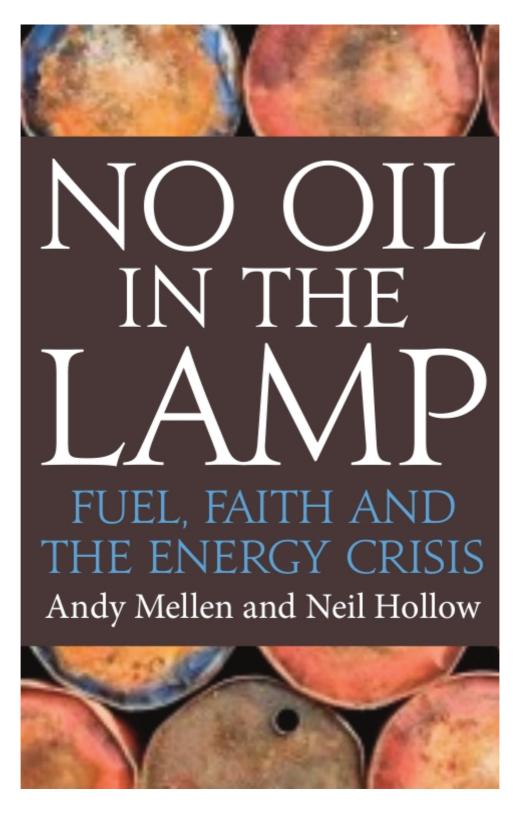
No oil in the lamp study guide



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Introduction

We live in a world that is rapidly changing. Over the last generation the world seems to have got faster. Travel is cheaper and easier than ever. We can travel thousands of miles in a few hours. An extraordinary proportion of the inhabitants of the planet now have both access to the internet and mobile phones. Globalisation has meant falling prices of everything from food to phones, with whatever we buy being sourced from wherever is cheapest. Whilst much of this is good, for example mobiles in the developing world are revolutionising peoples life and allow democratic protest, there are problems. We expect instant answers to everything from health to politics. Our attention span seems to be shortening. Many of the problems we face such as climate change and poverty require long term solutions and yet if we have a vote we have grown cynical and won't allow politicians to act. In addition there is an another factor at play. Our modern world requires very large amounts of energy to make it work. We have become more and more addicted to energy use, just this energy we have relied on (gas, coal, oil and nuclear) looks like it may be starting to run out. This "running out" is given an expression "peak oil". It does not mean the oil and other fuels will disappear in a flash but it does mean supplies will become more scarce and prices of these commodities will become very volatile whilst on an inexorably upward trend.

The world could be about to undergo rapid change over the next few decades. Globalisation will go into reverse as transport costs rise. Food prices will soar (modern agriculture being addicted to oil). Material goods, almost all oil derived, will become scarce. Energy will become something precious and not to be squandered. Andy and I think these changes are inevitable but in many ways Christians should welcome them. It will lead us in more spiritual less materialistic path "not storing treasures for ourself on earth". Lent is a time when Christians traditionally slow down a bit and try to refocus our faith. We have written this guide to give you a means to start to make some lifestyle changes now. To get in early if you like. We have taken some ideas from our book "No oil in the lamp; fuel, faith and the energy crisis", using some of the study questions contained in the print edition and some other ideas. We hope you will find it challenging, entertaining and educational.

This guide can be used by individuals and groups.

Each section consists of a time of reflection in which the user or group is asked to think about the issue raised in that section, a series of questions to consider the issue in that section and some suggestions for action.

Further resources and reading suggestions can be found at the back of this document.

Session 1. What's the problem?

The modern world is not perfect, but if you were born in a developed country sometime in the last sixty years, it is likely that you have experienced a rising standard of living, with increasing comfort and convenience. Yet we only need to look back a few generations to see how much has changed, and how much we take for granted. We flick a switch, assuming that electricity will be there to light up the bulb. We expect to be able to travel long distances quickly, in comfort and at reasonable cost. We think nothing of sitting down to a meal whose ingredients have been transported across the globe to our table. These things and many more besides have become basic expectations for most in the developed world - and as Christians living within a modern, developed country we share them. While we may bow our heads and give thanks for God's provision at the start of a meal, in most other ways we take the conveniences of modern life for granted. Progress, however, comes at a cost. It takes energy, in fact an enormous amount of energy, to make the modern world work.

Despite continued technological progress (in fact partly because our houses now contain more technology), the average household is using more energy today than at any time in the past. Globally, use of oil, coal and gas has at least almost doubled since 1970 and shows little sign of slowing down. In 2008 oil prices reached an all time high of about \$140 a barrel. Food prices soared and there were riots in many developing countries. There was then a global economic crash It has been argued that all this led to the "Arab Spring". Whilst the oil price and food prices have fallen back they are still high by recent historical standards. The economic crash continues. More recently warnings have taken place of power cuts in the UK and indeed more widely with a warning that blackouts may become commonplace in the developed world. At the same time extreme weather events are becoming more common worldwide as climate change seems to kicking in more quickly than we had thoughts. New records are broken, for rainfall, typhoon strength or temperature almost every week. We need to start to take care of the only world we can inhabit.

