

# Slaves to Oil

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## Abstract

This paper summarises and reviews scholarly and political comment that draws parallels between the current policy challenge of large-scale greenhouse gas emission reduction and the challenge in the late eighteenth and early nineteenth century of slavery abolition. Parallels are drawn at several levels including: the nature of the political discourse; the relationship between an ethics-driven societal shift and economic interests; the role of enabling technological change and the relationship of slavery/environmental policy to geopolitics and the use of military force. Noting the rapid growth of reported points of comparison between slavery abolition and greenhouse gas emissions reduction the author's intention is merely to collect and collate such reports, rather than critically to assess the merits, or otherwise, of such reports. It is suggested that such criticism is best deferred until a later date. The paper closes, however, with the observation that, just as today slavery is still not eradicated, the issue of problematic greenhouse gas emissions will still be with us long after the key policy breakthrough has been secured.

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# **Slaves to Oil:**

## **Exploring parallels between the abolition of slavery and the challenge of climate change mitigation**

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### **1. Introduction**

This working paper builds upon an earlier EPRG working paper by William J. Nuttall and Devon Manz (EPRG0731) subsequently published in final form in the journal *Technological Forecasting and Social Change* (Nuttall & Manz, 2008). That work focussed on a possible future scenario for energy security in a context of a pressing and manifest need for dramatic global greenhouse gas emissions reductions. In particular the need to reduce carbon dioxide emissions associated with fossil fuel combustion. The published paper by Nuttall and Manz emphasised the importance of agreement and a sense of common purpose towards substantial greenhouse gas emissions reductions, not only among what today might be termed 'the West', but also among the emerging economic powers known as the BRIC states – Brazil, Russia, India and China. Such common purpose is essential if the world is drastically to reduce its greenhouse gas emissions. This could be achieved by a combination of: the development of low carbon energy sources; and for fossil fuel combustion a move towards very high efficiency systems and the development of large-scale carbon capture and storage. All collaborating parties, but most especially the economically weaker BRIC states, will need protection in the global economy from the activities of any recalcitrant states persisting in 'dirty' fossil fuel use. In the future scenario

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posited by Nuttall and Manz, these states will perhaps seek to justify their stance by clinging onto notions of energy sovereignty that, by then, will be increasingly anachronistic. These various ideas took Nuttall and Manz towards a consideration of the enforcement required in order to provide the international confidence necessary for the successful implementation of an international low emissions energy system. Clearly diplomacy and international negotiation will be essential in order to deliver such a global consensus, but it was posited that enforcement may need to go beyond the domain of diplomacy to include the use of military capabilities. Such measures as the redeployment of naval forces, while no doubt affordable, will surely be costly and it was suggested that the bulk of such costs should fall to today's western powers. The West would bear this burden in recognition of the need to incentivise participation of the BRIC states in a global (or near global) consensus. The group of major countries motivated together to greatly reduce greenhouse gas emissions was termed by Nuttall and Manz 'the Clean Energy Alliance'.

In the scenario described by Nuttall and Manz the first half of the twenty-first century would see a *volte-face* by western naval forces from today's task of keeping open the trade routes for oil and liquified natural gas to a situation where these same naval assets are used to monitor, control and interdict fossil fuel shipments that may be destined to an end user in a recalcitrant state outside the international consensus. Fossil fuel shipments might require end user certificates to verify approved utilisation not unlike the end-user certificates applying to munitions shipments today.

The scenario summarised above led Nuttall and Manz to consider the question of how could such a *volte-face* occur given the obvious allegation that for the west to seek to restrict global fossil fuel shipments in the early twenty-first century would be completely hypocritical given these same countries' support for such trade in the second half of the twentieth-century. Consideration of such issues led Nuttall and Manz to explore an historical parallel: the changing role of Britain's Royal Navy from the late eighteenth century through the early nineteenth century with respect to slavery. Hence Nuttall and Manz drew parallels between twenty-first century energy policy and early nineteenth century slavery policy as a result of considerations of energy security and future scenarios for the use of military power.

