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INTRODUCTION

Extreme flood events have become recurrent in Brazil and Germany as they happened during the spring-summer of 2013 in Germany and the summer of 2013-2014 in Brazil. Despite having some similarities regarding political system (federalism) as well as the arrangement of administrative competences, authorities have chosen different approaches to handle flood issues in both countries. By exploring flood legal frameworks, this comparative study highlights points of convergence and divergence between Flood Risk Policy in Brazil and Germany. In addition, considering the concept of Integrated Flood Management (IFM) the research comprises a verification of regulatory instruments which reveals whether common policy objectives and effective environment options have been chosen as proposed by IFM. The analysis of gaps and opportunities intend to contribute to their capacity to cope with floods.

METHODS

The research embraces a multi-disciplinary literature review and explores legal and policy documents from federal and state level of governance. The purpose of this analysis is to identify policy connections and regulatory instruments considering the vital role of the law to implement policies in different levels of government. The investigation, using deductive method, takes into account the IFM concept. IFM is an initiative developed by the Global Water Partnership (GWP) and World Meteorological Organization (WMO) which recognizes flooding as a natural phenomenon with beneficial impacts which can never be fully controlled (WMO, 2009). The selection of Brazil and Germany is justified by their similarities in their distribution of competences among levels of government, particularly regarding policies correlated to flood management. The research focuses on inland floods, especially river floods from which both countries have been suffering in the past years. Legislations from Minas Gerais State in Brazil and Baden-Württemberg in Germany have been analyzed as example of flood risk management in state level.

