



# The three crises: oil prices, climate change and international debt

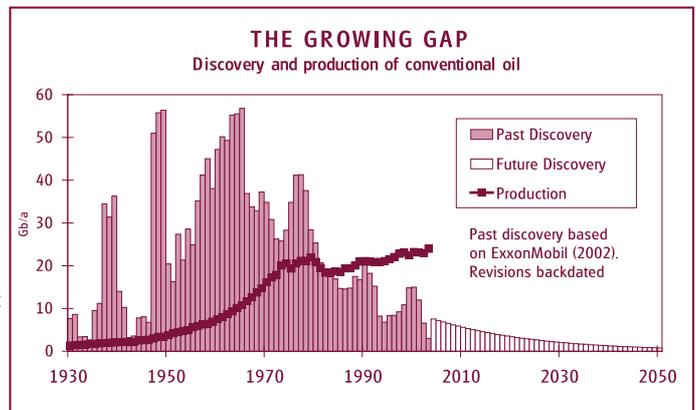
Crises create opportunities. Global crises require global action. Systemic crises require systemic remedies

## What effect should oil and gas depletion have on climate change policy?

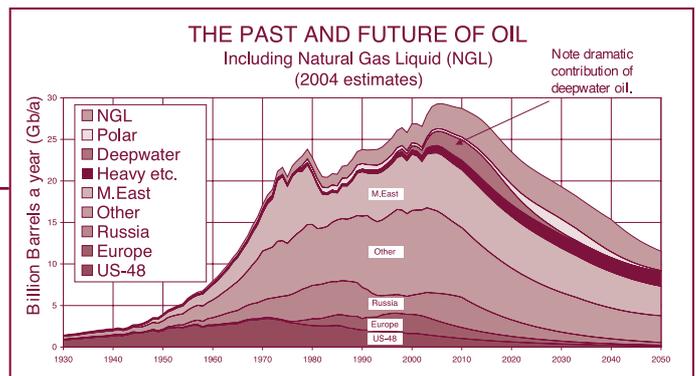
Today's high oil prices are no fluke. They have developed because the world's oil producers can no longer keep up with global demand. Until very recently, Saudi Arabia, which claims to have a quarter of the world's oil reserves, was able to moderate oil price movements by acting as swing producer – it would increase or reduce production as necessary to ensure that aggregate world production matched demand, thus stabilising prices. Now, however, the Saudis can only act to prevent the oil price falling. They can no longer increase output to stop prices going up because their production is as high as it can ever go. Indeed, its output is already in decline, as the panel below explains.

Most other producers around the world are in a similar position with their output either near its peak or already in decline. Moreover, despite the improvements in technology, 2003 was the first year in recent times that no new major field was discovered. "We're producing three barrels of oil for every one barrel of oil that we find," Michael Rodgers, an oil geologist who is a senior director of PFC Energy, an energy consulting firm in Washington DC<sup>1</sup> said in November 2004. As a result, the oil reserves discovered in the heady years between 1950 and 1980 are being run down, as Graph 1 shows.

**Graph 2: The world's production of conventional (i.e. readily extracted) oil is probably as high as it will ever be. However, the world's total oil supply will probably carry on increasing for another four or five years if the price stays high enough for it to be profitable to produce it from expensive, energy-intensive sources such as the Canadian tar sands, or fields in polar regions and in deep water far offshore. Thereafter it is bound to decline.** Source: ASPO



**Graph 1: Oil is no longer being discovered at anything like the rate it is being used.** Source: ASPO ([www.peakoil.net](http://www.peakoil.net))



## Saudi oil's output difficulties

Output from the Saudi Arabian oil fields is declining by at least 600 thousand barrels a day (kb/d) each year, or around 50 kb/d each month according to a contributor to the October 2004 edition of the newsletter issued by the Association for the Study of Peak Oil & Gas (ASPO). According to the newsletter, this decline will be offset in the last quarter of 2004 by the re-opening of two old fields, Qatif and Abu Sa'fah, which, by adding 650 kb/d of capacity, should restore output to between 9,500 and 9,600 kb/d.

After this, it's downhill all the way. By the end of 2005, with no new capacity added, Saudi output could be back down to 9,000 kb/d. "The next capacity increment comes in July 2006 but [by then] capacity will have already fallen

to 8,700 kb/d." the ASPO article says. "The 300 kb/d of new production from Haradh Increment III [the southern and least productive part of Ghawar] will then restore capacity to 9,000 kb/d. But even if decline is held at current rates, Saudi capacity will be back to 8,700 kb/d by the end of 2006 falling to just over 8,000 kb/d by the end of 2007."

