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Committee on Trade Policies in the States Members of the Economic
and Social Commission for Western Asia

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Index Simulator for Policymakers in the Arab Region**Summary**

In response to technical cooperation requests received by the Economic and Social Commission for Western Asia (ESCWA) from some of its member States for assistance in improving national performance in selected international indicators, the ESCWA secretariat embarked in 2020 on developing a simulator of performance in key composite indices in the areas of technology, inequality and the economy.

The present document provides a brief description of the resulting Index Simulator for Policymakers in the Arab Region (ISPAR). It highlights the main objectives and functionalities of ISPAR and briefly mentions its future development plan. The Committee on Trade Policies in States Members of ESCWA is invited to comment on ISPAR and provide recommendations on any changes or additional functions that would be appropriate for country needs.

Contents

	<i>Paragraph</i>	<i>Page</i>
Introduction	1-4	3
<i>Chapter</i>		
I. Objectives	5	3
II. Outputs	6-8	3
III. ISPAR specifications	9-19	4
A. Landing page.....	11	4
B. Indices	12	5
C. Countries	13	6
D. Simulator.....	14	6
E. View by theme	15-16	7
F. Data management.....	17	7
G. User management.....	18	7
H. Logging and audit trail.....	19	8
IV. Development plan	20-21	8

Introduction

1. In response to technical cooperation requests received by the Economic and Social Commission for Western Asia (ESCWA) from some of its member States for assistance in improving national performance in key international indicators, the ESCWA secretariat embarked in 2020 on developing a simulator of national performance for the main composite indices in the areas of technology, inequality and the economy.
2. The present document provides a brief description of the resulting [Index Simulator for Policymakers in the Arab Region \(ISPAR\)](#). It highlights the main objectives and functionalities of ISPAR and briefly mentions its future development plan based on input already received from member State representatives during a validation meeting held on 10 December 2020.
3. Indices currently included in ISPAR are: (a) under economic diversification and competitiveness, the Doing Business Index 2020 (DBI); the Global Competitiveness Index 2020 (GCI); (b) under inequality, the Global Gender Gap Index 2020 (GGI); and (c) under technology readiness and innovation, the Global Cybersecurity Index 2018 (GCI); the 2017 ICT Development Index (IDI); the Network Readiness Index 2019 (NRI); the Global Innovation Index 2020 (GII); the E-Government Development Index 2020 (eGDI); the Digital Accessibility Rights Evaluation Index 2020 (DARE); the E-Participation Index 2020 (EPI); the B2C E-Commerce Index (2020); and the AI Readiness Index (2020).
4. ISPAR allows policymakers to view their countries' current scores in those indices and estimate the direct impact of their national policies on their scores and rankings in the indices they want to track.

I. Objectives

5. The Simulator allows users to:
 - (a) View the current performance of a specific country (scores and rankings) in all supported indicators. ISPAR allows users to benchmark national performance against any other country in the world and against a wide set of groupings and averages (i.e. world average; average of country members of the Organisation for Economic Co-operation and Development (OECD); high-, middle-, and low-income countries; oil-exporting countries; and so forth);
 - (b) Simulate the impact of changing any variable and visualize the new score and ranking in one or more indicators and the overall score and ranking. This feature would allow policymakers to adopt an informed approach to develop their national policies and assist them in identifying their priorities;
 - (c) Identify the possible policy options (changes in the country's key performance indicators (KPIs) and possible combinations) to reach a specific target rank or score;
 - (d) Simulate country performance in a specific theme or sector.

II. Outputs

6. The project under which ISPAR is being developed will produce the following outputs:
 - (a) Databases/static simulator: database for selected international indices; static international index simulators for each of the selected international indices; and databases for forecasting analysis;
 - (b) Dynamic simulation: building dynamic simulators for selected international indices to assess the relative impact of specific policies, reforms or national development plans;
 - (c) Platform: a software tool simulating selected international and regional indicators;
 - (d) Working papers/analytical reports: (i) analysis reports (country profiles according to the selected indicators); (ii) a technical paper on options for linking trade-related indicators to the global Arab trade

simulator under development by ESCWA; (iii) a technical paper on links between gender policies and related indicators; and (iv) innovation/new technology indicators and relevant policies;

(e) User guides and training material;

(f) Validation workshops to discuss the pilot version of the tool and discuss hypotheses used for forecasting analyses;

(g) Trainings: a regional training of trainers and national training workshops as per member State requests.

