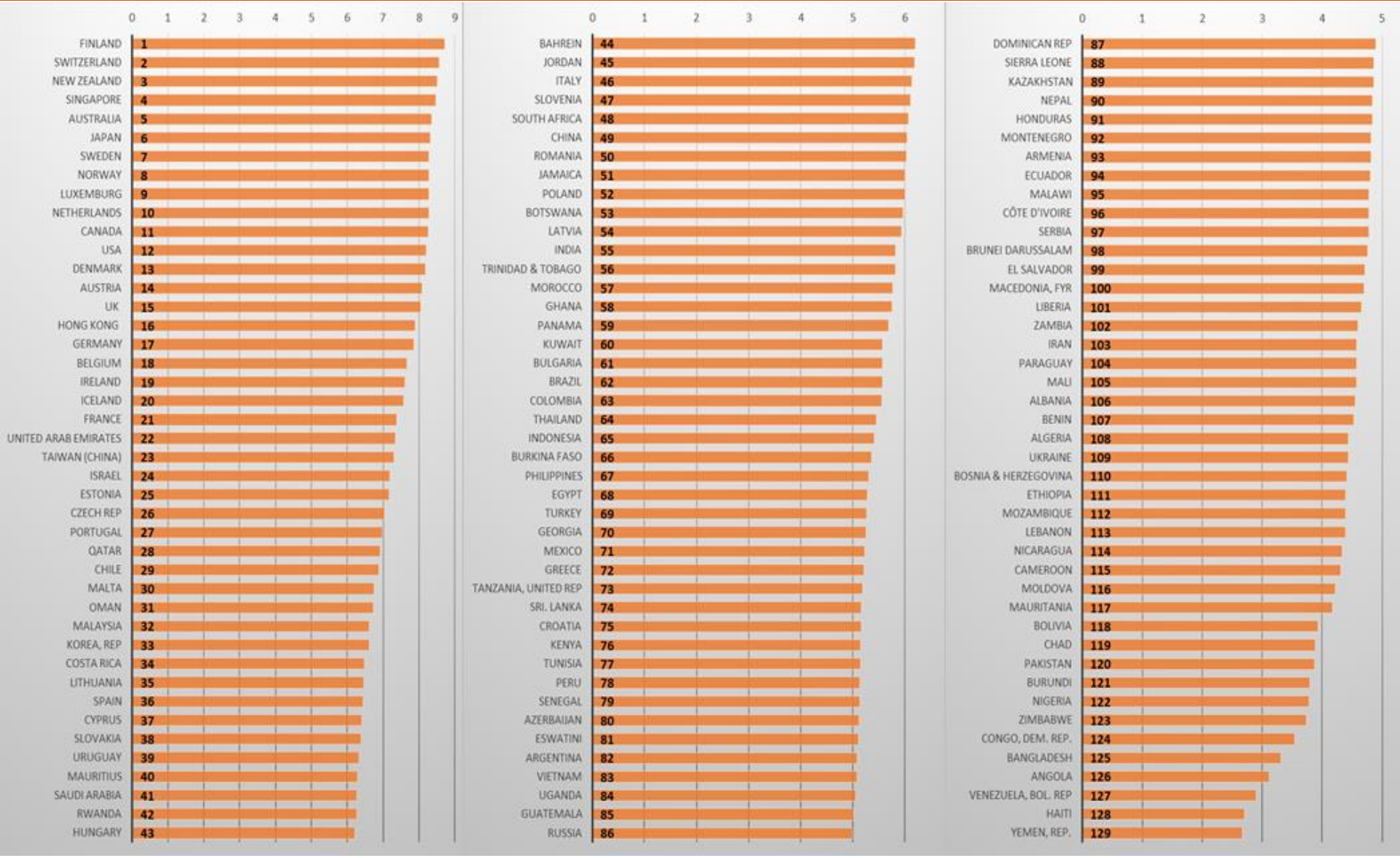
2019 IPRI RESULTS



2019 IPRI RESULTS

	IPRI	LP	PPR	IPR
Average 2015	5.301	4.993	5.767	5.142
Average 2016	5.446	5.130	5.875	5.333
Average 2017	5.634	5.172	6.227	5.503
Average 2018	5.741	5.216	6.464	5.542
Average 2019	**5.726**	**5.160**	**6.474**	**5.553**

2019 IPRI. RANKING BY QUINTILES.

Strongest

Weakest

Top 20 Percent	2nd Quintile	3rd Quintile	4th Quintile	Bottom 20 Percent
FINLAND	BELGIUM	MAURITIUS	INDONESIA	ECUADOR
SWITZERLAND	IRELAND	SAUDI ARABIA	BURKINA FASO	MALAWI
NEW ZEALAND	ICELAND	RWANDA	PHILIPPINES	CÔTE D'IVOIRE
SINGAPORE	FRANCE	HUNGARY	EGYPT	SERBIA
AUSTRALIA	UNITED ARAB EMIRATES	BAHREIN	TURKEY	BRUNEI DARUSSALAM
JAPAN	TAIWAN (China)	JORDAN	GEORGIA	EL SALVADOR
SWEDEN	ISRAEL	ITALY	MEXICO	MACEDONIA, FYR
NORWAY	ESTONIA	SLOVENIA	GREECE	LIBERIA
LUXEMBURG	CZECH REP.	SOUTH AFRICA	TANZANIA, UNITED REP.	ZAMBIA
NETHERLANDS	PORTUGAL	CHINA	SRI. LANKA	IRAN
CANADA	QATAR	ROMANIA	CROATIA	PARAGUAY
USA	CHILE	JAMAICA	KENYA	MALI
DENMARK	MALTA	POLAND	TUNISIA	ALBANIA
AUSTRIA	OMAN	BOTSWANA	PERU	BENIN
UK	MALAYSIA	LATVIA	SENEGAL	ALGERIA
HONG KONG	KOREA, REP	INDIA	AZERBAIJAN	UKRAINE
GERMANY	COSTA RICA	TRINIDAD & TOBAGO	ESWATINI	BOSNIA & HERZEGOVINA
	LITHUANIA	MOROCCO	ARGENTINA	ETHIOPIA
	SPAIN	GHANA	VIETNAM	MOZAMBIQUE
	CYPRUS	PANAMA	UGANDA	LEBANON
	SLOVAKIA	KUWAIT	GUATEMALA	NICARAGUA
	URUGUAY	BULGARIA	RUSSIA	CAMEROON
		BRAZIL	DOMINICAN REP.	MOLDOVA
		COLOMBIA	SIERRA LEONE	MAURITANIA
		THAILAND	KAZAKHSTAN	BOLIVIA
			NEPAL	CHAD
			HONDURAS	PAKISTAN
			MONTENEGRO	BURUNDI
			ARMENIA	NIGERIA
				ZIMBABWE
				CONGO, DEM. REP.
				BANGLADESH
				ANGOLA
				VENEZUELA, BOL. REP.
				HAITI
				YEMEN, REP.

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29 36

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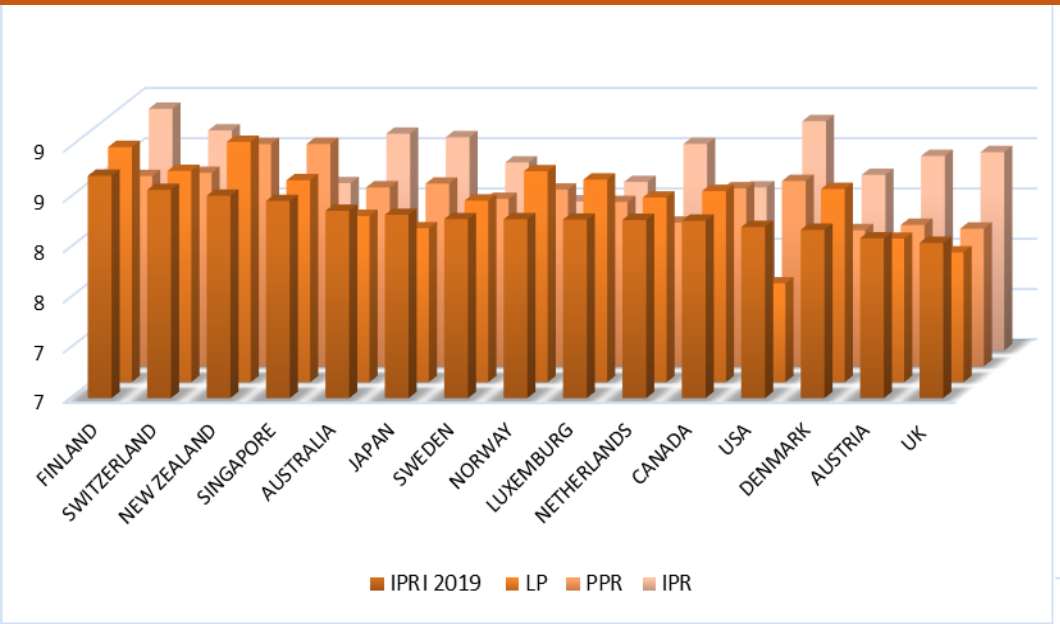
2019 IPRI. TOP & BOTTOM.

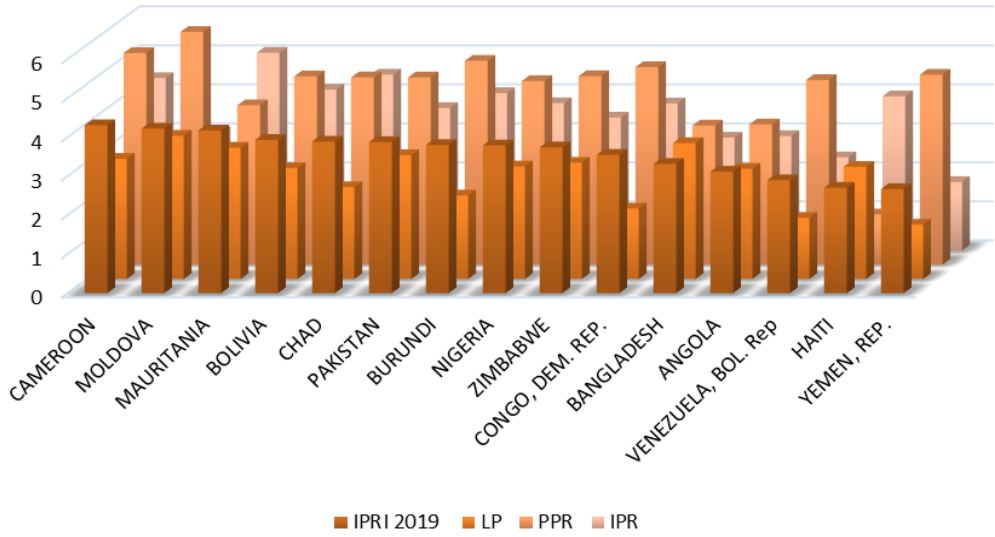


15 TOP

Finland, Switzerland, New Zealand, Singapore, Australia, Japan, Sweden, Norway, Luxemburg, Netherlands, Canada, USA, Denmark, Austria & UK.

