

## Chapter 1 - No hope, false hope and some hope - the three witches of the apocalypse

*“When shall we three meet again,  
In thunder, lightning, or in rain?  
When the hurlyburly’s done,  
when the battle’s lost and won.”*

In the face of climate change the oft quoted mantra that “business as usual cannot continue” is universally used by everyone from environmentalists immersed in horrors of climate change to government officials who have been relegating climate change to the peripheries of their decision making processes. The disillusioned could be mistaken for taking some comfort from this unexpected unanimity of thought. To do this would be wrong on many counts, but principally because there is no unanimity of thought on what “*business as not usual*” actually is and even less on the road map needed to get there. Despite endless books explaining the horrors of climate change, despite endless news reports on our collapsing ecosystem covering items as diverse as sea ice disappearance and failing rainforests there is little meaningful discussion on what we should actually do to reverse the seemingly unstoppable momentum leading us into oblivion.

Politicians who hold power will describe business as not usual to be some sort of “*sustainable growth*.” The reality of this normally means that blatant environmental destruction is accepted with the help of corporate greenwash and arguments that a balance needs to be found between environmental destruction and economic development. That balance is virtually always in favour of economic development at the expense of environmental integrity. The statement, “*sustainable growth*” must now qualify as the world’s most over used oxymoron. By now virtually every thinking person knows the obvious truth. It is that the continuous growth we strive for can never be sustainable and the continuous growth that we strive for is also vital to our economic system. More of this later. It does not matter what manifestation this propaganda takes, the latest being progressive capitalism as advocated by Lord Sainsbury<sup>1</sup>. The result is the same which is destructive growth and failure to de-pressurise the emerging crises. To pursue these ideals of sustainable growth is to give up. It is little different to the position of the climate change deniers who argue that climate change is not happening with same veracity as those who once held onto the belief that the world was flat.

The ongoing saga of developing the UK aviation strategy perfectly illustrates the fallacy of reconciling sustainability with economic growth. It has seen a hard and dirty battle were the corporate behemoths of aviation waged war against local communities, direct action pressure groups and the science community. The first major battleground was over the third runway at Heathrow with BAA

---

<sup>1</sup>Progressive Capitalism: How To Achieve Economic Growth, Liberty and Social Justice  
Lord Sainsbury

in vanguard of Big Aviation's thrust. Despite spending millions on lobbying and advertising and having a war chest far in excess of its opponents, they lost. They lost despite lying about their impact on the local environment with claims that noise problems would be a thing of the past due to the future use of fictional planes which were not even on the drawing board, despite lying about aviation's impact on climate change, despite ignoring the threat of peak oil, despite buying off politicians with jobs in the aviation industry and despite using the best propagandists who had honed their skills advertising tobacco to children. The final death knell was the Conservative's writing into their election manifesto a pledge not to build the third runway. They lost in all areas where they fought, in the press, in the courts and ultimately at the ballot box.

The reason they lost is that the worsening threat of climate change and energy shortages means that the future of aviation is to contract, not expand. This is obvious and ultimately unavoidable. But the aviation industry must not let this sort of logic get in its way. Directors of companies are tasked with maintaining share prices. This requires growth and the prospect of future growth. The moment this becomes undeniably impossible, shareholders will beat a path to the emergency exit with a nosedive in the liquidity of the companies affected and bankruptcy. So there is a life and death struggle between maintaining shareholder value and protecting the environment. The scare of large-scale corporate collapses drives decision making of politicians the world over. Far from siding with logic and protecting the environment as the Conservative government pretended to do when in opposition with protestations of virtue about climate change and a manifesto pledge of stopping a third runway at Heathrow, when in power it did everything possible to pull off an about turn as quickly as possible. It is now embracing the aviation industry's continued right to pollute the skies and George Osborne, the Chancellor of the Exchequer, reaffirmed their position by criticising climate change campaigners as the "*environmental Taliban*."

