# Very difficult' for Australia to meet promises in Paris climate agreement: leading CSIRO researcher

ABC RN Breakfast, Friday 5 February 2016 8:26AM

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Gregg Borschmann: John Church, thanks for speaking to Breakfast.

John Church: My pleasure.

Gregg Borschmann: When and how did you find out about these cuts to CSIRO, these latest cuts?

John Church: Well, I suspected there was bad news coming, but really what we received just today was the email by Larry Marshall about loss of staff, particularly in Ocean and Atmosphere, and Land and Water.

Gregg Borschmann: Is this worse than you expected?

John Church: Yes, this is worse than I expected, yes.

Gregg Borschmann: There has been speculation that up to 100 positions could go in the Oceans and Atmosphere division alone. That's the division you work in. If those reports are correct, what does that do to CSIRO's climate science capability?

John Church: Our understanding is that significant fraction of those lost will occur actually within the climate area, and so that will have significant impact. If you think about the Paris Agreement, which has really restarted the climate policy process, there's a whole requirement of information that flow from that Paris Agreement. You know, what do the targets mean for the future? Are we on track to meet those targets, or are we hitting for something substantially higher? Are there important climate thresholds that we need to think about? Are we likely to cross those thresholds, and what would that mean? What's the impact of extreme events for Australia and for the world, and what are the appropriate adaptation pathways that Australia is going to need to pursue? So these are questions that flow directly from the Paris Agreement.

 The Paris Agreement calls for strengthened scientific knowledge on climate research, including systematic observations, early warning systems, et cetera, in support of decision making. The science community is actually struggling to address these issues already, and so further cuts mean it will be very difficult to do that, and so if we really are to deliver on the promise of the Paris Agreement, then we actually need to both reinvigorate and refocus climate research into the future.

Gregg Borschmann: Dr. Larry Marshall, CSIRO Chief Executive, in his email message to staff today, said that Australian climate models are among the best in the world. Is decades of work and investment truly at risk?

John Church: Certainly CSIRO has developed a considerable reputation over the years, both in observations, modelling, understanding the climate system. We're already struggling to maintain the capability, so this decision would appear to put some of that work at risk and a significant loss of capability for CSIRO and for Australia.

Gregg Borschmann: Is this more than half of the program, potentially?

John Church: That's unclear in detail, but just looking at the numbers, it means a very significant proportion and potentially more than half, the majority of the program, yes. With the size of the cuts that we're talking about, it would appear that there’s significant risk to the quality and sustainability in the long term viability of climate research within CSIRO.

Gregg Borschmann: What precisely is at risk? Presumably we're not talking about administrative or back room positions here, we're talking about scientists, we're talking about research positions. What is at risk?

John Church: That's my understanding, that it's research positions, so it's the capability to make observations in the Southern Hemisphere, remembering Australia is the leading Southern Hemisphere developed nation, and by investing in climate science, Australia actually attracts Northern Hemisphere resources to the Southern Hemisphere to help address issues that are important to Australia and its neighbours. It's the capability to understand what those observations mean, to simulate the climate system, to detect an attribute climate change to its causes, and thus to underpin the needs of adaptation work into the future.

Gregg Borschmann: Justifying the cuts, your boss, Larry Marshall, said that climate change had been ‘proved’, that the question had been answered. The new question is what we need to do about it, is he right?

John Church: It's certainly true that the Paris Agreement has actually confirmed, and IPCC has been saying for a number of years that yes, climate change is happening, but we actually need to know more details on that to understand how to adapt to it, how to respond. Yes, we do have to respond, and that's part of the challenge, but part of that challenge also includes much improved knowledge of what it means for Australia and our neighbours.

Gregg Borschmann: You mentioned Australia's place in the Southern Ocean, how will that affect Australia's researching role? Especially, say for example our developing neighbours in a place like the Pacific, who presumably are going to bear the brunt of future climate change?

John Church: Yes, certainly the Pacific neighbours and some of our South Asian neighbours are susceptible to climate change and particularly my area, which is sea level rise, and these people will bear that brunt, and they're not in a position to provide that information for themselves, so this is actually another clause in the Paris Agreement which actually calls on developed countries to assist with information to developing partners, to allow them to adapt effectively.

Gregg Borschmann: Your work is known around the world, you have an international reputation, you've worked on many an IPCC report as a lead author. How do you think your colleagues overseas will react to this news? What message is it going to send to them about Australia and Australian science?

John Church: Well, just judging by the reactions that may have come into the Australian (Science) Media Centre already, at least from Australian scientists, there’s shock and surprise, and this is going to be echoed around the world.

Gregg Borschmann: You've been at CSIRO a very long time, several decades. Did you ever imagine it would come to this?

John Church: CSIRO is an interesting place to work, very progressive in some ways, but also very challenging in some ways and particularly challenge in recent years in the environmental space and climate research area. No, I probably never imagined it would be coming to this, but we all have different experiences to work through.

Gregg Borschmann: John Church, what's your personal position? Is your job safe?

John Church: I very much doubt it.

Gregg Borschmann: What's your personal reaction? Sadness? Anger? Disappointment? Disbelief?

John Church: I'm very saddened at the impact that this will have on climate change research and climate research in Australia, very saddened for the younger scientists who really are important for Australia's future, and for the message that this sends to the world about doing environmental science in Australia.

Gregg Borschmann: John Church, thank you very much for speaking to RN Breakfast.

John Church: Thank you.