# UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA (ECA)

### AFRICA REGIONAL INTEGRATION INDEX PLATFORM (ARIIP)\* USER GUIDE

ARII—a multi-dimensional index that captures integration in five areas: trade, productive, macroeconomic, infrastructural and free movement of people dimensions. These dimensions consist of various indicators

\*ARIIP was developed in the framework and with the financial support of the Development Account Project 1819X (11th tranche) on "Measuring, monitoring and improving performance in regional integration within ECA, ESCWA and ESCAP regions"

Abstract



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### 1. User Manual and Guidance

### 1.1 The Africa Regional Integration Index Platform

This platform provides the user with a wealth of information on regional integration on the African continent. Regional integration is a complex concept that englobes the trade, productive, macroeconomic, infrastructural and free movement of people dimensions. These dimensions are not stand-alone but function as a whole to foster regional integration.

This platform allows the user to access the Africa Regional Integration Index (ARII) 2019 scores and rankings as well as the data used to compute these scores and a vast array of related information. Information is available at various levels:

- 54 Countries (All African countries);
- 8 Regional Economic Communities (REC);
- 5 Dimensions;
- 16 Indicators.

Eight Regional Economic Communities (RECs) are recognized by the African Union. They constitute the building blocks of the African Economic Community to be established by 2028 as outline in the 1991 Abuja Treaty which provides the overarching framework for continental economic integration. These are:

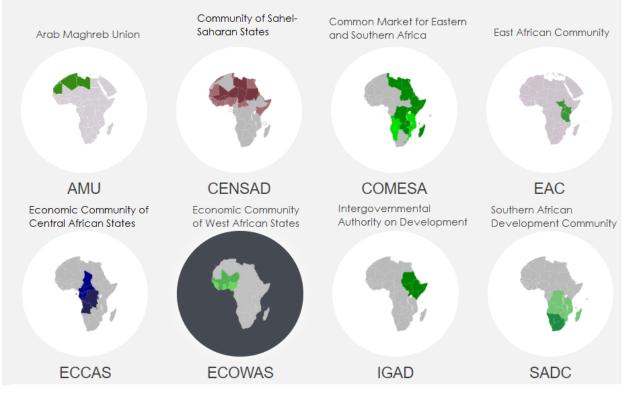


Figure 1 - Regional Economic Communities - RECs

4.1.1 Dimensions and Indicators of ARII 2019

The five main dimensions of ARII 2019 are (Figure 2 - The Five Dimensions):



**Trade Integration** 

Productive Integration



Infrastructural Integration



People

#### Figure 2 - The Five Dimensions

#### 4.1.1.1 Trade Integration

The more a country trades with others in the region, the better integrated it is considered. Trade fosters linkages beyond mere exchanges of goods. It enhances interdependencies and promotes cooperation and stability.

The trade dimension is measured through the following five indicators:

Indicator	Country Coverage	Calculation
Level of tariff on imports (intra- regional import)	All except Somalia and South Sudan	Bilateral tariff rate that each country i applied to country j and averaged over all countries in the region
Share of intra-regional goods export (%GDP)	All except South Sudan	The ratio of merchandise exports of country i over GDP. Exports and GDP are average of 2014- 2016 data.
Share of intra-regional goods import (%GDP)	All except South Sudan	The ratio of merchandise imports of country i over GDP. Imports and GDP are average of 2014- 2016 data
Share of intra-regional goods trade (%total regional trade)	All except South Sudan	The sum of country i merchandise exports and imports to all other countries in the region over the total regional merchandise exports. Exports are average of 2014-2016
AfCFTA	All	Countries are assigned a score of 0 if they did not sign, a score of 1 if they signed and a score of 2 if they ratified the agreement (by 2019 AU Summit held in Niamey (Niger).



#### 4.1.1.2 Productive integration

It refers to the extent of which a country has complementary productive capacities with respect to other countries in the region whereby it can specialize in the production stages where it has a comparative advantage benefitting from scale economies. It entails the country's involvement in the regional supply and value chains.

The Productive dimension is measured through the following three indicators:

Indicator	Country Coverage	Calculation
Share of intra-regional exports of intermediate goods	41 + 13 (imputation)	The sum of country i intermediate exports to all other countries in the region over the total regional exports. Exports are average of 2014-2016.
Share of intra-regional imports of intermediate goods	41 + 13 (imputation)	The sum of country i intermediate imports to all other countries in the region over the total regional exports. Imports are average of 2014-2016.
Merchandise trade complementarity index Africa / RECs	All except South Sudan	As per Michaely (1996), TCI of a country is the sum of the absolute value of the difference between the import shares and the export shares of the countries or country groups under study, divided by two: $\frac{\sum_{i}  E_{ii} - M_{iik} }{2}$ Se <sub>j</sub> m <sub>k</sub> = 1 - $\frac{\sum_{i}  E_{ij} - M_{iik} }{2}$ Se <sub>j</sub> m <sub>k</sub> = the index of trade complementarity of exporter j with importer k i = goods in 3 digit SITC Revision 3 j = exporter k = importer E <sub>ij</sub> = the share of goods i in country j's total exports to the region $M_{iik}$ = the share of goods i in country k's total imports from the region

#### 4.1.1.3 Macroeconomic integration

The convergence and stabilization of macroeconomic policies create a healthy financial climate that attracts cross-border investments and is, therefore, conducive to financial and macroeconomic integration.

It is measured through the variable regional inflation differential which measures the difference between a country's inflation rate to the target inflation rate set by the region otherwise the minimum positive rate is used. The dimension also includes the regional convertibility of currencies so as to measure the ease with which foreigners and businesses can transact. The number of bilateral investment treaties in force has been used to capture the scope of cross-border capital flows.