At the heart of this issue of care for Christians is the idea of stewardship versus dominion found in Genesis 1. Is the environment ours to plunder or are we here to look after it? Nowhere in scripture does it say that humans should use up the earth's resources and then escape to heaven when we die or Jesus returns. In fact the opposite is true – the Old Testament law contains specific instructions for the Israelites to care for their most important natural resource: the land. In the book of Exodus (23:10–11) and also in Leviticus 25, God decrees that the land should be rested from cultivation once in every seven years – a practice known as the land Sabbath. The idea of this practice is that soil fertility will be restored by periodically leaving the land fallow (a practice still carried out in some parts of the world). In addition, Psalm 24:1, 'The earth is the LORD's, and everything in it, the world, and all who live in it,' reminds us that even after what was said in the verses above from Genesis, the earth still belongs to God. A final point to note is that seven times in Genesis 1 the Bible says 'And God saw that it was good', and the final time in verse 31 is translated 'and it was very good'.

Reflection

Meditate, use your imagination to think of the most beautiful place you have ever been. Perhaps its a forest or even a tree or a beach or a mountain. Now imagine its been desecrated by pollution or cut down. How does that make you feel? Chapter 10 in our book explores the idea of meditation in more detail.

- Q1. The authors suggest that the earth's resources are not limitless. Is this something that you have considered before? How does this make you feel?
- Q2. In the UK at the start of the credit crunch many articles were written and much discussion was had about whether this was the permanent end of the good times in the West and whether things neould ever be the same again. As things (for many people) turned out to be not as bad as expected, this kind of discussion has faded. In the light of Matthew 6:19–20, what does this tell us about what happened, and do you think people were right to be worried at that point?
- Q3. Have you come across any books/films/plays or any other cultural aspects

concerning peak oil?

Q4. What do you understand by dominion? How does it differ from stewardship? Chapter 10 explores this issue in more detail. By way of example one of the authors Grandfathers was conscripted during world war II and sent hundreds of miles away in the UK. His family went with him. Their house (which they owned) was taken over by the government and someone else moved in. This person made significant changes to the house which his Grandparents still complained of years later. How do think God feels about what we are doing to his planet and its resources? How will he fell when he returns?

Q5. When in Matthew 5v24-34 Jesus tells us not to worry – does that mean literally, ever? When is it all right to worry and how much should we plan for the future?

- Think of one action you can take to conserve something this week. Save energy
 or food or donate to a good cause.
- Do a prayer walk around you immediate neighbourhood. Notice the good things
 you like and give thanks to God for this. What the things you would change
 about where you live. Ask God what he thinks about them and how you can be
 "salt and light" in your community.

Session 2. Energy

We use vast amounts of energy every day either from fossil fuels directly in our cars (see transport later) or indirectly by the electricity we use. As we wrote in our book our dependency seems to be increasing not decreasing;

"We use energy to heat and light our houses, work places and churches; to transport us around; to make electricity; to produce and cook the food we eat; and to provide us with all the accoutrements of modern life. Despite all the talk and enthusiasm about renewable energy, our lives are mostly powered by four energy sources we get out of the ground, namely oil, gas, coal and uranium. Each of these provides energy in a different way."

As the introduction to this lent guide made plain we cannot necessarily take the reliability of our current energy system for granted. (There is a lot more detail about this in chapter 1 of "No oil in the lamp".) There is also a moral issue at play here. Apart from climate change our use of fossil fuels causes other types of pollution such has occurred in the Gulf of Mexico or the Niger Delta. We need to do two things. Switch wholesale to renewable energy but also reduce our energy consumption massively. Lent seems to us a great time to think about trying reduce or addiction to our energy dependent life.

Consider

- Q1. Have you ever considered any of the moral issues we raise here?
- Q2. Has your church measured its energy use or carbon emissions? If not, why not?
- Q3. Has your church considered installing any renewable energy systems?

Reflection

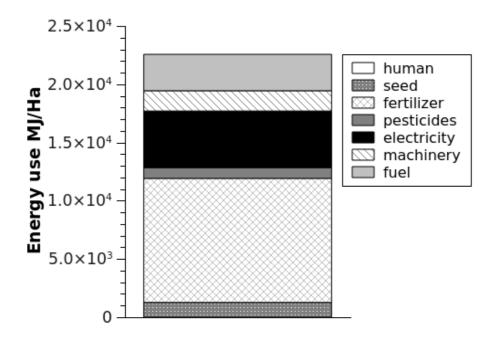
Neil has been able to attempt to power a light bulb or boil water by using a bicycle

generator. Even a compact fluorescent bulb takes real effort to light brightly. Think about what would happen if all the lights went out. How long could you manage for? How does our energy use relate to Jesus' words in Matthew 6v19-20?