Even this projection may be optimistic. Investment banker Matt Simmons, an energy adviser to President Bush and the author of *Twilight in the Desert, The Fading Of Saudi Arabia's Oil* describes the planned 'new' Saudi fields, including Qatif and Abu Sa'fah, as tired and 'crappy' projects. There have also been hints that Saudi Arabia's proven oil reserves - some 130 billion barrels - may be nearly all it will be able to produce rather than the 260 billion barrels the country claims.

No other oil-producing country is currently capable of taking over from Saudi Arabia as swing producer since none possesses extensive fields of readily-extractable oil that could be brought into production within a few weeks. Such fields would almost certainly have had to have been in production already for a statement by the country concerned that it was about to increase production to be credible enough to affect the oil market. Table 1 shows the five countries with the greatest claimed reserves<sup>2</sup> of readily-extractable oil other than Saudi Arabia.

	Reserves Gigabrls	Recent output Kb/d	Possible 2010 output Kb/d	Year of peak output
Iraq	125	2,000 (2001)	4,000 (given peace)	2013
Kuwait	97	1,850 (2003)	2,600	1971
Abu Dhabi	92	1,900 (2003)	1,900	2011
Iran	90	3,450 (2002)	4,700	1974
Russia	60	7,390 (2002)	9,340	1987

**Table 1.** Source: ASPO Newsletters, various dates.

Iraq, with claimed reserves half the size of the Saudis, would have the potential to bring significant amounts of extra production to the market relatively quickly and to take over as swing producer if it was peaceful. As things are, though, the disturbed political situation will prevent oil production being expanded significantly for the foreseeable future. Moreover, it is very likely that, when the Iraqi fields are restored to full operation, those who provide the capital for their restoration will wish to see them operated flat out rather than held in reserve and exploited only at times of high demand to prevent oil prices going up.

### A new source of instability

The fact that no country is both able and willing to take over from Saudi Arabia as swing producer introduces a new source of instability to the world economy. The world demand for oil will exceed the supply with increasing frequency from now on, and each time it does, prices will rise. They could easily go to \$67 per barrel, the equivalent in inflation-adjusted terms to the oil-price peaks of 1981, and perhaps much higher still since oil-consuming nations now use about half as much oil for every dollar of output as they did in the 1970s. This means that oil prices could go to double the 1981 figure before the cost of oil makes up the same proportion of production that it did then. Matt Simmons, the investment banker mentioned in the panel on page m, is even more gloomy and estimates that a price of \$182 a barrel might be required to balance supply and demand<sup>3</sup>.

Every country would be seriously affected by such price increases but calculations by the IMF and the International Energy Agency show that the poorest countries would come off worst. "Developing countries are ... less able to weather the financial turmoil wrought by higher oil-import costs" the IEA wrote<sup>4</sup> in May 2004, noting that a sustained \$10 a barrel oil price increase would reduce national income by 1.6% in very poor highly indebted countries while the loss of GDP in the Sub-Saharan African countries would be more than 3%.

Of the highly indebted poor countries, Laos, Sao Tome, and Guyana would all lose 2% or more of their national income as a result of just a \$5 a barrel price increase<sup>5</sup>. Burundi, Mauritania, Mali, Ghana and Nicaragua would all lose at least 1%. Among members of the Commonwealth of Independent States, Moldova would do worst, with a loss of perhaps 3.6%.

The more economically significant countries most exposed to being damaged by higher oil prices are:

	Share of fuel in total merchandise imports
Ukraine	36.5%
Bangladesh	35.9%
India	32.0%
Belarus	28.4%
Singapore	24.8%
Indonesia	23.5%
Pakistan	23.5%

**Table 2.** Source: Feasta, based World Trade Organisation statistics.

In short, higher oil prices will have a catastrophic effect on most of the poorer countries in the world and they will need assistance through the crisis particularly as the amount of damage an oil price increase does is not linear. That is, a \$20 increase will do far more damage than just four times that done by a \$5 increase.

