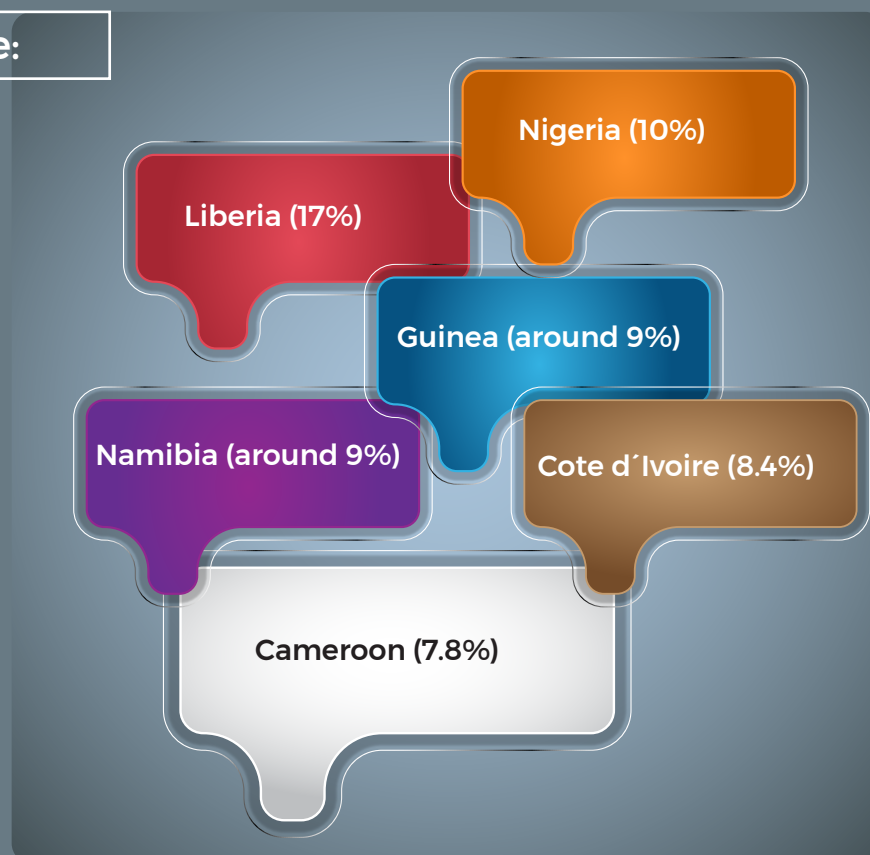


These are:



If higher education is a key determinant of future science and technology capacity, these nations could progress in the coming years.

#### How Africa ranks

While African nations are still far behind in the latest study and most remain near the bottom of the list countries like Morocco, Algeria, Nigeria, Botswana, Mozambique, Ethiopia, Sudan and Libya had advanced in the ranking by 2011.

Out of the African nations in the original RAND index, South Africa was on top, followed by Mauritius, Benin, Egypt, Uganda, Togo and Tunisia. Mozambique, Chad and Eritrea were at the bottom.

Morocco and Algeria showed the most progress, the former going from 116th to 62nd in the world and the latter from 123rd to 68th. In sub-Saharan Africa, Nigeria moved to 77th from 104th. Botswana, Mozambique, Ethiopia and

Sudan also improved.

In contrast, African leader Mauritius declined in the 2011 index, from 58th to 79th as did Benin, Uganda, Libya, Togo, Congo and others. A decade later, most nations on the continent show a drop in the global ranking.

Because of their large populations South Africa, Morocco, Egypt, Algeria and Nigeria fell. Tunisia moved up and tiny Seychelles went from 98th to 87th. Gabon and Libya moved up but remained below the average.

The countries lagging the furthest behind were the same as in the first index: Mauritania, Tanzania, Niger, Sierra Leone, Liberia, Comoros, Eritrea, Chad and Somalia.

The widest differences, as could be expected, are in the indicators that reflect science and technology output. In the number of scientific and technological articles published in academic journals, every African nation was below

the sample average. Tunisia, South Africa, the Seychelles and Botswana were listed as the best performers on the continent.

In patents, only Seychelles was above the world average, with other nations lagging seriously behind. The human resource indicators also were substantially lower than for the rest of the world.

As African countries advance in science and technology capability, their chances of orienting their economies toward sustained and sustainable growth are greatly enhanced. Hence this becomes a key indicator for the future.

*This piece was based on a study by Gayle Allard, PhD, Professor of Economics, IE Business School in Spain in the Journal of African Studies and Development.*

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