7. Thanks to this project, policymakers and stakeholders will have greater knowledge and skills in designing more effective policies and reform scenarios suitable for achieving their own development aspirations. Stakeholders will have access to a software simulator covering a large range of issues from economic integration and the quality of the business environment to innovation, technology and gender, allowing for comparison of planned and considered reforms and policies with those of more than 140 other countries in terms of their effect on performance in a number of international rankings.

8. The project will also contribute to improving transparency and accountability by facilitating monitoring and helping policymakers simulate the impact of changing selected development aspects on their national performance in these indicators in an integrated view. This project will also enhance the capacities of the private sector and individuals to make decisions based on national performance.

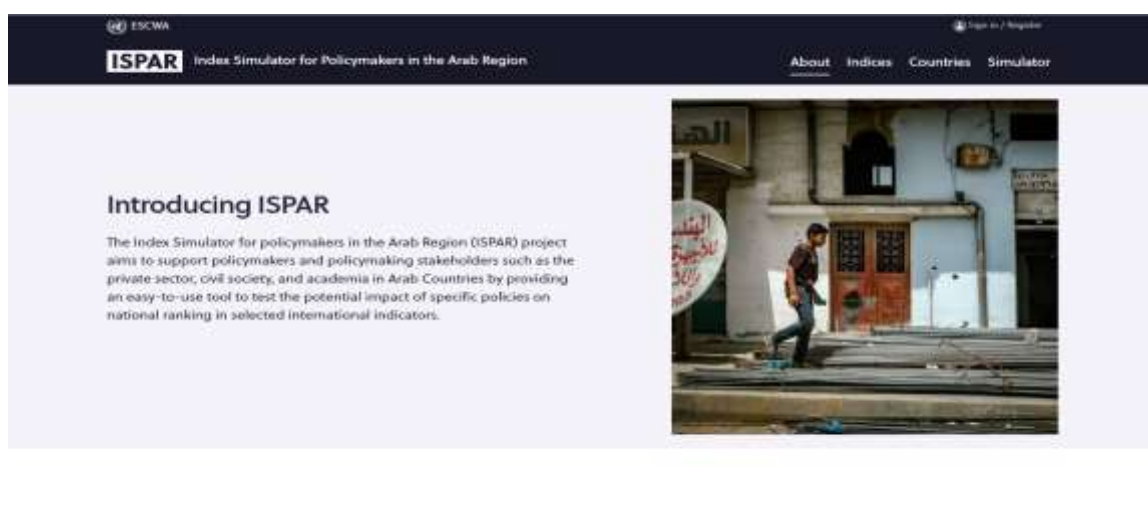
III. ISPAR specifications

9. To achieve the above objectives, ISPAR is made accessible to everyone as anonymous users for the pre-defined simulators as well as to test their own data. At the end of the project, the interface will be available in English and Arabic.

10. ISPAR contains several pages that will be described below.


A. Landing page

11. The landing page is the entry point to the whole tool and its main sections are as follows: “About”, which presents additional information on the project and indices; “Indices”, which presents the indices and provides a brief description of them; “Countries”, where a specific country can be selected to view its results or simulate its performance; and “Simulator”, where the desired simulations can be launched.



B. Indices

12. By clicking on Indices, the user will get more information on the indices included in the platform. A brief description of each index is included, with a link to its original website.


ISPAR Index Simulator for Policymakers in the Arab Region

[About](#)
[Indices](#)
[Countries](#)
[Simulator](#)

[Sign in / Register](#)


Using international indices

ESCWA supports member States in streamlining economic planning and coordination across ministries and partners, and acts as regional policy advisor on the use of international indices for developing effective and transformational policies.

With ISPAR, ESCWA offers technical support in identifying strengths and weaknesses related to regional and international indicators towards more effective policymaking.

The selected indicators cover competitiveness, gender, business, technology and innovation.