15 BOTTOM

Rep. of Yemen, Haiti, Bolivarian Rep. of Venezuela, Angola, Bangladesh, Democratic Rep. of Congo, Zimbabwe, Nigeria, Burundi, Pakistan, Chad, Bolivia, Mauritania, Moldova & Cameroon



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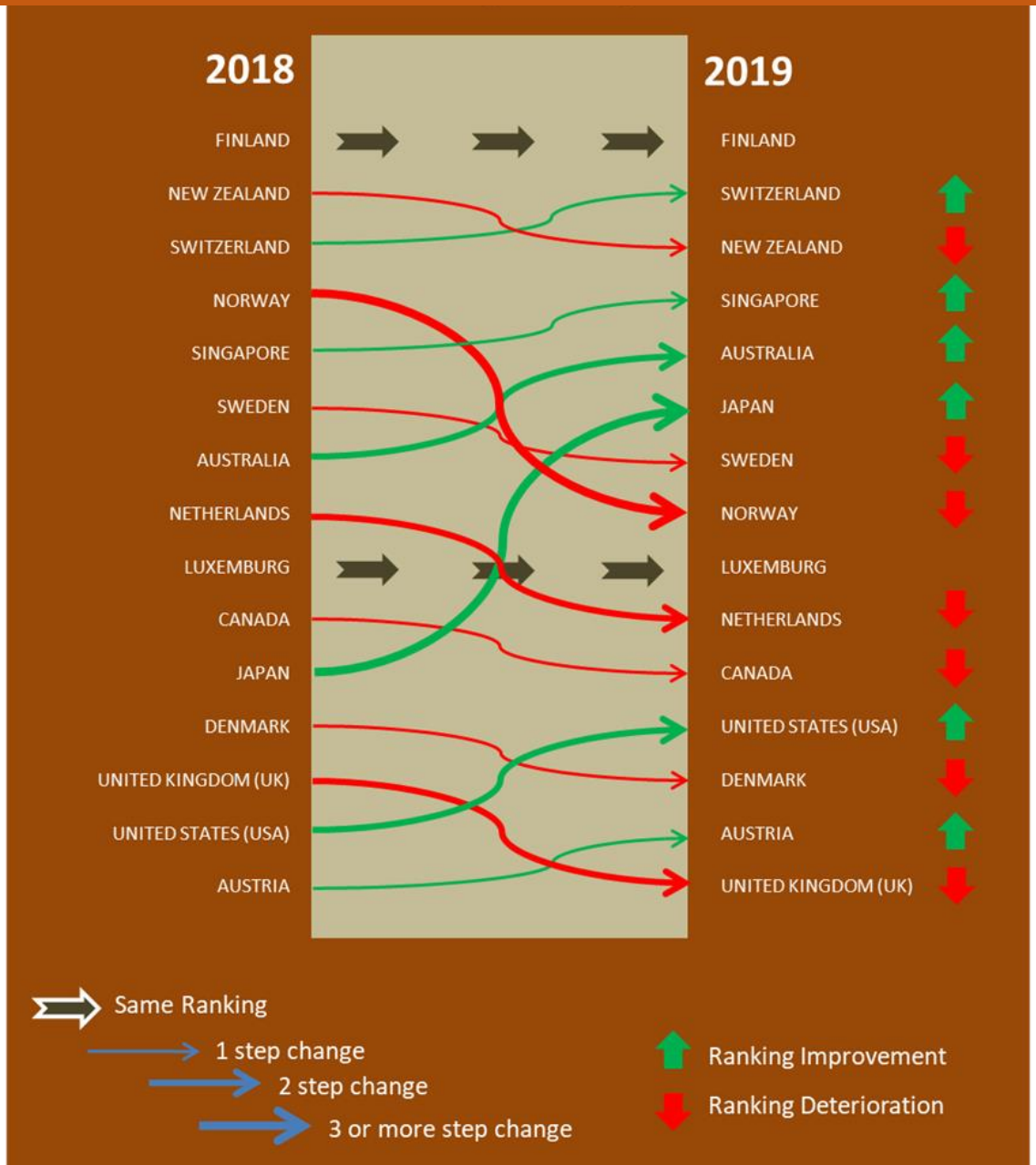
TOP COUNTRIES RANKING CHANGE. 2019 vs 2018



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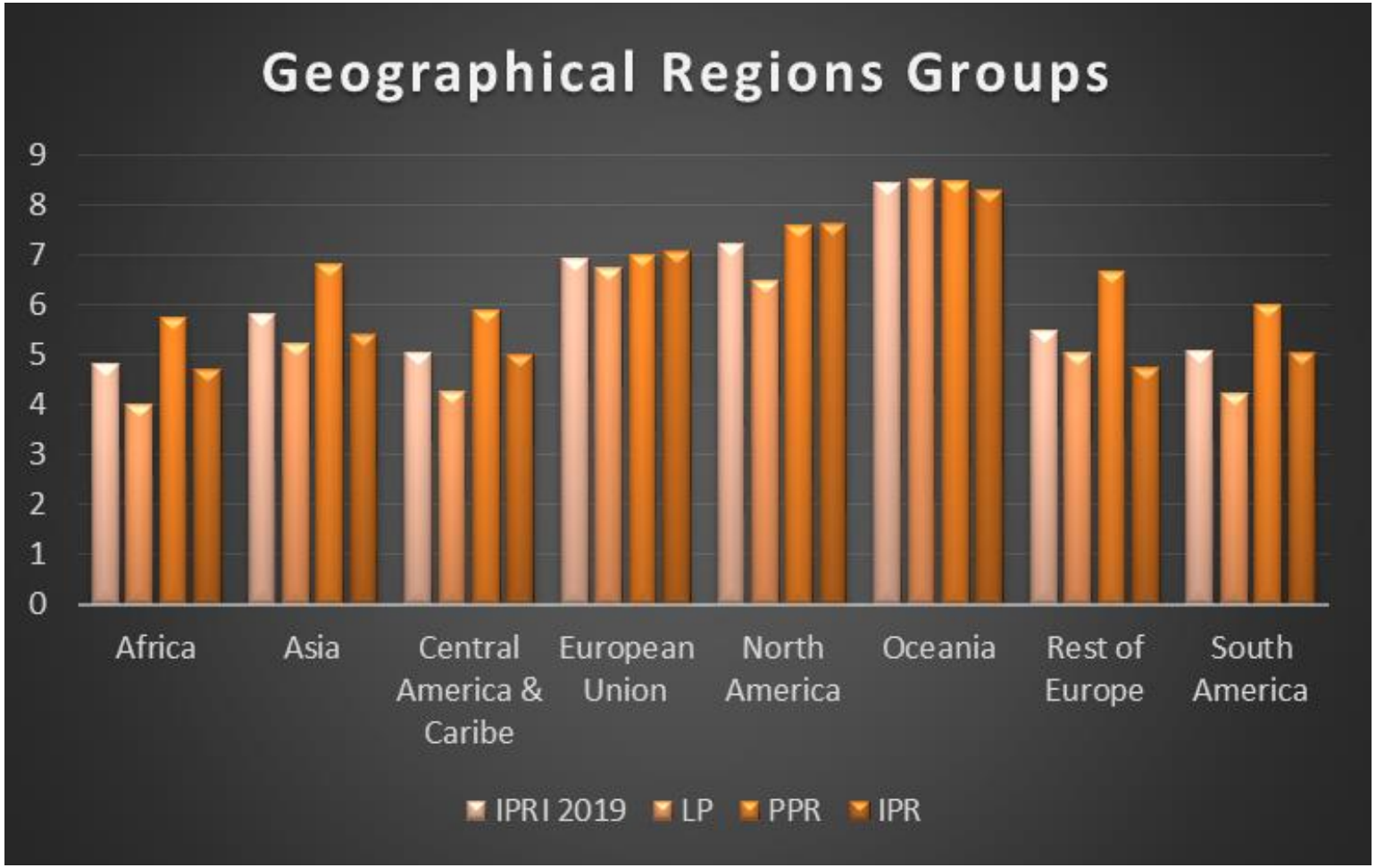
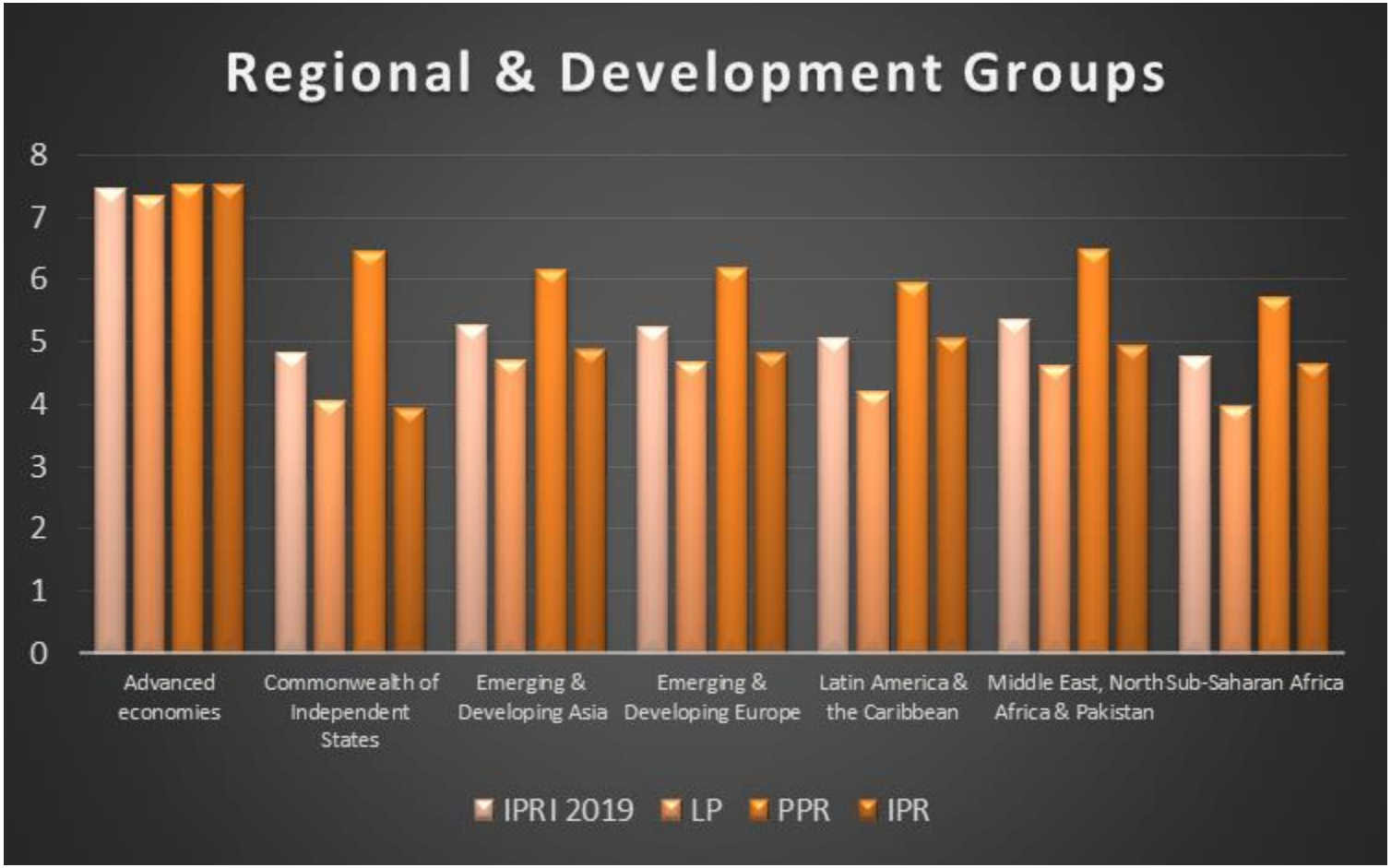
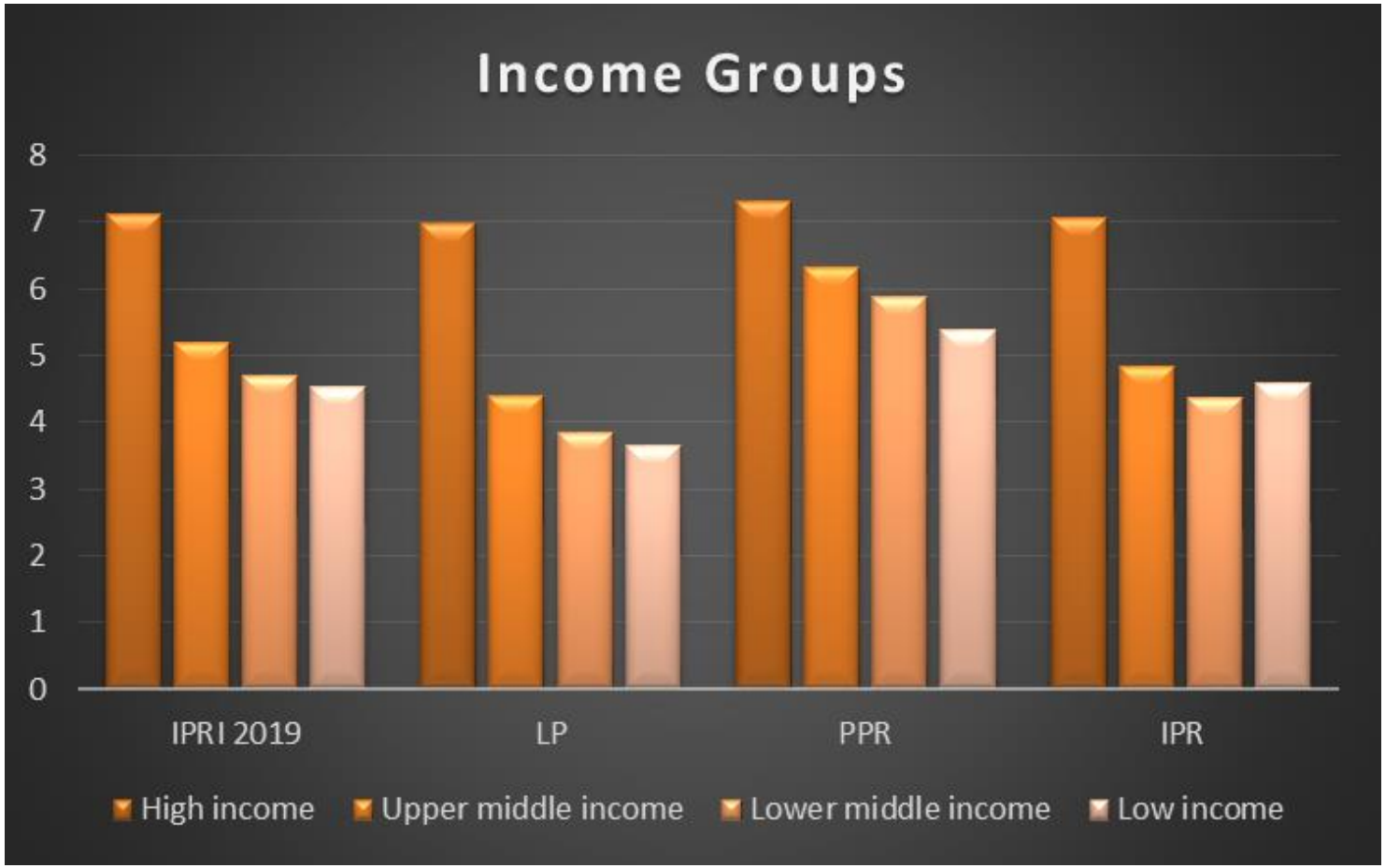
GEOGRAPHICAL REGIONS. IPRI & Components



