

Project Deforestation Exploration

SQL Program Nanodegree

SQL Queries

23/05/2021

SHRINK CARD

Course Project

Deforestation Exploration

SQL is most commonly used to manipulate and analyze data to inform decision making. In this project, you will act as a data analyst for an organization on a mission to reduce deforestation around the world and to raise awareness about this important environmental topic. First, you'll clean any erroneous values in a table, join that table to another lookup table to bring in a new categorical and quantitative variable, and return a new view of all categories greater than a reference value. Then, you will create and execute SQL queries to perform calculations using variables from those disparate data sets to answer questions for stakeholders. Your analysis will help you better understand which countries and regions around the world seem to have forests that have been shrinking in size, and also which countries and regions have the most significant forest area. Lastly, you will compile your answers and summarize your analysis into a report that can be shared to a leadership team.

Steps to Complete

1. Create a **View** called “**forestation**” by joining all three tables - **forest_area**, **land_areas** and **regions** in the workspace.
2. The **forest_area** and **land_area** tables *join* on both **country_code** AND **year**.
3. The **regions** table joins these based on only **country_code**.
4. In the ‘forestation’ View, include the following:
 - All of the columns of the origin tables
 - A new column that provides the **percent of the land area that is designated as forest**
5. *Keep in mind* that the column **forest_area_sqkm** in the **forest_area** table and the **land_area_sqmi** in the **land_area** table are in **different units (square kilometers and square miles respectively)**, so an adjustment will need to be made in the calculation you write (sq mi to sq km).

Project Workspace

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area



land_area



regions



```
1 CREATE VIEW forestation AS
2 SELECT f.country_code AS country_code, f.country_name AS
   country_name, f.year AS year, f.forest_area_sqkm AS forest_area_sqkm,
3 l.total_area_sq_mi AS total_area_sq_mi, r.region AS region,
   r.income_group AS income_group,
4 (f.forest_area_sqkm/(l.total_area_sq_mi*2.59))*100 AS percent_forest
5 FROM forest_area AS f, land_area AS l, regions AS r
6 WHERE f.country_code = l.country_code AND f.year = l.year AND
```

Success!

EVALUATE

Output

No data to download



CREATE Operation Successful

1. GLOBAL SITUATION

Instructions:

- Answering these questions will help you add information into the template.
- Use these questions as guides to write SQL queries.
- Use the output from the query to answer these questions.

- a. What was the total forest area (in sq km) of the world in 1990? Please keep in mind that you can use the country record denoted as "World" in the region table.
- b. What was the total forest area (in sq km) of the world in 2016? Please keep in mind that you can use the country record in the table is denoted as "World."
- c. What was the change (in sq km) in the forest area of the world from 1990 to 2016?
- d. What was the percent change in forest area of the world between 1990 and 2016?
- e. If you compare the amount of forest area lost between 1990 and 2016, to which country's total area in 2016 is it closest to?

Project Workspace

Input

HISTORY ▾

MENU ▾

SCHEMA

↺

forest_area

▾

land_area

▾

regions

▾

1

SELECT country_name, year, forest_area_sqkm

2

FROM forestation

3

WHERE country_name='World' AND (YEAR='1990' OR YEAR='2016')

4

ORDER BY year ASC;

Success!

EVALUATE

Output

2 results

⬇ Download CSV

country_name	year	forest_area_sqkm
World	1990	41282694.9
World	2016	39958245.9

Project Workspace

Input

HISTORY ▾MENU ▾

SCHEMA ↺

forest_area ▾

land_area ▾

regions ▾

1 SELECT (t1.forest_area_sqkm - t0.forest_area_sqkm) AS abs_change_sq_km

2 FROM forestation AS t1, forestation AS t0

3 WHERE t1.year = '2016' AND t1.country_name = 'World'

4 AND t0.year = '1990' AND t0.country_name = 'World';

Success!

