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WATER, IT'S OUR DAM SHAME

Big CSIRO water infrastructure plans have been hit by politics

EAN HIGGINS



It's a plan drawn up by Australia's best and brightest to fulfil the grand vision of opening new food bowls in the Top End by tapping the great rivers of the far north.

But a year on since the CSIRO spent \$15 million developing detailed blueprints for new dams and other water infrastructure in Queensland, the Northern Territory, and Western Australia, none of those jurisdictions shows any real interest in making it happen.

When *The Australian* put the question, not one of those governments could identify a single project it was prepared to fund or had a timetable to build — not even a pipe and a pump to a little “turkey nest” waterhole on a farm.

To Bob Katter, it's part of a bigger problem of billions being spent on research projects to identify and assess new options for dams, but no governments having the guts to make them happen.

Katter, the inimitable veteran crossbench MP who holds the huge northern Queensland seat of Kennedy, says it reflects a fundamental lack of leadership and decisiveness when it comes to nation-building.

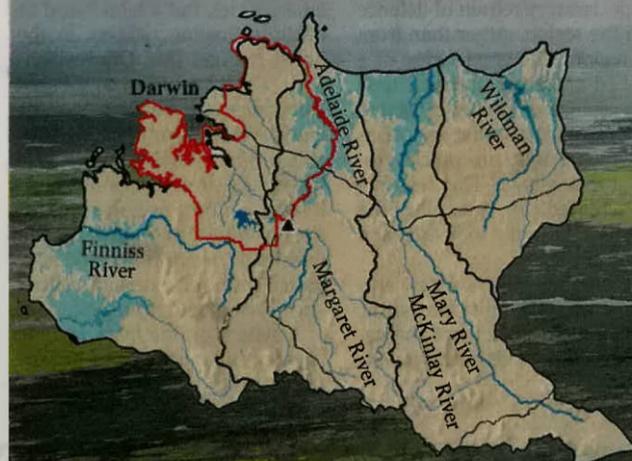
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Key opportunities

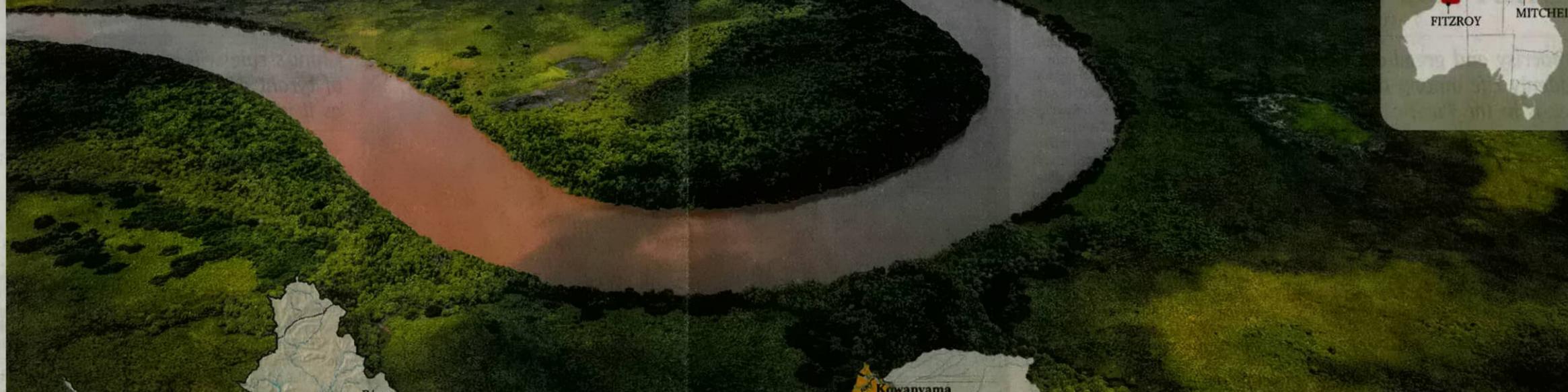
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DARWIN CATCHMENT

A combination of major dams, farm-scale offstream storages and groundwater could support up to 90,000ha of dry-season horticulture and mango trees



Adelaide River



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Key opportunities

The CSIRO proposed water infrastructure projects for the Fitzroy River catchment in Western Australia, the Darwin River regional catchments in the Northern Territory, and the Mitchell River catchment in Queensland.

They are part of a continuing federal government program to identify new agricultural and economic development opportunities in Australia's north.

Called the Northern Australia Water Resource Assessment, the program has conducted extensive feasibility studies and identified really big opportunities to create massive new greenfield irrigation zones, or vastly expand existing ones.

It's a thorough job: the CSIRO has identified and evaluated surface and groundwater capture-and-storage options, provided detailed information on land suitability, identified and tested the commercial viability of agriculture and aquaculture, and assessed potential environmental, social, indigenous and economic impacts and risks.