Nuttall and Manz were not the first people to draw parallels between slavery and today's issues of energy policy. Most other commentators have however stressed the parallels between the moral imperative of the abolition of slavery and the moral imperative to ensure an environmentally sustainable world. The realization that there is a large and growing set of separate and distinct observations concerning slavery abolition and climate change has been the motivation for this paper. With this paper the author seeks to collect and collate references to parallels between slavery abolition and greenhouse gas emissions reduction. Some of these parallels relate to similarity in political and policy rhetorics, while others are reported parallels between the policy issues themselves. The focus of this paper is deliberately non-critical as it is felt best, at

this stage, to provide reference to any and all parallels between the two issues whatever the merits or provenance of the argument.

In researching this paper it has become clear that the parallels between the abolition of slavery and decarbonisation are the subject of much recent comment and interest. As a result, this paper cannot represent a concluding summary of the various parallels, rather it is merely an introduction to them.

## **2. Making the link between slavery and climate change**

As far as this author is aware, the first explicit linkage between the issues of slavery and climate change was made on 28 June 2002 by Lionel Hurst, Ambassador of Antigua and Barbuda to the United States in a speech to International Red Cross Conference on Climate Change and Natural Disasters held in The Hague in the Netherlands (Hurst, 2002). His point of reference was that Antigua and Barbuda is a small island state whose history has placed it at the mercy of much larger and more powerful countries far away. Clearly slavery is part of this history, but he also cautioned:

*“Low-lying islands and coastal communities worldwide may cease to exist as the waters of the oceans expand upon being warmed.”*

Several years before Nuttall and Manz’s paper he presciently observed:

*“In 1807, Britain banned the slave trade and tried to get the French, the Spanish, the Dutch and the Portuguese to end this trade in human flesh. But despite the agreement reached at the Vienna Conference in 1815, it was by force of arms, and the confiscation of ships and their human cargo, that the trade in human beings was brought to an eventual end.”*

The voice of small island states on climate change remains powerful despite the negligible role that these states played in causing the problem or that they will play directly in curing it. It is the real and perceived vulnerability of these states to the negative consequences of climate change (such as ocean thermal expansion and a change in the incidence of tropical storms) that provides these small nations with moral authority. One example of such voices is the Alliance of Small Island States led during the Kyoto Protocol negotiations by Ambassador TN Slade of Samoa.

It is easy from the perspective of the twenty-first century to imagine that the global abolition of slavery was an easy task when compared to the seemingly impossible challenge of dramatically decreasing global greenhouse gas emissions. Hurst robustly contests such a view when he reminds his audience not to underestimate the scale of the challenge faced by the slavery abolitionists. Hurst said in his 2002 speech:

*“The petroleum industry is a \$4 billion a day business. The sale of fossil-fuel products in 2000, as a percentage of all economic activity in that year, surpassed the percentage value of the sale of slaves and slave products, as a fractional value of all economic activity in 1800. In 2000, the world’s fossil-fuel-driven economy was at its zenith. In 1800, the world’s slave-driven economy was at its zenith.”*

Hurst’s words in 2002 come from a policy speech rather than from the academic literature and hence citations of data sources for the ideas presented are not given. It took a few years before the academic community started to express interest in the parallels Hurst had identified.

### **3. Scholarly Comment**

Recently much of the commentary and thought concerning parallels between slavery and climate change policies has come from scholars and academics.

The scale of the challenge of climate change mitigation is of central importance to an understanding of the issues considered in this paper. Jean-Charles Hourcade and Renaud Crassous provide one such helpful insight (2008). They have reviewed the scale of the challenge facing the world as it seeks to minimize the emissions driving climate change. Their paper forms part of a special issue for the journal *Climate Policy* dedicated to such questions. Hourcade and Crassous consider economic approaches to the policy challenge and in particular the role of a price for carbon dioxide emissions. Their work reinforces the notion that the case for action is compelling and carbon pricing appears to be a powerful policy tool, but they add an important note of caution:

*“... one can question why the international community still hesitates to adopt ambitious GHG [greenhouse gas] emissions cuts. Part of the explanation lies in the vagaries of political gamesmanship, but another part may reflect a credibility gap with regard to the modelling results. Even those decision-makers most inclined to climate-friendly policies know that some of the suggested measures entail non-negligible short-term economic and social costs: early scrapping of existing capital stocks, adverse impacts of carbon prices on the purchasing power of low-income populations, and impacts on competitiveness.”*