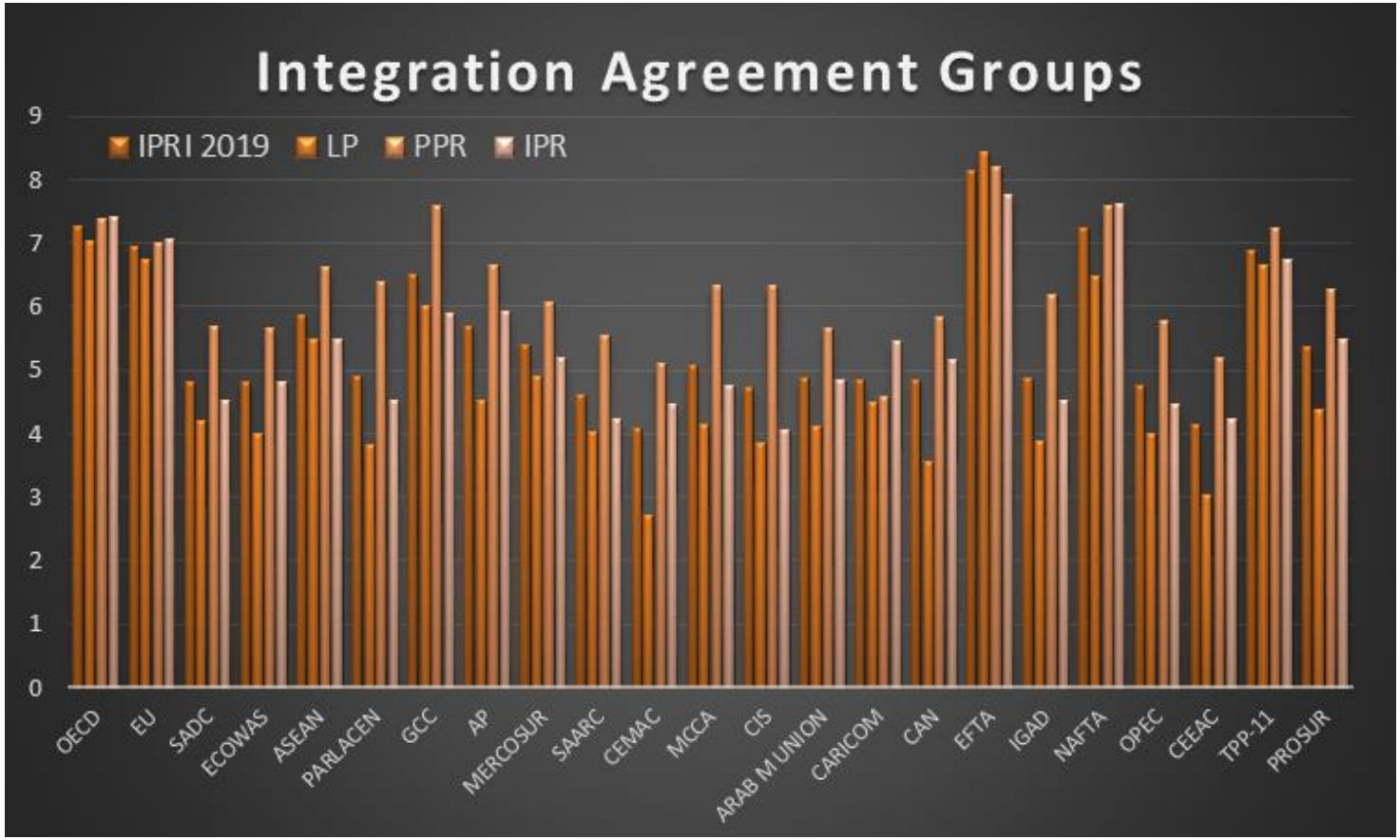
REGIONAL & DEVELOPMENT. IPRI & Components



INCOME. IPRI & Components



ECONOMIC & REGIONAL INTEGRATION AGREEMENT GROUPS. IPRI & Components



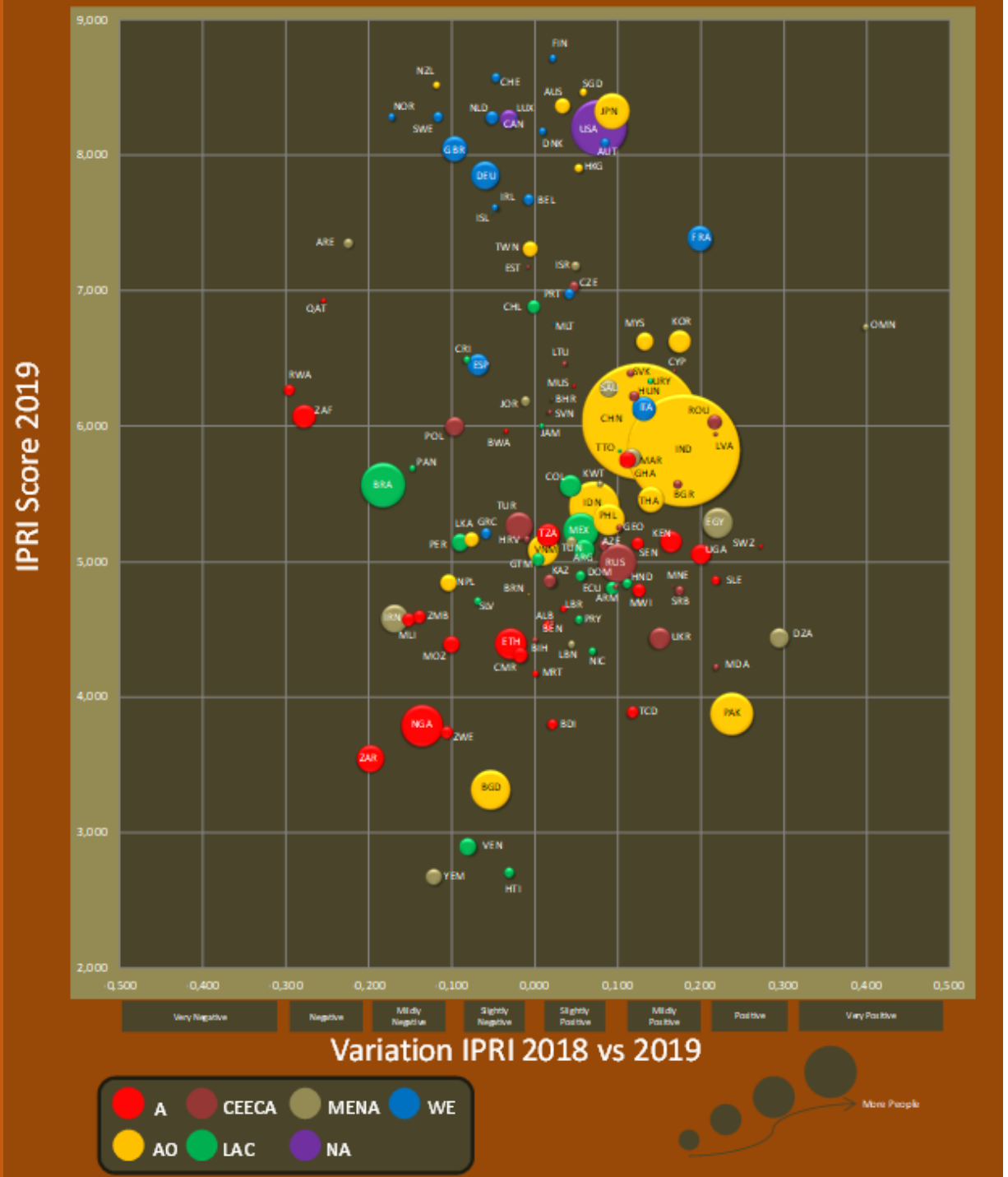
IPRI & POPULATION

Average IPRI All Countries (129) 5.7290

Average IPRI (129) weighted by population 5.7086

2019 IPRI (Ranges)	Number of Countries	Population (000)	Population (%)	Incidence (%)	IPRI-Population
2.5 a 3.4	5	257,843	3.72	1.99	2.05
3.5 a 4.4	17	756,435	10.92	9.48	7.64
4.5 a 5.4	44	1,580,393	22.81	29.58	20.51
5.5 a 6.4	30	3,350,118	48.36	24.54	**50.16**
6.5 a 7.4	13	233,688	3.37	12.30	4.14
7.5 a 8.4	17	730,694	10.55	18.62	15.09
8.5 a 9.4	3	18,416	0.27	3.49	0.40
	129	**6,927,586**	**100.00**	**100.00**	**100.00**

IPRI 2018 vs 2019



IPRI & GENDER EQUALITY

	Data
Women´s Access to Bank Loans	Secure access to formal financial services
Women´s Access to Land Ownership	Secure access to land assets
Women´s Access to Property other than land	Access to non-land assets
Inheritance Practices	Inheritance
Women Social Rights	Divorce
	Household responsibilities
	Female genital mutilation
	Violence against women
	Freedom of movement
	Citizenship rights

Gender equality is an issue of human rights and social justice, so it is a goal in itself. It has been demonstrated its relevance fostering development, being especially evident in some areas for reducing poverty.

GE = 1/5 (Women´s Access to Bank Loans + Women´s Access to Land Ownership + Women´s access to property other than land + Inheritance Practices + Women Social Rights)

$$IPRI\text{-}GE = IPRI + 0.2*GE$$

Scale: 0 - 12 (worst – best)

Data Source: OCDE GID-DB

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IPRI & GENDER EQUALITY

	IPRI	GE	IPRI-GE
Average 2018	5.741	7.458	7.228
Average 2019	**5.726**	7.243	7.177

