the century.<sup>85</sup> The raw data showed much less warming because it started with actual (i.e., non-manipulated) temperatures that were warmer than the manipulated temperatures.<sup>86</sup> Thus, the CRU created an exaggerated appearance of 20<sup>th</sup> century warming in New Zealand.

## 2. LOSS OR DESTRUCTION OF CRITICAL IPCC RECORDS

The CRU's data integrity problems consisted of more than data manipulation. CRU admitted in late November 2009 that much of their original data had been destroyed due to lack of storage space.<sup>87</sup> CRU claims that they retained only the "value added" data<sup>88</sup> – i.e., "quality controlled and homogenized" data or, put differently, data that has been manipulated and that is therefore no longer raw. Consequently, it is no longer possible to check the accuracy of whether CRU's "homogenization" – i.e., the synthesis of one set of data that appears to lead to a conclusion that would conflict with the conclusion suggested by other data of data – was appropriate.<sup>89</sup> However, even if CRU still has some data, it is sometimes unwilling to produce it, regardless of whether it is required to do so by law.<sup>90</sup>

Of course, emails indicating that CRU scientists and programmers were unable to follow data does not absolve CRU: on the contrary, it is damning evidence that the IPCC and, in turn, EPA cannot rely on CRU data and analysis. As noted above, some CRU scientists manipulated data to produce their desired conclusions about the severity of anthropogenic global warming. However, revelations that CRU data was destroyed, lost, or simply withheld indicate a different, but equally serious, problem: that the data can neither confirm nor deny how quickly, how far, for how long, or even, in some cases, whether, temperatures have risen. As such, CRU data that might not be purposefully misleading could still be scientifically worthless and, therefore, of no legitimate use to EPA.

## **B. IPCC'S ROUTINE RELIANCE ON QUESTIONABLE SOURCE MATERIALS**

## 1. CONCLUSIONS ON GLACIERS ADMITTEDLY WRONG

In its Fourth Assessment, the IPCC concluded that "[g]laciers in the Himalaya are receding faster than in any other part of the world. . . and, if the present rate continues, the likelihood of them disappearing by the year 2035 and perhaps sooner is very high if

<sup>89</sup> Id.

<sup>&</sup>lt;sup>85</sup> Richard Treadgold. *Are we feeling warmer yet*? NEW ZEALAND CLIMATE SCIENCE COALITION at 5 (Nov. 25, 2009) *available at* http://climatescience.org.nz/images/PDFs/global\_warming\_nz2.pdf. (last visited Feb. 10 2010).

<sup>&</sup>lt;sup>86</sup> Id.

<sup>&</sup>lt;sup>87</sup> Jonathan Leake. *Climate change data dumped*. THE TIMES (Nov. 29, 2009). Found at:

http://www.timesonline.co.uk/tol/news/environment/article6936328.ece (last visited Feb. 10, 2010).

<sup>&</sup>lt;sup>88</sup> CRU Data Availability. *available at* http://www.cru.uea.ac.uk/cru/data/availability/.

<sup>&</sup>lt;sup>90</sup> See, e.g., Steve McIntyre. *Willis Eschenbach's FOI Request.* CLIMATE AUDIT (Nov. 25, 2009) *available at* http://www.timesonline.co.uk/tol/news/environment/article6936328.ece (last visited Feb. 10, 2010) (discussing the experience of a scientist named Willis Eschenbach who attempted to obtain station data for average global temperature from CRU but endured a year of CRU's excuses and explanations for its failure to produce the requested information).

the Earth keeps warming at the current rate."<sup>91</sup> However, on January 20, 2010, the IPCC issued a statement reversing that conclusion: "[The paragraph containing the Himalayan glacier claim] refers to poorly substantiated estimates of rate of recession and date for the disappearance of Himalayan glaciers. In drafting the paragraph in question, the clear and well-established standards of evidence, required by the IPCC procedures, were not applied properly."<sup>92</sup> The story of how the Fourth Assessment came to include the disappearing-glacier claim – as well as how the IPCC came to issue a retracting statement – illustrates the degree to which the IPCC failed to follow adequate procedures.

The IPCC conclusion in 2007 that Himalayan glaciers would vanish by 2035 was ultimately based on a short telephone interview -- conducted almost 10 years before the IPCC report was released -- with Dr. Syed Hasnain, a scientist in Delhi, India.<sup>93</sup> The telephone interview was the source of a 1999 story in the popular-science magazine *The New Scientist*.<sup>94</sup> In turn, a 2005 World Wildlife Fund ("WWF") report – which was not subjected to any formal scientific review<sup>95</sup> -- cited the *New Scientist* report for the claim that Himalayan glaciers would vanish by 2035.<sup>96</sup> Finally, the Fourth Assessment cited the WWF report as its source for the disappearing-glacier claim even though the WWF report did not suggest that the likelihood of the glaciers melting was "very high".<sup>97</sup> Dr. Hasnain has since admitted that his claim – on which other reports, including the Fourth Assessment, were based – was merely "speculation" and was not supported by any formal research.<sup>98</sup>

Dr. Murari Lal, who wrote the IPCC Fourth Assessment Report Working Group II chapter on Asia,<sup>99</sup> has admitted that he is "not an expert on glaciers and I have not visited

http://assets.panda.org/downloads/himalayaglaciersreport2005.pdf (last visited Feb 14, 2010).

http://www.ipcc.ch/publications\_and\_data/ar4/wg2/en/ts.html.

<sup>&</sup>lt;sup>91</sup> IPCC Fourth Assessment Report: Climate Change 2007: Working Group II, Section 10.6.2. *The Himalayan Glaciers*.