EVALUATE

Output 1 results

Download CSV

abs_change_sq_km

-1324449

Project Workspace

Input

HISTORY ▾MENU ▾

SCHEMA	↺	1	SELECT (((t1.forest_area_sqkm / t0.forest_area_sqkm)-1)*100) AS
forest_area	▾	2	percent_change_forestArea
land_area	▾	3	FROM forestation AS t1, forestation AS t0
regions	▾	4	WHERE t1.year = '2016' AND t1.country_name = 'World'
			AND t0.year = '1990' AND t0.country_name = 'World';
		Success!	
		EVALUATE	

Output1 results

Download CSV

percent_change_forestarea
-3.20824258980245

Project Workspace

Input

HISTORY ▾MENU ▾

SCHEMA	↺	1 SELECT country_name, (total_area_sq_mi*2.59) AS total_area_sq_km
forest_area	▾	2 FROM forestation
land_area	▾	3 WHERE year='2016' AND (total_area_sq_mi*2.59)>1270000 AND
regions	▾	(total_area_sq_mi*2.59)<1324449;
		Success!
		EVALUATE

Output 1 results

Download CSV

country_name	total_area_sq_km
Peru	1279999.9891

Project Workspace

Input

SCHEMA

↺

forest_area

▼

land_area

▼

regions

▼

1

SELECT t0.region, t0.country_name, t0.forest_area_sqkm AS forest_area_1990

2

FROM forestation t0;

3

SELECT ROUND(CAST((region_forest_1990/region_area_1990)*100 AS NUMERIC),2)

4

AS forest_cover_1990,

5

ROUND(CAST((region_forest_2016/region_area_2016)*100 AS NUMERIC),2)

6

AS forest_cover_2016 region

Success!

EVALUATE

Output

8 results

Download CSV

forest_cover_1990	forest_cover_2016	region
51.03	46.16	Latin America & Caribbean
37.28	38.04	Europe & Central Asia
35.65	36.04	North America
32.42	31.38	World
30.67	28.79	Sub-Saharan Africa
25.78	26.36	East Asia & Pacific
16.51	17.51	South Asia
1.78	2.07	Middle East & North Africa

Project Workspace

Input

SCHEMA

↺

forest_area

▼

land_area

▼

regions

▼

1 SELECT t1.country_name, (t1.forest_area_sqkm - t0.forest_area_sqkm)
2 AS change_forestcover_sqkm
3 FROM forest_area AS t1
4 JOIN forest_area AS t0
5 ON (t1.year='2016' AND t0.year='1990') AND t1.country_name =
t0.country_name AND t1.forest_area_sqkm !=0 AND t0.forest_area_sqkm
!=0
6 ORDER BY change_forestcover_sqkm DESC;

EVALUATE

Output 204 results

Download CSV

country_name	change_forestcover_sqkm
China	527229.062
United States	79200
India	69213.9844
Russian Federation	59395
Vietnam	55390
Spain	46425.0977
Chile	27728.0078
France	26660
Thailand	24240
Turkey	21954.0039
Italy	17607.99805
Philippines	17250
Iran, Islamic Rep.	16159.209
Lao PDR	13056.7969

2. REGIONAL OUTLOOK

Instructions:

- Answering these questions will help you add information into the template.
- Use these questions as guides to write SQL queries.
- Use the output from the query to answer these questions.
- Create a table that shows the Regions and their percent forest area (sum of forest area divided by sum of land area) in 1990 and 2016. (Note that 1 sq mi = 2.59 sq km).

Based on the table you created,

- a. What was the percent forest of the entire world in 2016? Which region had the HIGHEST percent forest in 2016, and which had the LOWEST, to 2 decimal places?
- b. What was the percent forest of the entire world in 1990? Which region had the HIGHEST percent forest in 1990, and which had the LOWEST, to 2 decimal places?
- c. Based on the table you created, which regions of the world DECREASED in forest area from 1990 to 2016?

Project Workspace

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```
1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'
```

Success!

EVALUATE

Output

5 results

[Download CSV](#)

country_name	region	change_forestarea_sqkm
Brazil	Latin America & Caribbean	-541510.00
Indonesia	East Asia & Pacific	-282193.98
Myanmar	East Asia & Pacific	-107234.00
Nigeria	Sub-Saharan Africa	-106506.00
Tanzania	Sub-Saharan Africa	-102320.00

Project Workspace

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area



land_area



regions