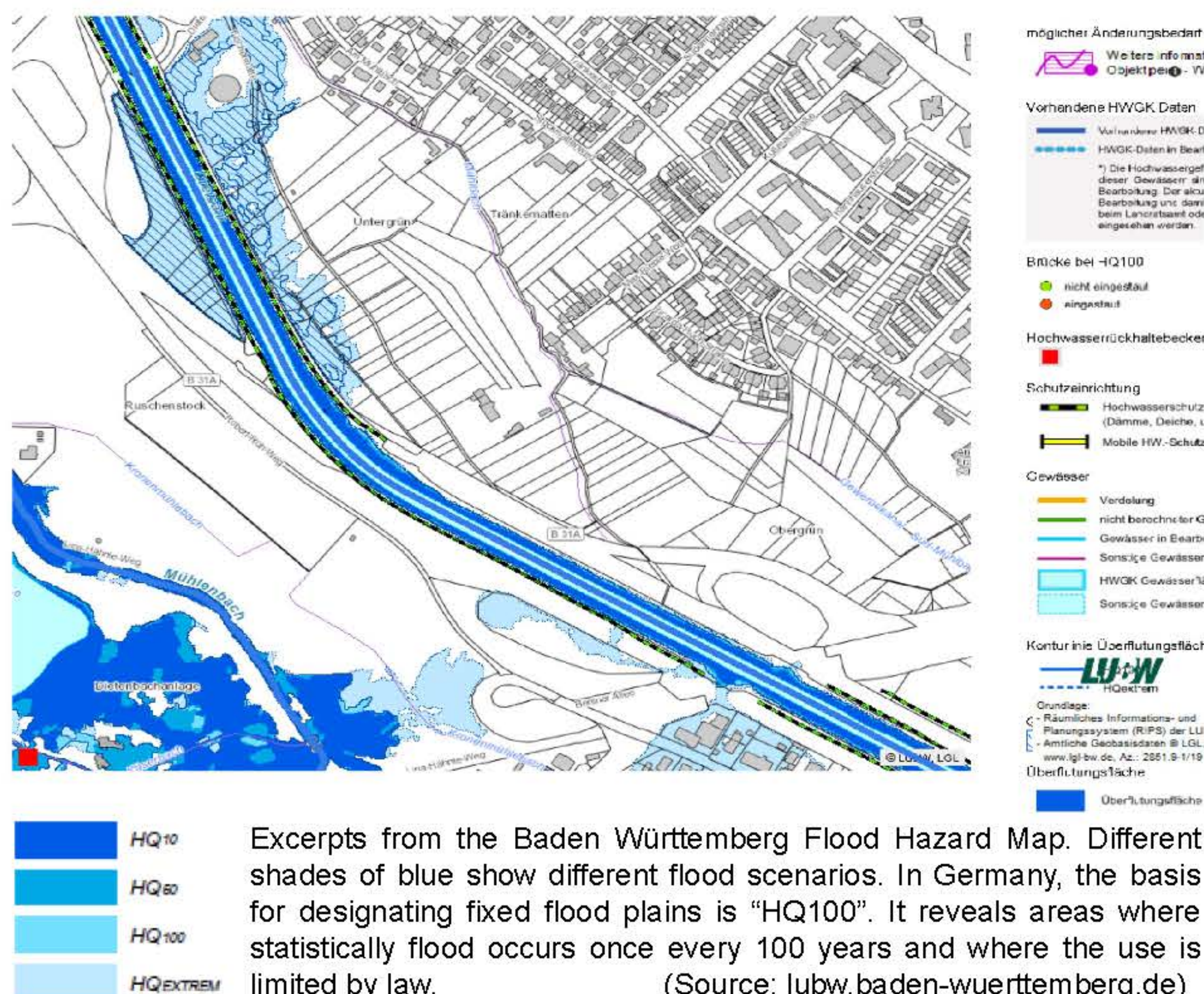


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FINDINGS

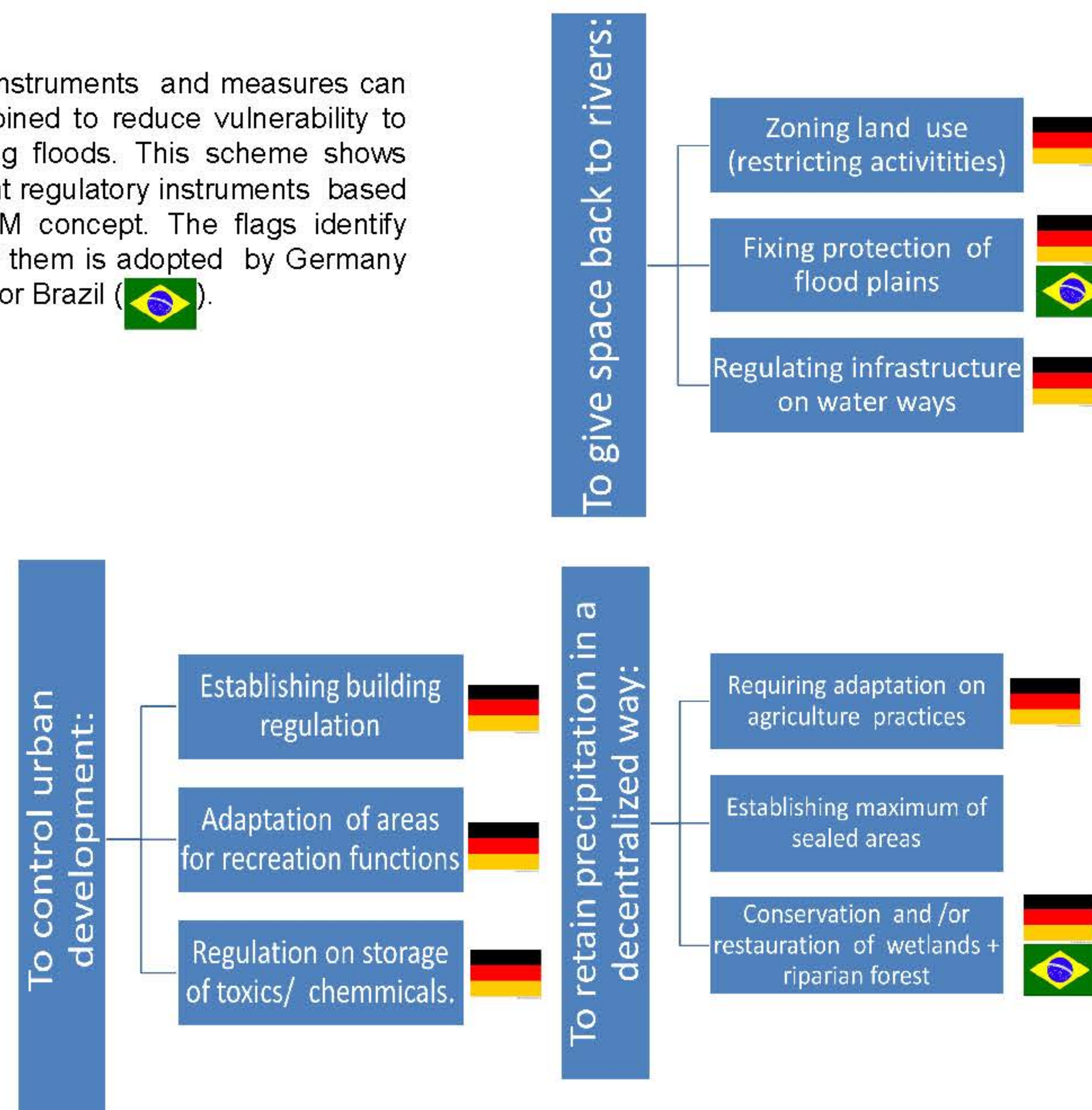
The National Policy of Protection and Civil Defence in Brazil was introduced by the Federal Law n. 12.608 in 2012. The new policy determines the adoption of a systemic approach to risk management. However, the analysis shows that the policy is based on the former traditional defence approach ("fighting against floods") (Merz et al. 2010). The statements reveal a prioritization of implementing an emergency planning (proactive pre-incident activities) and structural measures. Brazilian regulatory instruments do not embrace the most obvious causes of damages. The legislation regarding interrelated policies indicates an imbalance of competences among administrative borders which has overloaded municipalities with responsibilities.

