

# In the Land of Milk and Money, Dairy Boom Feeds Environmental Fears; New Zealand's waterways are suffering environmental damage, coinciding with an expansion of the country's dairy industry

Ben Collins | Photographs by Birgit Krippner for . Wall Street Journal (Online) ; New York, N.Y. [New York, N.Y.]14 Aug 2017: n/a.

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## FULL TEXT

CHRISTCHURCH, New Zealand--This South Pacific country markets itself to international tourists as "100% pure," but a rapid expansion of its dairy industry is endangering its clean, green image.

The shift threatens to pit the nation's No. 2 export, tourism, against dairy, its No. 1.

"Agriculture is the major cause of issues we have with fresh water," said John Quinn, chief freshwater scientist at the country's National Institute of Water and Atmospheric Research. "Dairying is part of that."

Seven out of 10 of New Zealand's monitored rivers--mostly in lowland areas--are now potentially unsafe for swimmers, according to a government report this year on freshwater quality, which highlighted increased nitrogen levels and algal blooms.

Some in the tourism industry, along with some scientists, fear the pivot by New Zealand, long recognized for its sheep and wool, to producing milk from cows to take advantage of soaring demand from Asia contributing to the problem. Rising incomes in the region, notably in China and India, have lifted millions into the middle class and driven up appetite for protein, including milk and other dairy products .

Global milk prices have surged as a result, prompting some New Zealand farmers to switch from sheep to dairy cattle. In the decade through 2016, the number of dairy cows rose by 28% to 6.6 million while the sheep flock shrank by 45% to 27.6 million, official data show.

Cattle produce more waste than sheep, and some of it gets into rivers during heavy rain or over-irrigation of pastures.

The Tourism Export Council of New Zealand, a trade lobby, said it fears the country is "heading down a path where freshwater quality could lead to reputational damage to our 'clean, green' marketing promise we share with the world."

Nowhere is the environmental challenge greater than in the Canterbury region, which includes Christchurch, on New Zealand's South Island. Dairy used to be a bit player here, with sheep and crops dominating agriculture.

Between 2002 and 2016, the number of dairy cows in Canterbury more than doubled to 1.27 million, according to official data.

Over roughly the same period, water quality deteriorated. About half of 56 water-testing sites on farmed land in Canterbury showed signs of worsening nitrogen levels between 2004 and 2013, the most recent national data available, with levels improving in just three. A trend couldn't be established in the others.

"Fifteen years ago, when I started to guide in the region, there was not a river where I would hesitate to have a drink of the water," said Serge Bonnafoux, a fly-fishing guide. "Nowadays there are only rivers in remote areas, where I know there are no cows above me, where I will drink."

Scientists say dairy has played a big part in fouling waterways, though it isn't the only cause: clearance of native vegetation and population growth are also contributing factors, along with other agriculture. Still, the dairy industry acknowledges it is part of the problem and says farmers are addressing environmental concerns.

Besides fencing off rivers, dairy farmers have been planting vegetation along river banks, which can help reduce the volume of bacteria and sediment running into the water, said Theo Spierings, chief executive of Fonterra Cooperative Group Ltd., the world's largest dairy exporter.

"In some areas, intensive land use has reached recognized environmental limits, but in others that's not the case," Mr. Spierings said. "Many of the Fonterra farms have been passed down through families, and our farmers feel a huge sense of responsibility to ensure land and water are protected for future generations."

Fonterra accounts for the lion's share of the nation's dairy exports, which in the year through June 2017 were worth 12.5 billion New Zealand dollars (US\$9.1 billion).

New Zealand's reliance on exporting commodities is pushing the country close to its environmental limit and threatening its biodiversity, the Organization for Economic Cooperation and Development said in March.

Under pressure from tourism operators and community groups, New Zealand's government in February launched a program to make 90% of rivers safe for recreational swimming by 2040, through measures such as planting vegetation around rivers, new rules on fencing off pastures, and implementing stronger environmental guidelines for local authorities.

Environmental groups and some lawmakers say the initiative doesn't go far enough and that water-quality standards fall short of those in other developed countries.

Dr. Quinn, the scientist, said that phosphorus, sediment and E. coli levels are improving in some areas where dairy farmers have taken remedial action. Still, it can take decades for nitrogen to move through the groundwater system. "There is quite an issue of the ghost of contaminants past," he said.

Lawmakers are reluctant to criticize the dairy industry, which dominates many rural towns. Taxes paid by farmers help to pay for schools and hospitals, these lawmakers say, while booming dairy exports have helped New Zealand's economic growth to outpace much of the developed world, including the U.S.

Nathan Guy, the minister for primary industries, said dairy farmers have voluntarily put up about 16,000 miles of

fencing around rivers and lakes to prevent cattle from getting near, or in, waterways. "That's a distance from Auckland to Chicago and back again," he said.

Credit: By Ben Collins | Photographs by Birgit Krippner for The Wall Street Journal

## DETAILS

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