-0.71%

IPRI-GE RANKING by QUINTILES

Strongest

Weakest

Top 20 Percent	2nd Quintile	3rd Quintile	4th Quintile	Bottom 20 Percent
FINLAND	IRELAND	POLAND	ARGENTINA	MOZAMBIQUE
SWITZERLAND	ICELAND	COSTA RICA	BURKINA FASO	BRUNEI DARUSSALAM
NEW ZEALAND	FRANCE	RWANDA	RUSSIA	MALAWI
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				PAKISTAN
				ANGOLA
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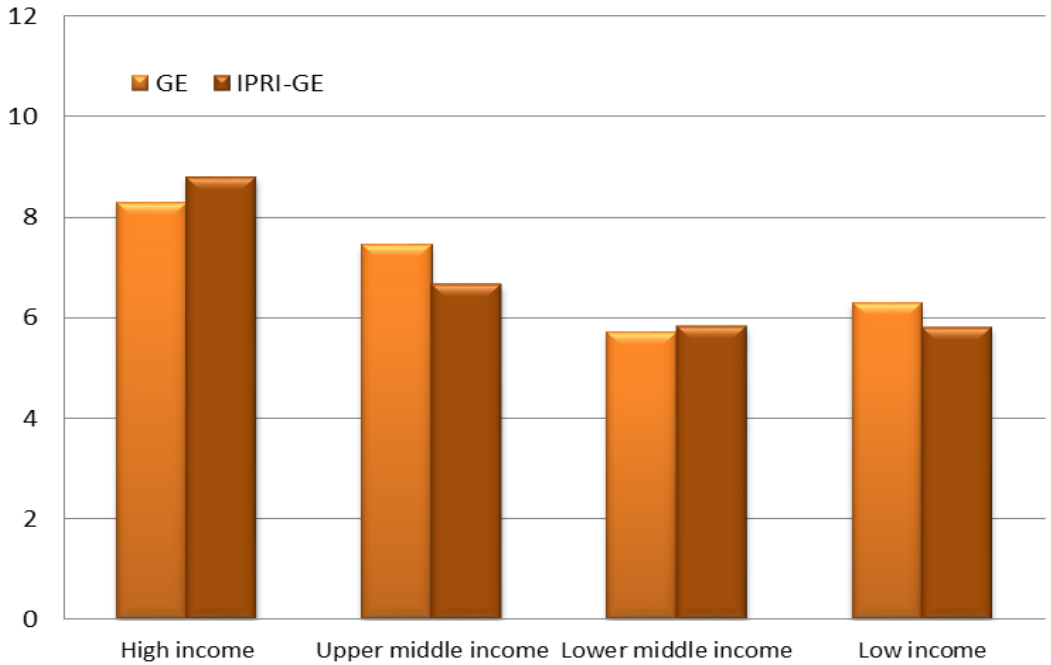
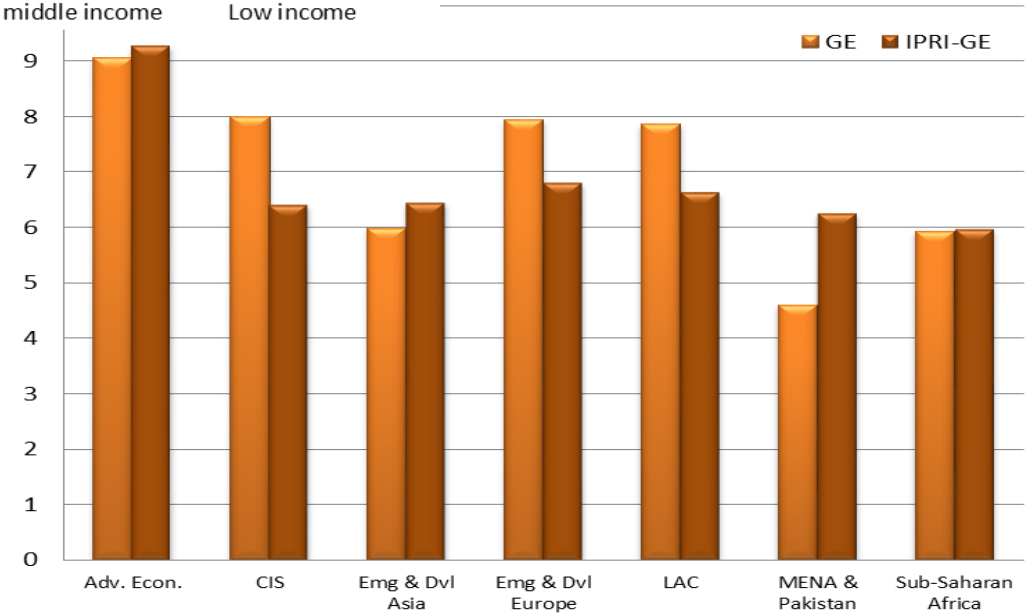
IPRI & GENDER EQUALITY





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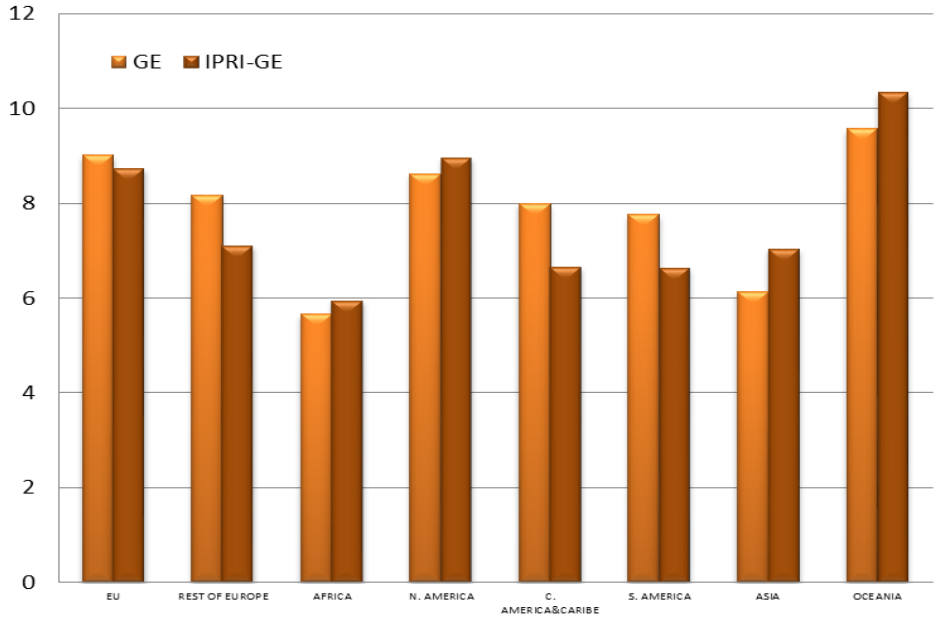
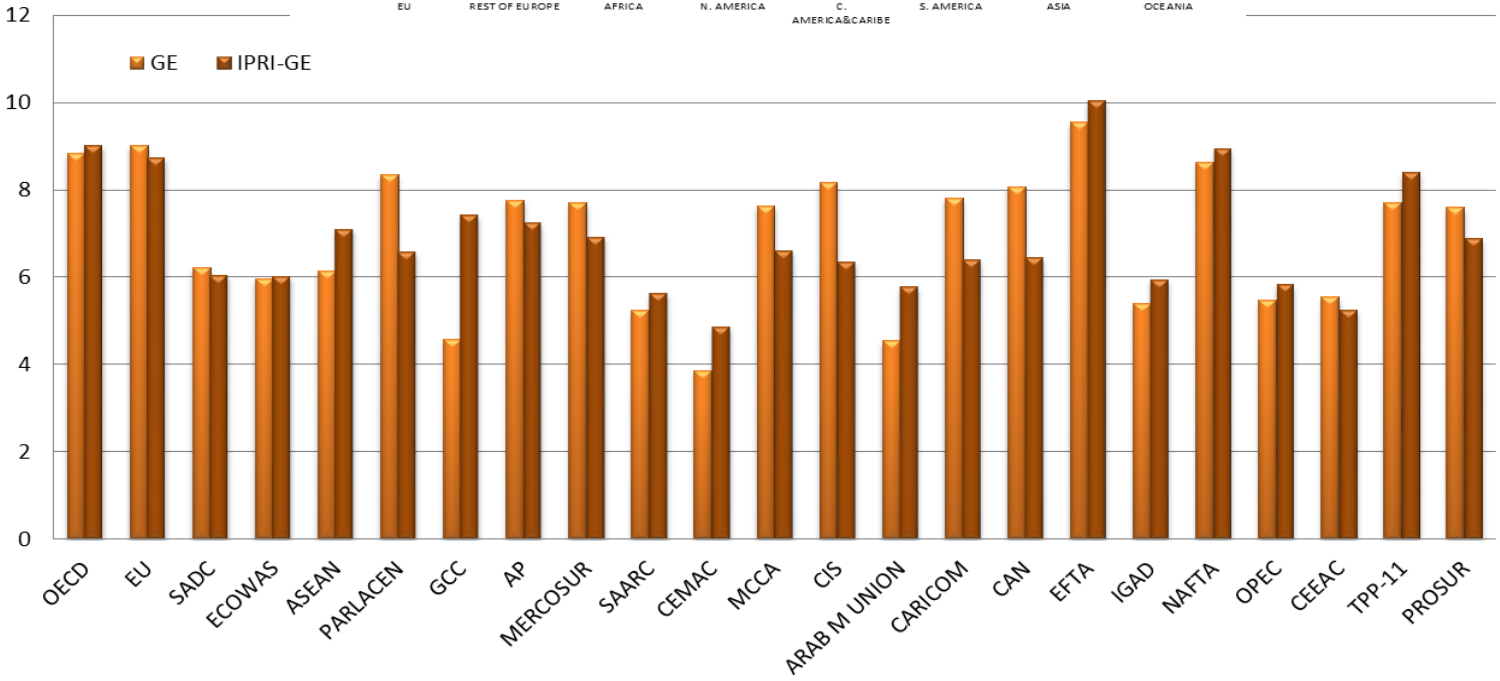
IPRI & GENDER EQUALITY





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2019 IPRI & QUALITY OF LIFE

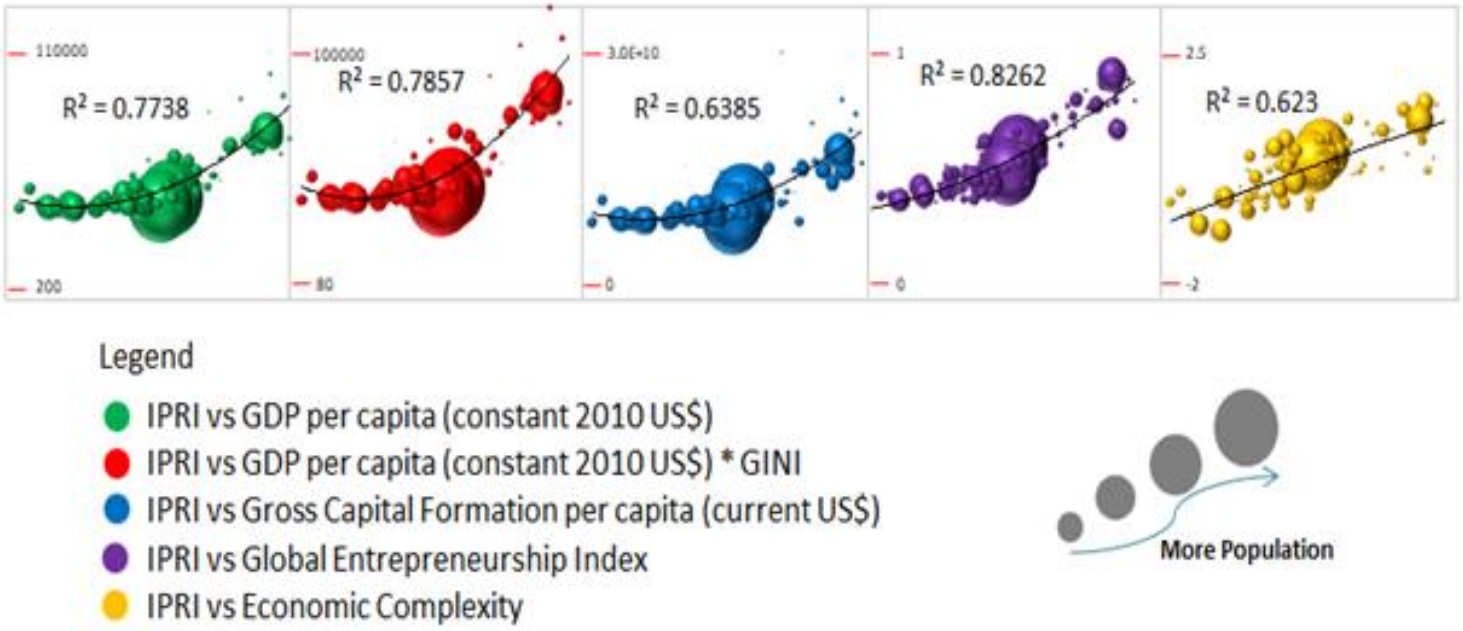
Extensive literature informs of important interactions between property rights and the quality of life of citizens.

