



## COVID-19 interferes in the disclosure of the first Brazilian GIAHS site

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Received: August 7, 2020 – Accepted: August 31, 2020 – November 30, 2021

The Brazilian region known as Espinhaço Range presents significant exposures of rocky outcrops at high altitudes that conditioned species richness and endemism in this territory. The area was declared a Biosphere Reserve by the United Nations Educational, Scientific, and Cultural Organization - UNESCO, linked to the “Man and the Biosphere Programme” (Brasil, 2018). Despite the negative actions of deforestation in Brazil (Amigo, 2020), the defence of biodiversity in the Espinhaço Range has been extensive and has scientific support from several institutions.

In this location, in a unique interaction between humans and nature, “sempre-vivas” flowers have been collected for generations in Brazil. The communities associated with flowers extractivism with plant cultivation and small livestock. The Food and Agriculture Organization - FAO recently designated this interaction as Globally Important Agricultural Heritage Systems (GIAHS) (FAO, 2020). The maintenance of hundreds of families that depend on the extraction of these plants has universal appeal; on the other hand, researches point out the fragility of the loss of biodiversity. A good example is the few studies focused on phenology and management for collecting species such as the genus *Comanthera*.

The worsening of the COVID-19 pandemic in Brazil interrupted all events and meetings to publicize this national GIAHS. However, the consequences of this prestigious recognition will produce policies of attention to the environment, strengthening actions throughout Brazil to contain deforestation and forest fires. Associated with the title of Biosphere Reserve, the Brazilian GIAHS will support activities of orderly flower extraction and strategies for human maintenance and survival in the countryside.

Relevant research has been carried out in other important GIAHS (Liu et al., 2018; Zhang et al., 2019). Thus, we believe that the dissemination of this news from a GIAHS in Brazil is decisive for similar research in our famous tropical region. Seminars for extensive debate will still be necessary for the recent recognition by FAO to be

in harmony with the plans for the use and management of the mosaics of the Espinhaço Reserve recognized by UNESCO, therefore parts of the same United Nations.

### Acknowledgements

The Minas Gerais State Research Foundation (FAPEMIG, Minas Gerais, Brazil), the Coordination of Training of Higher Education Graduate Foundation (CAPES, Brasília, Brazil), and the National Council for Scientific and Technological Development (CNPq, Brazil).

### References

- AMIGO, I., 2020. The Amazon's fragile future. *Nature*, vol. 578, no. 7796, pp. 505-507. <http://dx.doi.org/10.1038/d41586-020-00508-4>. PMID:32099130.
- BRASIL. Ministério do Meio Ambiente – MMA, 2018 [viewed 7 August 2020]. *Espinhaço, Biosphere Reserve of the Mountain: phase 2* [online]. Belo Horizonte: MaB-UNESCO. Available from: [https://www.mma.gov.br/images/arquivo/80252/RBSE\\_%20PROPOSAL-PHASE%20\\_final\\_document\\_%2028.09.2018\\_v1.pdf](https://www.mma.gov.br/images/arquivo/80252/RBSE_%20PROPOSAL-PHASE%20_final_document_%2028.09.2018_v1.pdf)
- FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS – FAO, 2020 [viewed 7 August 2020]. *Designation of the first Brazilian GIAHS site in the Southern Espinhaço Range, Minas Gerais* [online]. Rome: FAO. <http://www.fao.org/giahs/news/detail-events/en/c/1264691/>
- LIU, M., YANG, L., BAI, Y. and MIN, Q., 2018. The impacts of farmers' livelihood endowments on their participation in eco-compensation policies: globally important agricultural heritage systems case studies from China. *Land Use Policy*, vol. 77, pp. 231-239. <http://dx.doi.org/10.1016/j.landusepol.2018.05.054>.
- ZHANG, Y., HE, L., LI, X., ZHANG, C., QIAN, C., LI, J. and ZHANG, A., 2019. Why are the Longji Terraces in Southwest China maintained well? A conservation mechanism for agricultural landscapes based on agricultural multi-functions developed by multi-stakeholders. *Land Use Policy*, vol. 85, pp. 42-51. <http://dx.doi.org/10.1016/j.landusepol.2019.03.046>.