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This work brings a review on current hydrological and flood forecasting practices in Brazil, including the main forecasts applications, the different kinds of techniques that are currently being employed and the institutions involved on forecasts generation. A brief overview of Brazil is provided, including aspects related to its geography, climate, hydrology and flood hazards. A general discussion about the Brazilian practices on hydrological short and medium range forecasting is presented. Detailed examples of some hydrological forecasting systems that are operational or in a research/pre-operational phase using the large scale hydrological model MGB-IPH are also presented. Finally, some suggestions are given about how the forecasting practices in Brazil can be understood nowadays, and what are the perspectives for the future.