## CSIRO's climate change ignites a storm

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CSIRO chief executive Larry Marshall, in Sydney yesterday, wants the science agency to refocus on practical measures to deal with climate change. Picture: Hollie Adams

The national science agency has been accused of walking away from climate science after it announced it would refocus from trying to understand it to practical measures to deal with it.

CSIRO chief executive Larry Marshall said yesterday climate change had been well modelled and it was time to start doing something about it.

Dr Marshall, a Sydney-born physicist and Silicon Valley entrepreneur, has ordered a restructure that will put 350 jobs at risk, particularly in environmental research, as the agency pursues "moonshots" capable of delivering practical solutions.

The move has triggered outrage among top scientists in Australia and overseas.

University of Melbourne earth scientist Kevin Walsh said: "It is incorrect to say that the climate change science problem is solved, and now all we need to do is figure out what to do about it. "No working climate scientist believes that." Former chief scientist Penny Sackett said she was "stunned" by the move. "The big question which underlies all climate adaptation work is: how is the climate changing?" she said. "How can our largest national research organisation choose not to engage in finding the answer to that question?"

Dr Marshall, who returned to Australia after 25 years to take up the role of CSIRO chief in 2014, said climate modelling was important. "But with finite resources we can't do everything," he added. "We've either got to focus on measuring it or mitigating it. Many universities have now gone into the climate measurement and modelling area. Some years ago we handed over our climate models to universities and the Bureau of Meteorology. If we were absolutely unique in this area, that would be a different story, but where we can be unique is in figuring out solutions."

Dr Marshall's appointment to the CSIRO added to signals that the federal government expected more commercial bang for its research buck — a message the government recently underlined by appointing former Telstra chief executive David Thodey as CSIRO chairman.

Peter Tangney, a science policy lecturer at Flinders University, said political influence might have triggered CSIRO's latest move, but a longstanding emphasis on "the production of more and better climate change science" had delivered little return. "This information is often just too complex, not user-friendly or produced at temporal and geographic scales that are not particularly helpful or precise," he said. "The modelling is unlikely to unearth anything profoundly more useful than what we already know about future climate change — although it may be a hard pill to swallow for the climate scientists in (CSIRO's) ranks."

The restructure comes after a tumultuous time for the agency, with successive funding cuts forcing it to jettison one-fifth of its staff in two years. Dr Marshall stressed that the latest changes would not involve cuts.

While up to 175 jobs are threatened for each of the next two years, he said many staff would take up new positions within CSIRO. "Overall, our head count may go up slightly but it won't go down," Dr Marshall said.

CSIRO Staff Association secretary Sam Popovski said staff would find such assurances difficult to trust. "One in five jobs have been lost based on things like federal budgets," he said. "There's not a lot of confidence that we'll have no staffing changes." Mr Popovski said there was a "live debate" within CSIRO about where its climate priorities should lie, as the organisation ramped up its big data capabilities. "The data is not at an endpoint that you can simply reanalyse with bigger computers," he said. "We should be continuing to do the research and generating new data."

Australian Meteorological and Oceanographic Society president Todd Lane said cutting modelling efforts made no sense. "(It) threatens our ability to predict future climate and the inherent risks," he said. "Climate science is not solved. Most of the uncertainty in climate projections is due to uncertainty about the ways to represent physical processes in climate models."

Dr Marshall said CSIRO was not walking away from climate science. "We're focusing what we learnt from climate modelling into mitigation," he said. "Pretty much every aspect of life in Australia is being affected by climate change, from agriculture to health. We need to help those industries adapt and evolve."