```
1 SELECT t1.country_name, t1.region,
2 ROUND(CAST((((t1.forest_area_sqkm/t0.forest_area_sqkm-1)*100) AS
   NUMERIC),2)
3 AS percent_change_forestArea
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
```

Success!

EVALUATE

Output 5 results

[Download CSV](#)

country_name	region	percent_change_forestarea
Togo	Sub-Saharan Africa	-75.45
Nigeria	Sub-Saharan Africa	-61.80
Uganda	Sub-Saharan Africa	-59.13
Mauritania	Sub-Saharan Africa	-46.75
Honduras	Latin America & Caribbean	-45.03

3. COUNTRY-LEVEL DETAIL

Instructions:

- Answering these questions will help you add information into the template.
 - Use these questions as guides to write SQL queries.
 - Use the output from the query to answer these questions.
- a. Which 5 countries saw the largest amount decrease in forest area from 1990 to 2016? What was the difference in forest area for each?
 - b. Which 5 countries saw the largest percent decrease in forest area from 1990 to 2016? What was the percent change to 2 decimal places for each?
 - c. If countries were grouped by percent forestation in quartiles, which group had the most countries in it in 2016?
 - d. List all of the countries that were in the 4th quartile (percent forest > 75%) in 2016.
 - e. How many countries had a percent forestation higher than the United States in 2016?

Project Workspace

Input

HISTORY ▾

MENU ▾

SCHEMA ↻

forest_area ▾

land_area ▾

regions ▾

```
1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm/(t0.forest_area_sqkm+0.01)-1)*100)
3 AS NUMERIC),2)
4 AS percent_change_forestArea
5 FROM forestation AS t1
6 JOIN forestation AS t0
7 ON (t1.year='2016' AND t0.year='1990')
8 AND t1.country_code = t0.country_code
```

Success!

EVALUATE

Output 1 results

Download CSV

country_name	region	percent_change_forestarea
Iceland	Europe & Central Asia	213.65

Project Workspace

Input

SCHEMA

↺

forest_area

▼

land_area

▼

regions

▼

1 With tab1 AS

2 (SELECT country_name, year, forest_area_sqkm, total_area_sq_mi*2.59 AS

3 total_area_sqkm, percent_forest

4 FROM forestation

5 WHERE (year='2016' AND country_name!='World'

6 AND forest_area_sqkm !=0 AND total_area_sq_mi!=0)

7 ORDER BY percent_forest DESC),

Success!

EVALUATE

Output 4 results

Download CSV

percentile	count
1	85
2	72
3	38
4	9

Project Workspace

Input

[HISTORY](#)
[MENU](#)

SCHEMA



forest_area



land_area



regions