"We asked, where is the land, where are the water sources?" the CSIRO's research leader for northern Australia, Chris Chilcott, tells *The Australian*.

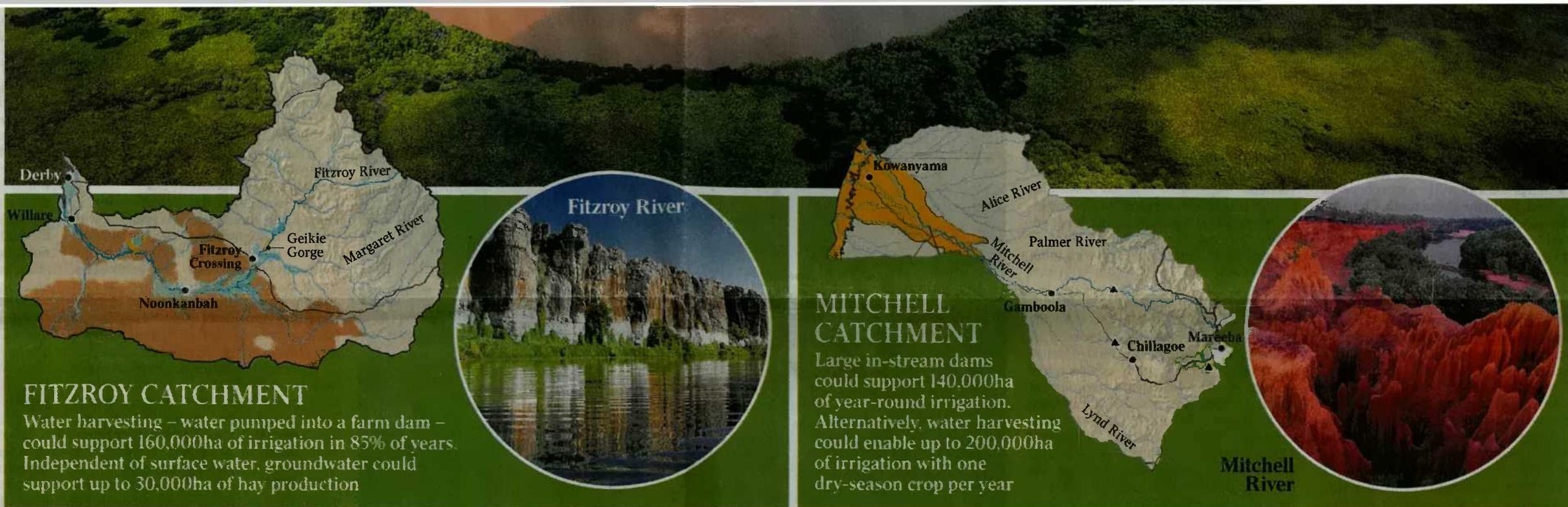
What they found were three ambitious regional projects of excellent potential, involving 128 specific development opportunities.

"We went through looking at the financial viability of each particular option," Chilcott says.

"You could build some pretty big dams, but you would need to invest in big, downstream agriculture."

New frontier

If taken up, the projects would create a huge number of jobs, and draw both Australian and migrant workers to a new frontier of national development.



FITZROY CATCHMENT

Water harvesting – water pumped into a farm dam – could support 160,000ha of irrigation in 85% of years. Independent of surface water, groundwater could support up to 30,000ha of hay production

MITCHELL CATCHMENT

Large in-stream dams could support 140,000ha of year-round irrigation. Alternatively, water harvesting could enable up to 200,000ha of irrigation with one dry-season crop per year

"Some of these catchments have less than 1500 people living in them," Chilcott says.

"You would have to bring another 1500 people in."

The Fitzroy, Darwin and Mitchell catchments differ a lot in terms of their physical, social and demographic characteristics, and the CSIRO proposes different infrastructure in each case.

But they would all involve multi-billion-dollar investments for multibillion dollar new agriculture over time.

The Mitchell vision in northern Queensland would build the grand old classic: big in-stream dams, in this case four of them, on the Mitchell River itself and its tributaries.

That, the CSIRO says, could support 140,000ha for year-round agricultural development, including sugar cane.

Alternatively, just taking water off the river through pumps and pipes could irrigate 200,000ha of a single dry-season crop such as cotton.

On top of all that, there are 235,000ha of coastal land suitable for lined aquaculture ponds, offering high returns from black tiger prawns or barramundi.

The Darwin catchments proposal envisages a variety of projects, including two big dams on

the Adelaide River, but also off-stream water harvesting from other rivers and putting down bores to pump up groundwater.

It could, the CSIRO says, support 90,000ha of irrigated dry-season horticulture and mango trees. Another 420,000ha of coastal land is suitable for lined aquaculture ponds.