The Macroeconomic dimension is measured through the following three indicators:



Indicator	Country Coverage	Calculation
Number of bilateral investment treaties	All	The number of bilateral investment treaties that have been signed net of those that have not been ratified and/or have been terminated within the region
Regional convertibility of national currencies	All except Eretria	The number of countries in a region with which a country shares a common currency or with which its currency is convertible as reported by each country's central bank
Regional inflation differential	All except Somalia	Inflation differential is the difference between country i inflation rate and that of the official target for the region. Otherwise the minimum positive value for the region is set as target

#### 4.1.1.4 Infrastructural integration

The extent to which a country has adequate infrastructure that facilitates the workings of regional integration is captured by the infrastructural dimension.

The Infrastructural dimension is measured through the following two indicators:

Indicator	Country Coverage	Calculation
Infrastructure development index	All	As is (a composite index that accounts for development in electricity; transport; ICT; and water and sanitation)
Proportion of intra-regional flights	All	The total number of flights leaving and arriving in country I over the total number of flights leaving and arriving in the region

#### 4.1.1.5 Free movement of people

The ease with which people can move in the region for tourism and social purposes, and to conduct businesses reflect integration on the free movement of people dimension.

It is measured through the number of countries whose citizens are granted visas on arrival by each country in the region is used as a variable. Since many countries still have very rigid borders so that citizens of some countries have to go through the hassle of obtaining a visa before they travel, the variable the number of countries whose citizens strictly require visa is also included to differentiate countries with close and open borders. Additionally, the dimension is also comprised of a variable that identifies whether countries have adhered to the protocol on the free movement of people, right of residence and right of establishment.

The Free Movement of People dimension is measured through the following indicator:

Indicator	Country Coverage	Calculation
Ratification of the Protocol on	All	The variable takes a value of 1 if the
the Free Movement of		country has ratified the protocol and 0



Indicator	Country Coverage	Calculation
Persons		otherwise

#### 1.2 The Africa Regional Integration Index Platform (ARIIP) Sections

ARIIP consists of the following seven main menu items:

#### 4.2.1 Home Page

It is the landing page of the application. Users will access the ARIIP by entering its corresponding URL. Once the URL has been entered, the screen will direct the user to the platform's home page. When the user first loads the platform, she/he gets a popup message that gives her/him a welcome message, a brief intro about the platform and a link to enter to the tour guide or not.

nit	ed Nations
	Welcome to the African Regional Integration Index 2019 Platform
	This platform provides the user with a wealth of information on regional integration on the African continent. Regional integration is a complex concept that englobes the trade, productive, macroeconomic, infrastructural and free movement of people dimensions. These dimensions are not stand-alone but function as a whole to foster regional integration. This platform allows the user to access the Africa Regional Integration Index (ARII) 2019 scores and rankings as well as the data used to compute these scores and a vast array of related information. Information is available at various levels.
	First time visiting the African Regional Integration Index 2019 Platform?
	Start the tour guide to learn about all features on this page
	<ul> <li>We have specific tour guides for every page of the ARII Platform.</li> <li>You can always access the tour guide by clicking on ♀ (icon) or "How to use" (menu)</li> </ul>
	In case you have any questions, contact us on https://www.uneca.org/pages/contacts
	← SKIP PLATFORM TOUR GUIDE START PLATFORM TOUR GUIDE →

Figure 3: Welcome message on home page load

The home page is split into the following parts:

#### 4.2.1.1 Common Components

1. Page Header: it is a common part in all pages; it has the name of the portal, the ECA logo, the name of the portal in a form of a hyperlink once clicked navigates to the home page, and a google language drop down application (Figure 4 - Page Header)





 Main menu: The portal's main menu with the following menu items (Figure 5 - Main Menu) Home, Maps, Charts, Tables, Resources (Development Account (DA) Project, ARII 2019 Report, ARII 2019 Methodological Note, ARII 2019 User Guide and ARII 2019 Raw Data), About and How to Use menu items.





3. Page footer: always visible on all pages across the application (Figure 6 - Page Footer). It contains useful links about ECA, ARII project and resources in addition to other info related to social media, privacy, term of use, contact us etc.

ABOUT ECA	LINKS	RESOURCES	SOCIAL ME	AIA
Overview	DA Project	ARII Raw Data	F Facebook	RSS
Mandates	ARII 2019 Report	Databank	🎔 Twitter	Youtube
Executive Secretary	ARII Methodological Note		😐 Flickr	Contact Us
Copyright	D UNECA 2019 Terms of Use	Privacy Notice Fraud Alert	Contact Us	
	© United Nations Eco	nomic Commission for Africa		

Figure 6 - Page Footer

#### 4.2.1.2 Middle Carousel

A carousel control showing some images related to the objective of the portal. There is a timer between every image and the other, and the user can click on the bullets to browse through different images (Figure 7 - Home page Carousel)



Figure 7 - Home page Carousel

#### 4.2.1.3 Description About the Platform

Intro: this section shows a small description about the ARIIP (Figure 8 - Intro about ARIIP)



Figure 8 - Intro about ARIIP

#### 4.2.1.4 Dimensions

This section shows the 5 dimensions, each one represented in a circle with a logo, when the user clicks on any of them, a brief description about the dimension and its indicators is shown (Figure 9 – Dimensions)



Figure 9 – Dimensions – Trade Integration Selected

#### 4.2.1.5 Continental and Regional Integration

This section shows images for Africa continent's map and the 8 different Regional Economic Communities (RECs) maps. When the user hovers the mouse over any of the images, a list of the related countries is shown in a grey rectangle. When clicks on any of them the Africa continent map will be displayed highlighting the corresponding countries. Hovering over any of the highlighted countries the related score and rank are displayed (Figure 1 - Regional Economic Communities - RECs). Clicking any of the highlighted countries, its national flag together with its scores and ranks, related to the five different dimensions, will be shown in a panel located on the left-hand side of the page.



In the below example (Figure 10 - Continent Average Scores), "Continent" was selected to get Average Continent Scores and regional integration scores on map highlighting and hovering the mouse over Senegal country as an example to show in a grey rectangle: Senegal Regional Score = 0.41 (Rank 10) and dimensions scores on the panel located on the left-hand side.