- Why not measure how much energy you use on a regular basis. You might be in for a shock. There are plenty of on-line resources given later.
- Try removing one prominent lightbulb for the duration of lent.
- Why not turn your central heating down 1 degree or even better try switching it off more.
- Pledge to reduce your energy consumption by 10% over the next year. There are plenty of ideas to help you do this given in our book.
- Following on from the last point do one thing to where you live to permanently reduce your energy consumption. For example roof insulation is effective and cheap and can usually be fitted easily by you or someone else.
- LED's are a viable alternative and at least in the UK despite the high upfront cost will payback the money spent on them in less than a year in certain instances (depending on the amounts of daily use).

Session 3. Food

Yum yum we all love food, but does it love us!? There is a lot wrong with our current food system. However the area we are going to consider in this session is our food systems energy use. We however fully acknowledge that there are other stress points on the food system such as climate change and rising population. The graph below shows the energy to grow a hectare of wheat.



The data for this graph is taken from a report by the institute of mechanical engineers called "Global food Waste not, Want not." The point to note is not how much energy is used (although its very large) but the proportions. The human effort expanded does not show up on the graph. This energy use does not include transport to the shops from the farm, or transport by us home, or the energy used to store it if we use a refrigerator or freezer. And that is just one tiny component in our food system.

The price of food has rocketed over the last decade or so in tandem with the oil price. Part of the problem is the fossil fuel dependency of fertilizer which as you will see above in terms of wheat production makes up a very high proportion of the total energy use. As we wrote in "No oil in the lamp";

"One hundred million tonnes of nitrogen fertiliser is produced per year, using up to 5 per cent of the world's natural gas supply.187 At least a third of the planet's population is directly sustained by modern, fertiliser-dependent farming."

Chapter 6 in "No oil in the lamp" goes into a lot more detail about this issue. As natural gas runs out we have set ourselves up for a very obvious fall. This is not an easy problem to overcome and the authors don't claim to have all the answers. We think food is perhaps the biggest issue caused by peak oil. Currently food sold in developed countries is grown wherever in the world its cheapest to do so. A good example of this is French beans grown in East Africa. We think as oil and therefore transport costs mount this will have to stop. Growing food locally and organically will become the norm.

Food is mentioned in the bible almost from start to finish and its interesting to note how much of Jesus' teaching took place around a meal. God knows food is important to us!

Reflection

What is your favourite food? As you think about this, think about where it has come from. Who produced it and do you think they were well paid? Could you make it yourself? Could you live without it?!

- Q1, Be honest have you ever thought about the link between fossil fuels and food?
- Q2. What does the Bible have to say about food? Can you relate our problems today to any passages in scripture?

Q3. What can we learn from Jesus' attitude to food?]

- At least 30% of all food in our Western food systems is wasted. Wasting less is a partial solution to the problems outlined above. This lent buy just what you need and no more. Try to make this a permanent habit.
- Processed food is not good for us or the planet. Why not learn to cook from fresh ingredients and if you do so already try to cook something new.
- Our current food system no longer values seasonality. You can get most fruit and vegetables at any time of the year. This in our view apart from being unsustainable makes what we eat less varied, in addition much of food that is shipped long distances tastes very bland. Try to eat locally and seasonally over lent.
- Eating locally is made easier by the rise of farmers markets particularly in the US and UK but surprisingly also in France. Visit your local one this week.
- The ultimate way to eat locally is to grow your own. This is another part of the solution to the coming food crisis. Its very difficult for many of us to be self sufficient due to land area, but we can make a contribution. Lent is good time to get sowing. Don't have a garden? Use a dustbin, windowbox or grow stuff inside. Fruit trees are a very efficient use of land area and can allow you to eat seasonally and locally for months. There are also an increasing number of urban growing projects in the US and UK to get involved in, some with church involvement.
- Cut down your meat consumption. On our blog there is a post looking at the carbon emissions from meat consumption (http://www.theoillamp.co.uk/?
 p=4407). This is one of the easiest ways to cut your carbon footprint. In addition the large amount of land and energy needed to grow animals is not sustainable. Finally the Western meat based diet is not healthy. As a family we have cut our meat consumption heavily starting in lent. This has made our diet more

interesting and inventive.

• Why not have a bible study on food.

Session 4. Transport

We all know the oil and energy dependency of transport. It hardly needs spelling out how oil dependent most transport is. Western economies have been dominated by the car over the last half century. There are however encouraging signs this maybe starting to change. As we wrote in chapter 5 of our book.