```
1 SELECT country_name, region, year, forest_area_sqkm,
2 total_area_sq_mi*2.59 AS total_area_sqkm,
3 ROUND(CAST((percent_forest) AS NUMERIC),2) AS percent
4 FROM forestation
5 WHERE (year='2016' AND country_name!='World'
6 AND forest_area_sqkm !=0 AND total_area_sq_mi!=0)
7 AND percent_forest > 75
8 ORDER BY percent_forest DESC;
```

Success!

EVALUATE

Output

9 results

[Download CSV](#)

country_name	region	year	forest_area_sqkm	total_area_sqkm	percent
Suriname	Latin America & Caribbean	2016	153282.002	155999.9994	98.26
Micronesia, Fed. Sts.	East Asia & Pacific	2016	643.0000305	699.9993	91.86
Gabon	Sub-Saharan Africa	2016	232000	257670.0091	90.04
Seychelles	Sub-Saharan Africa	2016	406.6999817	460.0099	88.41
Palau	East Asia & Pacific	2016	402.9999924	460.0099	87.61
American Samoa	East Asia & Pacific	2016	175	199.9998	87.50
Guyana	Latin America & Caribbean	2016	165160	196849.9974	83.90
Lao PDR	East Asia & Pacific	2016	189505.8008	230800.0023	82.11
Solomon Islands	East Asia & Pacific	2016	21793.99902	27990.0005	77.86

Project Workspace

Input

HISTORY

MENU

SCHEMA

↺

forest_area

▼

land_area

▼

regions

▼

1 With tab1 AS

2 (SELECT country_name, year, forest_area_sqkm, total_area_sq_mi*2.59

3 AS total_area_sqkm, percent_forest

4 FROM forestation

5 WHERE (year='2016' AND country_name!='World'

6 AND forest_area_sqkm !=0 AND total_area_sq_mi!=0)

7 ORDER BY percent_forest DESC)

8

Success!

EVALUATE

Output

1 results

[Download CSV](#)

count

94

Deforestation 1990-2016 in sqkm by country (p.1.)

Project Workspace

Input

HISTORY

MENU

SCHEMA

↻

forest_area

▼

land_area

▼

regions

▼

1SELECT t1.country_name, t1.region,

2ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)

3AS change_forestArea_sqkm

4FROM forestation AS t1

5JOIN forestation AS t0

6ON (t1.year='2016' AND t0.year='1990')

7AND t1.country_code = t0.country_code

8WHERE t1.country_name != 'World'

Success!

EVALUATE

Output217 results

Download CSV

country_name	region	change_forestarea_sqkm
Brazil	Latin America & Caribbean	-541510.00
Indonesia	East Asia & Pacific	-282193.98
Myanmar	East Asia & Pacific	-107234.00
Nigeria	Sub-Saharan Africa	-106506.00
Tanzania	Sub-Saharan Africa	-102320.00
Zimbabwe	Sub-Saharan Africa	-84144.00
Bolivia	Latin America & Caribbean	-83200.00
Congo, Dem. Rep.	Sub-Saharan Africa	-80964.06
Argentina	Latin America & Caribbean	-79778.01
Paraguay	Latin America & Caribbean	-61594.00
Colombia	Latin America & Caribbean	-59419.80
Cameroon	Sub-Saharan Africa	-57200.00
Mozambique	Sub-Saharan Africa	-56443.98
Venezuela, RB	Latin America & Caribbean	-55073.98

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST((((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Venezuela, RB	Latin America & Caribbean	-55073.98
Zambia	Sub-Saharan Africa	-43316.02
Peru	Latin America & Caribbean	-41156.02
Mexico	Latin America & Caribbean	-38116.02
Honduras	Latin America & Caribbean	-36640.00
Cambodia	East Asia & Pacific	-36144.00
Australia	East Asia & Pacific	-34820.00
Korea, Dem. People's Rep.	East Asia & Pacific	-32970.00
Angola	Sub-Saharan Africa	-32448.01
Botswana	Sub-Saharan Africa	-29802.00
Uganda	Sub-Saharan Africa	-28092.00
Ecuador	Latin America & Caribbean	-21616.99
Mali	Sub-Saharan Africa	-20540.00
Somalia	Sub-Saharan Africa	-19958.00
Chad	Sub-Saharan Africa	-19566.00
Namibia	Sub-Saharan Africa	-19172.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Chad	Sub-Saharan Africa	-19566.00
Namibia	Sub-Saharan Africa	-19172.00
Burkina Faso	Sub-Saharan Africa	-15568.00
Benin	Sub-Saharan Africa	-15000.00
Nicaragua	Latin America & Caribbean	-14000.00
Canada	North America	-12505.94
Guatemala	Latin America & Caribbean	-12444.00
Madagascar	Sub-Saharan Africa	-12350.00
Nepal	South Asia	-11810.00
Senegal	Sub-Saharan Africa	-11150.00
Pakistan	South Asia	-10980.00
Guinea	Sub-Saharan Africa	-9360.00
Niger	Sub-Saharan Africa	-8154.00
Liberia	Sub-Saharan Africa	-7800.00
Malawi	Sub-Saharan Africa	-7670.00
Togo	Sub-Saharan Africa	-5168.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1  SELECT t1.country_name, t1.region,