The CSIRO's plan for the Fitzroy River in Western Australia involves a different strategy – not big in-river dams, but 425 tiny on-farm ones technically known as ring tanks, but colloquially called turkey nests.

By pumping from the Fitzroy into the turkey nests, the plan could support 160,000ha of a single irrigated dry-season crop, probably sugar cane or cotton.

By tapping groundwater, farmers could grow another 30,000ha of hay production. As well, 55,000ha of coastal land could host aquaculture ponds.

Farmers onboard

The National Farmers Federation loves the CSIRO proposals.

It regards them as more realistic and achievable than more grandiose concepts such as the 1930s scheme developed by engineer John Bradfield, which aimed to channel northern rivers huge dis-

tances south, in one version to the Murray-Darling. In contrast with Bradfield, says the NFF's general manager for natural resource management, Warwick Ragg, the Fitzroy, Darwin and Mitchell plans would use the water right where it is, involving far less transmission costs and loss.

"The best place to use water is

'If we are going to continue to be the food bowl of Asia, then being closer helps us'

WARWICK RAGG
NATIONAL FARMERS
FEDERATION

close to where it's stored," Ragg says.

A second reason the NFF supports the CSIRO plan is that it fits with the forecasts of the effects of global warming: the predictions, and recent experience, are that while Australia will get hotter pretty much throughout, the north will retain as much, or maybe get more, rainfall.

The current drought, which has crippled the Murray-Darling system, is an example, Ragg says.

"It seems to be getting hotter and drier in the southern part of the continent."

In addition, the geography of the north favoured new export markets.

"If we are going to continue to be the food bowl of Asia, then being closer helps us, at least in a horticultural sense," Ragg says.

A further reason for going for the CSIRO projects, Ragg says, is precisely because they have been thoroughly assessed by an independent organisation with some of the best teams of experts in the field.

"It would seem to be logical that the first projects for assessment would be those that have had the CSIRO primary analysis," he adds.

States stall

Deputy Prime Minister Michael McCormack, who holds the water infrastructure portfolio, is keen for the Fitzroy, Mitchell, and Darwin projects, describing them as having the sort of ambition for nation-building as Bradfield.

But the problem, McCormack tells *The Australian*, is that no matter how much the federal government pushes them, under the Constitution dam building is a state responsibility.

"We can't do these projects

without state inputs, without state buy-in," McCormack says.

So far at least, that seems to be where the Fitzroy, Darwin and Mitchell concepts are stuck.

The Australian went to the responsible ministers of the three governments involved, asking whether they supported the CSIRO proposals, and whether they could identify any specific physical infrastructure project under them which they were funding, and for which they could provide a start and completion date.

The reaction was fairly uniform: the ministers were polite about the CSIRO's work, saying it was a useful resource, but implied that as a federally funded initiative it did not really have much to do with them and their plans.

Not one of the three governments would identify a specific infrastructure project within the CSIRO proposals it planned to get a start on.

Northern Territory Minister for Environment and Natural Resources Eva Lawler's office made a point of the fact that the territory government "did not provide funding for this CSIRO study on water resources".

"There are vigorous environmental assessment processes in place in the Northern Territory to enable developments that involve

native vegetation clearing, water extraction and other impacts on the landscape, to be assessed."

A spokeswoman for Western Australia Water Minister Dave Kelly says what the state government wants to do, and what the CSIRO proposes, are "two very separate things".

"Our government made election commitments to not dam the Fitzroy and to create the Fitzroy River National Park," she says.

"As part of delivering on these election commitments we are also developing a water allocation plan."

Queensland Minister for Natural Resources Anthony Lynham says his government is "not shutting its door on the project but is conscious that considerable work still needs to be done before any proposals can be realistically examined".

Asked about any commitment to any specific CSIRO-proposed infrastructure project, Lynham's spokesman says "no commitment at this time".

Chilcott remains sanguine about his team's development brainchild for the Fitzroy, Darwin and Mitchell.

"It is a slow process, but a considered one," he says. "The water is still there, so it's not a lost opportunity."

Infrastructure needs

Chilcott points out that some of the specific projects, particularly for the Fitzroy, envisage private-sector investment decisions on whether to proceed on small-scale infrastructure such as pumping water off the rivers to on-farm turkey nests. The state government would in that case not have to build in-stream dams on the Fitzroy, but would have to grant permission for irrigation to take place and establish an allocation regime.

"It will be incremental," Chilcott says. "I think we will see people making reasonable-sized investments to see if they can make it work, and see how much it improves their viability."

To make some overall development projects viable, Chilcott says, it might require investment – either by government or a big agribusiness company with deep pockets – in not just water infrastructure, but regional agricultural processing infrastructure.

In the Fitzroy, he says, that might be a cotton gin.

As for Chilcott himself, he's moving on with full enthusiasm to the next challenge. This week he will assemble his first team meeting to assess yet another catchment, the Roper River in the Northern Territory.