<sup>&</sup>lt;sup>92</sup> IPCC statement on the melting of Himalayan glaciers. IPCC Secretariat. Jan. 20, 2010, available

at http://www.ipcc.ch/pdf/presentations/himalaya-statement-20january2010.pdf (last visited Feb. 15, 2010). <sup>93</sup> Jonathan Leake and Chris Hasting, World misled over Himalayan glacier meltdown, THE TIMES, Jan. 17,

<sup>2010,</sup> *available at* http://www.timesonline.co.uk/tol/news/environment/article6991177.ece (last visited Feb. 15, 2010).

<sup>15, 2010).</sup> <sup>94</sup> Id. See also Fred Pearce, Flooded Out, THE NEW SCIENTIST, June 5, 1999, available at

http://www.newscientist.com/article/mg16221893.000-flooded-out.html (last visited Feb. 15, 2010). <sup>95</sup> Jonathan Leake and Chris Hasting, *World misled over Himalayan glacier meltdown.*, THE TIMES, Jan. 17, 2010, *available at* http://www.timesonline.co.uk/tol/news/environment/article699 I I 77.ece (last visited Feb. 15, 2010).

<sup>&</sup>lt;sup>96</sup> Sandeep Chamling Rai, An Overview of Glaciers, Glacier Retreat, and Subsequent Impacts in Nepal, India, and China, WWF Nepal Program (March 2005), available at

<sup>&</sup>lt;sup>97</sup> See IPCC Fourth Assessment Report: Climate Change 2007: Working Group II, Section 10.6.2. The Himalayan Glaciers (citing "WWF 2005"). See also An Overview of Glaciers, Glacier Retreat, and Subsequent Impacts in Nepal, India, and China. WWF Nepal Program, March 2005, 2 (quoting Dr. Hasnain without describing his claims as "very likely" to be correct).

<sup>&</sup>lt;sup>98</sup> Jonathan Leake and Chris Hasting, *World misled over Himalayan glacier meltdown*, THE TIMES, Jan. 17, 2010, *available at* http://www.timesonline.co.uk/tol/news/environment/article6991177.ece (last visited Feb. 15, 2010).

<sup>&</sup>lt;sup>99</sup> See IPCC Fourth Assessment Report: Climate Change 2007: Working Group II: Technical Summary. (listing Dr. Lal as one of the "Lead Authors"). Available at

the region so I have to rely on credible published research. The comments in the WWF report were made by a respected Indian scientist and it was reasonable to assume he knew what he was talking about."<sup>100</sup>

Dr. Lal has admitted that the chapter on Asia – the one that contained the disappearingglacier conclusion – "related to several countries in this region and their water sources. We thought that if we can highlight it, it will impact policy-makers and politicians and encourage them to take some concrete action."<sup>101</sup> Lal stated that, "It had importance for the region, so we thought we should put it in."<sup>102</sup> Dr Rajendra K. Pachauri, Chairman of the IPCC Bureau, has blamed Dr. Lal for the error, alleging that he did not follow IPCC procedures in compiling his report. Dr. Lal has defended himself from that allegation: "We as authors followed them to the letter . . . . Had we received information that undermined the claim, we would have included it."<sup>103</sup>

Dr. Pauchari has since acknowledged that the IPCC claim was an error,<sup>104</sup> but he had previously criticized a report issued by the Indian Minister of State for the Environment and Forests, Jairam Ramesh, which concluded that IPCC's disappearing-glacier claim was incorrect, as "voodoo science."

Dr. Pauchari has also claimed that, "I became aware of [accusations challenging the disappearing-glacier claim] when it was reported in the media about ten days ago [i.e. 10 days before January 22, 2010, the day Dr. Pauchari was quoted in a January 30, 2010 news article]. Before that, it was really not made known. Nobody brought it to my attention. There were statements, but we never looked at this 2035 number."<sup>105</sup> In response to allegations that he knew about the error but did nothing to correct it because he wanted to avoid unfavorable publicity during the Copenhagen climate change summit, Dr. Pauchari said that the allegations were "ridiculous. . . . It never came to my attention before the Copenhagen summit. It wasn't in the public sphere."<sup>106</sup> Nevertheless, Pallava Bagla, who writes for the journal *Science*, said he had asked Dr Pachauri about the now-discredited claim about glaciers in November of 2008 and that Dr Pachauri had answered: "I don't have anything to add on glaciers."<sup>107</sup>

<sup>&</sup>lt;sup>100</sup> Jonathan Leake and Chris Hasting, *World misled over Himalayan glacier meltdown*, THE TIMES, Jan. 17, 2010, *available at* http://www.timesonline.co.uk/tol/news/environment/article699 I I 77.ece (last visited Feb. 15, 2010).

<sup>&</sup>lt;sup>101</sup> David Rose, *Glacier scientist: I knew data hadn't been verified*, DAILY MAIL, Jan. 24, 2010, *available at* http://www.dailymail.co.uk/news/article-1245636/Glacier-scientists-says-knew-data-verified.html.

 $<sup>^{102}</sup>$  Id.  $^{103}$  Id.

<sup>&</sup>lt;sup>104</sup> Aarti Dhar, *Government Contention Vindicated: Jairam Ramesh*, THE HINDU, Jan. 18, 2010, *available at* http://beta.thehindu.com/news/national/article82160.ece (last visited Feb. 15, 2010).

<sup>&</sup>lt;sup>105</sup> Ben Webster, *Climate chief was told of false glacier claims before Copenhagen*, THE TIMES, Jan. 30, 2010, *available at* http://www.timesonline.co.uk/tol/news/environment/article7009081.ece, (last visited Feb. 15, 2010).

<sup>&</sup>lt;sup>106</sup> *Id.* 

<sup>&</sup>lt;sup>107</sup> *Id*.