As part of this about turn, shortly after coming into power, the Conservatives instigated a "*public consultation on sustainable aviation*." It was launched with much fanfare. Theresa Villiers MP, then the aviation minister, announced at a meeting of environmentalists how important aviation's growth was to the continuing economic growth of the UK and how the government would ensure that this was done sustainably. The back tracking on their manifesto commitments had begun in earnest. Despite the evident contradiction of her statement they commissioned civil servants and consultants at taxpayers expense to produce a discussion document echoing Big Aviation's palliatives that they could continue growing through a three pronged strategy using a combination of new technology, biofuels, and carbon trading.

Not one of these ideas stands even the most basic tests of reason. Development costs for new aviation technology are so huge these can only be offset with equally huge sales of planes thus massively increasing total emissions. The new Boeing 787 which has been paraded around the world as the future of green intercontinental travel by both the aviation industry and governments holds the world record order book at launch for any plane. It needs this to offset its development cost, which at over \$10 billion is also a world record. This is

another one of the record firsts for this plane and one Boeing is not too keen to boast about. The result is that the B787 class of planes will in total emit far more CO<sub>2</sub> emissions than any other class of plane as it struggles to cover the fixed costs of its development. No amount of green hype at launch can ever change the basic laws of commerce and physics that tell us once designs are optimised future improvements are diminishingly small and increasingly expensive to obtain. Eventually a cross over point is reached where the costs of improvement exceed the utility gained. There is a strong argument to suggest that the B787 is that cross over point, it is not possible to make materials much lighter and stronger than carbon fibre; it is not possible to make significant improvements in the aerodynamics and the laws of thermodynamics prevent any further significant improvements in the engines.

The second leg to the strategy was biofuels. This was initially based on palm oil and jatropha crops from the tropics. The tropics is where biofuel must be grown as this is the most productive region on the planet, but this requires wholesale destruction of rainforests which are the planet's most important carbon sinks. To accentuate the severity of the problem, the jatropha crops that replaced tropical forests and marginal pastoral reserves that had previously been used for livestock have consistently failed to deliver the crop yields required. As expected crops grown on marginal land produced marginal crop yields. The hype that these could miraculously produce bumper crops on marginal land turned out to be nothing other than hype. Jatropha is also a poisonous and invasive weed that is so dangerous to the ecosystem it is banned in New Zealand, despite it forming the basis of Air New Zealand's biofuel strategy. Because it is a weed it makes reverting land back to its previous state extremely difficult if not impossible. The scale of the damage is staggering. BP's venture into biofuel production put 200,000 hectares under jatropha cultivation, an area about seven times that of Greater London, before they abandoned the project as non viable.

Having failed with Jatropha, the aviation industry is pushing the idea of using algae, but there is still no large-scale proven production process. Many of the schemes propose using the CO<sub>2</sub> emitted from power stations as a feedstock. This is not carbon neutral, as aviation simply delays by a couple of weeks the time it takes for dangerous power station gases to be released into the atmosphere. Furthermore, recent evidence is emerging that the energy needed to produce algae based fuels is far higher than initially thought and even worse than corn ethanol<sup>2</sup>. The economics have become so marginal that companies such as Shell have withdrawn their investments in this field. This is supported by the RAND Corporation's analysis which concludes that the US Military will not be able to rely on biofuel as a future fuel as yields will be far below requirements<sup>3</sup>.

The third leg of the government's plan for sustainable aviation is carbon

---

<sup>2</sup>Report Blasts Algae Biofuel,

<http://www.dailytech.com/Report+Blasts+Algae+Biofuel/article17567.htm>

<sup>3</sup>The New York Times, January 25, 2011

Biofuels of No Benefit to Military – RAND

trading. This is as none viable as the first two. Its basic premise lies in the concept that if it is impossible for aviation to make significant cuts in emissions through technological development and biofuels, then emission savings can be bought from other companies that do reduce emissions. As well as having fundamental flaws it is so hopelessly over complicated to implement that auditing for compliance against its initial objective is impossible.

