

Geophysical Research Abstracts  
Vol. 20, EGU2018-15808-1, 2018  
EGU General Assembly 2018  
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## **An interdisciplinary approach to the analysis of agro pastoral resilience in the Hodh el Chargui region (Mauritania)**

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The project "Reducing Agro-pastoral Vulnerability and Improving Resilience in Hodh el Chargui", funded by EU and implemented in the Program "Institutional Strengthening in Mauritania towards Agricultural and Pastoral Resilience (RIMRAP)" between 2016 and 2019, aims at strengthening the resilience of the actors and communities living in the Hodh el Chargui region and at reducing their vulnerability to crisis generated by climate change impacts or by conflicts.

The first phase of the project has been focused at performing a diagnosis through the collection of heterogeneous data concerning environmental and socio-economic information in the region. The data collection has been performed through a participatory approach, by involving local actors and by promoting the use of innovative geospatial technologies to gather georeferenced information on the field.

Our contribution aims at presenting the results of the effort spent to generate innovative yet meaningful and easy to use products, able to support a multi-disciplinary analysis of the collected data. This effort has been mainly devoted to establish a proactive dialogue among the different actors involved in the project, having different backgrounds, such as NGOs, universities, private companies, local institutions and communities, to designing specific tools adapted to the needs of the project and to the local context.

The following three tools have been therefore designed to facilitate the access, analysis and sharing of the data across the different actors of the project: a database, digital cartographies and a WebGIS platform. All the three tools are conceived to meet the needs of both technical and non-technical users, by providing visual insight into the relationship between the different elements of the complex environmental system studied.