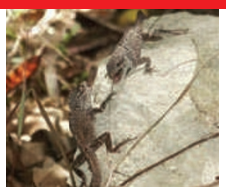

WHIPPING UP A LITTLE NATURAL SELECTION
Manipulated islands reveal secrets of lizard adaptation.
go.nature.com/MVTNxc

R. CALSBEEK/R. COX

AP PHOTO

The drought in Yunnan province has left millions without water.

plants. Zhu Hua, an ecologist at XTBG, and his colleagues have already noted a 10% increase in the abundance of liana species over the past few decades in southwestern Yunnan's tropical forests[4]. Cao Kunfang, also an XTBG ecologist, says that lianas have a deep root system that allows them to absorb water deep in the soil[5]. They can also minimize evaporation by closing the minute stomatal pores in their leaves. But without a large trunk, lianas are poor at absorbing carbon dioxide — and even worse once their stomata close. "Having more lianas in tropical forests could compromise their function as a carbon sink," says Cao.

Last-minute scramble

As government officials scramble to deal with the emergency in Yunnan, the province's water management is being scrutinized. Most of its reservoirs were built more than 50 years ago, and half are either disused or do not function properly. Many of Yunnan's natural lakes are severely polluted and unusable, says Ma Jun, director of the Institute of Public and Environmental Affairs, a non-governmental organization in Beijing. Xu says that the region has not enough small-scale infrastructure — ponds, small reservoirs and canals — to distribute clean water to the hardest-hit areas. "There is an urgent need to develop an effective hydrological network in the province," he says.

In recent years the region has instead focused on building huge reservoirs and hydropower stations, Xu says, because of the economic and political capital that such projects offer. Overall, the central government has been reactive, tackling droughts when they come rather than preparing for the worst, adds Yu Chaoqing, a hydrologist at the Beijing-based China Institute of Water Resources and Hydropower Research, part of the government's Ministry of Water Resources.

Throughout southwestern China, where 2,000 drought-relief workers are drilling wells around the clock, the location of groundwater remains elusive because few geological surveys have been done. "It's a last-minute scramble because only 10% of the drought-ridden region has been surveyed," says Hao Aibing, a geologist at the China Geological Survey in Beijing, who is helping to locate groundwater in Yunnan, Guizhou and Guangxi provinces. "Even if we get live water wells, the water quality remains an issue," he says. "We just know so little about the groundwater in the region."

Researchers are adamant that lessons must be learned from this year's drought in Yunnan. "Extreme weather events are likely to happen more frequently in the future," says Xu, referring to the findings of the CAS report. "I hope we will be better prepared when the next natural disaster strikes." ■

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Shake-up for fusion team

The international fusion experiment ITER may get a new director-general after suffering delays and cost overruns. Osamu Motojima, a distinguished Japanese physicist, is being floated as the project's new chief, *Nature* has learned. The appointment, if made, may trigger further changes for the project. "I wouldn't be surprised if there's a huge shake-up in ITER management under him," said one fusion scientist familiar with the project.

Motojima would replace Kaname Ikeda, who has led the programme since its inception in 2007. Ikeda was originally appointed for a five-year term, and his departure would be the second high-level management change in recent months. In February, Europe's project head, Didier Gambier, was replaced by British physicist Frank Briscoe (see *Nature* 463, 721; 2010).

ITER spokesman Neil Calder said that the organization would consider management changes at the next council meeting in June. However, he would not confirm whether Motojima is a candidate for the directorship.

Researchers hope that ITER, based in the south of France, will prove the viability of nuclear fusion as a power source. The doughnut-shaped reactor will heat and squeeze hydrogen isotopes until they fuse together, forming helium. The process is expected to release ten times the power it consumes. ITER's seven members — Europe, Japan, the United States, South Korea, China, Russia and India — hoped to build the project by 2016 at a cost of €5 billion (US$6.3 billion). But that cost is expected to double, and first experiments are now set for late 2019. On 5 May, the European Commission announced that it faces a €1.4-billion funding gap for construction between 2012 and 2013.

Motojima has a long career in fusion research. From 1999 to 2002, he oversaw construction of a fusion machine called the Large Helical Device (LHD) at the National Institute for Fusion Science in Toki City, Japan. The LHD uses a twisted loop of magnets to wrangle hot gas, a more complex set-up than the doughnut-shaped ITER device. Despite this, Motojima saw the LHD completed on schedule, says Hutch Nielson of Princeton Plasma Physics Laboratory in New Jersey. "I think Motojima's record there was a complete success," he says. ■

Geoff Brumfiel