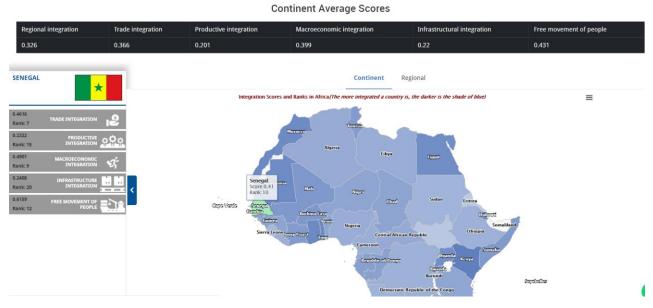


Figure 10 - Continent Average Scores



#### 4.2.2 Maps Page

User can navigate to the Maps page by clicking on the Maps menu item. Subsequently, Africa continent map subdivided by country is shown (Figure 11 - Maps Page). Hover the mouse over any of the countries and a brief summary of the eight dimension's details (score, rank) for the selected country is displayed in a grey rectangle. Alternatively, the "Regional" tab can be chosen which categorizes countries by REC within the selection list.

	삼 Home	🔒 Maps	🗠 Charts	<b>Tables</b>	🛓 Resources 👻	🚯 About 👻	How to Use
Reset     O View Selection		С	ontinent or Regiona	Continent X			
<ul> <li>Select specific country/countries by Regional Community or Continent to display data for</li> </ul>		Countries Select			Select Countries		
			oounino	Select Ci	Juliules		
Continent Regional							
Continent Countries		SHOW/HIL	E AVERAGE SCC	KES V			
Algeria					Overall Regiona	l Integration - 2019(	(The more integrated a country is, the darker is the shade of blue)
Angola Angola							
Benin Botswana	<				Senegal: Overall Regional Integrat		
Burkina Faso					Trade Integration: Score Productive Integration: S	core = 0.23226 - Rar	sk = 15 Egypt
Burundi					Macroeconomic Integration Infrastructural Integration	ion: Score = 0.49019 on: Score = 0.24082 -	- Rank = 9 Rank = 20
Cabo Verde					Free Movement of People		Rank = 14
Cameroon					Othe Verde &	Venegal	Charl Sudan Eritrea
Central African Republic						Ruinea	Nigeria
Chad Comoros						Ivery Coast	Central African Republic
							Cameroon Somalia Republic of Congo Kenya
Cote d'Ivoire							
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							Angola Malawi Comoros
Global Scores 1							Zimitaliwe Madagascar Genetices
							Namibia Mentitive
							Eswätitt
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Scores by Dimension			-				
							Y
Dimension > Indicator	-					0	0.25 0.5 0.75
Search Dimensions / Indicators	Q	Discla	limer				
+ Trade Integration							
+ Productive Integration							
+ Macroeconomic Integration							
+ Infrastructural Integration							
+ Free Movement of People							





Herein below is a step-by-step example to view Dimensions/Indicators scores and ranks for selected countries:

- 1. From the top left panel in the Maps page view, select the "**Continent**" tab, then a list of all African countries appears in the panel;
- 2. Select one or more countries by checking their leading checkboxes. Alternatively, you may click "Select all Countries" to mark them all. Selected countries will be displayed in the box labeled "Countries" (Figure 12 Selected Countries). You may remove any of the selected countries either by clicking the "x" symbol near the country name listed in the filter area or unchecking the leading checkbox in the top left panel;
- 3. To view the "Overall Regional Integration Score" check the "Global Scores" button and click the "View Selection" button on top;
- 4. To view the score/rank of any Dimension or Indicator check the target Dimension/Indicator in the bottom left panel (dimensions/indicators are mutually exclusive, hence only one item at a time can be checked) then click the "**View Selection**" button at the top of the left panel;
- 5. Upon clicking "**View Selections**", only the selected countries will be highlighted on the map over which you can hover the mouse and view the results in a grey rectangle (Figure 12 Selected Countries). Below is selected Senegal country as an example;
- 6. At any time, you may press the "**Reset**" button to restore the default view and clear selections.

	🚮 Home 🕺 Ma	ps 🗠 Charts	== Tables	🛓 Resources 👻	i)About 👻	? How to Use
Reset     C Vivy SHitch     Select specific country/countries by Regional Community or     Continent to display data for		Continent or Region			le X Central African F	tepublic X Chad X Comoros X Cote d'Ivoire X Senegal X Sierra Leone X Somalia X Sudan X
Continent Regional	SHOW	HIDE AVERAGE SC	ORES 🛩			
CENSAD COMESA EAC ECCAS ECOWAS IGAD SADC	<			Trade Senegal:	Integration <i>(The more</i> Morocco	NITY OF SAHEL-SAHARAN STATES integrated a country is, the darker is the shade of blue) Tunisia igeria Libya Egypt
CENSAD Countries          Niger         Nigeria         Sao Tome and Principe         Sao Tome and Principe         Sare Ta Leone         Somalia         Sudan         Trunicia         Select all Countries				Senegal Trade integ Rank2	ration Score 0.53506 Metro Samo Score 1. Cuines Cuines Cuines Cuines Cuines	Nigera Centra African Republic Canseroon Republic of Congo Barundi Democratic Republic of the Congo Angola Zambia Nadaya Congores Angola Zambia Madagascar Namibia
Global Scores     Generative display data or a Dimensition to view Ov     Search in indicator to display data or a Dimensition to view Ov	erall	+ - Disclaimer			0	Evention South Africa 0.25 0.5 0.75 1
Scores by Dimension Dimension > Indicator	•					
Search Dimensions / Indicators +  Trade Integration + Productive Integration + Marceconomic Integration + Intrastructural Integration	۹					
		Figure	12 - Sel	lected Cou	Intries	

As a side note same steps apply in case the "**Regional**" tab is selected.