[Technology](#)
[Inequality](#)
[Economy](#)



Technology readiness and Innovation

Global Cybersecurity Index

Cybersecurity becomes an imperative as institutions are moving increasingly to digital platforms. Developed by International Telecom Union, The Global Cybersecurity Index (GCI) measures the commitment of countries to cybersecurity at a global level to raise awareness of the importance and different dimensions of the issue.

It is composed by five pillars – (i) Legal Measures, (ii) Technical Measures, (iii) Organizational Measures, (iv) Capacity Building, and (v) Cooperation.

[Learn more about the Global Cybersecurity Index](#)
[Explore the Index simulator](#)

ICT Development Index

ICTs could not positively impact national development unless there is an appropriate access and use of these technologies in the country. Produced by the International Telecom Union (ITU), The ICT Development Index (IDI), is a composite index that combines 11 indicators into one benchmark measure.

It is used to monitor and compare developments in information and communication technology (ICT) between countries and over time. IDI focuses on three aspects: ICT Access, Use and Impact.

[Learn more about the ICT Development Index](#)
[Explore the Index simulator](#)

Network Readiness Index

Digital transformation needs the availability of appropriate infrastructure, skilled human resources, adequate governance and impact on national development. Developed by Portulans Institute, this index assesses 134 economies based on their performance across 60 variables.

The Index includes four fundamental dimensions: Technology, People, Governance and Impact. This holistic approach means that the NRI covers issues ranging from future technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) to the role of the digital economy in reaching the Sustainable Development Goals (SDGs).

[Learn more about the Network Readiness Index](#)
[Explore the Index simulator](#)