This is because higher oil prices affect oil demand and the level of activity in an economy in three ways:

1. When oil is expensive, people try to use less of it. They may reduce the amount they drive, or reduce the temperature to which they heat their houses. Their minor economies have very little effect on oil consumption.
2. Higher oil prices also mean that consumers have less money to spend on other things. This reduces the amount of oil the economy uses because most of the goods and services the consumers would have bought would have required the use of oil for their production and delivery.
3. If higher oil prices reduce consumer demand very much, manufacturers and retailers will find that their profits suffer and that they have surplus capacity. They will therefore defer their plans for expansion. This will result in very large energy savings, because construction work is energy intensive. Indeed, it has been estimated that around half of all the energy used in a wealthy country is necessitated by projects designed to expand the economy. But that's not all. The people who would have worked on the cancelled projects lose their jobs. They consequently have less money to spend; they buy less, and that saves the energy that would have been used to make and deliver the products they would have bought. It also puts other people out of work, and these people then spend less too. The economy risks entering a downward spiral with one set of job losses leading to others, which in turn lead to others still, each causing less energy to be used.

So, if oil prices rise enough to curtail investment activity, national incomes and energy use could go very low indeed. World oil demand would drop sharply, causing the prices the oil-producing countries receive to fall to very low levels – perhaps even less than the full cost of production. They could stay low for several years until their customers' economies recovered.

Over-high oil prices therefore threaten both oil-producing and oil-consuming countries with depression and financial ruin. This gives them a common interest in limiting the level to which prices can climb. But how can this be done, now that no country can act as swing producer?

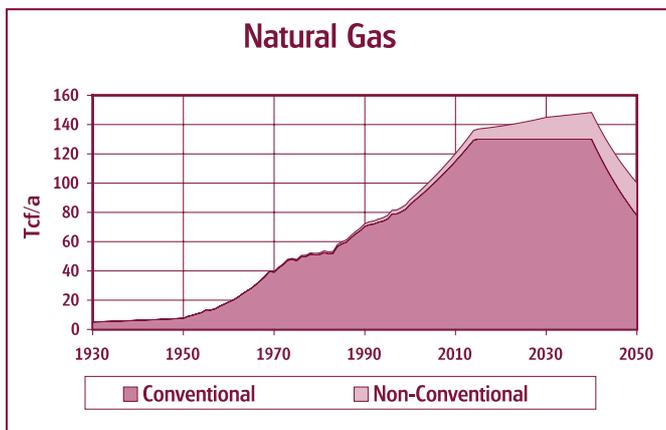
## An oil buyers' cartel

Feasta suggests that the best way to limit oil price rises would be for the oil-buying countries to establish a buyers' cartel which would negotiate with the producers' cartel – which is, of course, OPEC. Together they would agree a price for whatever amount of oil could be produced each year and the buyers' cartel would then allocate that oil among its member countries.

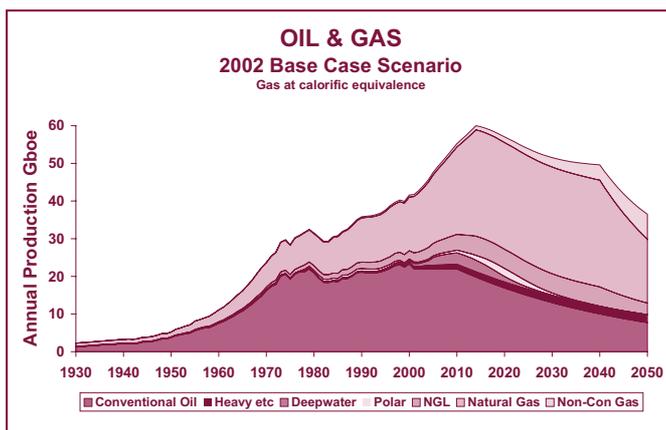
The buyers' cartel would not be able to confine its activities to oil, however. It would have to take in the other two main fossil fuels, gas and coal, as well, for the following reasons.

### Why include gas?

The key reason for including gas is that the world's gas reserves are being depleted rapidly and it would only be a few years before a similar buying cartel was needed for gas anyway. APSO expects that that global gas production will cease to grow rapidly in about ten years' time, as graph 3 shows. After that, production will rise slowly for another 25 years and then go into a steep decline.



**Graph 3: By about 2012, the world's output of conventional gas will cease to increase, although a limited amount of extra gas will become available from unconventional sources, like methane from coal mines. Around 2040, the total supply of gas from all sources will fall sharply.** Source: ASPO.