It is not only the aviation industry that is struggling to make major reductions in CO<sub>2</sub> emission, all other energy intensive industries are finding it equally difficult. The power industry has no successful large-scale carbon capture and storage projects operating despite this being one of the much touted saviour technologies at the time of the 2007 IPCC report. This is hardly surprising as the energy needed to extract, compress and store the CO<sub>2</sub> is so great that the cost overhead makes energy production unviable. It requires only the most basic understanding of science as taught at school level to understand that about 50% more fuel is needed to produce the same output energy with carbon capture and storage implemented. This is to be done in an industry that already has to spend hundreds of millions for every percentage improvement in efficiency. It appears that few supporters of the idea had much basic science education. This omission is especially critical when the cost of fossil fuels is rising steadily now and set to soar soon. Economies already tottering on the edge of recession due to the common mode effect of increasing energy costs impacting every aspect of life will not voluntarily commit to rising electricity costs by a further 50% to implement large-scale carbon capture and storage.

The result of this collective ignorance is that there are no significant reductions in emissions for trading and there never will be. Lakshmi Mittal's successful lobbying for extra carbon credits for his steel businesses further demonstrates the weakness of the approach. He knew he could not run his steel mills competitively and cut carbon emissions sufficiently to comply with the EU targets. His solution was simple; he threatened to relocate his steel manufacturing to China if extra credits were not provided. Over one billion Euros worth of credits were quickly made available for him.

The aviation industry also successfully lobbied the EU into being allowed to purchase unused carbon credits within the EU ETS. Initially the intent was that the aviation industry would only be able to trade internal savings to force emissions down. This concession allows the aviation industry to continue to grow by purchasing carbon credits from other industries, such as those that Lakshmi Mittal ultimately did not use due to the downturn in steel demand in the recession. The result is that the aviation industry continues polluting and Lakshmi Mittal made over one billion Euros by selling his unused carbon credits. Business as usual continued.

The EU ETS also allows carbon credits to be brought from other countries that are operating in the carbon market. This is open to further abuse and fraud. Credits can be claimed for efficiency and renewable energy projects that would have been implemented anyway, carbon savings can be overstated, and projects can be deliberately set up to exploit loopholes such as Indian companies that produce refrigeration gases hundreds of thousands of times more effective

than CO2 as global warming agents just to destroy them and claim the carbon credits. These are billions pound frauds. The introduction of aviation into this market simply adds further opportunity for dishonest fortunes to be made.

If an ideal world did exist where all the fraudulent operations were ironed out, then in the zero sum game of climate change where the carbon ceiling is too low to support everyone's aspirations the increasingly marginalised people in society would simply be priced out of access to the basic entitlements to energy and food so that the most advantaged can continue discretionary travel and consumption.

Despite the overwhelming number of well-funded submissions to the government's public consultation on sustainable aviation coming from the aviation industry's marketing executives and consultants vastly out numbering the few that came from concerned members of the public and environmentalists, the process was cancelled. It was cancelled because it was clear the consultation could never whitewash big aviation's greenwash to the extent of allowing the government to justify expanding aviation, which was its ultimate intent. This consultation was clearly not going to deliver what the government wanted, some way of squaring the circle and allowing aviation to continue expanding without its inherent catastrophic environmental consequences.

But then a new process arose, phoenix like from its ashes. This time called the "*Independent Aviation Commission*." It was supported by the democratic deficit typical of all responses to climate change where Labour, Lib-Dems and the Conservatives all agreed to abide by its findings. This mutual agreement on issues as important as climate change makes parliamentary accountability and the process of democracy a farce. It is evidence, if further evidence is needed, that none of the main parties can be trusted with climate change policies.

The so called Independent Aviation Commission can never be independent. It will always be subservient to who ever pays it and that is the government. Its chosen head is Sir Howard Davies who is one of the highest paid failures in the country. In his previous career he oversaw deregulation of the banks and set in place the process that led to the financial crash. After this débâcle, he found gainful employment with the London School of Economics until he had to resign after taking millions from Colonel Gaddafi in return for awarding his son a doctorate. He has little experience of climate change and absolutely none of the poverty that existing policies are causing.

So Sir Howard is not too lonesome, he surrounded himself with like-minded men and women from the aviation and construction industries who will all benefit from a decision taken by the commission to expand airports. The commission's climate change expert is Professor Dame Julia King, previously a Rolls Royce research director. Quite unlike every other climate change expert such as Jim Hansen of NASA who warns that business as usual will leave us like toast, she believes "*climate change is a problem that we can solve*" with a dose of new Rolls Royce technology. Then there is Sir John Armitt, previously of Costain International, Network Rail, and the Olympics and who once held the position of the highest paid public fat cat in the UK. Desperate for big chunks of work to keep his friends in the civil engineering world afloat, he has called for "*vision*

*and guts*” in pushing ahead with new aviation infrastructure projects. This is a group that cannot even pretend to be independent.