The most prominent academic consideration of the parallels between slavery abolition and climate change mitigation comes from Marc Davidson with his 2008 paper in the journal *Climatic Change* entitled: *Parallels in Reactionary Argumentation in the US Congressional Debates on the Abolition of Slavery and the Kyoto Protocol*. Davidson’s paper was first submitted in October 2005. Since its publication in February 2007 the paper has contributed greatly to lively discussion and debate. Davidson restricts his scope to an analysis of the rhetoric used in the US Congress when debating slavery abolition and the Kyoto Protocol. Davidson observes the following points of similarity between the political debates around slavery abolition and climate change mitigation:

- Significant parts of the US electorate perceived and perceives that their prosperous society requires a continuation of slavery/greenhouse gas emissions. Davidson refers to this as ‘the vested interests of the electorate’.
- In both cases the electorate have sought to pass costs of problematic activity to people outside the electorate. In the case of slavery to the slaves themselves and in the case of energy policy to future generations (and also presumably to citizens of other countries — although Davidson does not stress that aspect). Davidson terms this aspect: ‘Transfer of costs to third parties’.
- Thirdly Davidson points to a ‘resistance to social change’. Davidson particularly draws attention to the slow awakening of the US Congress to issues concerning greenhouse gas emissions.

Simon D. Smith from the Wilberforce Institute at the University of Hull observes that Davidson does not present and defend a specific theory (such as Bayesian Theory) of how beliefs are formed or updated. Smith also cautions that the US political debates around slavery and climate change may not be particularly special. Perhaps the rhetorical parallels observed by Davidson are no more than coincidences. By way of illustration, Smith says:

*“For example, one could argue that: the rhetoric of denial about carbon emissions and climate is similar to the rhetoric of denial about tobacco and health, because in both cases it can be demonstrated that agents clung to the belief that carbon/tobacco is not damaging when Bayesian theory predicts it was rational to abandon the belief and therefore by studying tobacco in the 1950s we may learn something that can help better understand climate in the 2000s.” (Smith, 2008)*

Smith’s observation prompts us to be clear that our purpose in this paper is not critically to review parallels between slavery abolition and climate change mitigation. Rather we seek simply to collate and summarise all reports of which we are aware that draw such parallels for any reason. Smith also reminds us to be clear that the parallels of interest here are not necessarily especially insightful although they are now perhaps unusually numerous. For instance the author is also aware of parallels drawn between international greenhouse gas emissions reduction and strategic arms control agreements or developing country debt forgiveness. These may indeed by better analogies than slavery abolition, but, whatever their merits, they are not the focus of interest here.

Davidson’s analysis of US Congressional rhetoric reveals the following thought-provoking arguments used by opponents of both slavery abolition and Federal intervention on greenhouse gas emissions:

- What is deemed bad is in fact good
- The benefits of the proposed policy are uncertain
- Change brings economic ruin
- Solo action will be ineffective and unfair

- Proposals threaten domestic sovereignty
- Social change will hurt other vulnerable groups

Davidson's focus is the United States and, as such, he is not able to explore in any depth the European perspective on the American policy process, nor can he contrast the European view with the American view. It is beyond the scope of this paper properly to seek to make such an extension of Davidson's arguments, but some small observations may nevertheless be helpful. As Hurst has reminded us – the European consensus in opposition to slavery was hard won and slow to develop. In the United States abolition was only achieved via America's bloodiest conflict — the Civil War of 1861-1865. Clearly Europe's journey towards slavery abolition occurred some decades earlier than the equivalent journey in the United States. Also Europe's policy positions on climate change mitigation arguably lead, and clearly do not lag, progress in the United States. These two examples of European leadership are perhaps best regarded as merely coincidental.

