One Health and the impact of changing land use on Emerging Infectious Diseases

Guinea-Bissau experience

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Paris, Oct. 2015
Guinea-Bissau is located on the coast of West Africa, sharing borders with Senegal to the North, and with Guinea to the East and South.

Infectious diseases account for 46.5% of total Years of Life Lost (YLL); with Malaria being responsible for nearly a quarter of all YLLs. GB has so far never reported any EVD case but the African current outbreak has highlighted the inadequate public health system in the country to meet the International Health Regulations (IHR2005) or even prevent, detect and respond to public health emergencies.
This concept came abroad in Guinea-Bissau in June 2015.

Two of the events of the preparedness had originate the concept of “One Health” in Guinea-Bissau:

- The training for the community social-media (mainly community radios and TV) on the prevention of Ebola (Bissau, November 2014);
- The training for teachers of Environmental Verification Schools (Sao Domingo, February 2015).
After the conclusion about the straight relationship between some primates and Ebola, it came an idea to launch a national challenge to organize a multidisciplinary debate on the matter, which would be a reflection on animal health and human health, "the Zoonoses".

Also

Access to articles on the link between deforestation and Ebola disease and others infectious diseases in neighbouring countries contribute to national debate
After the challenge, the number of organizations that, not only confirmed the presence, but also shown interest to integrate the organization of the event, was remarkable.
The 1\textsuperscript{st} National Conference on zoonoses was held in Bissau, June 30\textsuperscript{th} 2015 at the Institute of Biodiversity and Protected Areas (IBAP).

It was a meeting between the Human Health professionals, Animal Health professionals, Environmental specialists and Universities.
“One Health” colloquium (Bissau, June 2015)
The adherence showed that “zoonoses” is a very limited term for the multidisciplinary and the plurality of the actors involved.

“One Health” appeared during the seminar, not only as an operational concept, but also as a paradigm of prevention and measures related to zoonoses.
In the colloquium, all the presentations can be divided into two groups:

• Research and policies on environmental conservation;

• Clinical studies of zoonoses.
Conclusions

Risk factors for the evolution of the ecosystems and increase of zoonoses in Guinea-Bissau are:

• Deforestation for timber exploitation;
• Agriculture extensification;
• Destruction of natural habitats;
• Migration of animals to human settlements, etc.
• Human migration to periphery of forests
• Increased human penetration into forests
Conclusions

• The increase in proximity human/animal increase the incidence of zoonoses;

• Human action and migratory movements of the animals are responsible for the large-scale spread of zoonoses;

• The need of a better understanding of the concept “One Health”.
Recommendations

• Create a scientific synergies involving INASA, the National Institute of Studies and Research (INEP), the Livestock General Direction (DGP), Environment General Direction (DGA), the Institute of Biodiversity and Protected Areas (IBAP), Universities, General Direction of Forests and Fauna (DGFF), the National Institute of Statistics and Census (INEC), IUCN, and other interested entities;
Recommendations

- Promote the creation of an observatory to monitor the interaction health/biodiversity and climate change;
- Identify and map all the areas in zoonotic risk;
- Better integration of the environmental aspects in public policies and programs in particular in health policies;
Recommendations

• Promote related multidisciplinary studies;
• Inform, educate and raise public awareness in general and rural communities in particular, about the dangers of zoonoses;
• Promote and institutionalize the National day of “One Health”;
• Disseminate the messages in the decision makers sectors, universities, opinion leaders, etc.
Vaccination campaign against rabies disease, August-September 2015: All actors were involved.
Actions to be done

- Institutionalize a multi-disciplinary committee;
- Organize the next reflection within a year, together with the regional leaders;
- Livestock GD, INASA, Environmental GD and NGOs, responsible to disseminate the messages in different regions.