PRIORITY AREAS FOR LEGAL RESERVE OFFSETTING: DEVELOPING A DECISION-MAKING TOOL TO GUIDE THE ENVIRONMENTAL ADJUSTMENT PROGRAM IMPLEMENTATION IN SÃO PAULO STATE, BRAZIL

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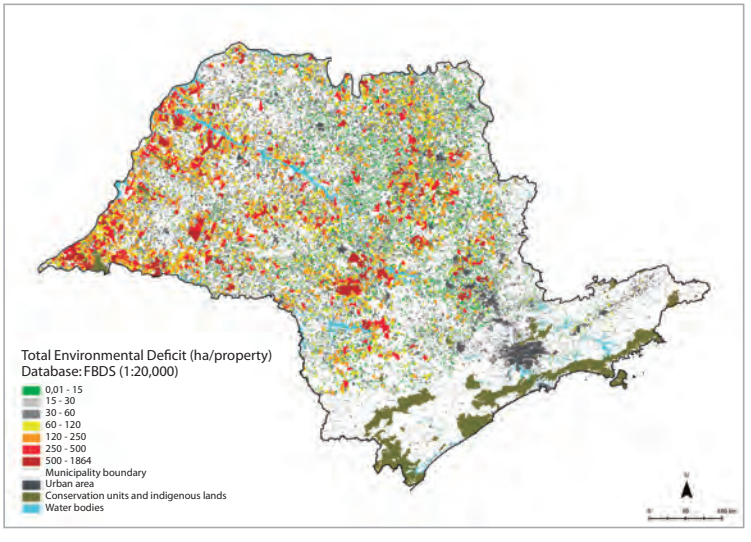

The implementation of the "New Forest Code" law, due to its complexity and its several sector disputes involved, needs to be supported by technical analysis, strongly based on scientific research. Scientific knowledge organized specifically for supporting the implementation of this law can assist the decision makers in the public consultation and in the necessary dialogues between various stakeholders (environmentalists, farmers, and legislators), strengthening the accuracy of technical discussions and providing a more credible material. The major focus of dispute in the implementation of the "New Forest Code" in the State of São Paulo (Brazil) is the offsetting of Legal Reserves (LR), which involves the mapping of farmland, the restoration potential in cultivate areas with low agricultural suitability, the offsetting possibility on currently cultivated, and the possibility of buying additional properties covered with natural vegetation. This project intends to accomplish: (i) the preparation of priority areas for offsetting of LR maps and agricultural land use admission in LR (according to Art. 68 of Federal Law # 12.651/2012), (ii) the development of an automatic tool prototype for query georeferenced information, that assists public managers and allow access and query information by other stakeholders (landowners, NGOs, etc.), in order to guarantee the transparency on implementation of the Environmental Adjustment Program (PRA) in São Paulo State. This research comes from a demand of governmental sectors both to identify and to prioritize areas for LR compensation because of federal and state legislation and should contribute to the state role in the development and application of methodology for ensuring the compliance of the New Forest Code.

SUMMARY OF RESULTS TO DATE AND PERSPECTIVES

Until now the project had carried out three meetings with stakeholders from different sectors engaged in the discussion of the New Forest Code (NFC) implementation in São Paulo State (e.g. environmental NGOs, governmental organizations, rural producers). The goal of these meetings is to create a neutral and safe space for an open dialog among stakeholders and the research team. Through these meetings it is possible to identify socially relevant and scientifically challenging queries to guide the research and, consequently, to generate information to support decision-making for the establishment of the NFC in São Paulo State. The project requests along with the stakeholders' claims had already generated three main outcomes for São Paulo State: (i) the assessment of its Rural Environmental Registry (Portuguese acronym: CAR); (ii) the analysis of the available databases of the Areas of Permanent Preservation (APP) (iii) and the new numbers of the NFC to the State.

The assessment of São Paulo CAR shows that, contrarily to the believes of many stakeholders, about 63% of the registers do not show significant problems of overlapping areas. Thus, the CAR database for São Paulo presents an adequate accuracy. The assessment of the databases available to generate a map of the APPs associated to water bodies (IBGE 1:50,000; FBDS 1:20,000) showed that each one has its owns advantages and drawbacks. Therefore, it is necessary to create an effort to improve these data and to consolidate a database for the NFC implementation. Finally, the NFC model was updated using a geographically more accurate database (FBDS) and including the article 61a from the Federal Law (Brazil 12,651/2012). Using this model, we created a map of the environmental deficit (LR and APP) in terms of property size for São Paulo State (Figures 1, 2). The outcomes showed that large rural proprieties (i.e. > 15 FMs) on their own concentrate more than 75% of the State environmental deficit. Furthermore, we accessed the environmental deficit in terms of primary land use using two different databases (IBGE and FBDS). The results showed that the majority of the State environmental deficit is found in lands used for sugarcane production (approximately 40%) and livestock (around 28%). This information will help stakeholders in the process of decision making about the NFC implementation.

MAIN PUBLICATIONS

Guidotti V, Freitas FLM, Sparovek G, Hamamura C, Cerignoni F, Pinto LFG. 2016. Números detalhados do novo código florestal e suas implicações para os PRAs. *Sustentabilidade em debate. Imaflora: Piracicaba*, 10p.

Freitas FLM de, Sparovek G, Mörtberg U, Silveira S, Klug I, Berndes G. 2017. Offsetting legal deficits of native vegetation among Brazilian landholders: Effects on nature protection and socioeconomic development. *Land use policy*. **68**:189-199.

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