**Graph 4 puts the supplies of both oil and gas together and shows that the amount of energy that the world can expect from both fuels will start to fall sharply after 2015.** Source: ASPO.

Accordingly, it makes sense to bring gas into the cartel now, particularly as, if the supply and price of oil were controlled, a lot of the adjustment that the energy markets would have to make to cope with changing levels of demand would be born by gas and its price could swing wildly.

### Why include coal?

But why bring coal in too since supplies of that can be expected to be abundant for hundreds of years? This is where climate change considerations come in. As oil and gas supplies decline, the danger is that the world economy will turn to coal as its main replacement energy source. This would be disastrous, because greenhouse gas emissions per unit of delivered energy from coal are very much greater than from the other two fuels. So coal use has to be restricted if global warming is to slow and including coal in the oil-and-gas buyers' cartel provides a convenient mechanism for bringing that about.

## Contraction and Convergence

How should the cartel distribute the oil, coal and gas it has agreed to buy from the producers? By far the fairest approach would be for it to link its allocation method to the leading proposal for an international framework to limit climate change. This is Contraction and Convergence, a surprisingly flexible plan advanced over the past ten years by the Global Commons Institute in London. C&C starts from the position that everyone has an equal claim to be able to use the atmosphere as a dump for his or her greenhouse gas emissions.

Consequently, under C&C, a calculation would be carried out to determine the total amount of greenhouse gases that could be released into the atmosphere without, it is hoped, causing catastrophic climate change. This amount would be shared out among the people of the world on an equal per capita basis\* - each person would get an individual ration coupon which would entitle them to release a certain amount of greenhouse gas that quarter or that year. In other words, they would get a permit entitling them to burn whatever amount of fossil fuels would result in the release of a certain weight of gas. They would not, of course, be entitled to the fuel itself.

Each year, the amount of gas they were permitted to release – and consequently the amount of fossil fuel they could burn if they wished to buy it and could afford to do so - would fall until the atmospheric concentration of greenhouse gases was no longer rising and humanity was consequently no longer causing the planet to warm.

The rationing system being proposed by GCI could be introduced by the fossil fuel buyers' cartel. It could work as follows:

1. The cartel would get the best international advice on how rapidly greenhouse emissions need to be reduced each year to avoid a damaging change in the world's climate.
2. All countries would supply the cartel with projections of their potential fossil fuel production whether for internal use or for export. The cartel would compare these figures with the level of emissions that would not cause damaging climate change and issue buying orders to the producers accordingly. The coal industry might escape output cuts but face limits to increased production. Higher prices would compensate the producers for any loss of output.
3. The cartel would agree a price with oil, gas and coal producers for all their permitted output.
4. Permits entitling the bearer to a share of the emissions from whatever quantity of fossil fuel the world was going to produce that year would be distributed by the cartel to everyone on the planet on an equal per capita basis although certain temporary inequalities might have to be permitted to secure the participation of powerful countries. It is important to note that the permits would go to people, not to their governments, because the right to emit is a personal entitlement.

...continued on page 5

\* People in countries which are heavy emitters might be given a bigger emissions quota than those in countries with lower emissions for a limited period. This, however, is just a temporary arrangement to ease the transition of those countries to a lower level of energy use.

## ***Why a new international currency is required to cure the climate, debt and oil crises.***

The inevitable and imminent decline in world oil and gas production will solve the climate crisis if, and only if, world coal production is controlled. However, the chances of controlling coal production are greatly reduced if the world's monetary system stays as it is.

This is because, at present, if any economy fails to expand, it will probably go into a recession as a result of the way that its money was put into circulation. The political and social pressures to continue economic expansion are therefore immense. And, because economic expansion almost certainly entails greater energy use, this need for continuous expansion is the main obstacle to tackling the climate crisis. It's simply that, as things stand, if a country is facing a choice between the possible collapse of the world's climate in 50 years' time and the certain collapse of its national economy this year, it will act to save its economy and break, or stay out of, any agreement not to mine more coal.

But if we change the way money is created, we can remove the need to expand. The reason that economies get into difficulties if they fail to grow is that surplus capacity, the product of previous years' investments, begins to appear if demand fails to rise by as much as was expected. Companies therefore cut back on further investments. They borrow less, with the result that the money supply, which is based on borrowing, begins to contract. Less money in circulation cuts profits and makes trading more difficult, so further investment cuts are made. In addition, the people who would have worked on the companies' cancelled projects lose their jobs and spend and borrow less too, which also cuts the money supply and the level of economic activity. More jobs are lost, and the economy risks slipping into a spiral of decline.