"Car use and driving appears to be dropping in the US and there are signs the same may be happening in the UK. Driving in the US has been on a downward trend since 2005 (pre-recession). All age ranges are driving less, but especially those under 34. If this trend continues then it may have profound positive impacts for adoption to life without oil."

There are lots of good reasons to fly and drive less apart from peak oil and climate change.

Reflection

Can you imagine a world without traffic? This was Jesus' world (obviously cars were not invented). What would you hear, what would you smell in Jesus' world? What would you hear, what would you smell in our world today and then with less traffic?

- Q1. How did Jesus did Jesus move around Israel? Are there any lessons for us how he did it and the opportunities he took as he did it.
- Q2. Is there anything to be said for slow travel of the type Jesus, Paul and their friends took?

- Leave the car at home for short journeys and walk. You will feel fitter and happier honest!
- Given an alternative take the bus or coach. Carbon emissions for these types of transport per person per kilometre are amazingly low. Buses are a very efficient means of getting around.
- Following on take the train not the plane.
- In our book we recommend not just jumping on a push bike and setting off, but getting on road training. There are lots of local cycle groups that offer this. This might be something to consider in the long term.

Session 5. Stuff!

By "stuff" we mean all the material goods we buy other than food. At the moment this is all highly oil dependent. For example almost all plastics are derived from oil. Even if something is not directly made using oil its got oil or other fossil fuel energy embedded in it. So for example a book is not made from oil (other than possibly the cover), but has been made and transported using for the most part fossil fuels. Long with food this is undoubtedly the area of our lives where there is going to be very large changes since the alternatives don't stack up. Its also an area where we do not have very much control. Like food it seems material goods will get scarcer and more expensive over the next few decades. We have seen the first signs of this over the last few years with clothing costs having risen due to the cost of cotton. Chapter 6 in our book describes this problem in more detail.

Reflection

There is no record of Jesus owning anything. How does this make you feel? Does it have any bearing on the materials problem going forward?

- Q1. Matthew 6v19-21 tells us not to store up "treasures on earth". What did Jesus mean and how can it help us going forward.
- Q2. There is the beginning of rent not buy moment where companies encourage people to rent or borrow stuff of others (for example rooms, cars etc). Could this be helpful going in the future. Could this make sense rather than just buying something we only use now and again. What about buying items we only use occasionally with our neighbours or friends? Are their disadvantages?
- Q3. What ethical buying? Does how something was produced matter as much as its

cost?

- One idea we have found helpful in our home group is a swap and share evening. For full details on how to organise this see here (http://www.theoillamp.co.uk/?p=1576).
- Buying clothing, is it possible to purchase fair trade items?
- Do you really need to buy something? Could you make do without. A friend of mine is having a buy nothing month (not as part of lent). During this time she and her husband will barter but not buy anything.

Session 6. Community

"Community" is one of those buzz words that if we are being honest gives us a warm fuzzy feeling, that is until we think about the implications. These being that we may not like everyone or agree with everyone in our community. Nevertheless its an area that will be very important to the post oil world. At the moment relatively cheap energy means very long supply lines and ease of travel. As these start to unravel or local community is going to become increasingly important. We will need to work together to make our community resilient against the effects of climate change and peak oil. Since the church is a community we should find this easy and have a head start over other groups, but we don't. This is a huge area and one where prescriptions of particular action is not possible since every community is different. In Chapter 9 we describe on particular attempt at community action that is the Transition movement, but there maybe others in your locality.

Reflection

What does community mean to you? What does community mean to God? How does this relate to the idea of trinity?

- Q1. The ultimate expression of community is found in Acts 2. What other expressions of community can you think about in the old and new testaments?
- Q2. Can you think of examples where the church has adopted ideas from organisations or campaigns which are not faith-based?
- Q3. The vision thing. Use your imagination to consider how you would like to see your community develop over the next 10-20 years. How would you like to see the community you live in develop in terms of food, energy use/production or transport.

This works well in a group. Use a large piece of paper to share your visions of the future.

- Think about getting involved with an environmental organisation either secular or Christian such as Arocha.
- Our church cooks a very high quality meal for the homeless. We sit together as guests and volunteers. Its a bit daunting but if we can do it anyone can!

Additional resources

"No oil in the lamp; fuel, faith and the energy crisis". Our book.

http://www.theoillamp.co.uk our blog where we consider some of the issues raised in our book in more detail.

<u>http://www.transitionnetwork.org/</u> The main portal for the transition network worldwide although countries have their own sites.

http://transitionquaker.blogspot.co.uk/ A quaker blogs about peak oil.

http://www.theoildrum.com A look at energy from a peak oil perspective.

http://makewealthhistory.org/ A blog looking at resource, economics and social issues.

[&]quot;Animate practices" contains a bible study on food by Sarah Miles.

[&]quot;Animal, Vegetable, Miracle", Barbara Kingsolver tries to eat locally for a year.