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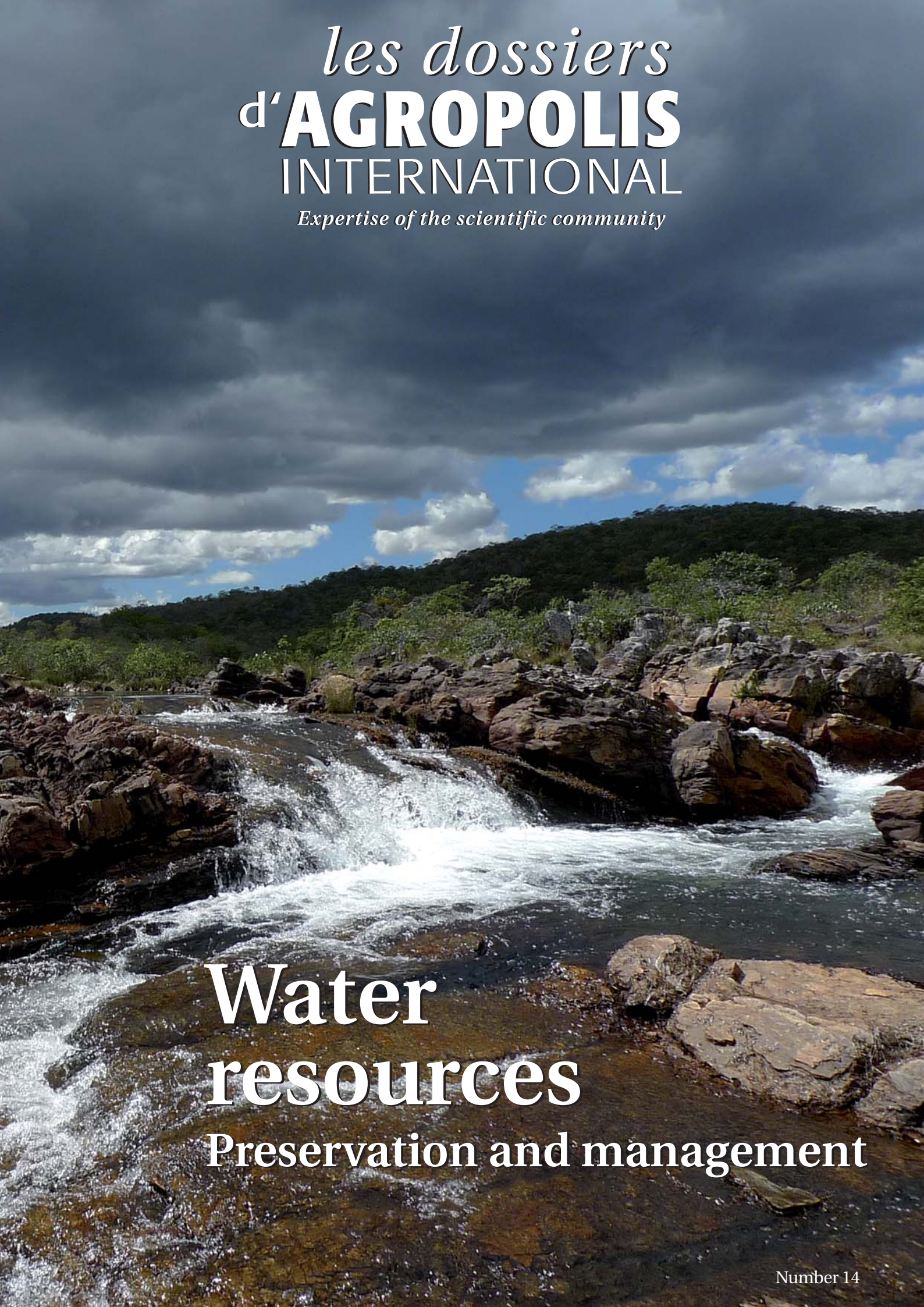

Water resources

Preservation and management

Number 14

>INTEGRATED WATER RESOURCE MANAGEMENT

Participative and multi-level management of water in Ghana and Burkina Faso

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▲ *Participatory workshop for water management in Ghana.*

Since 1992, the principles of integrated water management have gradually been imposed in water policies. The participation of the different stakeholders involved in decision-making processes has become a principle in the elaboration of decentralised public policies. Multi-level water management, which is nowadays fully accepted, raises questions about tools to regulate the social, economic and ecological effects, which may be contradictory depending on the scale considered, sector prioritisation and involved stakeholders. The difficulty is to draw up consultation methods allowing expression of these various points of view, so as to come to institutional and technical innovations which are accepted by all.

Since 1998, within the multi-institutional Companion Modelling (ComMod) framework, the GREEN research unit has been developing participative modelling approaches to support decision-making processes and the production of knowledge on the management of socio-ecological systems and renewable natural resources. For instance, GREEN develops activities in the Volta area, in the context of the "Challenge Program on Water and Food" - phase 2 *(see page 61)*, in collaboration with the International Water Management Institute and the Water Resource Commission, the Permanent Secretariat of the Support Programme for the Integrated Management of Water Resources. The main objective of the "Sub-basin management and governance of rainwater and small reservoirs" project is to facilitate the interactions between the different levels of management and decision-making in Burkina Faso and Ghana, so as to make the integrated management of water resources effective. For this purpose, a ComMod initiative is being developed by the stakeholders from local and intermediate levels together with political decision-makers.

Through dialog, the objective is that everyone be informed about constraints of each others, to build new modes of interaction in the production of management rules and standards. In Burkina Faso, multiple water management structures exist on different scales. GREEN therefore supports local water committees, kinds of multi-stakeholders platforms at the small catchment level, which have been created but are not very functional yet. In Ghana, where these intermediate platforms do not exist, GREEN is supporting the emergence of new forms of multi-stakeholders organisations likely to take into account the different management and decision-making levels. Participative workshops are organised for this purpose (role playing, multi-agent systems, etc.). In time, innovation will reside in the implementation of new multi-scalar modes of interaction between the stakeholders involved in the integrated management of water resources.

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For more information: www.commod.org & www.ecole-commod.sc.chula.ac.th/pn25/index.php

>INTEGRATED WATER RESOURCE MANAGEMENT

AQUADEP: drinking water governance at local level

The AQUADEP project studied the drinking water governance at the district level. Its main objectives were the characterisation, evaluation and support of drinking water policies. It sought to gain a better knowledge of these policies and to clarify the terms of the debate about the institutional framework of drinking water management, notably with regard to territorial scale and governance. At the same time, a more targeted "research-intervention" on the information and steering system of territorial governance (indicators system) was developed to support operational stakeholders in their decision-making process.

The main outputs of the project were: a typology of drinking water policies drawn by the *Conseils Généraux* (General Councils); the characterisation of local drinking water governance in a few districts representative of the various situations previously identified; a comparison with the situation in Italy and Denmark; methodological proposals for information systems and indicators.

AQUADEP is an interdisciplinary 3 years research project (2008-2011), funded by the "Water and Territories" programme of the French Ministry of Environment, CNRS and IRSTEA. It brought together 12 researchers and teachers-researchers from five teams (ENGEES: *École Nationale du Génie de l'Eau et de l'Environnement de Strasbourg* – IRSTEA in Strasbourg, G-EAU and ART-Dev in Montpellier, the *"Réseaux"* research unit of IRSTEA Bordeaux and the CERTOP research unit of CNRS/*Université Paul Sabatier* in Toulouse). Rémi Barbier from ENGEES-IRSTEA has coordinated the project.

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