The solution to this problem is to replace a money supply which begins to contract whenever new borrowings exceed loan repayments with money that is spent into existence by the state and stays in circulation until it is taken out by being paid back to the government in tax. An economy with such a currency would be very stable and controllable, and well able to cope with the changes that reduced fossil fuel consumption will bring.

A new money system is also required at the global level to ensure that the overall level of world trade is compatible with the energy supply and hence the emissions target. This currency is the ebcu – the **emissions backed currency unit** – which would be issued once and once only by a new international Issuing Authority and given to governments on the basis of their populations. The issue of this currency would also solve the debt crisis because highly-indebted poor countries would be able to use their ebcu windfall immediately it arrived to clear their foreign debts.

Ebcus would replace the dollar, the pound, the euro and the other reserve currencies for all international trade transactions, including the trade in the emissions permits issued by the Fossil Energy Buyers' Cartel. Their use would remove one of the great distortions in the world economy at present – the ability of the US, and to a much

smaller extent, Britain, to pay for their imports in money that both countries have created themselves and then borrow that money back and pay interest on the loan in yet more self-created money. This ability has enabled the US to run a deficit on its balance of payments current account for over twenty years. It is the reason that it is a superpower. America is currently importing \$600 billion worth of goods each year, a third of its imports, without having to pay anything for them. And the debts it has run up through this process – which amount to half the world's savings – may never be paid. Replacing the dollar with the ebcu would remove this US advantage, one which the eurozone is trying very hard to acquire.

Before the ebcu was issued, the Issuing Authority (IA) would announce that, if ever the price of emissions permits rose above a certain price, it would offer more permits for sale but remove the ebcus used to pay for them permanently from circulation. As the volume of world trade that it is possible to carry on is determined by the amount of international currency available to finance it, the loss of these ebcu would restrict international business. This, in turn, would reduce global energy use and hence the demand for emissions permits.

On the other hand, if the price of emissions permits was tending to fall, the IA could either get the Cartel to issue fewer permits the following year or it could buy permits itself, thus putting more ebcus into circulation and increasing world energy demand.

It would therefore be a very simple matter to keep the ebcu price of emissions permits at a constant level. This would give stability to the entire world economy. Indeed, as the ebcu price that the fossil energy producers would receive would be fixed too, everyone would always know exactly how many ebcu they were going to have to pay for their energy.

What they wouldn't know is what the price of ebcu would be in terms of their national currencies which would have a floating exchange rate with the ebcu, one determined by supply and demand. Countries which converted quickly to renewable sources of energy and consequently did not need to buy so many emissions permits, or gave themselves extra to sell, would do well. Their currencies would be strong and they would find that imports were cheap. Other countries would find that it was costing them more and more in national currency terms to buy their imported energy, which would give them a very real incentive to switch to renewable sources of energy too.

To sum up: without monetary reform at both national and global levels, the pressures to continue to use more fossil energy each year to ensure that one's national economy does not collapse will be immense, and probably irresistible. As a result, it would be almost impossible to introduce an effective global climate emissions-control agreement and, if one was introduced, it would be much more likely to break down.

5. On receiving their permits, the recipients would normally sell them straight away to a bank or post office, just as if they were a foreign currency. The permits could not be hoarded as their validity would lapse after, perhaps, a year.
6. Companies distributing oil, coal and gas, or requiring these fuels for, say, electricity generation or to make their products, would need to buy from the financial intermediaries which had bought them from the original recipients whatever number of permits was required to cover the emissions from the amount of fuel they wanted. The companies would then pay over to the coal mine, or to the oil producer, the purchase price agreed by the cartel plus the necessary number of emissions permits.
7. The cartel would maintain a corps of inspectors to ensure that the oil, gas and coal producers:
  - did not exceed the agreed output,
  - sold their goods at the agreed price, and
  - insisted on getting the required number of permits for each purchase.

The inspectors would check the permits just as if they were banknotes and, having reconciled the number with the output figure, send them away for destruction.

The political reality is that such a system could only be introduced, and, having been introduced, work, if it was in the short-term interests of all the participants as well as their longer term ones. We've already seen that it is in the interests of both energy consumers and energy producers that the price of energy stay at a moderate level. In the scheme just outlined, however, the price of energy could go very high if the world economy was booming and demand for oil, coal and gas was consequently strong. Anyone wishing to buy fossil fuel would need to pay both the price agreed by the cartel with the producing countries plus whatever the market price was for the required number of emissions permits. Wouldn't the total price they would have to pay just as damaging as the high prices that the cartel was set up to avoid?