Davidson's paper does include an early nineteenth century comment on the European perspective on American affairs. Davidson includes an interesting quotation from the variously unpleasant US Representative James Henry Hammond of South Carolina speaking on the floor of the House of Representatives on 1 February 1836<sup>2</sup>. Davidson quotes Hammond as saying:

*“There are about 2,300,000 slaves at this moment in the United States, and their annual increase is about 60,000. Sir, even the British Government did not dare to emancipate its enslaved West India subjects without some compensation. They gave them [the owners] about sixty percent of their value. It could scarcely be expected that this Government would undertake to free our slaves without paying for them. Their value at \$400, average, (and they are now worth more than that), would amount to upwards of nine hundred millions. The value of their annual increase, alone is twenty-four millions of dollars; so that to free them in one hundred years, without the expense of taking them from the country, would require an annual appropriation of between thirty-three and thirty-four millions of dollars. The thing is physically impossible.”*

Clearly Hammond had no sense of how the 'impossible' would eventually be achieved nor could he know that, following abolition, the United States would experience a twentieth century journey towards a society in which *all men are created equal*.

Davidson's use of the quotation from Hammond reminds the reader of differences between Britain and the United States on the abolition of slavery. While the journey to American abolition did include isolated compensation policies, the Thirteenth Amendment to the US Constitution abolishing slavery in

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<sup>2</sup> Hammond was later Governor of, and later still US Senator for, South Carolina.

the United States did not include any such measure. Michael Vorenberg writes in *Final Freedom*:

*In the border states of Maryland and Missouri, both of which had recently abolished slavery by state action, legislatures approved the [thirteenth] amendment with ease. In Maryland, however, lawmakers took the additional step of declaring that former loyal slave owners should be compensated for their ex-slaves by the federal government. Congress had rejected compensation proposals, but border state emancipationists nonetheless expected Lincoln to deliver on the promise of compensation that he had made in 1861 and 1862.” (Vorenberg, 2001, p. 216)*

The very different paths followed by Europe and America concerning the abolition of slavery have had repercussions to the present day. One such example is arguably the *Banana War* of the 1990s which ended in 2001. The issue at stake was the European Union’s preference to source bananas from small producers in the Caribbean rather than to import so called ‘dollar bananas’ from large, usually US owned, plantations in Latin America. Part of the European justification for this practice came from notions in favour of *Fair-trade* over *Free-trade*. The concept of Fair-trade arguably has its strongest emotional attractiveness when dealing with territories or crops with strong historical associations with European slavery<sup>3</sup>. Post-colonial Europeans (especially in Britain and France) strongly supported a policy that protected small banana farmers in, for instance, the Windward Isles. Ibrahim Gassama in his study of the EU-US banana wars however reminds his readers that the European arguments concerning the need to protect small farmers in the Caribbean were perhaps somewhat opportunistic. He reports the view of the winning side in this dispute:

*“The United States insisted that the primary beneficiaries of what they termed a protectionist device were the European-controlled banana shipping and marketing companies operating out of producer countries.” (Gassama, 2002).*

The US view was upheld by the World Trade Organization in 1999, although the Europeans continued to resist, the matter finally being put to rest in 2001.

The purpose of this paper is to explore parallels between the global abolition of slavery and the challenge of a drastic global reduction in the emission of greenhouse gas emissions. As such, it is not the purpose of this paper to investigate possible actual points of contact between these two widely separated policy issues. The discussion above concerning links between eighteenth century

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<sup>3</sup> It is perhaps noteworthy that in February 2008 one large UK sugar company announced that all its sugar sold in shops would in future be ‘Fair-Trade’. While the history of European sugar has much connection with slavery, that particular company’s corporate origins post-dated the abolition of slavery by more than 50 years. While Europeans may have no direct moral responsibility to protect the descendents of slaves in former colonies, and that firm has no connections with slavery whatsoever, there would appear to be much sympathy from Europeans for such slavery affected communities.

slavery and modern trade policy reveals that such linkages may indeed exist. Such aspects, however, will not be developed further in this paper.