IPRI-2019 was analyzed through variables and indices gathered in three groups or dimensions:

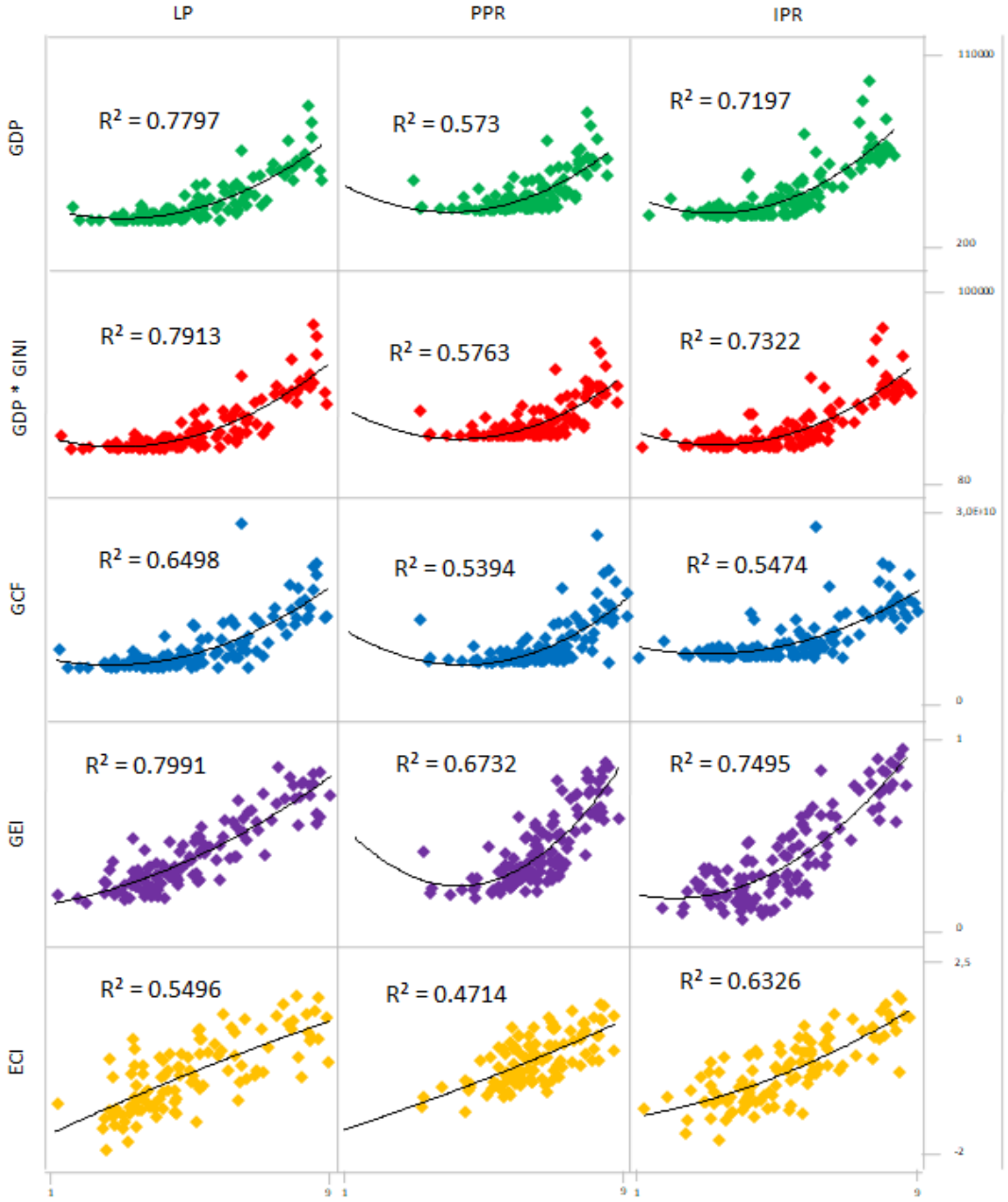
- **Economic outcomes**
- **Institutions**
- **Innovations**

2019 IPRI & ECONOMIC OUTCOMES

Pearson Correlation Coef.	Production		Investment	Entrepreneurship	Prod. Composition
	GDP *per capita* (constant 2010 USD)	GDP *per capita* (constant 2010 USD) * GINI	Gross capital formation (current USD *per cápita*)	Global Entrepreneurship Index	Economic Complexity Index
IPRI	0.816	0.817	0.743	**0.901**	0.789



2019 LP, PPR, IPR & ECONOMIC OUTCOMES



- IPRI Components vs GDP *per capita* (constant 2010 US$)
- IPRI Components vs GDP *per capita* (constant 2010 US$) * GINI
- IPRI Components vs Gross capital formation *per capita* (current US$)
- IPRI Components vs Global Entrepreneurship Index (GEI)
- IPRI Components vs Economic Complexity (ECI)

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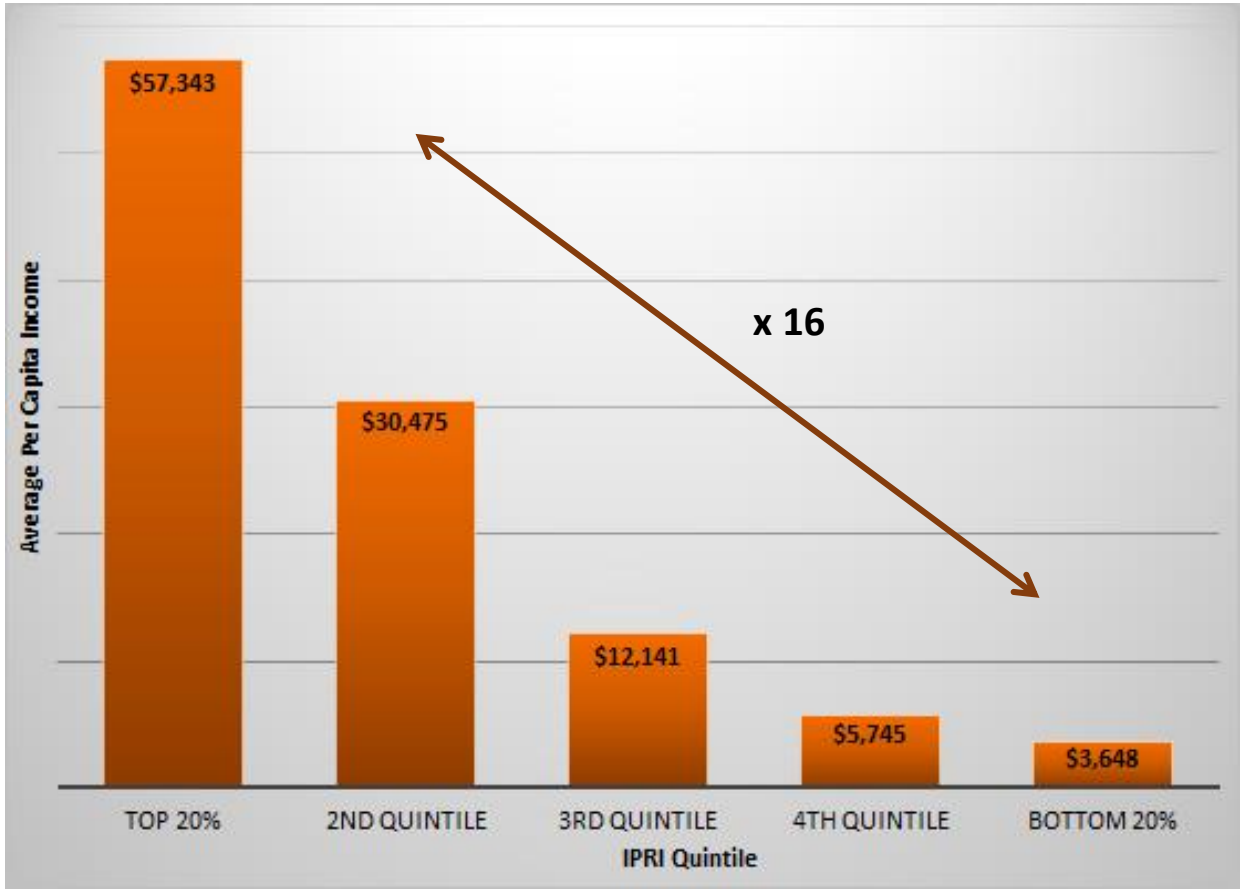
2019 IPRI & ECONOMIC OUTCOMES



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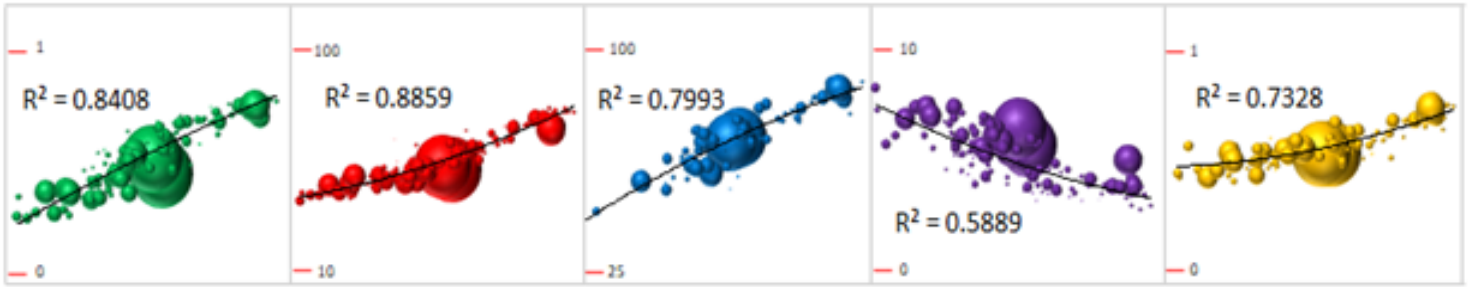
2019 IPRI & INSTITUTIONS

Pearson Correlation coef.	Strenght			Risk Alerts	Civic Activism
	Institutional Quality Index	Corruption Perception Index	Illicit Trade Environment Index	Inform Index	Civic Activism
IPRI	0.916	**0.934**	0.891	0.761	0.837

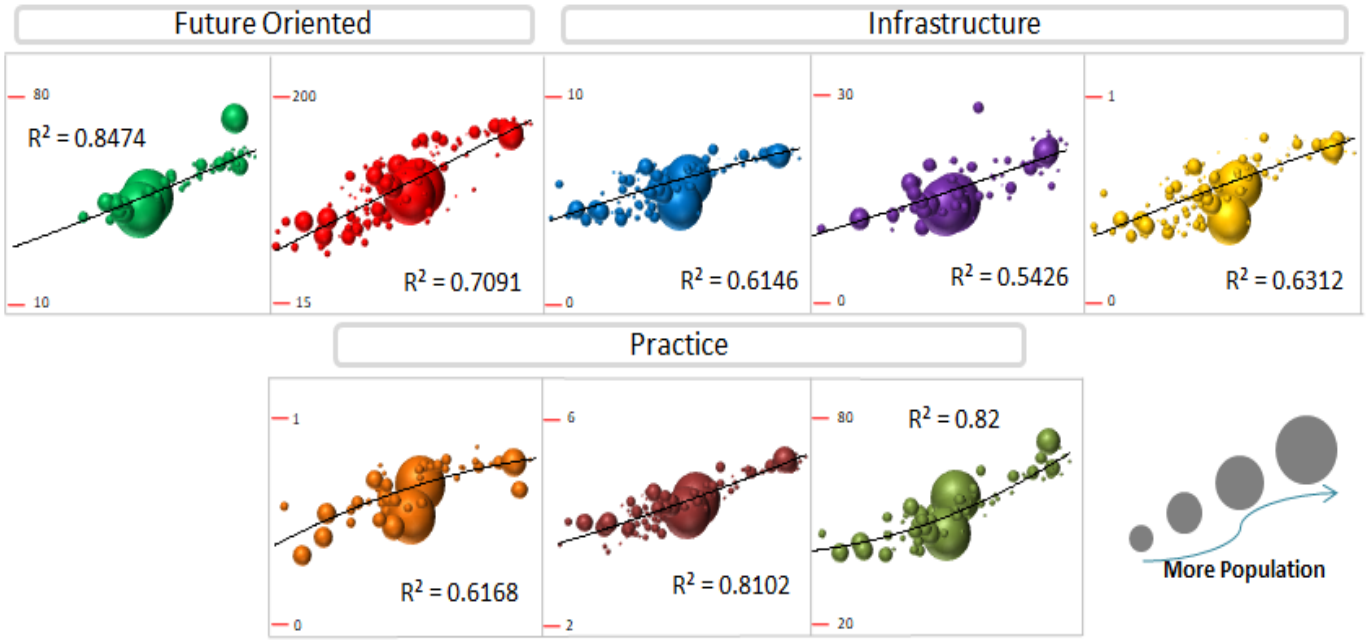


Legend

- IPRI vs Institutional Quality Index
- IPRI vs Corruption Perception Index
- IPRI vs Illicit Trade Environment Index
- IPRI vs Risk Managment Index (Inform Index)
- IPRI vs Civic Activism

2019 IPRI & INNOVATIONS

Pearson Correlation coef.	Future Oriented		Infrastructure			Practice		
	Global Biotech Innovation	Indigo Scores	ICT Development Index	Internet Speed (Mbps)	Telecom. Infraestructure Index	SmarPhone Penetration (%)	Networked Readiness Index	Global Connectivity Index
IPRI	**0.920**	0.842	0.783	0.736	0.794	0.775	0.899	0.894



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2019 IPRI CLUSTERS

Cluster analysis aims to gather similar individuals. It classifies in groups individuals as homogeneous as possible based on observed variables.