#### 4.2.3 Charts Page

User can navigate to the Charts page by clicking on the "**Charts**" menu item. Subsequently, the Charts page view appears which comprises of two main parts, the selection panels to the left and the chart display area in the middle (Figure 13 - Charts Page)

		A Home	🔏 Maps 🔛 🤇	Charts 🔠 Tables	🛓 Resources 🔹	About •	? How to Use
Reset     View Selection     Select specific country/countries by R     Continent Regional	egional Community or Continent to display data for		Continent or Regional Countries	Continent X Select Countries			
O Continent Countries					-		$\sim$
Ageria Angola Benin Bokswana Burkina Faso Burandi Cabo Verde Cameroon Cata Verde Cameroon Cata African Republic Conoros Conoros Congo Cote d'Ivoire Benutbic of the Daroop Select all Countries	Countries List	<		Chart Arec		Selected I	filters
Overall Dimension Scores ()		-					
Dimension Breakdown     Ountry Rankings     Regional Scores by Country     Country Performance	Checkboxes to generate predefined charts						
<ul> <li>Select an indicator to display data or a</li> <li>Indicators Breakdown by Dimension</li> </ul>	Dimenstion to view Overall Scores by Dimension						
Dime	ension > Indicator 🔹						
Search Dimensions > Indicators + Trade Integration + Productive Integration + Macroeconomic Integration + Infrastructural Integration + Free Mavement of People	List of Dimensions and Indicators						

Figure 13 - Charts Page

#### 4.2.3.1 Filters

For every indicator, the user has a set of criteria to filter the data she/he wants to view. The criteria can be described, as follows:

- 1. Country/REC: a list showing 54 African countries to select from;
- 2. **Dimension or Indicator**: a list of 5 dimensions and 16 indicators categorized by dimension to select from;
- 3. **Predefined charts**: a list of five predefined indicators to choose from (Figure 13 Charts Page).

#### 4.2.3.2 How to use the charts view?

To plot any of the available dimensions/indicators, either select an REC from the "**Regional**" list or select countries from the "**Continent**" list.

For example: to plot the graph shown below on Figure 14 - Share of Integrational Trade indicator in an Area chart type: First select the required countries or REC from the



countries list, then select "**Share of Intraregional Trade**" indicator from the list of "dimensions and indicators" list, then click the "**View Selection**" button and wait until the chart is displayed. Hover the mouse over any of the plotted points to view the score per country in a grey rectangle. You may change the chart type from "Area" to "Line" chart by clicking the "Change Chart Type" button and choosing the "Line Chart" from the list.

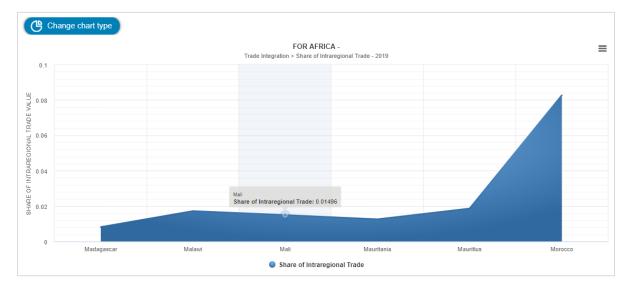
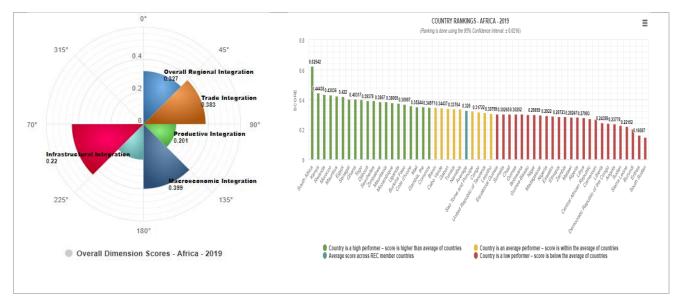


Figure 14 - Share of Integrational Trade

Select a country or more and then check any of the indicators in the predefined charts area then click "**View Selection**" to view the results. Figure 15 - Predefined Charts below showing some samples of the resulting charts.



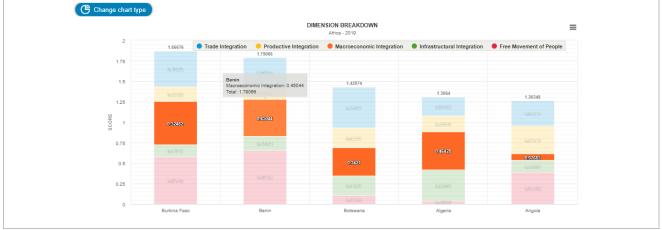


Figure 15 - Predefined Charts

The "Regional Scores by Country" and "Country Performance" indicators assumes a single country is selected to generate the corresponding chart. Figure 16 - Regional Scores by Country - Senegal showing the results of Senegal after selecting it from the country's list and checking the "**Regional Scores by Country**" indicator, then clicking the "**View Selection**" button.

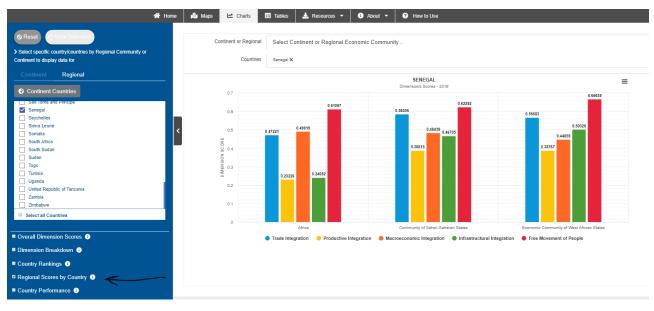


Figure 16 - Regional Scores by Country - Senegal

#### 4.2.3.3 Chart Types

Highcharts is a SVG-based, multi-platform charting library that has been actively developed since 2009. It makes it easy to add interactive, mobile-optimized charts to web and mobile applications. It features robust documentation, advanced responsiveness and industry-leading accessibility support. It allows the user to output a graphical representation of the data. It is useful when utilizing modern browser technologies such as SVG or Canvas for interactive data visualizations. The chart supports various chart types such as area, bar, line, scatter, pie and donut, etc. and user may interactively change types where the image sown in (Figure 17 - Available Chart Types) is visible.