The first thing that this highly paid group does is to start a public consultation based on the same industry evidence that the sustainable aviation public consultation previously failed with. Their discussion document<sup>4</sup> on aviation and climate change epitomises the problem. It makes no reference that the current level of atmospheric CO<sub>2</sub> has massively exceeded the limits to avoid runaway climate change nor to the inevitable collapse of the global economy that this will cause. Instead it limits its discussion on how the aviation industry can respond to increasing carbon costs and the impact that this will have on growth - hardly in the same league. It is cognitive dissonance played on the largest stage possible. The manoeuvring of the aviation industry and its refusal to take no responsibility for the damage it causes other than producing greenwash is the ultimate manifestation of the “no hope” position for addressing climate change. This is preserving business as usual in every way possible and in the face of all the warnings of its impossibility.

The aviation industry is just one node of an interconnected web of threatening industries that are combining together to destroy the planet’s life support systems. Its saga can apply to any other high carbon industry where the criticality of its environmental destruction is ignored by the industry itself and the governments of the day. This raises a fundamental question. How do democratic nations blatantly end up ignoring their long term survival prospects by universally adopting and supporting a no-hope vision for tackling climate change by pursuing business as usual?

In contrast to those that hold the no-hope position on climate change by maintaining business as usual, many an environmentalist will claim that business as not usual will be some green paradise of localism with self-sufficiency being painlessly adopted by all, where common love for mankind and altruism usurps Machiavellian self interest and were all our energy needs are achieved effortlessly from renewable energy. This is as naive a vision for our future as the greenwash visions of our corporations. It represents a paralysing false hope.

It is on this spectrum between no hope and false hope that we must decide where we lie as individuals and collectively as a society. Precisely where we are on this determines our attitudes to the problems that we face and what we intended to do about them.

Those at the no hope end of the spectrum are faced with two potential options. They can do nothing or do something. From these options there are three specific outcomes.

The first option of doing nothing comes when people decide that the overwhelming burden is too great to comprehend and too complicated to understand. The only outcome is despondency and defeat. This highly depressing prognosis and decision making rational is the outcome that society wishes people to take and subconsciously prepares people for at local and global levels.

---

<sup>4</sup>Discussion Paper 03: Aviation and Climate Change  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/186683/aviation-and-climate-change-paper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/186683/aviation-and-climate-change-paper.pdf)

It is done in many ways. In the developed countries the enlightened press is delighted to report the horrors of climate change such as melting ice caps, species extinction, rising sea levels and food shortages amongst a list that grows by the day. But that same press does not discuss solutions and the preparations that people should take because this would mean undermining the system of industrialisation that support the press through funding, distribution, logistics and materials<sup>5</sup>. The contrast with the Cold War nightmares of the 60s and 70s is stark. Then, countries did at least try and prepare their populations for nuclear war. In the US the nuclear shelter business boomed, government sponsored nuclear weapons tests were carried out in the Nevada desert to instruct people how to convert their homes into nuclear blast resistant fortresses and even President Eisenhower took part in city evacuation drills. Irrespective that everyone from the president downwards knew all this would be hopelessly forlorn in the event of nuclear war the vast majority went along with the charade, including the press. Even though this scared much of the population to near death, none of it undermined the status-quo of supporting economic growth, so the press and everyone else where on safe grounds to give it as much coverage as possible. Interestingly, the Soviet Union responded in kind with a similar bunker building programme.