We performed a cluster analysis using the 3 components of the IPRI for all countries and included illustrative variables.

Method:
To seize the variability we used Ward's Method with squared Euclidean distance, grouping countries with minimal loss inertia.
To handle variable by factors we used Principal Component Analysis
To show the inertia within groups and among them as the criteria to decide the optimal number of classes or clusters we used Mobile centers algorithm

Results:
3 clusters are enough to explain the grouping of countries
First factor contains 85.9% of inertia

2019 IPRI CLUSTERS

Cluster 1	Cluster 2	Cluster 3
ALBANIA	BAHREIN	AUSTRALIA
ALGERIA	BOTSWANA	AUSTRIA
ANGOLA	BRAZIL	BELGIUM
ARGENTINA	BULGARIA	CANADA
ARMENIA	BURKINA FASO	DENMARK
AZERBAIJAN	CHILE	ESTONIA
BANGLADESH	CHINA	FINLAND
BENIN	COLOMBIA	FRANCE
BOLIVIA	COSTA RICA	GERMANY
BOSNIA & HERZEGOVINA	CYPRUS	HONG KONG
BRUNEI DARUSSALAM	CZECH REPUBLIC	ICELAND
BURUNDI	GHANA	IRELAND
CAMEROON	HUNGARY	ISRAEL
CHAD	INDIA	JAPAN
CONGO, DEM. REP.	INDONESIA	LUXEMBURG
CÔTE D'IVOIRE	ITALY	NETHERLANDS
CROATIA	JAMAICA	NEW ZEALAND
DOMINICAN REP.	JORDAN	NORWAY
ECUADOR	KOREA, REP	SINGAPORE
EGYPT	KUWAIT	SWEDEN
EL SALVADOR	LATVIA	SWITZERLAND
ESWATINI	LITHUANIA	TAIWAN
ETHIOPIA	MALAYSIA	UNITED ARAB EMIRATES
GEORGIA	MALTA	UNITED KINGDOM
GREECE	MAURITIUS	UNITED STATES
GUATEMALA	MOROCCO	
HAITI	OMAN	
HONDURAS	PANAMA	
IRAN	PHILIPPINES	
KAZAKHSTAN	POLAND	
KENYA	PORTUGAL	
LEBANON	QATAR	
LIBERIA	ROMANIA	
MACEDONIA, FYR	RWANDA	
MALAWI	SAUDI ARABIA	
MALI	SLOVAKIA	
MAURITANIA	SLOVENIA	
MEXICO	SOUTH AFRICA	
MOLDOVA	SPAIN	
MONTENEGRO	THAILAND	
MOZAMBIQUE	TRINIDAD & TOBAGO	
NEPAL	URUGUAY	
NICARAGUA		
NIGERIA		
PAKISTAN		
PARAGUAY		
PERU		
RUSSIA		
SENEGAL		
SERBIA		
SIERRA LEONE		
SRI. LANKA		
TANZANIA, UNITED REP. OF		
TUNISIA		
TURKEY		
UGANDA		
UKRAINE		
VENEZUELA, BOLIVARIAN REP. OF		
VIETNAM		
YEMEN, REP.		
ZAMBIA		
ZIMBABWE		
	62	42	25

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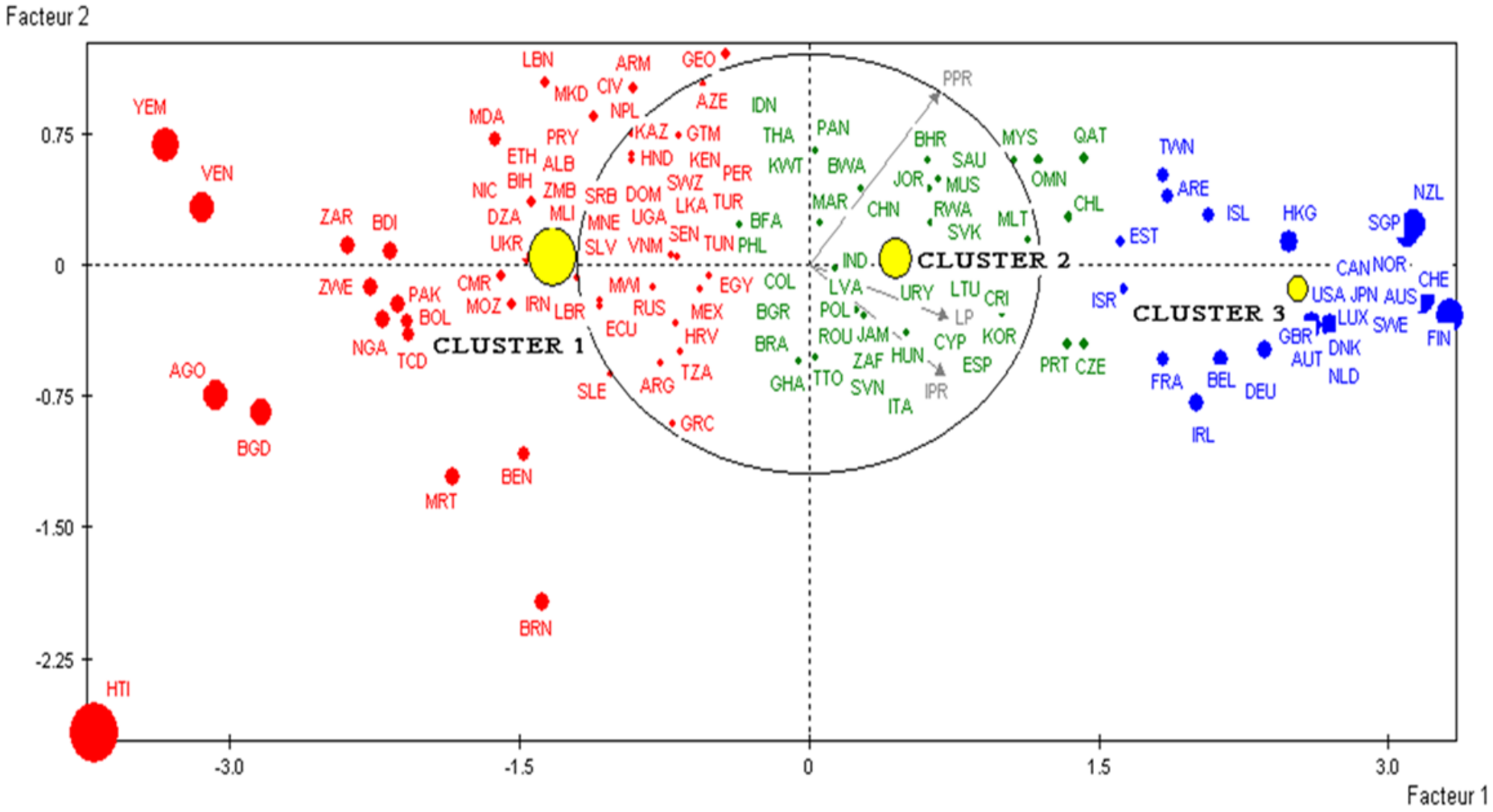
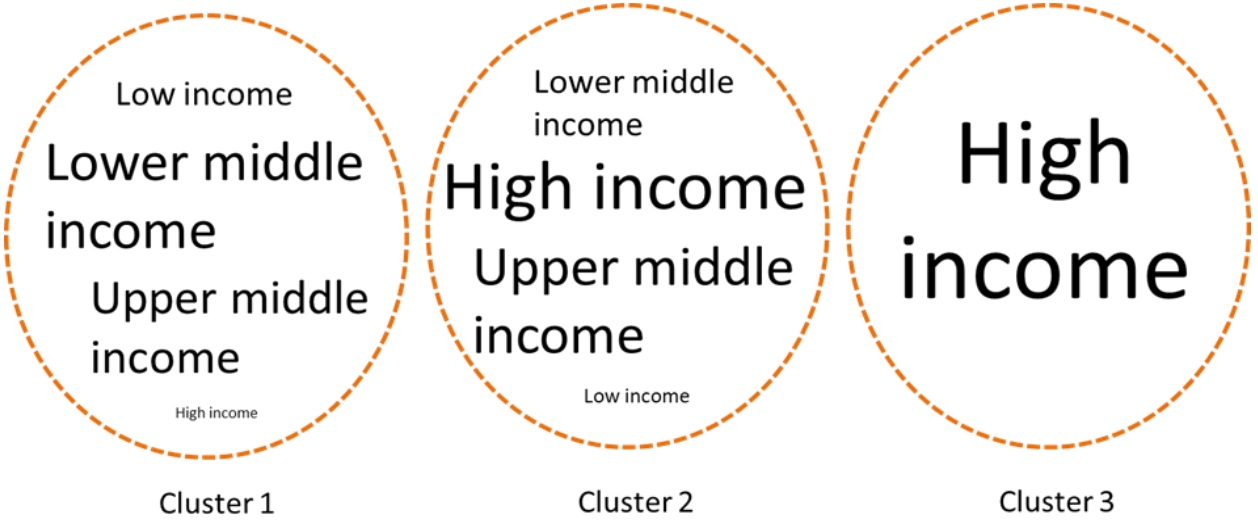
2019 IPRI CLUSTERS



2019 IPRI CLUSTERS. GROUPS



Cluster 1 | Cluster 2 | Cluster 3

Cluster 1 | Cluster 2 | Cluster 3

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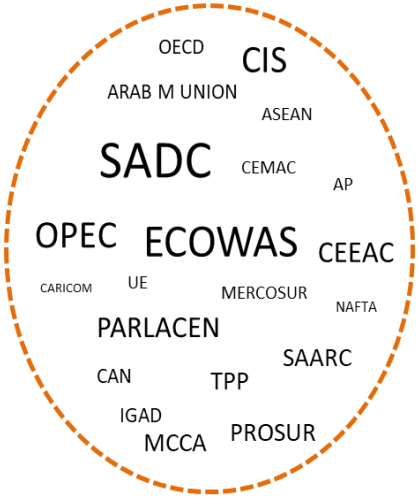
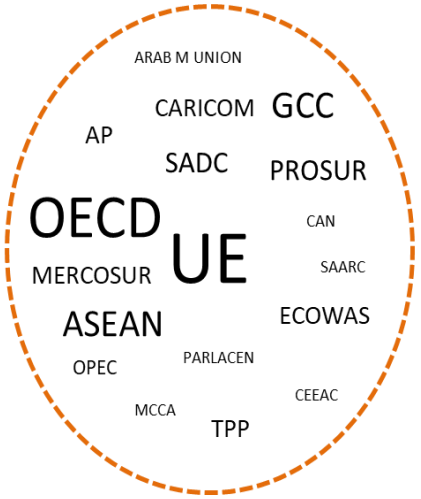
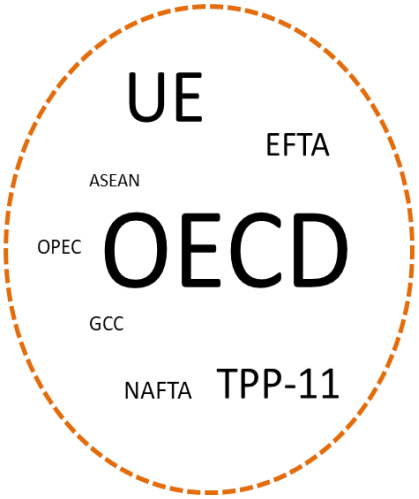
2019 IPRI CLUSTERS GROUPS & POPULATION



Cluster 1



Cluster 2



Cluster 3

Cluster 1

Cluster 2

Cluster 3

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CLUSTERS ANALYSIS

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 among clusters, which confirms the consistency of the IPRI, and the relevance of property right systems influencing societies.

- **Cluster 1 and Cluster 3 are two extreme poles** in terms of the performance of their economies, institutions and innovation, as well as their IPRI scores.

- **Cluster 2 statistical values reflected its intermediate positions** and depending on the decisions taken in the present and near future of each country, will be inclined to one of the two polar classes.

- Countries in **cluster 1 should make particular efforts** to strengthen their legal and political environment to protect physical and intellectual properties, which are still weak, in order to improve the quality of life in their societies.

CLUSTERS ANALYSIS

- Countries in **Cluster 3 are the same than in the previous edition**

- Countries in the **boundaries between two clusters have to make special efforts to mind the ga**p, which will place them in a higher level.

- The observed **positive displacement of cluster's centroids** between the 2018 and 2019 editions demonstrates the importance of each country to have a **long-term view of property rights reform policies**, that is, they must be able to continue reaching higher levels of property right protection, to avoid being left behind in the near future by world progress in this matter.