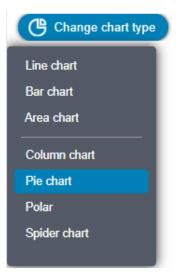


Figure 17 - Available Chart Types

By clicking the hamburger menu shown below in Figure 18 - Hamburger, the user can use all the chart related features like Downloading a PNG image, JPEG image, a PDF document, SVG vector image, also can export the graph to CSV, Excel, and view the data being drawn in the graph. Furthermore, the user can easily change the chart type to get another view of the data through the "Change Chart Type" button.

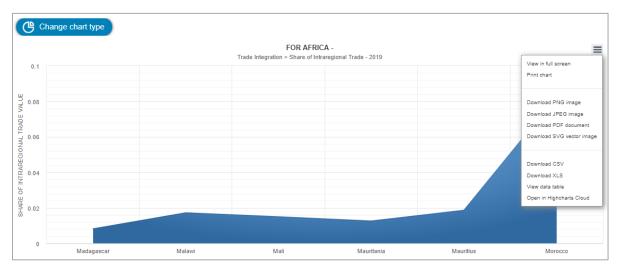


Figure 18 - Hamburger Menu

Below is a list of the available chart types among which user can chose. This option may be used through *ARIIP* where the button labeled "Change Chart Type" is visible (Figure 17 - Available Chart Types):

#### a) Line Chart

- i. A line chart shows data as continuous lines that pass through points defined by their items' values. It can be useful for showing a trend over time and comparing several sets of similar data.
- ii. On the X-axis, we will have the Dimension or Country and on the Y-axis, we will have the score value.



iii. Figure 19 - Line Chart Type shows a sample line chart for indicator "share of intra-regional trade" of the Trade Integration's Dimensions across member States of the Arab Maghreb Union (AMU).

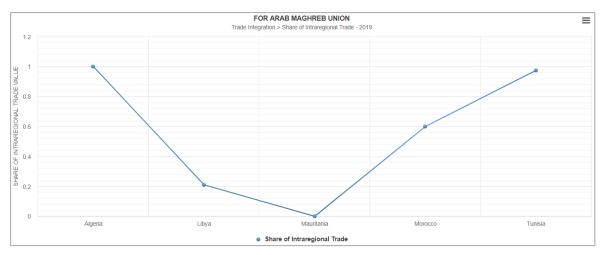
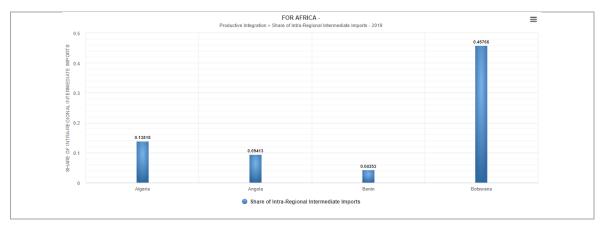


Figure 19 - Line Chart Type

#### b) Bar Chart

- i. A Bar chart displays data as horizontal or vertical bars (column chart) whose lengths vary according to their value. Bar chart is used to best to show a comparison between several sets of data;
- ii. Figure 20 Column and Bar Chart Types showing a sample bar chart for the Share of Intra-Regional Intermediate Imports for selected countries.





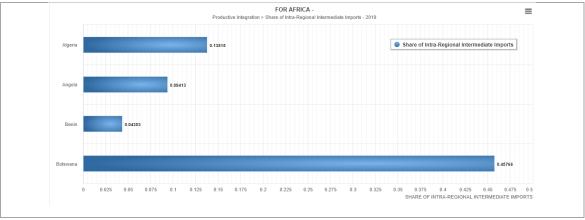


Figure 20 - Column and Bar Chart Types

#### c) Area chart

- i. Area chart type is suitable for displaying quantitative data as continuous lines that pass through points defined by their items' values. The portion of the graph beneath the lines is filled with a particular color for each series. The different colors in an Area chart are useful for emphasizing changes in values from several sets of similar data.
- ii. Figure 21 Area Chart Type a sample area chart of Trade Integration for selected countries

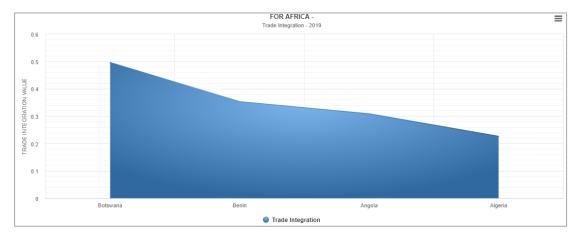


Figure 21 - Area Chart Type

#### d) Pie chart

- i. A pie chart displays the data as sectors from a circle and is useful for displaying data as parts of a whole. The Pie chart displays a single series of data in a two-dimensional circle;
- ii. Figure 22 Pie Chart Type a sample pie chart for the overall dimensions scores of AMU.



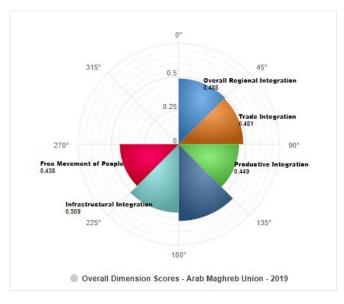


Figure 22 - Pie Chart Type

#### e) Stacked Bar Chart

- i. A Stacked bar or column chart is a bar/column divided into subparts to represent cumulative effect, to display money distribution or production against time or prices;
- ii. This chart type is available when drawing more than one data series;
- iii. Figure 23 Stacked Bar Chart Type a sample columns stacked chart showing the performance by EAC member States broken-down by Dimensions.

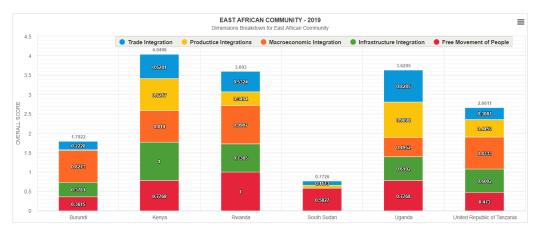


Figure 23 - Stacked Bar Chart Type

#### f) Spider chart

- i. A radar or spider or web chart is a two-dimensional chart type designed to plot one or more series of values over multiple quantitative variables. Each variable has its own axis; all axes are joined in the center of the figure.
- ii. Figure 24 Spider or Radar Chart Type a sample showing Trade Integration between selected African countries.