The academic literature directly comparing the issues of slavery abolition and climate change policy is still limited. For instance it would be interesting to have access to a study utilizing Davidson's research framework and methodology, but with a focus on other key national legislatures, such as in Britain, France and perhaps Brazil<sup>4</sup>

As regards consideration of UK debates the information collected thus far by researchers appears somewhat fragmentary, although, as we shall see, there are issues that have been highlighted by various authors and commentators. One contribution comes from Christian Azar in a 2007 book review for *Climatic Change*, in which he notes Davidson's work (then in press). Azar was reviewing Adam Hochschild's 2005 book *Bury the Chains: Prophets and Rebels in the Fight to Free an Empire's Slaves*. As with Davidson his main purpose is to explore the similarities of political debates around the two issues. At one point Azar presages the issues of later and separate concern to Nuttall and Manz when he points out:

[In a UK parliamentary debate held on 2 April 1792] *“the abolitionists won a partial victory: slave trade was to be outlawed, but not until several years later. A string of tumultuous events further delayed things (e.g. the French Revolution and the Napoleonic Wars). In 1807, the entire British slave trade was finally abolished. In order to prevent other countries from engaging in slave trade, roughly a third of the British Navy was assigned to patrol the oceans and intervene against other countries' slave ships. The measure is reminiscent of the demand voiced in the EU to protect the domestic energy-intensive industry from competition from non-abating countries like the US and China.”* (Azar, 2007)

Andrew Basden at Salford Business School has compiled an on-line table in which he draws numerous parallels between on the one hand slavery and on the other climate change, global economy and environmental responsibility (Basden, 2007). Basden stresses several of the moral imperatives associated with both issues. He also introduces a couple of considerations not mentioned previously in this paper. In doing so he cites Eric Metaxa's book *Amazing Grace* concerning the life of the English abolitionist William Wilberforce. Under the heading *No Simple Blame*, Basden notes:

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<sup>4</sup> In addition a referee for the Electricity Policy Research Group reminds us that during the American Civil War the territory of the United States was divided into two conflicting entities. It would therefore also be interesting to have access to a rhetorical analysis of the transcripts of the Congress of the Confederate States (1861-1865). The final session of the Congress (March 1865) included legislation for the emancipation and military induction of any slave that would volunteer to fight for the Confederacy. The EPRG referee further reminds us that the balance of today's US GHG emissions are disproportionately sourced from below the Mason-Dixon line.

<i>Slavery</i>	<b>Climate change, global economy and environmental responsibility</b>
<i>The African chiefs also bear some of the blame; They would start ‘wars’ in order to gain captives to sell to the slave traders on the coast, as the excusers keep on telling us, but .... [Metaxa] p. 119-120</i>	<i>We must recognize that it is not only ‘the west’ which is to blame (for example China is, building a power station a day (or whatever)), but ...</i>
<b>Basden follows this entry with an entry entitled ‘We to Blame’, including:</b>	
<i>“ ... but the European had instigated the “inhuman system” [Metaxa] p. 120</i>	<i>... but it is we in the west, to whose lifestyle the rest of the world aspires, who instigated this evil system (and lifestyle, habits, expectations, worldview) which is changing the climate.</i>

Table 1. Tabulated comments from Andrew Basden at Salford Business School comparing slavery and climate change, global economy and environmental responsibility. In order to avoid any risk of editorial adjustment to Basden’s message, we present the information in the tabular form used by Basden (Basden, 2007)

Basden’s juxtaposition of ideas raises the notion that the western lifestyle with its joys of consumption might be an evil comparable to the evil coercion of the slave trade. While it is not the purpose of this paper to criticize, it is necessary to point out that such opinion would be, of course, contentious.

Separate to the work of Nuttall and Manz, Dabo Guan of the Electricity Policy Research Group at the University of Cambridge has recently considered notions of ‘Triangular Trade’ in the context of greenhouse gas emissions (Guan, 2009). Noting an analogy with the eighteenth century triangular trade between England, Africa and the Americas, Guan points to a new triangular trade between China, *the west* and Africa. Unlike the triangular trade associated with slavery, Guan does not suggest that ships today similarly pass from one vertex to the next changing their cargos. Rather he suggests a relationship by which China purchases raw materials in Africa and then produces high-value manufactured goods for export to the west. The connection between the west and Africa is observed to be the weakest link of the new triangular trade, comprising little more than the provision of aid, advice and second-hand equipments.