FINAL REMARKS

- The 2019 edition of the International Property Rights Index, shows regularity with previous ones, allowing us to say that it has a **proper structure for monitoring the performance of property rights systems and its relationship to societies' prosperity, globally, regionally and within countries.**

- This year the IPRI edition included 129 countries representing the **93.83% of world population** and **97.72% of world GDP**, with an **average score of 5.73**, showing a slight decrease from previous edition because of the reduction of the LP component average score.

- Results keep suggesting that countries with high IPRI scores and its components also show high income and high development levels, indicating the **positive relationship between property rights regime and quality of life.**

FINAL REMARKS

- IPRI-2019 includes 18 indicators gathered in 3 groups (economic outcomes, institutions and innovation) that were contrasted with the IPRI and its components.

- **Results show a strong association with all of them and with correlations over 0.9 with:**
  - **Corruption Perception Index**
  - **Institutional Quality Index**
  - **Global Biotech Innovation**
  - **Global Entrepreneurship Index**

- Cluster analysis also confirmed the consistency of the IPRI, since the assembled countries exhibited a high degree of homogeneity, showing the relevance of property rights systems in shaping societies.

- By this means, the **IPRI results can be used as guidelines for policy makers** in different countries -as in multilateral or integration agreements, to which they belong- to enhance their policies aimed to foster development, defined as a multidimensional and synergic term.

INDONESIA

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Global Rank: 65 of 129
Regional Rank: 18 of 30
Region: Asia

Indonesia IPRI score for this year is **5.406**, increasing from 5.333 in 2018. Indonesia ranks 18th in Asia and 65th in the world. Classified by the IMF as a part of the Emerging and Developing Asia and by the World Bank as a Lower Middle Income country, Indonesia is a member of the ASEAN.

LP increased to **4.737** from 4.672 with: 5.663 in Judicial Independence, 4.307 in Rule of Law, 4.485 in Political Stability, and 4.4955 in Control of Corruption.

PPR increased to **7.066** from 6.981 with: 6.283in Physical Property Rights protection, 9.095 in Registering Property, and 5.819 in Ease of Access to Loans.

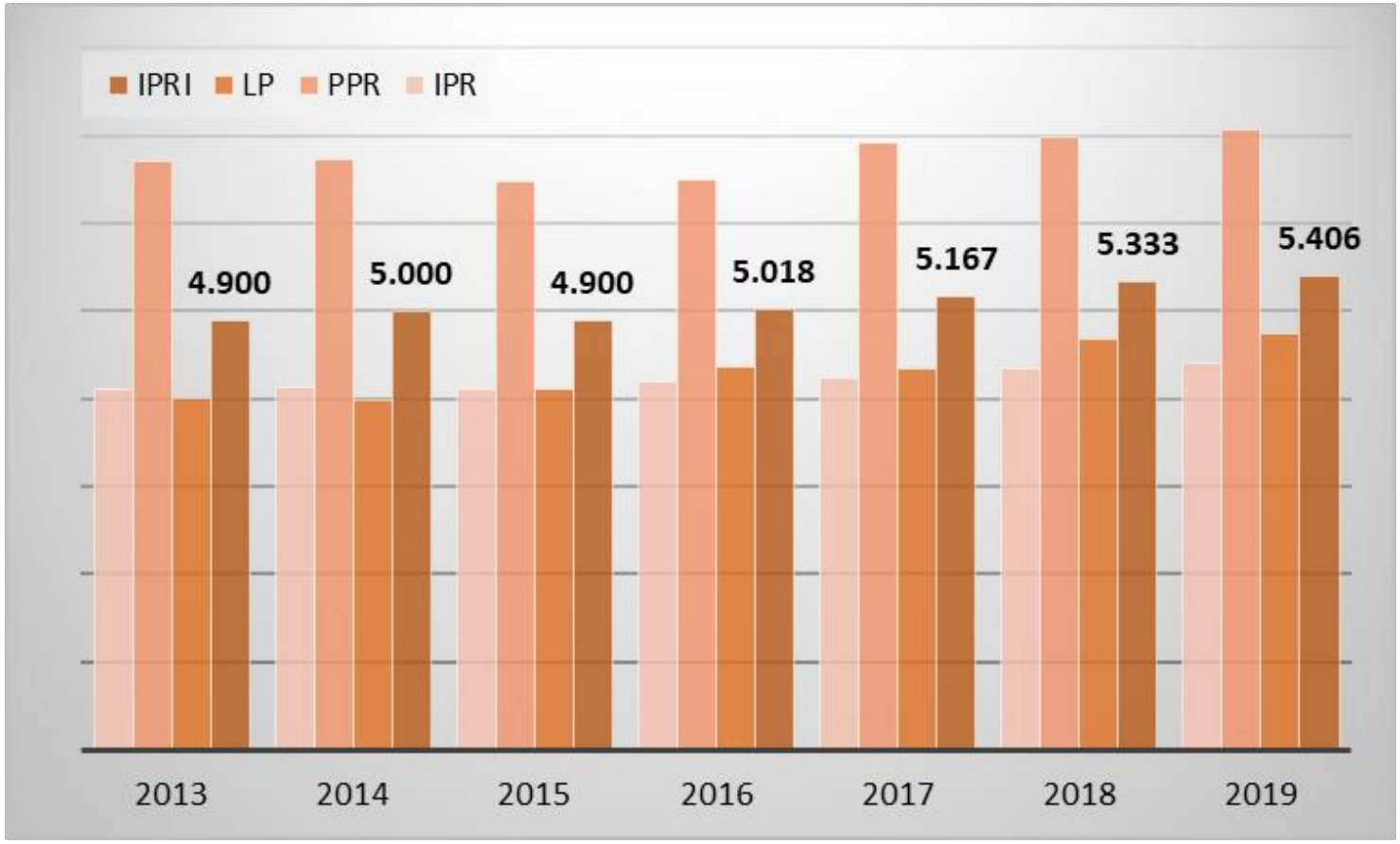
IPR increased to **4.415** from 4.344 with: 6.010 in Intellectual Property Protection, 1.7 in Copyright Piracy Level, and 5.533 in Patent Protection.

IPRI 2019 Score	GE 2019 Score	GE 2019 Rank	IPRI GE 2019 Score	IPRI GE 2019 Rank
5.406	4.929	110	6.392	79

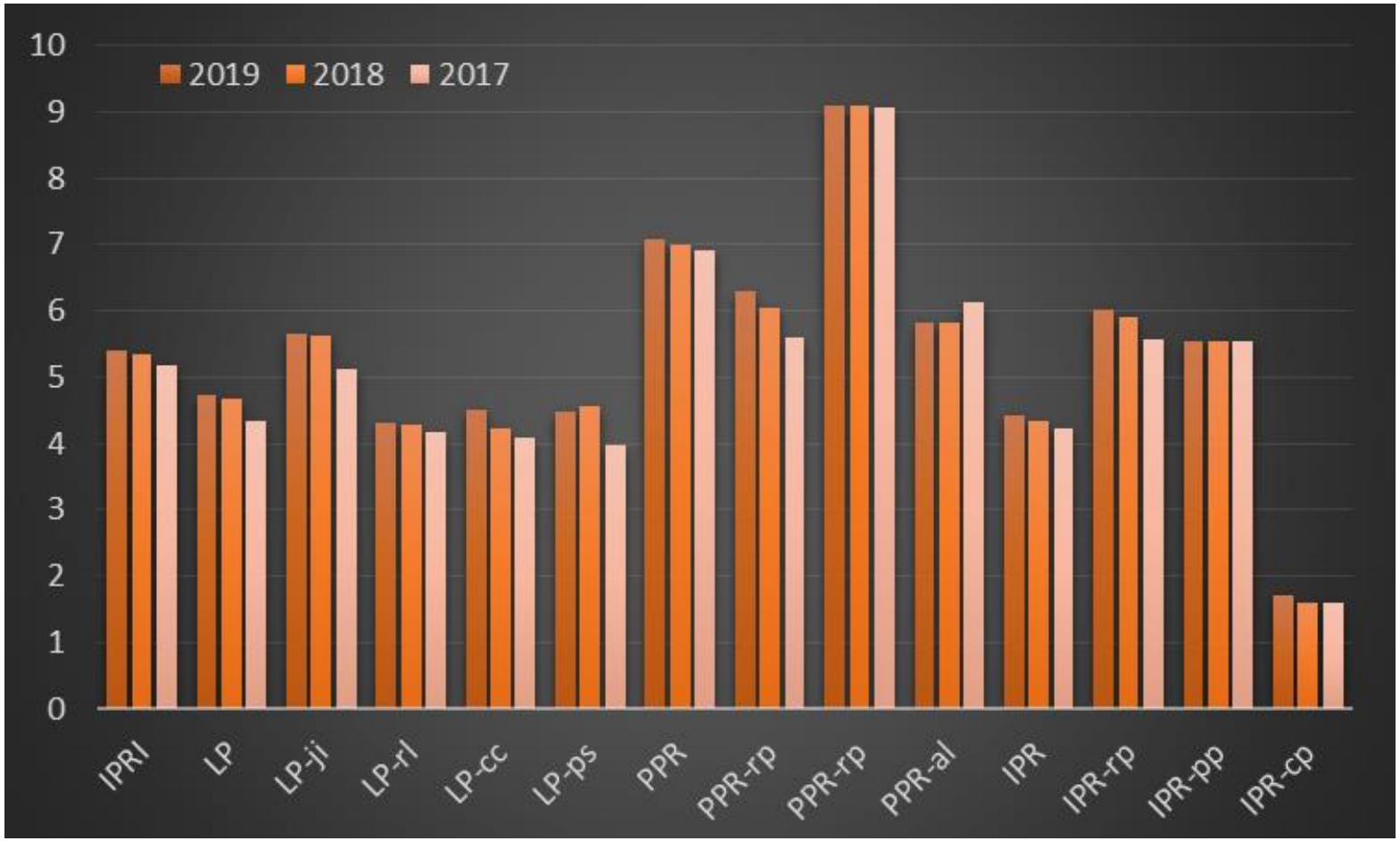
INDONESIA. IPRI, COMPONENTS & ITEMS. 2019

IPRI 2019 5.406	**LP 2019 4.737**	Judicial Indepen-dence	Rule of Law	Corruption	Political Stability
		5.663	4.307	4.495	4.485
	PPR 2019 7.066	Physical Property rights protection	Registering property	Ease of access to loans	
		6.283	**9.095**	5.819	
	IPR 2019 4.415	Intellectual Property Rights Protection	Patent Protection	Copyright Piracy	
		6.010	5.533	**1.700**	

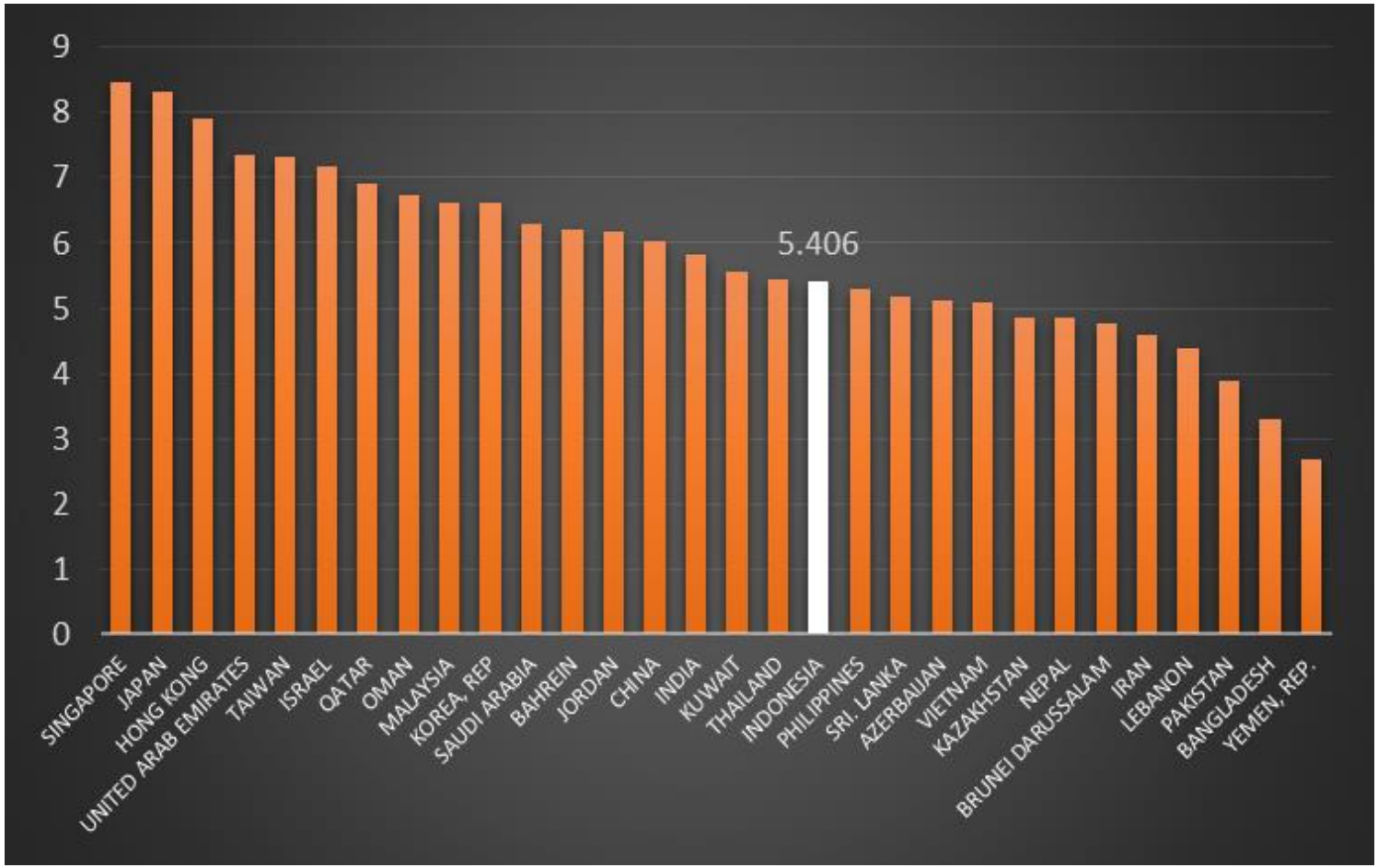
INDONESIA. IPRI & COMPONENTS 2013 - 2019



INDONESIA. IPRI, COMPONENTS & ITEMS 2017-2019.