TRADE INTEGRATION - 2019

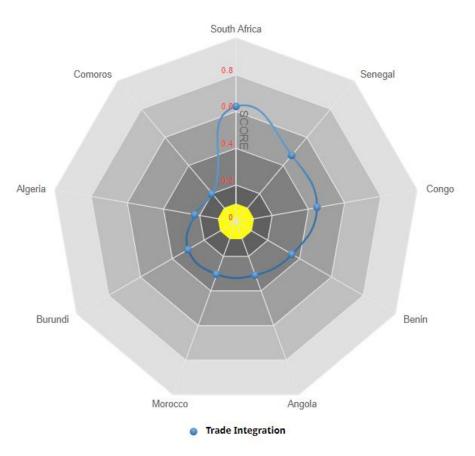


Figure 24 - Spider or Radar Chart Type

#### 4.2.4 Tables Page

User can navigate to the Tables page by clicking on the Tables menu item (Figure 25 - Tables Page)



Reset     View Selection     Select specific country/countries by Regional Community or     Continent to display data for     Continent     Regional     Continent or     Regional	Continent or Regional Countries Indicators	Consinent X Select Countries Select Indicators
Algeria Angola Angola Benin Botswana Burkuna Faso Burundi Cabo Verde Cameroon Central African Republic Chad Comoros Congo Cote d'tvoire Cate to vire Cate to vire Comoros Congo Cote d'tvoire Comoros Cote d'tvoire Cote d'tvo		Filters space Selected Countries Selected Indicators
Select all Countries     Regional Scores by Country     Dimensions Scores and Ranks     Country Rankings		
Select an indicator to display data or a Dimension to view Overall ores by Dimension Dimension > Indicator • Search Dimensions > Indicators Q		

Figure 25 - Tables Page

The Kendo UI grid is a powerful widget that allows the user to visualize and edit data via its table representation. It provides a variety of options about how to present and perform operations over the underlying data, such as paging, sorting, filtering, grouping, editing, etc. To feed the grid with data, you can supply either local or remote data via the Kendo UI Datasource component, used as a mediator.

The Kendo UI grid was used as the tool to visualize the ARIIP data.

When the user enters the Tables page, she/he gets the same interface as the Charts interface with the same filters and a grid area to display the searched data (Figure 26-Table for the Trade Integration Indicators). In the below example, we will see the user searching for the data related to all indicators listed under "Trade Integration" for Senegal.



	삼 Home	🍰 Maps	🗠 Charts	Tables	🛓 Resources 🔻	i About 👻	? How to Use			
Reset     O View Selection     Select specific country/countries by Regional Community or     Continent to display data for		Ca	ontinent or Regional Countries	Continent X						
Continent Regional			Indicators	Share of In	Share of Intranegional Trade X Average Tariff on Imports X Share of Intra-Regional Exports over GDP X Share of Intra-Regional Imports over GDP X AICFTA X					
Continent Countries     Nigera     Rwanda						Overall F	egional Integratio	on - 2019		
Sao Tome and Principe Senegal Seychelles	<				Refresh III Transpos					
Sierra Leone Somalia South Africa South Sudan			nent / Regional Trade Integration	۲ ا	Country 1	▼ Dimension		Y Indicator Y	r Score 🔻	
Sudan Togo Tunisia		4 Country Africa	y: Senegal		Senegal	Trade Integrat	on	Share of intraregional trade	0.05203	
Uganda United Republic of Tanzania		Africa Africa			Senegal	Trade Integrat		Average tariff on imports Share of intraregional exports over GDP	0.85894	
Select all Countries		Africa			Senegal	Trade Integrat		Share of intraregional imports over GDP	0.07184	
Regional Scores by Country     G     Dimensions Scores and Ranks     G     Country Rankings		Africa			Senegal	Trade Integrat	on	AICFTA	1	
Select an indicator to display data or a Dimenstion to view Overa cores by Dimension	all		Page 1 of	1	50 • items	per page 🚺			1 - 5 of 5 items	
Dimension > Indicator	-									
Search Dimensions > Indicators	۹									
Trade Integration     Share of Intraregional Trade     Average Tariff on Imports     Share of Intra-Regional Exports over GDP     Share of Intra-Regional Exports over GDP										

Figure 26-Table for the Trade Integration Indicators

The user can apply the following actions on the resulting table view:

- a) Sort the data (ascending/descending) by clicking on the columns' headings;
- b) Increase/decrease the width of the columns;
- c) Filter the data in the table by clicking on the column and enter the desired filter;
- d) Export the data to PDF;
- e) Export the data to Excel;
- f) Refresh the data in the table;
- g) Use the Paging control to change the page size (i.e. number of records displayed per page), to go to next page, previous page, first page, and last page;
- h) Select the cells of the table and copy them and paste them in excel;
- i) Transpose view of data (Figure 27 Transpose).