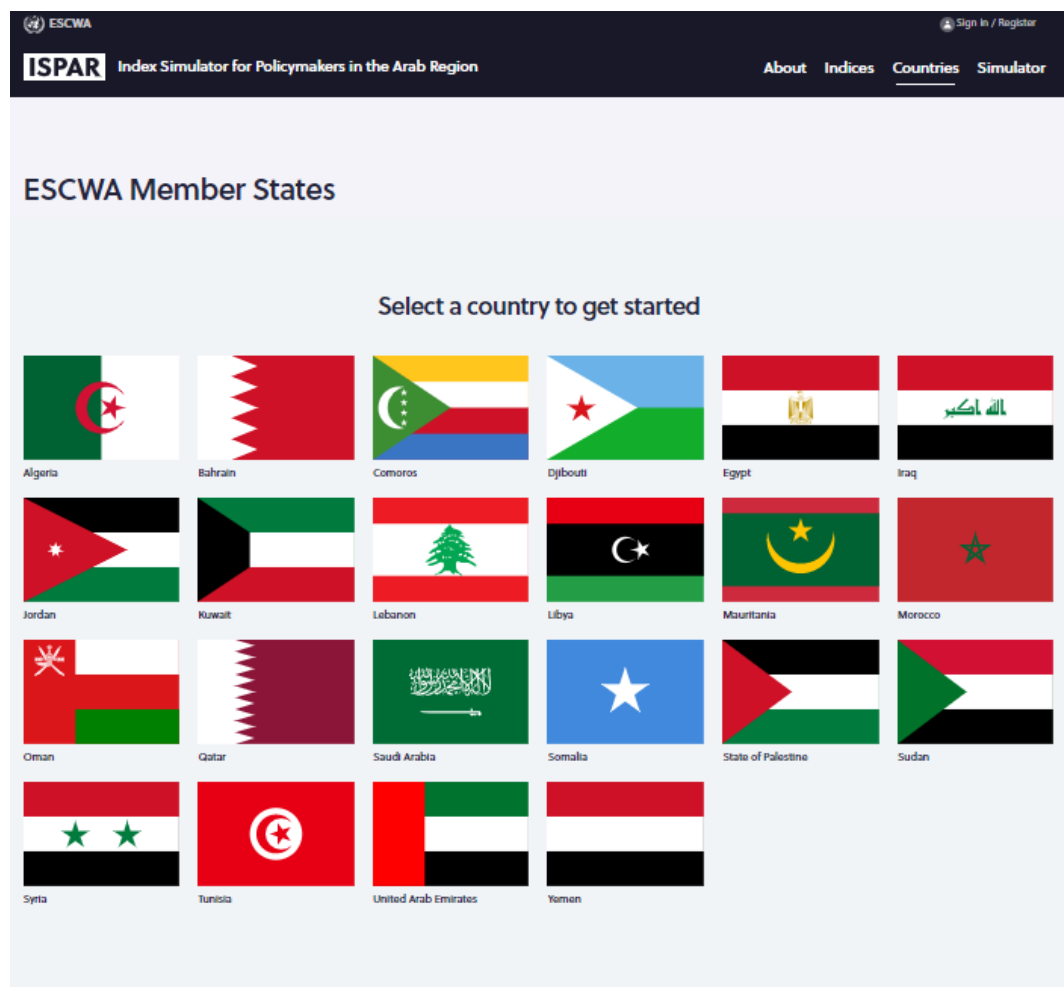
Global Innovation Index

To take full advantage of innovation on national level, a mature ecosystem is needed. Developed by World Intellectual Property Organization (WIPO), the Global Innovation Index (GII) measures the innovation ecosystem on national level by covering 3 dimensions: innovation input, innovation output and innovation efficiency.

[Learn more about the Global Innovation Index](#)
[Explore the Index simulator](#)

C. Countries

13. The Countries page allows the user to select any country in the Arab region to view its performance in the supported indices or to simulate any new values. From this page, “Benchmark countries” can be selected to compare the performance of the selected country with two others from the Arab region or elsewhere. The page then displays the performance of the selected countries in all supported indices.



D. Simulator

14. The Simulator page allows the user to select any country in the Arab region to view its performance in the supported indices or simulate any new values. The user selects the index to be simulated and can enter new values for the indicator’s KPIs. The page provides assistance in this task and displays the minimum and maximum values for each KPI and a rich set of averages calculated based on different country groupings. In this view, the user can also select any number of countries to benchmark. Once the new KPI values are entered, ISPAR will display the country’s new rank and score. The user can then save the dashboard generated.

ISPAR Index Simulator for Policymakers in the Arab Region

The Index Simulator

This simulator is for advanced users who have an understanding of the [indices](#) and have reviewed their [country's ranking](#) in those indices. The Index Simulator allows you to imagine how a change in your country's performance in an index KPI would alter its overall ranking, and to select other countries for comparison.

Select a country ▼ Select an Index ▼

ESCWA Member States

- Algeria
- Bahrain
- Comoros
- Djibouti
- Egypt
- Iraq
- Jordan
- Kuwait
- Lebanon
- Libya
- Mauritania
- Morocco
- Oman
- Qatar
- Saudi Arabia
- Somalia
- State of Palestine
- Sudan
- Syria
- Tunisia
- United Arab Emirates
- Yemen

E. View by theme

15. Indices are grouped by theme. The option 'View by theme' will in the future allow the user to select his/her desired theme, indices and country and benchmark(s) and display the result of the simulation for all the KPIs under this theme and the impact on the rankings in the respective indices (if the theme is 'gender' then the user will see all relevant individual indicators from the Doing Business Index, the Gender Gap Index, etc., change weights and KPIs provided that the sum of weights is equal to 100 under a given dimension). This feature is still under development.

16. ISPAR will select benchmark countries based on the selected indices but will also allow the user to specify the benchmark or create a benchmark grouping him/herself.

F. Data management

17. This page allows the administrator to update the data used for simulations, including by adding or editing countries and updating country data.

G. User management

18. After predefining the roles that will be used in this application, this page allows the administrator to create a user, assign a user to a specific role and edit or remove a user from a role.

H. Logging and audit trail

19. The administrator can view logs of actions performed on the application. Logs will be stored automatically and will include:

- (a) Country;
- (b) Page visits;
- (c) Tested inputs per country;
- (d) KPI selections.

IV. Development plan

20. Various simulation tools will be developed for non-technical audiences using a graphic interface. A thematic simulator will also be developed and integrated with ISPAR to allow users to simulate the impact of policy actions on a specific sector. A smart simulator will be developed to offer several options for users to improve their country's current score/rank.

21. The Committee on Trade Policies in States Members of ESCWA is invited to comment on the above overview of ISPAR and provide recommendations on any changes or additional functions that would be appropriate to country needs, so that the ESCWA secretariat can take them into consideration in the updated version of ISPAR.