The answer is no, because the money paid for the emissions permits would go to individuals in poorer parts of the world and they would spend it immediately. Their demand for goods from the richer countries would soar. So, although the higher energy prices would cause

consumer demand in wealthier countries to fall, export orders from the poorer countries would increase to compensate. The higher fossil energy prices, which are needed to encourage energy efficiency and the switch to renewable energy sources, would not cause a depression. Instead, they would preserve employment in the richer countries and bring prosperity to the poorer ones.

Contrast that scenario with what happened at the time of the 1972 and 1979 oil shocks. Then, all the money paid in higher oil prices went to the oil producing countries who were quite unable to spend the huge amounts they received and so loaned it back to the western banking system. But no-one in the rich countries wanted to borrow it because the high oil prices had caused a recession. It was borrowed instead by a lot of poor countries and led to the debt crisis which has blighted those countries since. The lesson from this is that the world economy can withstand high energy prices if the money paid over for fuel is immediately returned to the economy by being spent. It is when attempts are made to lend it back into the economy that problems arise.

### Why would the coal producers agree to participate?

The big question, then, is whether the coal producers would agree to limit their output as required by the cartel. The main incentive for them to do so is that they would receive a guaranteed, fair price for a fixed amount of coal. However, while the mining companies might think that a bird in the hand was worth two in the bush, they would not be the ones making the agreement with the cartel. Their governments would do so and then introduce legislation which required the coal mines to co-operate. So are the governments of the coal-producing countries likely to want to work with the cartel?

Table 3 shows that world coal production is concentrated in very few countries and that China and the US account for half. The attitude of both governments would therefore be crucial. China could be expected to join the cartel because its people, especially those in rural areas which are falling behind, would gain enormously from selling their allocation of emissions permits. The same would apply to India and Indonesia. But what about the US and the other wealthy countries? Yes, their fossil energy supplies would cost them more, but that is inevitable anyway and the cartel arrangement would at least ensure they had a stable business environment and good export markets for their advanced manufactured products. Equally importantly, unemployment could be kept low.

**Table 3: Global Rank Ordering of the Ten Leading Countries' Coal Reserves and Production, 1998**

RESERVES			PRODUCTION		
Country	Share of Global Reserves	Share of Cumulative Reserve	Country	Share of Global Production	Share of Cumulative Production
U.S.A.	25.1	25.1	U.S.A.	26.7	26.7
Russia	15.9	41.0	China	23.3	50.0
China	11.6	52.6	Australia	7.3	57.3
Australia	9.2	61.8	India	7.2	64.5
India	7.6	69.4	South Africa	5.5	70.0
Germany	6.8	76.2	Russia	5.4	75.4
South Africa	5.6	81.8	Poland	3.2	78.6
Kazakhstan	3.5	85.3	Germany	2.6	81.2
Ukraine	3.5	89.9	Indonesia	2.2	93.4
Poland	1.4	90.2	Ukraine	2.0	85.4
Next 10 Countries	6.9	97.1	Next 10 Countries	9.7	95.1

The cumulative figures were calculated by adding together the percentages of the countries up to that point in the table. Thus the cumulative percentage of global production after China's name in the column on the right is the sum of US production and Chinese production, showing that the top two producers have half of the global output.

## The dangers of inaction

As pointed out above, the biggest danger presented by the current oil market is that prices will rise to levels which cause the world economy to go into a recession. Such a recession might well persist for several years because, once investment has stopped, and demand has dropped because all the people who would have been working on the investment projects have lost their jobs, it is very difficult to get the economy working at full capacity again, and very few investments are going to be made while capacity is abundant.

The low level of energy demand in a global recession would, as we have noted, mean that fossil energy would be cheap and there would be no incentive for countries to switch to renewable sources. While the recession continued fossil energy would still be used. This would run down global reserves with the result that, when, eventually, the world economy began to boom again, oil and gas prices would soar at a lower output level than had been achieved before the previous price peak. The new spell of high prices would probably not last long enough to encourage the development of non-fossil energy sources before they fell back, having caused another recession. This cycle could go on repeating itself for several decades during which the world output of oil and gas steadily declined and no steps were taken to move to other energy sources. Living standards would fall everywhere and there would be increased starvation and misery. The establishment of a fossil energy buyers' cartel would prevent such a dire scenario being played out.