Andrew J. Hoffman of the School of Business at the University of Michigan commented in the magazine *Ethical Corporation* in May 2008 on the moral imperative for change in greenhouse gas emissions reduction and slavery

abolition and on the scale of both the challenges. He suggests a key difference between the issue of slavery abolition and policy for the mitigation of climate change when he says:

*“While slaves were, for the most part, a more obviously replaceable source of labor and energy than fossil fuels are today, we cannot simply turn off the oil wells and continue to live as we do.*

*There is a vast physical infrastructure that depends on oil, and it cannot be simply replaced without great disruption. And unlike slavery — and other environmental problems — there is no clear single villain. We can’t simply point to that some stack or that waste dump and identify someone who should fix it.” (Hoffman, 2008)*

In the concluding chapter of their book *Creating a Climate for Change* Moser and Dilling seek to challenge what they suggest is a ‘myth’ – that climate change represents a unique social challenge. They suggest:

*“The problem with accepting the “uniqueness” myth is that it tends to paralyse individuals and institutions rather than empower them. Pointing to how we have made similarly long-term, radical social transitions can help mobilize people and put the challenge into proper perspective” (Moser & Dilling, 2007).*

In his 2008 review of Moser and Dilling’s book Michael Svoboda replies:

*“While one might agree with this general conclusion, it is difficult to see how our efforts to forestall disastrous climate change — that is, acting before the damage is done— can be compared with the abolition movement, which came into being only in response to the evident harms of slavery. Further, even if the analogy could be sustained, it is hard to see it as a basis for optimism. If we look only at the U.S., we must consider the two and a half centuries that preceded the four years of civil war, and we must acknowledge another century of segregation and discrimination. Indeed, can we really say that slavery has been eradicated?” (Svoboda, 2008)*

Another scholar interested in the parallels between slavery and climate change is Jean-Francois Mouhot at the University of Birmingham. In the August 2008 issue of the magazine *History Today* he has summarised many of the key ideas and he has further commented:

*“A striking correlation in time exists between the rise of anti-slavery movements and the advent of steam-driven machines. A few industrialists at the time perceived that steam power might ultimately reduce the need for slaves. [...] The connection between steam-powered engines and the demise of slavery is not, however, a straightforward one. Machines were not advanced enough in the eighteenth of nineteenth centuries to replace effectively the work done by slaves. [...] During heated debates on slavery, abolitionists do not*

*seem to have used this argument [that machines might replace slaves]. However, hindsight often provides the opportunity to see things that were not perceived by contemporaries. It may be that one enabling or facilitating condition for the abolition of slavery was that there was a growing feeling that slaves could eventually be replaced by steam-powered machines.”*

Whether today’s growing concern to eliminate greenhouse gas emissions arises in part because we now can anticipate the necessary enabling technologies is another parallel between two domains of concern to us. Mouhot has produced an extended scholarly article in which he examines in depth the historical links and parallels between slave ownership and fossil fuel usage (Mouhot, 2009). In that paper he amplifies, extends and explores the ideas first presented in his *History Today* article (Mouhot, 2008).

While academics are now writing and speaking on the parallels between slavery and climate change policy, much of the intellectual leadership has come from those much more directly involved in public policy and politics. These contributions shall be discussed in the next section.

#### **4. Recent Political Comment**

In Britain significant contributions to the debate have been made by Lord (David) Puttnam. In early 2007 he had chaired a committee of both houses of the UK parliament to scrutinize the Climate Change Bill. Puttnam’s personal interest focused on the moral and historical implications of the Bill. In a speech to the House of Lords on 27 November 2007 he said:

*“... it [the Climate Change Bill] bears a quite uncanny resemblance to another piece of legislation which also addressed what was primarily a moral issue, but one which at the time appeared to have immense economic repercussions. It was a Bill, the 200<sup>th</sup> anniversary of which we unanimously celebrated earlier this year, which led to the abolition of the slave trade. So, 200 years apart, we find ourselves facing the same timeless question of whether we have a duty of care towards our fellow human beings: ‘Are we our brother’s keeper?’. In both cases the same economic question arises: what is the true cost of the energy we use to drive our economy?” (Puttnam, 2007)*

It is noteworthy that Putnam uses a biblical phrase to make his point<sup>5</sup>. In so doing he makes a parallel, surely deliberately, with nineteenth century political

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<sup>5</sup> Genesis , Chapter 4, verse 9, Then the LORD said to Cain, “Where is Abel your brother?” He said, “I do not know. Am I my brother’s keeper?” New King James Version

denunciation of the slave trade. Such arguments were frequently buttressed by references to scripture.