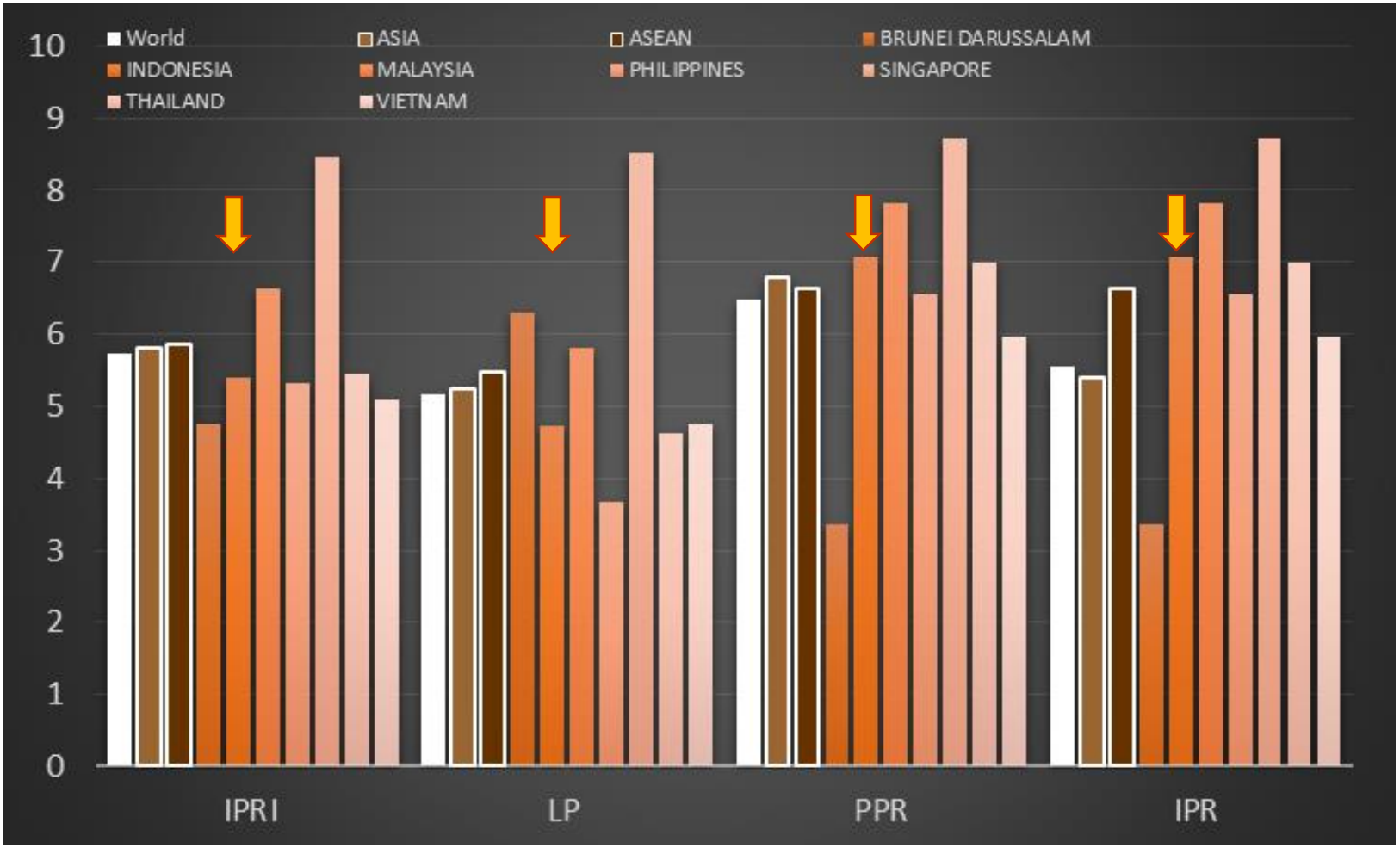


2019 IPRI. INDONESIA among ASIAN COUNTRIES



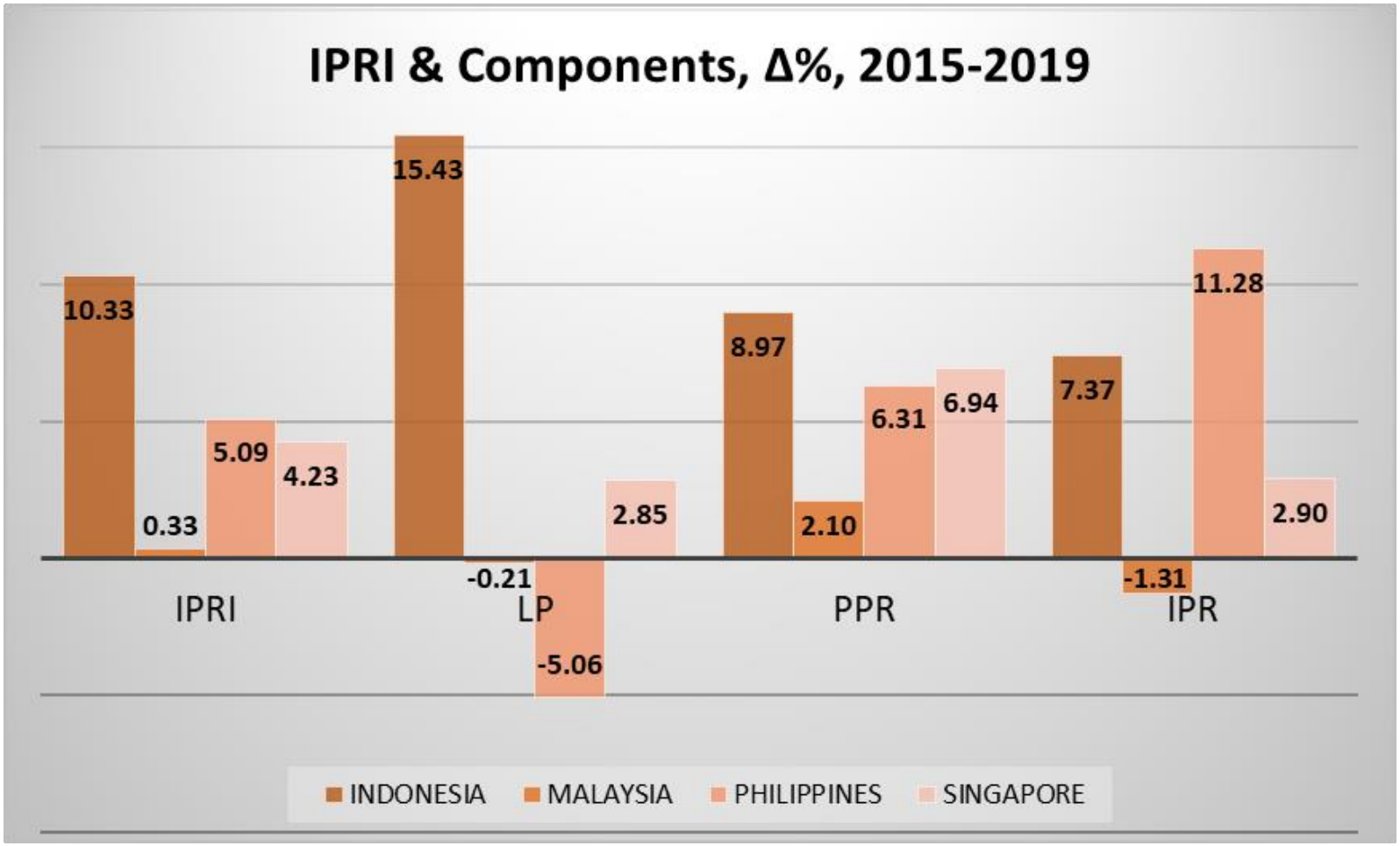
PROPERTY RIGHTS ALLIANCE

2019 IPRI & COMPONENTS. INDONESIA and GROUPS.

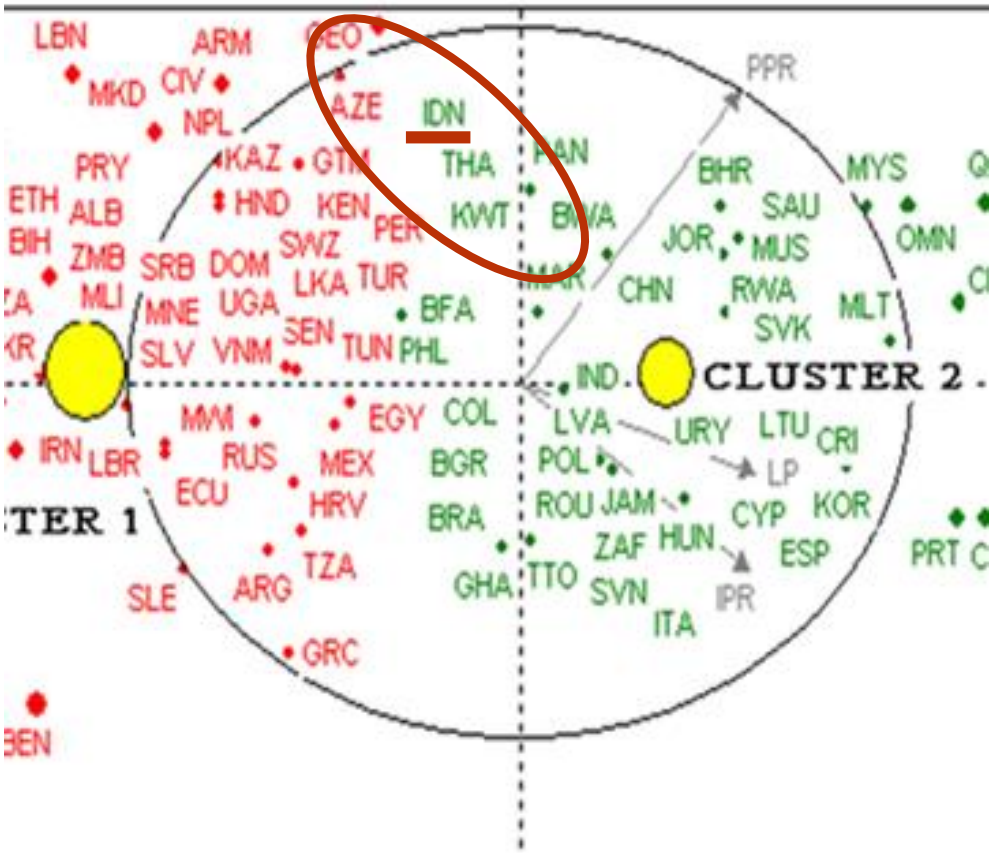


Cambodia, Lao PDR and Myanmar are ASEAN members, but not in the IPRI-2019

IPRI AND COMPONENTS 2015 – 2019. ASEAN countries



INDONESIA. CLUSTER POSITION.



THANK YOU!

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Property Rights Alliance
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