The new basis of the German flood risk management inserted in 2009, promoted revisions in the legislation of other policy agendas. In terms of regulatory instruments for example, there is a great number of restrictions to use floodplains. Another limitation of land use embraces riparian forest and wetland which are considered as protected areas. Federal Building Code and Federal Soil Protection Act have restrictions concerning the maintenance and restoration of natural process as infiltration and functional capacity of soils. Through the autonomy of their tasks, states have found different ways to manage floods. The review has indicated that coordination between states, communication and stakeholders' participation are the main challenges for Germany.

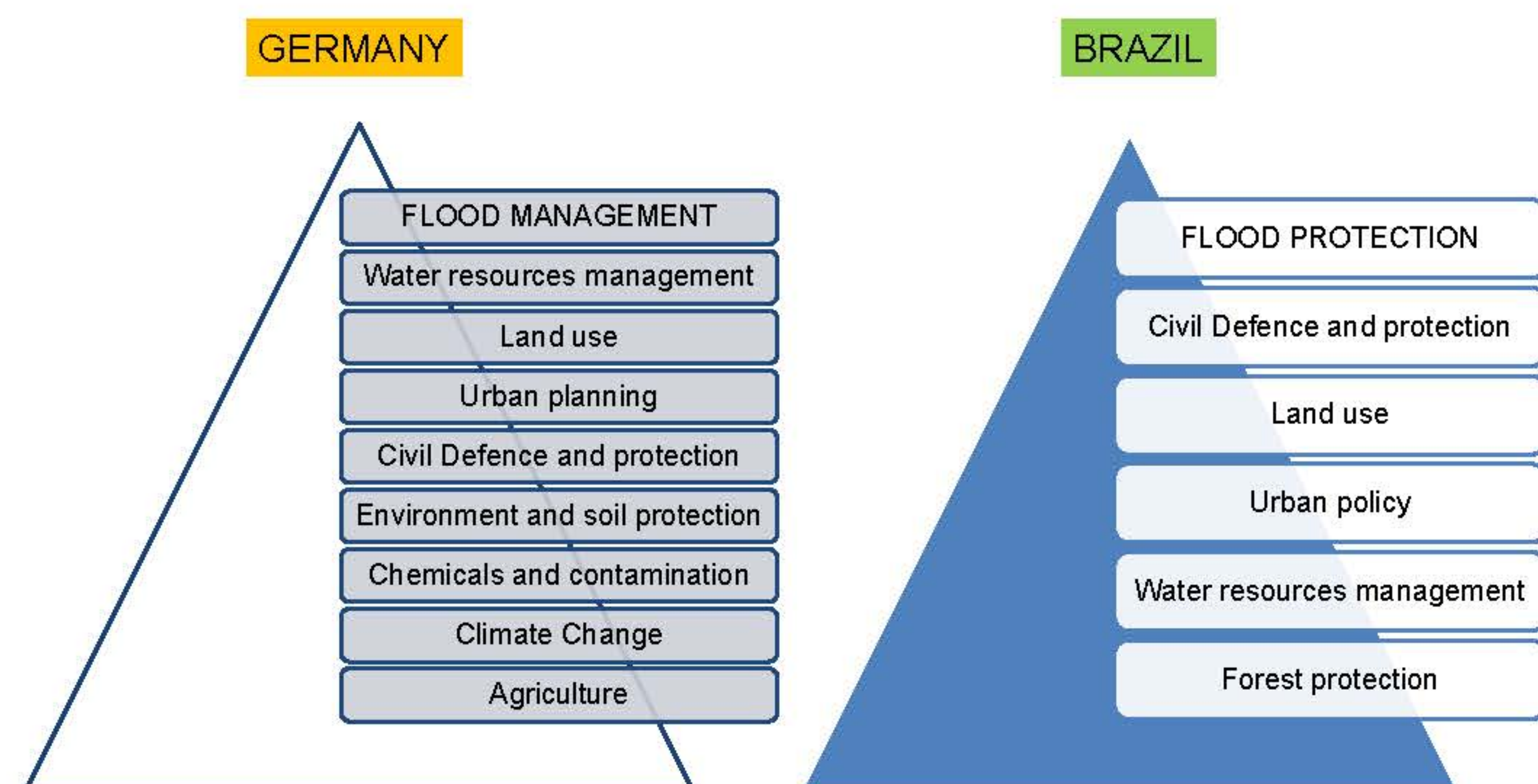


FLOOD REGULATORY INSTRUMENTS

Policy instruments and measures can be combined to reduce vulnerability to damaging floods. This scheme shows important regulatory instruments based on IFM concept. The flags identify which of them is adopted by Germany () or Brazil ().



FLOOD LEGAL FRAMEWORK



DISCUSSIONS AND CONCLUSIONS

GAPS AND OPPORTUNITIES