Puttnam further addresses the issue of the economic consequences of dramatic change head on when he says:

*“At the time of its abolition, the slave trade and its associated activities were reckoned by those opposing the Bill to account, quite astonishingly, for well over a quarter of this nation’s GDP, a fact which helped to drive one of the central arguments deployed by the anti-abolitionists: that the overly hasty abolition of slavery could prove only ruinous to the nation’s economy...[They] were doubly wrong. Far from proving damaging, the abolition of the slave trade allowed Britain to leap forward, as if a metaphorical ball and chain had been lifted from the economy.”*

In the United States, environmental lawyer Robert F Kennedy junior has also made direct comparisons between the need to ‘abolish’ carbon usage and the abolition of slavery. Referring to Lord Puttnam’s comments in the UK House of Lords from the previous November, in May 2008 RFK junior used an article in the May 2008 issue of magazine *Vanity Fair* to urge the incoming US President to tackle firmly the issue of carbon emissions.

RFK junior’s anticipated fresh approach from the White House may soon be delivered. The first one hundred days of the new administration saw an apparent shift in US Federal policy. In April 2009 the US Environmental Protection Agency (EPA) published a ‘proposed endangerment finding’ for greenhouse gases (EPA, 2009). If formalized as a finding, this would allow the EPA to regulate the greenhouse gas emissions that would follow from the construction of fossil fuel combusting power stations. This power arises from the 1990 US Clean Air Act and as such can come into force independent of any new US legislative initiatives or international initiatives, such as the planned 2009 Copenhagen Climate Change Treaty. Treaty-based and domestic legislative progress on Federal greenhouse gas abatement would always be a slow and politically turbulent process. This new approach from the EPA has the promise to ensure rapid and effective progress. This new EPA agenda has not been resisted by the new White House incumbent, President Barack Obama.

It is noteworthy that there are prominent political voices willing to speak up in favour of the notion that the slavery story tells us that ‘abolition’ can provide economic opportunities, rather than simply being a cost to be borne. This point is analysed in great depth by the Stern Review of 2007, itself prompting much further debate and interest.

## 5. Conclusions

This paper has considered parallels between two profound challenges: the abolition of slavery in the nineteenth century and the mitigation of climate change in the twenty-first. Both these major policy challenges are complex and the debates around them are not simple. Thus far it would seem that the discussion of parallels between slavery abolition and climate change mitigation have not fully respected the complexities of either issue. Doubt, vacillation and disagreement are as much a part of the story as the sense of a moral imperative for progressive action.

Many of the key events in these stories are widely separated in time. One might take the view that the battle against slavery was won long ago, and that slavery is no longer a problem. While the full horrors eighteenth century slavery are truly behind us, this author, however, concurs with Michael Svoboda in taking the view that it would be quite wrong to assume that slavery is no longer an issue. For instance, the extensive ongoing work of Anti Slavery International reveals that the battle against slavery goes on<sup>6</sup>. In both cases greenhouse gas emissions reduction and the ending of slavery the outcome will not be eradication. One might debate which reduction will see the greatest decline. Instinctively one might take the view that residual emissions will be a bigger issue than residual slavery. Against this, however, one might point to the observation that 'there are more slaves today than were seized from Africa in four centuries of the trans-Atlantic slave trade' (Cockburn, 2003). Once again in this paper we retreat and take comfort from the statement that it is not our intention today to criticize, merely to report. Such thoughts do however bring us to a closing comment. While during the twenty-first century we may indeed be able to end the worst excesses inherent in twentieth century energy conversion, the slavery experience reminds us that it is all too probable that the battle against greenhouse gas emissions will never end. In both cases therefore it is important to recognize the importance of both the journey and the hoped for destination. Slavery abolition illustrates that the journey ahead could be both successful and never-ending.

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<sup>6</sup> See: <http://www.antislavery.org/> accessed November 2008

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