

Ten years of *Acacia mangium* control in French Guiana : From awareness to engagement of stakeholders



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16th International Conference on Ecology and Management of Alien Plant Invasions, 23-25 October 2023, Pucón, Chile

1 CONTEXT

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Savannas

The Amazonian savannas of French Guiana are rare and of high ecological, cultural and patrimonial value. Despite they occupy less than 0.3 % of the territory (240 km² on 83,800 km²), they house 16 % of local flora (1,924 sp) and 20 % of protected species. Sensitive to any disturbance, they are threatened by changes in fire regimes, agriculture, infrastructures, buildings development, but also by invasive alien plant species, such as the exotic tree *Acacia mangium*.

Acacia mangium

The tree *A. mangium* was mainly introduced in the 80's and the 90's for agriculture purposes and gold mining restoration. Native to Australia, this large tree is a fast-growing, fire-resistant and light-demanding pioneer species which facilitates its spread, especially in coastal savannas, along tracks and roadsides. The formation of dense monospecific stands contributes to an irreversible transformation of savannas and a loss of ecosystems and of a unique biodiversity.

LIFE programmes

Faced with the growing concern about savannas protection and the spread of *A. mangium*, the environmental association GEPOG led anthropological, ecological and control methods studies (Life+ Cap DOM / 2011 – 2015). During the current LIFE BIODIV'OM (2018 – 2024), various and innovative tools were used to develop a control plan, to lead control actions and to mobilize local and regional stakeholders and communities. The LIFE programmes are the EU's funding instrument for the environment and climate action.

2 METHODS

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Stakeholders identification

All the stakeholders, institutions, identifiable groups or individuals involved in each action of the two LIFE from 2012 to 2023 were listed using analysis of all the produced literature and reports, meeting minutes, presence in workshops, investigation of all files and folders in the two LIFE hard disks and brainstorming sessions with colleagues, and operational partnerships and agreements.

Involvement measure, participatory techniques and tools

The degree of involvement, the related or invested actions and the used participatory tools and techniques were identified for each stakeholder. Measure of involvement is based on a schedule of implication of 5 degrees: Information, Consultation, Collaboration, Co-decision and Empowerment.

3 RESULTS

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Life+ Cap DOM and LIFE BIODIV'OM actions

Face to a local fragmentary knowledge, the Life+ Cap DOM focused on the acquisition of global knowledges on savannas (ecology, botany, habitat characterization, uses and perceptions by inhabitants and users) and on management issues of this environment and of *A. mangium*. As the main actions were scientific studies, mostly of participatory techniques and tools were interviews, field surveys and, national and international experts recommendations based on top-down bilateral exchanges between the leading organization GEPOG and stakeholders.

Based on those knowledges, the LIFE BIODIV'OM aimed to achieve concrete control actions with ambitious goals such as the eradication of *A. mangium* in 100 % of the protected areas (PA) and in more than 50 % of savannas. First, a control plan was build collaboratively at the regional scale. Then, control actions were carried out by GEPOG using mostly participative tools to plan them with local authorities and natural areas managers.



Workshop for control plan elaboration



LIFE annual monitoring committee meeting

Stakeholders evolution

In the Life+ Cap DOM, ecological, socio-anthropological and methods of control studies on savannas and *A. mangium* involved 12 stakeholders categories for 46 structures, including local communities.

During the LIFE BIODIV'OM, if any stakeholder category was new, the number of structures involved among stakeholders categories has distinctly increased (90) up to 300 % for local and regional authorities and 200 % for educational institutions and green spaces maintenance businesses working for PA managers, for networks managers and for the Europe's Spaceport (Guiana Space Centre).



Acacia management role-playing game



Meeting with a field owner to plan Acacia control

A wide range of tools

The increase in involved structures in the different *Acacia* control actions is mostly due to the organization of participatory workshops in order to build a concrete and shared regional control plan but also by the support for local councils, regional and state civil services and administrations.

The creation and the use of the innovative role-playing game YANAcacia enabled to change the point of view of uninitiated and unaware strategic stakeholders on *Acacia* issue.

4 CONCLUSION

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From the awareness of the problem to the implementation of active solutions, the control of *A. mangium* and the emergence of the problem of invasive alien species have become a major issue in Guyanese society since almost 10-15 years. Although French Guiana is relatively untouched by plant IAS due to its highly resilient forest biome covering 96 % of its territory, the 2 LIFE programmes have helped to federate and engage a growing number of associations, educational institutions, communities and municipal, regional and state entities around this emerging issue in this hitherto unscathed territory.