2  ROUND(CAST((((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3  AS change_forestArea_sqkm
4  FROM forestation AS t1
5  JOIN forestation AS t0
6  ON (t1.year='2016' AND t0.year='1990')
7  AND t1.country_code = t0.country_code
8  WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Malawi	Sub-Saharan Africa	-7070.00
Togo	Sub-Saharan Africa	-5168.00
Panama	Latin America & Caribbean	-4394.00
Congo, Rep.	Sub-Saharan Africa	-4074.00
Central African Republic	Sub-Saharan Africa	-4056.00
Equatorial Guinea	Sub-Saharan Africa	-3036.00
Timor-Leste	East Asia & Pacific	-2912.00
Kenya	Sub-Saharan Africa	-2744.00
Portugal	Europe & Central Asia	-2654.00
Belize	Latin America & Caribbean	-2547.50
Guinea-Bissau	Sub-Saharan Africa	-2540.00
Sri Lanka	South Asia	-2206.00
Kyrgyz Republic	Europe & Central Asia	-2070.00
Mauritania	Sub-Saharan Africa	-1940.00
Korea, Rep.	East Asia & Pacific	-1936.00
Malaysia	East Asia & Pacific	-1668.01

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Norway	Europe & Central Asia	-180.00
Comoros	Sub-Saharan Africa	-124.00
Sierra Leone	Sub-Saharan Africa	-104.00
Jamaica	Latin America & Caribbean	-97.80
Burundi	Sub-Saharan Africa	-84.00
Dominica	Latin America & Caribbean	-69.40
Virgin Islands (U.S.)	Latin America & Caribbean	-60.90
Northern Mariana Islands	East Asia & Pacific	-46.60
Trinidad and Tobago	Latin America & Caribbean	-46.00
Armenia	Europe & Central Asia	-28.00
Mauritius	Sub-Saharan Africa	-24.60
Sao Tome and Principe	Sub-Saharan Africa	-24.00
St. Lucia	Latin America & Caribbean	-15.60
American Samoa	East Asia & Pacific	-8.90
Antigua and Barbuda	Latin America & Caribbean	-5.00
Marshall Islands	East Asia & Pacific	-3.60

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Antigua and Barbuda	Latin America & Caribbean	-5.00
Marshall Islands	East Asia & Pacific	-3.60
Luxembourg	Europe & Central Asia	-3.00
British Virgin Islands	Latin America & Caribbean	-0.90
Jordan	Middle East & North Africa	0.00
Faroe Islands	Europe & Central Asia	0.00
Grenada	Latin America & Caribbean	0.00
Greenland	Europe & Central Asia	0.00
Guam	East Asia & Pacific	0.00
Aruba	Latin America & Caribbean	0.00
Isle of Man	Europe & Central Asia	0.00
Djibouti	Middle East & North Africa	0.00
Kiribati	East Asia & Pacific	0.00
St. Kitts and Nevis	Latin America & Caribbean	0.00
Cayman Islands	Latin America & Caribbean	0.00
Libya	Middle East & North Africa	0.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output 217 results

[Download CSV](#)

Cayman Islands	Latin America & Caribbean	0.00
Libya	Middle East & North Africa	0.00
Maldives	South Asia	0.00
Malta	Middle East & North Africa	0.00
Channel Islands	Europe & Central Asia	0.00
New Caledonia	East Asia & Pacific	0.00
Barbados	Latin America & Caribbean	0.00
Bermuda	North America	0.00
Oman	Middle East & North Africa	0.00
Bahamas, The	Latin America & Caribbean	0.00
Saudi Arabia	Middle East & North Africa	0.00
Singapore	East Asia & Pacific	0.00
Seychelles	Sub-Saharan Africa	0.00
Turks and Caicos Islands	Latin America & Caribbean	0.00
Turkmenistan	Europe & Central Asia	0.00
Tonga	East Asia & Pacific	0.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Tonga	East Asia & Pacific	0.00
Tuvalu	East Asia & Pacific	0.00
Andorra	Europe & Central Asia	0.00
Vanuatu	East Asia & Pacific	0.00
Yemen, Rep.	Middle East & North Africa	0.00
South Africa	Sub-Saharan Africa	0.00
Afghanistan	South Asia	0.00
West Bank and Gaza	Middle East & North Africa	0.90
Micronesia, Fed. Sts.	East Asia & Pacific	3.00
Bahrain	Middle East & North Africa	3.90
Liechtenstein	Europe & Central Asia	4.00
St. Vincent and the Grenadines	Latin America & Caribbean	20.00
Palau	East Asia & Pacific	23.00
Kuwait	Middle East & North Africa	28.00
Tajikistan	Europe & Central Asia	44.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Tajikistan	Europe & Central Asia	44.00
Lebanon	Middle East & North Africa	63.80
Japan	East Asia & Pacific	64.00
Sweden	Europe & Central Asia	100.00
Lesotho	Sub-Saharan Africa	100.00
Cyprus	Europe & Central Asia	115.60