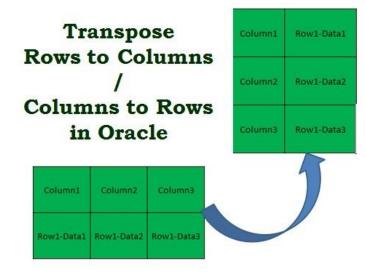


Figure 27 – Transpose

#### 4.2.4.1 Detailed Sample 1

Selection criteria (Figure 28 - Detailed Sample 1):

Regional: EAC

Indicators: First four indicators under the "Trade Integration" dimension

Select specific country/countries by Regional Community or		Tables 📩 Resources	About     About     About     About     About		
Continent to display data for	Countries	Select Countries			
Continent Regional	Indicators	Share of Intraregional Trade X	werage Tariff on Imports X Share of Intra-Regional Expo	rts over GDP X Share of Intra-Regional Imports over GDP X	
☐ AMU □ CENSAD □ COMESA ▼ EAC			Overall Regional Integra	tion - 2019	
ECCAS ECOWAS	Export to PDF Export to E	Excel 🔿 Refresh 🖽 Trai	nspose		
GAD SADC	Continent / Regional	▼ Country †	▼ Dimension	T Indicator	Y Score
EAC Countries	Dimension: Trade Integration				
Burundi	4 Country: Burundi				
Rwanda	East African Community	Burundi	Trade Integration	Share of intraregional trade	0
South Sudan Uganda	East African Community	Burundi	Trade Integration	Average tariff on imports	1
United Republic of Tanzania	East African Community	Burundi	Trade Integration	Share of intraregional exports over GDP	0.09044
Select all Countries	East African Community	Burundi	Trade Integration	Share of intraregional imports over GDP	0.86508
	Country: Kenya				
Regional Scores by Country 0	East African Community	Kenya	Trade Integration	Share of intraregional trade	1
Dimensions Scores and Ranks 3     Country Rankings 3	East African Community	Kenya	Trade Integration	Average tariff on imports	1
	East African Community	Kenya	Trade Integration	Share of intraregional exports over GDP	0.56435
<ul> <li>Select an indicator to display data or a Dimensiton to view Overall scores by Dimension</li> </ul>	Page 1 of 1	→ → 50 ▼ i	tems per page 🖸		1 - 24 of 24 item
Dimension > Indicator +					
Search Dimensions > Indicators Q					
Trade Integration Trade Trade Integration Trade To Average Tradition Imports To Share of Intra-Regional Exports over GDP To Share of Intra-Regional Imports over GDP To AlcTA					
-	Fia	ure 28 - Det	ailed Sample 1		

The user can Export the table to Excel or to PDF by clicking on the buttons above the resulting table.

The table is showing data in a tabular view repeating dimensions and indicators as many times as the number of member countries of the EAC community. In this case, the user might want to transpose the data by converting rows to columns, so that less repetition



occurs. Figure 29 - Transpose View below is showing the same results in a clearer view after clicking the "**Transpose**" button above the table

Select specific count Continent to display da	ry/countries by Regional Community or ta for		Countries Sele	ct Countries						
			Indicators Share of Intra-Regional Trade X Average Tariff on Imports X Share of Intra-Regional Exports over GOP X Share of Intra-Regional Imports over GOP X							
AMU CENSAD COMESA ✓ EAC ECCAS		Export to P	DF 🖸 Export to Excel	Ċ Refresh		Integration - 2019				
ECOWAS IGAD SADC		Africa/REC	Country	Dimension	Share of intraregional trade	Average tariff on imports	Share of intraregional exports over GDP	Share of intraregional imports over GDP		
	EAC Countries	East African Comm	unity Burundi	Trade Integration	0	1	0.09044	0.86508		
Burundi Kenya		East African Comn	unity Kenya	Trade Integration	1	1	0.56435	0		
Rwanda		East African Comn	unity Rwanda	Trade Integration	0.37929	1	0.42462	1		
South Sudan Uganda United Republic of Tanzania	of Tanzania	East African Comn	unity United Republic of Tanzania	Trade Integration	0.4697	1	0.27745	0.04264		
Select all Count	ries	East African Comm	unity Uganda	Trade Integration	0.95254	1	1	0.31897		
		East African Comn	unity South Sudan	Trade Integration	0.03441	1	0	0.46245		
Regional Scores t Dimensions Score Country Rankings	s and Ranks ① ①	(x) (4) P	age 1 of 1 (>	) × 20 × i	items per page 🖸			1 - 6 of 6 item		
Select an indicator to cores by Dimension	display data or a Dimenstion to view Overall									
	Dimension > Indicator -									
Search Dimensions	> Indicators Q									

Figure 29 - Transpose View

#### 4.2.4.2 Detailed Sample 2

Selection Criteria (Figure 30- Detailed Sample 2):

Country: Kenya

Predefined Tables Indicator: Regional Scores by Country

者 Hor	ie 🗳 Maps 🗠 Charts 🖪	🗄 Tables 🕹 Re	tesources 👻 🚯 A	oout 👻 😯 How to Use		
© Reset Over Selection	Continent or Regional	Select Continent (	or Regional Economic	Community		
<ul> <li>Select specific country/countries by Regional Community or Continent to display data for</li> </ul>	Countries	Kenya 🗙				
Continent Regional	Indicators	Select Indicators.				
S Continent Countries			0	verall Regional Integrati	on 2010	
Equatorial Guinea			0	verali Regional Integrati	011 - 2019	
Eswatni Ethiopia Gabon	Export to PDF Export to	Excel C Refresh	Transpose			
Gambia, the	Continent / Regional		T Country	T Dimension	▼ Score	
Ghana Guinea	Continent / Regional: Africa					
Guinea-Bissau	Africa		Kenya	Trade Integration	0.4279	95
✓ Kenya Lesotho	Africa		Kenya	Productive Integration	0.2955	i1
Liberia	Africa		Kenya	Macroeconomic Integra		
Madagascar						
Select all Countries	Africa		Kenya	Infrastructure Integratio		
	Africa		Kenya	Free Movement of Peop	ole 0.8640	)3
Regional Scores by Country 0	Continent / Regional: Common Ma	arket for Eastern and So	outhern Africa			
Dimensions Scores and Ranks ()	Common Market for Eastern and S	outhern Africa	Kenya	Trade Integration	0.5707	73
Country Rankings 🚯	Common Market for Eastern and S	outhern Africa	Kenya	Productive Integration	0.6625	99
	Common Market for Eastern and Si	outhern Africa	Kenya	Macroeconomic Integra	tion 0.3866	34
Select an indicator to display data or a Dimenstion to view Overall ores by Dimension	Page 1 of 1	~ ~	50 🔹 items per pag			1 - 25 of 25 item





#### 4.2.5 Resources Menu Item

The resources menu item has the following option underneath it (Figure 31 - Resources Menu Item):

