West African science too reliant on foreign cooperation Esther Tola 27/08/13 scidev.net

- International funding means research is less likely to have a local focus
- Local governments should fund research and set goals, says an expert
- There is still little research collaboration among West Africa's countries

[COTONOU, BENIN] West African countries rely heavily on collaborations with Western countries in science, which may skew their own national priorities in research, according to two papers in Scientometrics.

"West African countries cooperated less with each other and less with African and developing countries than they did with developed ones," says a study to be published in the September issue of the journal that analysed the research output of 15 West African countries between 2001 and 2010.

Three countries alone — France, the United States and the United Kingdom — contributed to more than 63 per cent of the papers with a non-West African collaborator.

The region now needs its institutions to encourage and fund research that involves several organisations from different West African countries to increase regional cooperation in science, the paper says.

And national authorities need to implement their commitment to spend at least one per cent of their GDPs on science and technology, it adds.

"Research activities do not necessarily respond to pre-defined development needs."

Eustache Mêgnigbêto, Bureau of Studiesand Research on Information Science, Benin

Another study, published in June, found that up to 80 per cent of Benin's scientific research is dependent on foreign collaboration.

This makes Benin too dependent on international collaboration in its research activities, according to the author of both studies, Eustache Mêgnigbêto, an information scientist at the Bureau of Studies and Research on Information Science, Benin.

It also means that the country's researchers align their activities with the demands of international funders rather than focusing on work that will benefit Benin, says Mêgnigbêto.

"The results of this research mean that local development issues are not considered by Benin's researchers as much as in other countries," Mêgnigbêto says. "Their research activities do not necessarily respond to pre-defined development needs."

He argues that Benin's government should largely fund the national research system and set its objectives.

"Benin's universities are signing research cooperation agreements with foreign universities but those should be for the benefit of the local university and the country. I don't think this is currently the case," Mêgnigbêto says.

The study also reveals that there is little collaboration between Benin, Ghana and Senegal, and when it does occur this is only due to the intervention of a third, Western, country.

The study estimates that 58 per cent of Ghana's and 63 per cent of Senegal's research is also reliant on foreign collaboration.

It used data from the Web of Science citation index and looked at indicators such as research production and citation rates.

The challenges facing the development of research in these countries include unmotivated researchers, a lack of well-functioning institutional frameworks, a lack of links between research programmes and the government's development priorities and funding, and a lack of equipment and insufficient human resources, says Mêgnigbêto.

Benin must develop a national research policy, identify priority sectors and make the necessary investments, according to Mêgnigbêto.

Armand Paraïso, an entomologist at the University of Parakou in Benin, says the study touches on interesting issues, especially the lack of national funding for research, which means that "a European or American country will intervene in the project", unavoidably changing its focus.

"We can notice the multiplication of research projects," he says. "This would be great if they were in accordance with our countries' development realities."

Link to abstract of September paper in *Scientometrics* Link to abstract of June paper in *Scientometrics*