Belgium	Europe & Central Asia	168.40
Slovak Republic	Europe & Central Asia	182.00
Iraq	Middle East & North Africa	210.00
Estonia	Europe & Central Asia	256.00
Egypt, Arab Rep.	Middle East & North Africa	296.00
Netherlands	Europe & Central Asia	316.00
Cabo Verde	Sub-Saharan Africa	331.10
Iceland	Europe & Central Asia	344.00
Israel	Middle East & North Africa	352.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Switzerland	Europe & Central Asia	1068.00
Eswatini	Sub-Saharan Africa	1186.00
Syrian Arab Republic	Middle East & North Africa	1190.00
Germany	Europe & Central Asia	1210.00
Uzbekistan	Europe & Central Asia	1637.80
Rwanda	Sub-Saharan Africa	1688.00
Cote d'Ivoire	Sub-Saharan Africa	1786.00
Latvia	Europe & Central Asia	1834.00
Montenegro	Europe & Central Asia	2010.00
Puerto Rico	Latin America & Caribbean	2122.60
Costa Rica	Latin America & Caribbean	2222.00
Lithuania	Europe & Central Asia	2370.00
Serbia	Europe & Central Asia	2454.00
Bhutan	South Asia	2581.40
Hungary	Europe & Central Asia	2726.00
Ireland	Europe & Central Asia	2947.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Ireland	Europe & Central Asia	2947.00
Algeria	Middle East & North Africa	2966.00
Azerbaijan	Europe & Central Asia	3136.20
Finland	Europe & Central Asia	3430.00
United Kingdom	Europe & Central Asia	3830.00
Ukraine	Europe & Central Asia	4048.00
Tunisia	Middle East & North Africa	4082.00
New Zealand	East Asia & Pacific	4942.00
Bulgaria	Europe & Central Asia	5132.00
Romania	Europe & Central Asia	5592.00
Poland	Europe & Central Asia	5752.00
Morocco	Middle East & North Africa	6700.00
Ghana	Sub-Saharan Africa	7384.00
Greece	Europe & Central Asia	7852.00
Belarus	Europe & Central Asia	8734.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Belarus	Europe & Central Asia	8734.00
Dominican Republic	Latin America & Caribbean	9112.00
Uruguay	Latin America & Caribbean	10699.40
Cuba	Latin America & Caribbean	11956.00
Gabon	Sub-Saharan Africa	12000.00
Lao PDR	East Asia & Pacific	13056.80
Iran, Islamic Rep.	Middle East & North Africa	16159.21
Philippines	East Asia & Pacific	17250.00
Italy	Europe & Central Asia	17608.00
Turkey	Europe & Central Asia	21954.00
Thailand	East Asia & Pacific	24240.00
France	Europe & Central Asia	26660.00
Chile	Latin America & Caribbean	27728.01
Spain	Europe & Central Asia	46425.10
Vietnam	East Asia & Pacific	55390.00

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1  SELECT t1.country_name, t1.region,
2  ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3  AS change_forestArea_sqkm
4  FROM forestation AS t1
5  JOIN forestation AS t0
6  ON (t1.year='2016' AND t0.year='1990')
7  AND t1.country_code = t0.country_code
8  WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output

217 results

[Download CSV](#)

Vietnam	East Asia & Pacific	55390.00
Russian Federation	Europe & Central Asia	59395.00
India	South Asia	69213.98
United States	North America	79200.00
China	East Asia & Pacific	527229.06
St. Martin (French part)	Latin America & Caribbean	
San Marino	Europe & Central Asia	
Sint Maarten (Dutch part)	Latin America & Caribbean	
Gibraltar	Europe & Central Asia	
Kosovo	Europe & Central Asia	
Ethiopia	Sub-Saharan Africa	
Sudan	Sub-Saharan Africa	

Input

HISTORY ▾

MENU ▾

SCHEMA



forest_area ▾

land_area ▾

regions ▾

```

1 SELECT t1.country_name, t1.region,
2 ROUND(CAST(((t1.forest_area_sqkm-t0.forest_area_sqkm)) AS NUMERIC),2)
3 AS change_forestArea_sqkm
4 FROM forestation AS t1
5 JOIN forestation AS t0
6 ON (t1.year='2016' AND t0.year='1990')
7 AND t1.country_code = t0.country_code
8 WHERE t1.country_name != 'World'

```

Success!

EVALUATE

Output 217 results

[Download CSV](#)

Sint Maarten (Dutch part)	Latin America & Caribbean
Gibraltar	Europe & Central Asia
Kosovo	Europe & Central Asia
Ethiopia	Sub-Saharan Africa
Sudan	Sub-Saharan Africa
Qatar	Middle East & North Africa
Nauru	East Asia & Pacific
Hong Kong SAR, China	East Asia & Pacific
Curacao	Latin America & Caribbean
Monaco	Europe & Central Asia
Macao SAR, China	East Asia & Pacific
South Sudan	Sub-Saharan Africa