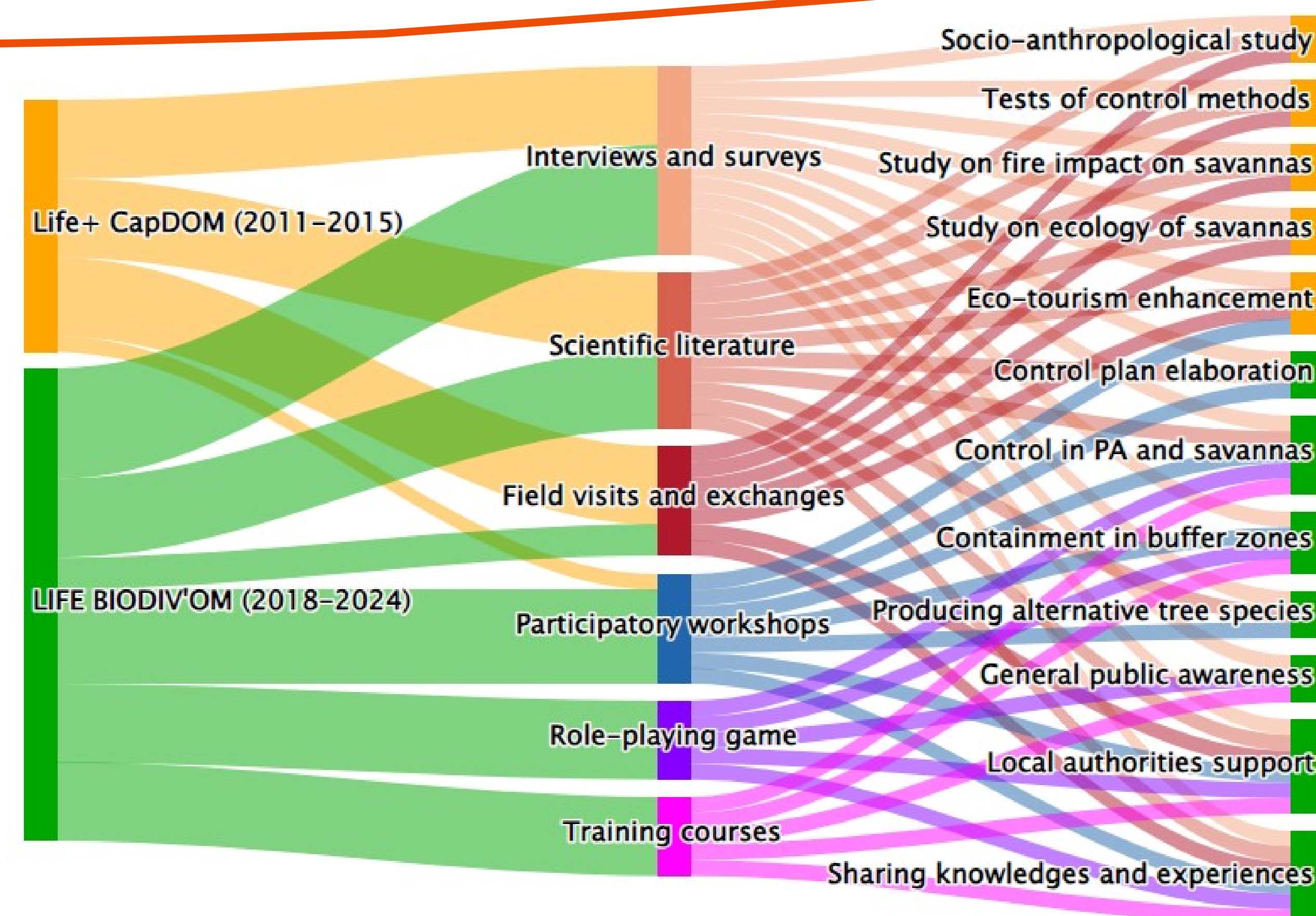
5 ACHIEVEMENTS

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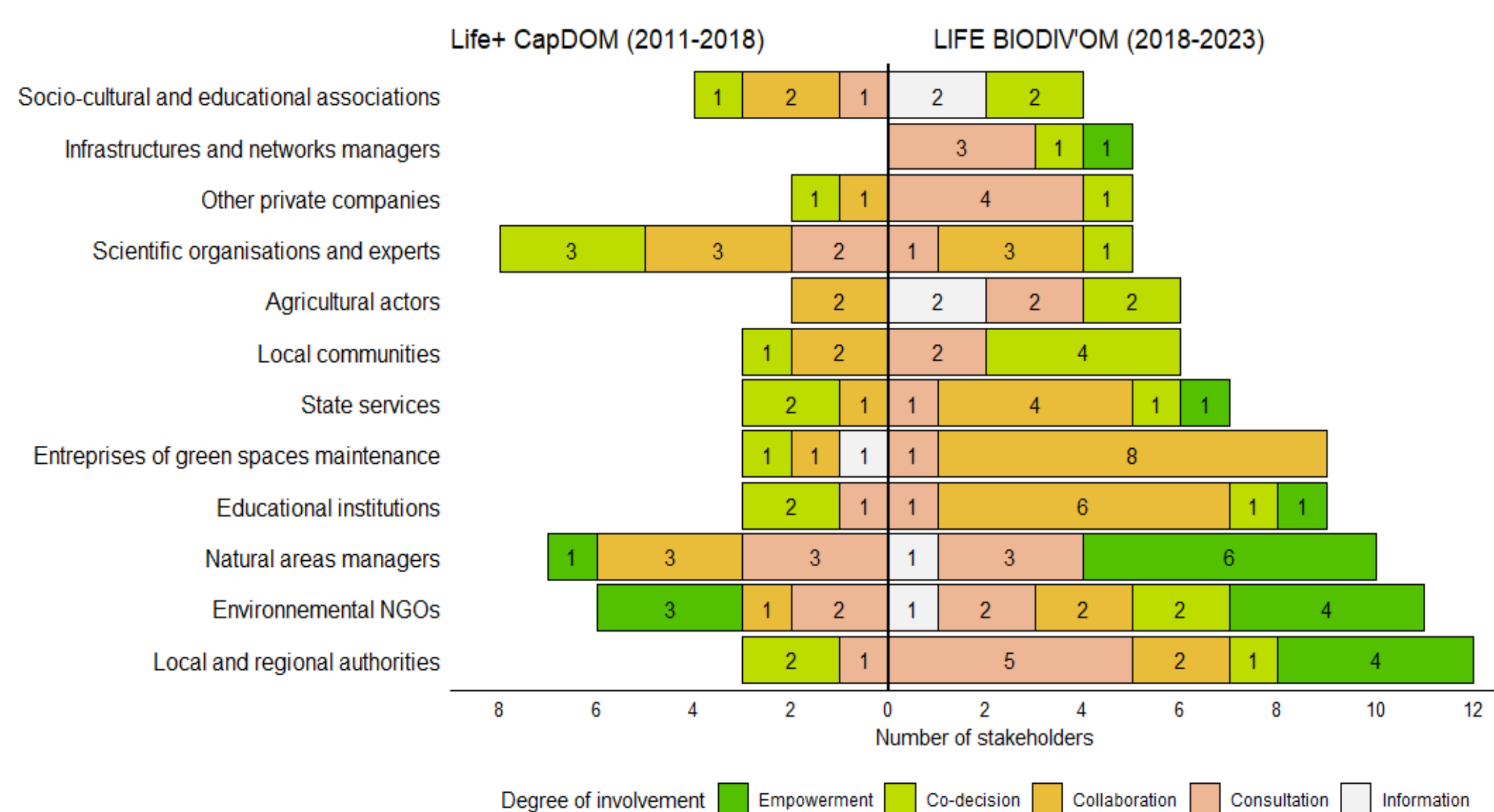
- 100 % of the 5 national nature reserves (~2,900 km²) and 1 regional nature reserve (~25 km²) self-governing in *Acacia* control.
- 5,400 ha of savannas prospected by the GEPOG and where 1,200 ha have been subject of *Acacia* control during the LIFE BIODIV'OM.
- 99.96 % of the PA of the "Conservatoire du littoral" without *Acacia* (440 km²)
- 57.5 % of savannas surfaces (15,000 ha on the total of 25,000 ha of savannas) where acacias were confirmed absent or where *Acacia* control was achieved



Newsletters and more information on : savanes.fr & lifebiodivom.fr



Participatory techniques and tools used for actions achievement in the two LIFE



Degree of involvement of stakeholders during the two LIFE

Engagement

The global engagement scores were roughly identical between the two LIFE (3.2 and 3.1) and correspond to collaborations. Even, the global engagement score did not vary between the two LIFE, the number of stakeholders was gone from 43 to 90. Our results showed that if the involvement in each stakeholders category did not progress, the increase of stakeholders number led to an increase of effective control actions by self-governing structures apart of the initiating-leader organization. Furthermore, the empowerment involvement increased up to 400 %, mostly including natural areas managers and local and regional authorities.