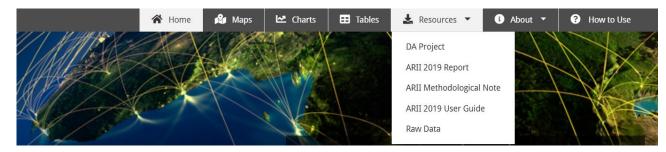


Figure 31 - Resources Menu Item

- 1. DA Project: It's a link to a PDF document titled "PROJECT DOCUMENT 11TH TRANCHE OF THE DEVELOPMENT ACCOUNT" about "Measuring, monitoring and improving performance in regional integration within ECA, ESCWA and ESCAP regions";
- 2. ARII 2019 Report: It is a link to the "AFRICA REGIONAL INTEGRATION INDEX (ARII)" 2019 report in PDF format;
- 3. ARII 2019 Methodological Note: It is a link to "AFRICA REGIONAL INTEGRATION INDEX (ARII): METHODOLOGICAL NOTE" 2019 report in PDF format;
- 4. ARII 2019 User Guide: it is a link to "MAKING SENSE OF REGIONAL INTEGRATION INDEXES - Guide to better Understand and Use the Information contained in Regional Integration Indexes" in PDF format;
- 5. Raw Data: it opens a popup with a small description about the raw data and a link to all the excel files representing all the indicators under all the 5 dimensions.



#### About the raw data

The raw data that have been used to produce the index can be accessed here. Data used to compute the 16 indicators and their sources are available and they refer to the official data at the time of access. Users interested in recent data may directly access the corresponding websites.

- Trade Integration
  - Average Tariff on Imports
  - Share of Intra-Regional Exports over GDP
  - Share of Intra-Regional Imports over GDP
  - Share of Intraregional Trade
  - AfCFTA (Only at continental level)
- Productive Integration
  - Share of Intra-Regional Intermediate Exports
  - Share of Intra-Regional Intermediate Imports
  - Merchandise Trade Complementarity Index
- Macroeconomic Integration
  - Number of Bilateral Investment Treaties
  - Regional Convertibility of Currency
  - Regional Inflation Differential
- Infrastructural Integration
  - AfDB Composite Infrastructural Index
  - Proportion of Intra-Regional Flights
- Free Movement of People
  - Free Movement of Persons Protocol
  - Number of Countries that may obtain a Visa on Arrival
  - Number of Countries that Require a Visa

#### 4.2.6 About Menu Item

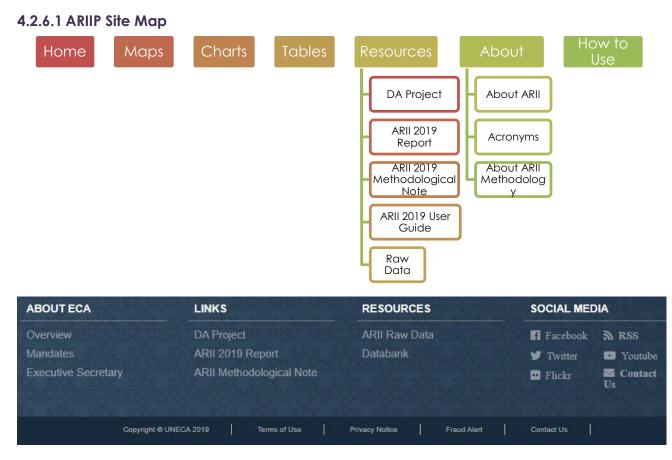
In this section, the user gets information about the platform structure (site map), the methodology followed to collect data and treat the data, and the list of acronyms used throughout the application (Figure 32-Acronyms)

### List of Acronyms used in the Africa Regional Integration Index Platform

- ACS: African Center for Statistics
- AfCFTA: African Continental Free Trade Area
- AfDB: African Development Bank
- AFREC: African Energy Commission
- ARII: Africa Regional Integration Index
- ATPC: African Trade Policy Centre
- AU: African Union
- CEN-SAD: Community of Sahel-Saharan States
- COMESA: Common Market for Eastern and Southern Africa
- COMTRADE: Commodity Trade Statistics Database (United Nations)
- EAC: East African Community
- ECA: Economic Commission for Africa
- ECCAS: Economic Community of Central African States
- ECOWAS: Economic Community of West African States
- FDI: Foreign Direct Investment
- GDP: Gross Domestic Product
- HPCI: Harmonized Consumer Price Index
- ICT: Information and Communications Technology
- · IGAD: Intergovernmental Authority on Development
- AMU: Arab Maghreb Union
- UNCTAD: United Nations Conference on Trade and Development
- UN: United Nations
- WTO: World Trade Organization
- TCI: Trade Complementarity Index
- RITD: Regional Integration and Trade Division
- SAATM: Single African Air Transport Market

Close

Figure 32-Acronyms



### 4.2.7 How to Use? Menu Item

In this section the user can get some help about navigating inside the active page, she/he will see a guided tour which explains all the sections in the page: the filters, the indicators, the result area, etc. so that she/he can learn how to use it and get the data that she/he is looking for (Figure 33: Show Intro Tour Sample)

	Nelcome to the United Nations		English Français 😧
	Africa REGIONAL INTEGRAT	United Nations Economic Commission for Africa TION INDEX (ARII) PLATFORM	
	Welcome to the African Regional Integration Index 2019 Platform Skip ←Back Next→	El Tables 🛃 Resources - 🕜 About - 🚱 Hov Regional Contaent X	r to Use
		Countries Select Countries	
Continent Countries      Ageria Angola Benn Botiviana Butrina Faxo Butrina Faxo Butrina Faxo Cueto Verde Cate Verde Cate Verde Cate Verde Cate Verde Cate Verde Cate Cate Cate Cate Cate Cate Cate Cate	<		

Figure 33: Show Intro Tour Sample



The above example shows a tour for Charts page, the user clicks on Next and the tour will go over all the main sections in the page.

Date: 17 December 2019

Name: Layale Bassil

Signature:

a Karthe