The response to today's white knuckle panic on climate change is to do nothing and allow greenhouse gases emissions to increase, to continue destruction of the ecosystem thereby decreasing the planet's ability to absorb CO2 gases and to consistently fail to agree international agreements. In contrast to the nuclear scares of the 1950s the press is virtually silent on this emerging disaster. Even the most ardent papers on climate change such as the Guardian and Independent continue to devote far more space to advertising high carbon holidays abroad and reporting the most intricate details of Formula 1 than they do on reporting climate change. Rather amazingly, neither of these enlightened papers have ever written a single editorial comment on how events such as Formula 1 maintain the status-quo of high energy consumption and competition in the face of the overwhelming argument to do the opposite to address climate change. Even when protests erupted at the Canadian Grand Prix by young people no press reports explored their environmental motivation and F1's status as the epitome of destructive "turbo charged capitalism." These arguments could only be found by trawling the social media sites. In sharp contrast, Reuters limited their reporting of the event to "*The VIP guests and sponsors were cloistered safely away inside the well-protected paddock area.*" When the race was eventually run, BBC's live coverage made no mention of the protest and it was beamed as normal to its 1/2 billion strong global audience enabling F1 to do its job of reinforcing the status quo of consuming fossil fuels to excess.

It is no wonder that the majority of the population holds the no-hope position on climate change and have divorced themselves from any hope of fighting for survival. It is a propaganda campaign so audacious even Goebbels would never

---

<sup>5</sup>Morning Star, The media and climate change,  
<http://www.morningstaronline.co.uk/index.php/news/content/view/full/97963>

have tried it. It has created a mindset in the majority were they will simply wait for the worst to come and be totally unprepared to stop it. Amongst other things, the success of this is reflected with the plague of mental health issues in the young across all industrialised societies as they try and reconcile their concerns with environmental destruction and the requirement to survive in an inherently destructive industrial society<sup>6</sup>.

The second option for those at the no-hope end of the spectrum is to do something, but the something that is chosen is exactly the wrong thing from a societal basis. This manifests itself in the lurch to extreme right wing policies that history has associated with austere times. Today, many governments and national populations align themselves to do exactly this. In the face of the economic malaise in 2010 the UK electorate voted for the Conservative party which like many political parties elsewhere in the world promised easy solutions to difficult problems. The Conservatives won the election mainly because the Labour party had already tainted its reputation while in power by failing to implement the strategy that the Conservatives were now advocating, namely pursuing economic growth against the limits to growth.

Once in power, the Conservative response to the economic downturn was to target the weakest in society and those who are most easily demonised. These are also the first victims of economic contractions. They are assiduously doing this through draconian welfare cuts to those who cannot find employment despite no jobs being available, by imposing stringent immigration restrictions on those who are fleeing climate change disasters and to secure resources from abroad either by force or arms or by selling arms.

The irony of these attacks on the weak for their fecklessness while simultaneously praising high worth individuals and large corporations whose very survival is based on massively exceeding their share of CO<sub>2</sub> emissions and dumping other pollutants into the atmosphere is ignored by both the government and the press. This can only be done by systemically externalising the environmental costs whereby the polluter does not pay even the slightest share of his/her pollution costs. It is the definition of bad accountancy practice and all accountants will explain how bad accountancy practices lead to bad management decisions.

This targeting of the weakest is done while wrapping the cloak of nationalism around an increasingly anxious population. In the UK midway between the flag waving for the Queen's Diamond Jubilee and the Olympics, the government announced a £1 billion contract with Rolls Royce for the early development work on the replacement Trident Submarine nuclear reactors. With expert timing, one of the most contentious decisions the government could make was virtually ignored by the press and environmentalists. The extent of debate in the mainstream media was limited to how many jobs would be created.

The tense social environment these policies create is the perfect breeding ground for the right wing to come to power. Once in power they can implement further right wing populist policies and cement their grip on power allowing

---

<sup>6</sup>Kings College London, News Archive 2009, Climate change impact on mental health  
[http://www.kcl.ac.uk/news/news\\_details.php?news\\_id=1240&year=2009](http://www.kcl.ac.uk/news/news_details.php?news_id=1240&year=2009)



extremist unrest to manifest itself in society. Circuitous events where one action creates the environment for further actions that reinforce the direction of travel is now much talked about in climate change with terms such as feedback mechanisms and tipping points becoming common parlance. The danger for us is that many more of these tipping points exist than we assume and they are dangerously woven into our social order without us realising.

At the other end of the spectrum from no-hope is false hope. This is the most dangerous of all, as not only is it ineffective but it silences meaningful debate. It is common in those “*light greens*” who believe climate change can be successfully fought and solutions found within the structure and ethos of our society.