## Conclusion:

The peak in global oil and gas production will bring about a dramatic change in the world economy. The challenge is to shape and direct that change so that its effects are positive rather than immensely damaging. The

measures which governments and NGOs should be considering must match the scale of that challenge. Our inability to deal so far with three crises mentioned in this paper is rooted in a design flaw in the monetary system and, since a system cannot be made to operate in a way that is inconsistent with its basic design, regulations which merely tinker with that system, or with the economy it creates, will be ineffective. The money system's design must be changed.

Contraction and Convergence is the best proposal yet tabled to control emissions and hence the use of fossil fuel. The ebcu is essential for Contraction and Convergence to work. And the need to act immediately to ensure that the peak in world oil and gas production does not cause a global depression gives the world a chance to construct the framework that will be required to deal with climate change much sooner than would probably be the case if the process was driven by the threat of climate change alone. Moreover, a global fossil energy buyer's cartel would give greater stability to the world economy and bring prosperity, particularly to poorer lands. In short, although action involves a major departure from the systems that we know, there is everything to be said for launching the fossil energy buyers' cartel, changing the money-creation system and adopting C&C now. The crises will only become more acute and much less manageable later on.

1. <http://pfcenergy.com/press/default.asp#MR%2011/3>, downloaded 17 November 2004
2. Many commentators believe that the reserves claimed by Iraq, Kuwait, Abu Dhabi and Iran are all too high, while the figure for Russian reserves may be 40Gb too low. Any Russian underestimate is not expected to compensate for the OPEC countries' overestimate, however.
3. <http://news.bbc.co.uk/1/hi/business/3777413.stm>
4. *Analysis of the Impact of High Oil Prices on the Global Economy*, International Energy Agency, May 2004, downloaded from [www.iea.org/Textbase/Papers/2004/High\\_Oil\\_Prices.pdf](http://www.iea.org/Textbase/Papers/2004/High_Oil_Prices.pdf)
5. *The Impact of Higher Oil Prices on the Global Economy*, IMF, December, 2000. Downloaded from [www.imf.org/external/pubs/ft/oil/2000/oilrep.PDF](http://www.imf.org/external/pubs/ft/oil/2000/oilrep.PDF)

## Executive Summary

High oil prices are causing misery in some of the poorest countries of the world and threaten to collapse the global economy. Yet, oddly, solving this crisis provides an excellent opportunity to establish a framework to cure the climate crisis as well.

Such a cure would involve:

- Adopting the Global Commons Institute's Contraction and Convergence negotiating framework for ensuring the progressive reduction of global CO<sub>2</sub> emissions.
- Determining what tonnage of greenhouse gases it might be possible to emit without causing catastrophic climate change.
- Sharing that tonnage by regularly issuing tradable emissions permits on an equal per capita basis to every individual around the world.
- Launching a new international currency, the ebcu (emissions-backed currency unit) so that the level of international trade adjusts to the maximum amount that can be carried on without causing countries to find that they cannot operate on the amount of energy available to them.
- Establishing a fossil fuel buyers' cartel to buy all internationally-traded coal, oil and gas at prices which are both stable and fair.
- Changing the basis on which national currencies are created so that the amount of money in circulation is no longer linked with economic growth.

Besides reducing the risk of a runaway global warming and providing stability in the price of fossil fuels, the programme has many other advantages. It

- Provides an income to the poorest people in the world.
- Enables highly indebted poor countries to pay off what they owe.
- Gives technically-advanced countries a buoyant market for their products.
- Provides business with a predictable trading environment.
- Ensures that the global economy gradually converts itself to one run almost entirely on renewable energy.
- Removes the unfair advantage countries such as the US get from being able to create the money they use to pay for their imports out of nothing.
- Gradually makes the global economy fairer, more stable and more sustainable.

More details of these proposals can be found in the booklet *Curing Global Crises*, which is available by post from the Feasta office or which can be downloaded from the Feasta website at [www.feasta.org/sleepwalking.pdf](http://www.feasta.org/sleepwalking.pdf) *Curing Global Crises* also gives more information about Contraction and Convergence but anyone seriously interested in exploring that approach should go to the GCI website, [www.gci.org.uk](http://www.gci.org.uk)