People like Jonathon Porritt fall nicely into this camp. He has an interesting CV. He was founder of the Ecology party which later became the Green Party, has been a former director of Friends of the Earth, a regular writer on sustainability, founder of Population Matters and now works as an environmental consultant to various corporations. In a bitter email exchange<sup>7</sup> I had with him when TUI Travel were going to use his organisation, Forum for the Future, to justify their use of biofuels to greenwash their aviation pollution he conceded, “*All of us in the Forum think that what we’re doing is important work, which we know results in a lot of organisations acting in less unsustainable ways.*” In other words he is still happy for organisations to operate unsustainably and to support them in this process. It is hard to think of a more defeatist position and a bigger selling out of principles.

Jonathon Porritt is not alone and false hope is not limited to the environmentalists. It pervades those that make policy and those that implement policy. John Ashton of E3G was the special representative for climate change to three successive UK foreign secretaries at the international climate change talks (COP). His last contribution to the Doha talks resulted in him being kicked out of the country before the talks had even started. In an exchange of emails with him after the event<sup>8</sup> he started by saying, “*After a week of being exposed to my advice, my Qatari hosts decided that they did not want to proceed [with him, his ideas and UK representation] after all.*” It is hardly surprising he was kicked out of Qatar. Like many environmentalists, John Ashton’s vision of the future is that the world moves relatively smoothly to renewable energy and self sufficiency. To try advocating this message to a country addicted to fossil fuel extraction for both its own day-to-day existence and economic development is always going to be a challenge. But more importantly, trying to advocate this to a country in one of the most militarised zones of the world and when the government of that country perceives its existential threats from Iran can only be curtailed with a strong military which must in turn be backed by a strong fossil fuel economy is ignoring reality and is the definition of naivety<sup>9</sup>.

---

<sup>7</sup>See blog Kevs Climate Column,  
<http://kevsclimatecolumn.blogspot.com/>

<sup>8</sup>See Email with John Ashton,  
<http://www.nucli.biz/#!/emails-with-john-ashton/curc>

<sup>9</sup>Qatar’s exponentially expanding military expenditure

My correspondence with John Ashton does not suggest that as he was being escorted to the airport he wondered why he was in this uncomfortable position. Nor had he asked himself the obvious question of how a military based economy can operate in a zero carbon economy and if there can be no carbon budget for the military, what does that mean for the structure of society.

The answers to these questions are complex and profound, but these answers lead to the only favourable final outcome and option.

This requires false hope to be dispensed with and a re-embracing of no-hope. It is only then that we can acknowledge that there is genuinely no hope for the existing industrialised society of today. It leads to the third outcome of the no-hopers. This is to look into the abyss with courage and fortitude to determine the course of action that will give the best chance of survival for some. By necessity, that survival option will have to be diametrically opposed to the normal values of the society that has caused so much destruction in the first place. It will be a plan of action that almost nobody will want to hear as it will dislocate all the normal life support systems for an industrialised society's needs. It will be a plan that everyone in power will try and silence, because by necessity those who hold power in the current system must firstly be deprived of their power and they are the ones that must make the biggest sacrifice and change in lifestyles. It will be a plan that will challenge the basic philosophical foundations we have now taken for granted, but which were only really useful for sustaining growth based societies rather than the contraction based societies that we must face today and in the future. It will be a plan that coherently links the myriad of social struggles that are being fought today, rather than having them competing with each other. Most importantly of all, it must be a plan that is clear to the entire population, not just the educated elite and where the consequences of its failure are also evident. At its heart is linking security and climate change.

This book will develop that plan. It is a plan that ultimately will provide a little hope for some, but in the absence of hope for all which is what today's policies are delivering from all parties, that is worth fighting for.

To paraphrase the old saying, you can fool all the people some of the time, but you can't fool all the people all time. Then, you can give hope to some of the people some of the time, but you can't give hope to all of the people all of the time.

Deciding if an action plan represents false hope, no hope or a little hope is the ultimate test that should be applied in as cool and clinical a way as possible. The reader should apply that cool thinking to the following chapters.

---

<http://www.indexmundi.com/facts/qatar/military-expenditure>